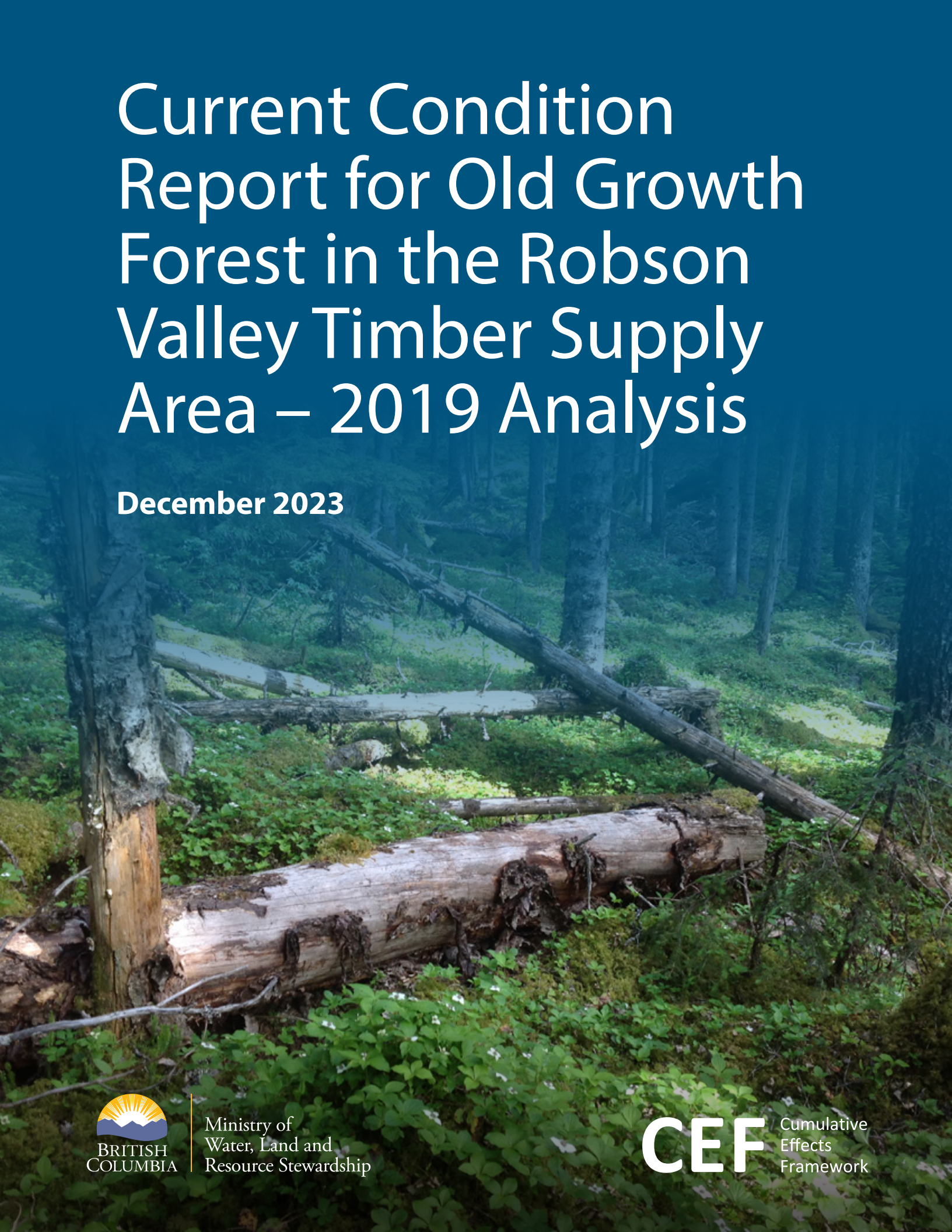
# Current Condition Report for Old Growth Forest in the Robson Valley Timber Supply Area – 2019 Analysis

**December 2023**



BRITISH COLUMBIA

Ministry of Water, Land and Resource Stewardship

CEF Cumulative Effects Framework

### *Citation*

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### *A Note on the Development of this Report*

B.C. is committed to collaboration with Indigenous partners on issues related to conservation of biodiversity. This report, and the western science information collected by the Province of B.C. within, seeks to address the questions posed in this assessment. It is intended to be a starting point in supporting and informing future work and collaboration between the Province and First Nations, and engagement with stakeholders, on the management of cumulative effects. The First Nations with traditional territories overlapping this assessment area were provided this report for review. Simpcw First Nation has reviewed the report and provided written recommendations, and the Province is committed to addressing these issues in a collaborative approach.

### *Disclaimer*

Current condition reports for old growth forest are being prepared by the provincial Cumulative Effects Framework (CEF) within the Ministry of Water, Land and Resource Stewardship (WLRS). These reports require standardized assumptions and methodologies (described in the Interim Assessment Protocol for Old Growth Forest in British Columbia (2017)) that can be consistently applied across the province. The reports address specific questions about the current condition of indicators for old growth forest, mature-plus-old forest, and old growth management areas (OGMAs). At this stage of reporting, the assessment does not incorporate the consideration of implementation policies such as the application of the rules-based approach from the Landscape Unit Planning Guidebook, OGMA amendment policies, and the contributions of other conservation designations in meeting old growth forest targets.

Most of the data used in this assessment is publicly accessible information from the B.C. Geographic Warehouse (BCGW) and was extracted in February 2019. One dataset used in this analysis is the provincial Vegetation Resource Inventory (VRI), which is a spatial dataset used to describe where a vegetation resource (i.e., timber volume, tree species) is located and how much of a given resource is within an inventory unit. There are limitations within the vegetation inventory design due to data collection and interpretation methodologies. As such, this dataset is best used for analysis at a strategic and coarse-scale and may present limitations when applied at the operational and site-specific scale. It is recognized that the vintage of this dataset in this assessment may be considered dated (i.e., extracted in 2019); however, it is the starting point for assessing past and present impacts associated with cumulative effects, providing a mechanism for trend analysis going forward.

### *Companion Documents*

Interim Assessment Protocol for Old Growth Forest in British Columbia. Version 1.1 (December 2017).Prepared by the Provincial Old Growth Forest Technical Working Group – Ministry of Forests, Lands, Natural Resource Operations and Rural Development. 25 p.

Additional background context is also provided in the Old Growth Forest Management in British Columbia: Provincial Backgrounder (WLRS, 2023) and the Old Growth Forests in British Columbia: Provincial Cumulative Effects Assessment Backgrounder (WLRS, 2023).

### *Acknowledgements*

The development of this document involved a coordinated effort from many people at various stages, including the old growth analysis, reporting, interpretation, editing and review. Assessment summaries and observations, including trends identified from the CE dataset, were supported by conversations with regional WLRS staff. The following people are acknowledged for directly supporting this work: Traci Van Spengen, Jewel Yurkewich, Darcie Fodor, Felice Griffiths, Melissa Lucchetta, Rob Gowan, Tara Haynes, and Rob Oostlander.

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# EXECUTIVE SUMMARY

The Cumulative Effects Framework (CEF) measures the impacts of natural resource activities on values that are important to the people of British Columbia (B.C.). Current condition assessments form the basis for the CEF and reports on the current condition of individual CEF values using indicators to demonstrate the cumulative effects (CE) of multiple natural resource activities on each value.

Old growth forest is a provincial CEF value that is important for the conservation and maintenance of landscape biodiversity at all scales. This report describes the current condition of old growth forest in the Robson Valley Timber Supply Area (TSA) as part of the provincial CEF and follows the Interim Assessment Protocol for Old Growth Forest in British Columbia (2017). This report focuses on the current condition of old growth forest relative to legally defined management objectives in old growth forest orders and mature-plus-old forest relative to policy direction from the Biodiversity Guidebook (BDG).

Assessment indicators were developed to understand the current condition of the old growth forest value. The assessment was completed within the Cumulative Effects Crown Forested Land Base (CE-CFLB). Assessment units (AUs) are based on the unique combinations of biodiversity emphasis option (BEO), ecological units of natural disturbance type (NDT), biogeoclimatic ecosystem classification (BEC) and landscape unit (LU), contained with administrative units of timber supply areas (TSAs) and/or natural resource districts (NRD). This current condition report for old growth forest assesses the following four indicators:

- The total amount of old growth forest by AUs compared to non-spatial targets in the Provincial Non-Spatial Old Growth Order (PNOGO);
- The total amount of mature-plus-old forest by AU compared to policy targets (BDG);
- Total incursions in spatially defined Old Growth Management Areas (OGMAs) as defined by legal orders or regional guidance; and
- Total amount of old growth forest in spatially defined OGMAs as compared to PNOGO.

This assessment was conducted for the Robson Valley TSA, which is located within a portion of the Prince George Natural Resource District in the Omineca Region. For the Robson Valley TSA, old growth forest is generally between 140 to 250 years old. Mature forest is also defined by age and is determined by NDT and BEC zone. In the Robson Valley TSA, mature forests range between 80 to 120 years old.

In the Robson Valley TSA, old growth forests are managed through three mechanisms: non-spatial legal targets, legal OGMAs, and non-legal OGMAs. Legally established OGMAs occur across 13 LUs, while 2 LUs have non-legal OGMAs. Management of mature forests for recruitment into old growth is guided through non-legal policy targets, as defined in the BDG, however, the management of mature forests in not legally required in the Robson Valley TSA.

There is a total of 590,042 ha of CE-CFLB in the Robson Valley TSA, which is 40% of the gross area of the TSA. Of the CE-CFLB area, 107,806 ha have no targets established (within NDT5 or associated with Mt. Robson LU, which is a provincial park). Overall, there are 23 LUs with a total of 85 AUs (LU-NDT-BEO-BEC combinations that determine the legal and policy targets) across the CE-CFLB. The majority of the CE-CFLB in the TSA is managed as Low biodiversity emphasis options (BEO) (40%) and Intermediate BEO (46%), and High BEO (4%).

## Assessment Results

*Fall in Robson Valley – Traci Van Spengen*

Assessment results show that old growth forests cover 24% (141,455 ha) of the CE-CFLB. Of the 85 AUs in the Robson Valley TSA, 70 AUs (82%) have sufficient amounts of old growth forest compared to the defined targets, while the remaining 15 AUs (18%) have not met the defined targets with old growth forest.

Assessment results show that mature-plus-old forests cover 63% (374,061 ha) of the CE-CFLB. Of the 85 AUs in the Robson Valley TSA, 81 AUs (95%) have sufficient amounts of mature-plus-old forests as compared to targets, whereas 4 AUs (5%) do not have enough mature-plus-old forest to meet the targets.

In terms of incursions into OGMAs within the Robson Valley TSA, assessment results show that 2.3% of legal OGMAs (11 of 473) have been disturbed beyond the allowable threshold in the order and that 38.8% of non-legal OGMAs (40 out of 103 non-legal OGMAs) have some level of incursion.[1] Roads, rail infrastructure and cutblocks are predominant cause of incursions into OGMAs in the Robson Valley TSA. Some of these incursions are historical and were known and considered acceptable at the time of OGMA establishment.

Old growth forests exist within most OGMAs in the Robson Valley TSA. Assessment results show that 71.0% (18,959.1 ha) of CE-CFLB area within legal OGMAs is old growth forests and 32.3% (3,911.6 ha) of CE-CFLB within non-legal OGMAs is old growth forest. However, these do not meet legal and non-legal targets. Assessment results indicate that in landscape units managed with legal OGMAs, 61 AUs (92%) have insufficient amounts of old growth forest within established OGMAs compared to targets (i.e., less than 100% of the target amount). In landscape units with non-legal OGMAs, all AUs have insufficient amounts of old growth compared to targets, with most having less than 50% of the targets met. Despite this, there is an abundance of old growth forests available outside the OGMA boundaries that could contribute to these targets if incorporated into OGMAs.

The current condition of old growth forests in the Robson Valley TSA is the result of a long history of forest harvesting in operationally accessible LUs and BECs in the TSA. Historic and recent wildfires have also contributed to the current condition of old growth forests.

Overall, this assessment focuses on implementation of legally defined objectives for old growth forest and policy targets for mature-plus-old forests. It does not consider whether these objectives are effective at conserving sufficient old growth forest to maintain biodiversity.

[1] In total, there are 576 mapped OGMAs across the Robson Valley TSA. Of these, 473 are legally established OGMAs (26,713.3 ha of CE-CFLB) and 103 are non-legal OGMAs (12,108.6 ha CE-CFLB). 15 OGMAs are manage by a combination of legal and non-legal mechanisms.

## Observations on the Results of the CE Assessment for the Old Growth Forest Value

The goal of these current condition reports is to present a strategic overview of current condition and to highlight areas of concern to support future inquiry and additional analysis. Specific reasons and causes for the conditions at a fine scale is not within the scope of these reports, however, some general observations on the factors influencing the current condition can be made:

- The current condition of old growth forest is the collective result of current and historic anthropogenic disturbance as derived from the BCGW Vegetative Resource Inventory (VRI).
- Under the FRPA results-based regime, compliance with Old Growth Orders is largely dependent on professional reliance. The varying interpretation of orders and policy, as well as approaches to analysis and tracking of old growth by licensees and the Province presents challenges to accurately track and monitor old growth conditions relative to orders over time.
- In the PNOGO, there are provisions that allow the use of younger forests to meet old growth forest targets "where equal or better conservation benefits would result" and to recruit from younger stands when there is insufficient old growth in a variant. These provisions may have been applied in the units with enough old growth to meet the targets or to minimize socio-economic impacts to forest operations. Further inquiry into the results could examine whether these provisions have been applied appropriately.

*Holmes River, Robson Valley – Traci Van Spengen*

- Concentrated and accelerated salvage harvesting to minimise economic losses from the Mountain Pine Beetle epidemic.
- Old growth forest, mature-plus-old forests, and OGMAs are subject to impacts from a range of resource development activities outside of forestry, as often those sectors are not legally required to mitigate or manage for old growth (e.g., mines, exploration, land conversion, oil and gas).
- Areas with easier access to timber (e.g., low elevation, closer to population centres) are often further away from meeting old growth targets.
- Many of the assessment units that are the furthest from meeting targets are very small, thus even small disturbances (human or natural) have a large impact on the unit.
- Application of provincial policy and guidance designed to mitigate the impacts to timber supply from the management of old growth forest (e.g., Landscape Unit Planning Guide).

## Highlights of Old Growth CE Assessment Results for the Robson Valley TSA

Old growth forests in the Robson Valley TSA are managed through three mechanisms:

1. Non-spatial old forest targets legally established through the PNOGO in eight LUs
2. Legal OGMAs established through three legal orders in 13 LUs
3. Non-legal OGMAs designated under the PNOGO, Section 8, in two LUs

Management of mature forests for recruitment into old growth is guided through non-legal policy targets, as defined in the BDG.

There is a total of 590,042 ha of CE-CFLB in the Robson Valley TSA, of which 107,806 ha have no targets established (within NDT 5 or Mt. Robson LU, which is a provincial park). Overall, there are 23 LUs with a total of 85 AUs (combinations of LU, NDT, BEO and BEC that determine the legal and policy targets) across the CE-CFLB. The majority of the CE-CFLB in the TSA is managed as Low biodiversity emphasis options (BEO) (40%) and Intermediate BEO (46%), and High BEO (4%).

## Amount of Old Growth Forest

***What is the current amount of old growth forest in the CE-CFLB? Where is the old growth forest located on the land base?***

- Within the CE-CFLB, 24% (or 141,455 ha) is old growth forest.
- The amount of old growth forest compared to CE-CFLB area summarized to the LU is:
  - >70%: Cariboo and Foster LUs
  - 30-50%: Upper Morkill, Lower Morkill/Cushing, Crescent Spur, Goat, Milk, North Trench, Canoe and Dawson LUs
  - 20-30%: Hugh Allan, Kiwa-Tete, Raush, Castle, East Twin-McKale LUs
  - <10%: McBride-Dunster, Forgetmenot, Holmes, and Mt. Robson LUs
- The amount of old growth forest compared to CE-CFLB summarized to BEC is:
  - >50%: ICHwk1, ICHwk4, SBSwk1
  - 30-50%: ESSFwc2, ESSFwk1, ICHwk3
  - <30%: ESSFmm1, ESSFwc3, ESSFwk2, ICHmm, SBSdh1, SBSvk

***Which AUs meet the targets for old growth forest?***

- There are 85 AUs in the Robson Valley TSA. Of the 85 AUs, 70 AUs (82%) have sufficient amounts of old growth forests as compared to targets; these AUs cover 443,373 ha (92%) of CE-CFLB area.
- Of the 23 LUs in the Robson Valley, 13 LUs (56%) currently have sufficient amounts of old growth forest as compared to targets in all the AUs.
- The 13 LUs with all the AUs meeting the OG Targets are managed in the following manner:
  - Seven LUs have legal OGMAs (Canoe, Crescent Spur, Dawson, Foster, Hugh-Allan, Upper Morkill, West Kinbasket).
  - One LU (South Trench LU) has non-legal OGMAs.
  - Five LUs are managed to non-spatial targets (Cariboo, Castle, Dore, East Twin-McKale, Raush)

***Which AUs are flagged for further consideration?***

- Of the 85 AUs in the Robson Valley, 15 AUs (18%) do not have enough old growth forest to meet the targets, these AUs cover 38,863 ha of CE-CFLB area.
  - Six AUs that are in the greatest deficit of old growth forest (0-30% of the target met) are less than 700 ha of CE-CFLB each (i.e., Kiwa-Tete/SBSdh1, Horsey-Small/SBSdh1, McBride-Dunster/SBSvk, McBride-Dunster/ICHwk3, Holmes/SBSdh1, and Forgetmenot/SBSvk AUs).
  - Two AUs are between 30-50% of old growth target and are located all in the Lower Morkill/Cushing LU and contain a total of 3,223.8 ha.
  - Five AUs are between 50-75% of the old growth target located in Northern Trench, Holmes, Goat and Milk LUs (total CE-CFLB area 17,681.0 ha). The Holmes/SBSvk AU and Holmes/ICHmm1 AU have the majority of the area (17,450.2 ha) in the 50-75% of the required old growth target.
  - Two AUs are between 75-100% of the old growth target located in the East Kinbasket and Forgetmenot LUs. The Forgetmenot/ESSFmm1 AU contains the largest amount of CE-CFLB area (15,548.5 ha) that does not meet targets (i.e., 75-100% of target met).
- Of the 23 LUs in the Robson Valley, 10 LUs (43%) do not have enough old growth forest to meet targets. These 10 LUs are managed in the following manner:
  - Six LUs contain legal OGMAs (East Kinbasket, Forgetmenot, Goat, Kiwa-Tete, Lower Morkill/Cushing, and Northern Trench),
  - One LU contains non-legal OGMAs (Holmes),
  - Three LUs currently have no spatial OGMAs established (Horsey-Small, McBride-Dunster, and Milk).

***What are some of the possible reasons for the current condition?***

- There is a long history of forest harvesting in operationally accessible LUs and BECs in a TSA (i.e., in SBSvk, SBSdh, ESSFmm1, ICHmm1).
- An overview of the historical wildfire record shows 367,828 ha of wildfire disturbance. This may have shifted the landscape to early seral condition in some BECs. The LUs with the largest record fires include the Holmes LU with 96,243 ha and the McBride-Dunster LU with 102,323 ha of fire disturbance.
- The small CE-CFLB area of some AUs (<700 ha) seems to have limited the ability for these AUs to met old growth targets.

## Amount of Mature-plus-Old Forest

***What is the current amount of mature-plus-old forest in the CE-CFLB? Where is mature-plus-old forest located on the land base?***

- Within the CE-CFLB, 63% (374,061 ha) is mature-plus-old forest of which:
  - 42% (155,605 ha) is currently designated as Low BEO
  - 45% (168,044 ha) is currently designated as Intermediate BEO, and
  - 5% (16,960 ha) is currently designated as High BEO
  - Across all LUs, the amount of mature-plus-old forest is between 50-100% of CE-CFLB, except for the Holmes LU which has some areas within the 20-30% category.
- The BEC summary of the amount of mature-plus-old growth forest in the CE-CFLB:
  - >70%: ESSFmm1, ESSFwc2, ESSFwc3, ESSFwk1, ESSFwk2, ICHwk1, ICHwk4, SBSwk1
  - 50-70%: ICHmm, ICHwk3, SBSvk
  - 30-50%: SBSdh1

***How many AUs meet policy targets with mature-plus-old forest?***

- There are 85 AUs in the Robson Valley TSA. Of the 85 AUs, 81 AUs (95%) have sufficient amounts of mature-plus-old forests as compared to targets, covering 466,720 ha of CE-CFLB area.
- Of the 23 LUs in the Robson Valley, 21 LUs (91%) currently have sufficient amounts of mature -plus-old forest as compared to targets. These 21 LUs are managed in the following manner:
  - 12 LUs have legal OGMAs (Canoe, Crescent Spur, Dawson, East Kinbasket, Forgetmenot, Foster, Goat, Hugh-Allan, Lower Morkill/Cushing, Northern Trench, Upper Morkill, and West Kinbasket).
  - One LU (South Trench LU) has non-legal OGMAs.
  - Eight LUs are managed to non-spatial targets (Cariboo, Castle, Dore, East Twin-McKale, Horsey-Small, McBride-Dunster, Milk, and Raush).
- At the AU scale, including mature forest in the current condition assessment for old growth (mature-plus-old) increased the percentage of AUs meeting targets from 82% to 95% in the CE-CFLB in the Robson Valley.
- At the LU scale, including mature forest in the current condition assessment for old growth (mature-plus-old) increased the percentage of LUs meeting targets from 56% to 91% in the CE-CFLB in the Robson Valley.

***Which AUs are flagged for further consideration?***

- Of the 85 AUs in the Robson Valley, 4 AUs (5%) do not have enough mature-plus-old forest to meet the targets, covering 15,516 ha of CE-CFLB area.
  - Two AUs that are in the greatest deficit of mature-plus-old forest (0-30% of the target met) are less than 200 ha of CE-CFLB each (i.e., Kiwa-Tete/SBSdh1 and Holmes/SBSdh1 AUs).
  - Two AUs are between 75-100% of the mature-plus-old forest target and contain a total of 15,319 ha of CE-CFLB area (i.e., Holmes/ICHmm and Holmes/SBSvk AUs). The Holmes/ICHmm AU contains the largest amount of CE-CFLB area (9,449 ha) that does not meet targets.
- Of the 23 LUs in the Robson Valley, two LU (9%) do not have enough mature-plus-old forest to meet targets. These two LUs are managed in the following manner:
  - One LU contains legal OGMAs (Kiwa-Tete LU), and
  - One LU contains non-legal OGMAs (Holmes LU).

***What are some of the possible reasons for the current condition?***

- The Holmes LU has a long history of forest harvesting and forest fires (96,243 ha). This LU is currently being managed by non-legal OGMAs to address the old and mature-plus-old target deficits.
- Some BECs are represented by a small area (<200 ha) in the CE-CFLB.

## Incursions into OGMAs

***Are there anthropogenic incursions in OGMAs? What is the current amount of incursion into OGMAs in the CE-CFLB?***

- The Robson Valley TSA has a total of 15 LUs that are managed by either legal or non-legal OGMAs LUs.
- In the Robson Valley TSA, 13 LUs are managed with legal OGMAs and 2 LUs are managed with non-legal OGMAs.
- There are 576 mapped OGMAs across the TSA, 473 of which are legally established OGMAs (26,713.3 ha of CE-CFLB) and 103 are non-legal OGMAs established in the Holmes and South Trench LUs (12,108.6 ha CE-CFLB). This equates to a total of 38,821.8 ha of CE-CFLB in OGMAs.
- Without applying an allowable incursion threshold, 20.1% of legal OGMAs (95 of 473 legal OGMAs) and 38.8% of non-legal OGMAs (40 out of 103 non-legal OGMAs) have some level of incursion. This corresponds to 29,224.6 ha and 14,610.5 ha of legal and non-legal OGMAs respectively.
- For legal OGMAs, three LUs have >50% of OGMAs with incursions (a total of 124.4 ha) in the CE-CFLB:
  - Crescent Spur LU: 57% of OGMAs have incursions
  - Kiwa-Tete LU: 58% of OGMAs have incursions
  - North Trench LU: 50% of OGMAs have incursions
- For non-legal OGMAs, LUs with incursions include:
  - Holmes LU: 61.5% of OGMAs have incursions
  - South Trench LU: 35.6% of OGMAs have incursions
- Some of these incursions are historical and were known and considered acceptable at the time of OGMA establishment.

***Do incursions exceed the order threshold (up to 10% of an OGMA less than 50 ha, or 5% of an OGMA greater than 50 ha in legal OGMA and zero threshold in non-legal OGMAs)?***

- There are 11 legal OGMAs (2.3%) and 40 non-legal OGMAs (38.8%) that have been disturbed beyond the allowable threshold in the order. This equates to 71.3 ha of total incursions into legal OGMAs and 258.2 ha of incursions into non-legal OGMAs.
- The greatest incurred percentages in legal OGMAs occur in:
  - PRG_Daw_2 in Dawson LU (33.1 ha or 60.1%)
  - PRG_EastK_54A in East Kinbasket LU (0.6 ha or 17.1%)
  - PRG_EastK_6B in East Kinbasket LU (1.9 ha or 13.5%)
  - PRG_UpMor_41 in Upper Morkill LU (1.7 ha or 13.4%)
- In the LUs with non-legal OGMAs, the combined incurred percentage across the LU are:
  - Holmes LU across 8 non-legal OGMAs (6.7 ha or 0.7%)
  - South Trench LU across 2 non-legal OGMAs (258.2 ha or 8.7%)

***What is the type of incursion into the OGMAs?***

- For incursion beyond acceptable thresholds in legal OGMAS, 59.1% and 40.9% of incursions are associates with roads and cutblocks respectively. This equates to 42.1 ha and 29.2 ha respectively.
- For all incursion in non-legal OGMAs, the top three types of incursions are roads, cutblocks and rail infrastructure:
  - In OGMAs in Holmes LU, 68.4% (25.1 ha) is due to roads, 26.1% (9.6 ha) is due to cutblocks and 5.6% (2.0 ha) is due to rail infrastructure.
  - In OGMAs in South Trench LU, 34.9% (90.2 ha) is due to roads, 58.9% (152.2 ha) is due to cutblocks and 2.3% (6.1 ha) is due to rail infrastructure. Other types of disturbance (e.g., pipeline ROW, powerlines) accounted for 3.8% (9.8ha).

***What is the magnitude of incursions into OGMAs (total % incurred)?***

- For legal OGMAs, 91% (10 of 11) of OGMAs fall within the 5-25% category of magnitude and 9% (1 of 11) of OGMAs fall within the 50-75% category of magnitude.
- For non-legal OGMAS in the Holmes LU, 88% (7 of 8) of OGMAs fall within the 0-5% category of magnitude and 12% (1of 8) of OGMAs fall with 5-25% category of magnitude.
- For non-legal OGMAs in the South Trench LU:
  - 44% (14 of 32) of OGMAs fall within 0-5% magnitude category,
  - 31% (10 of 32) OGMAs fall within the 5-25% category of magnitude,
  - 9% (3 of 32) of OGMAs fall within the 25-50% of magnitude,
  - 6% (2 of 32) in the 50-75% category of magnitude,
  - 9% (3 of 32) in the > 75% magnitude category.

## Amount of Old Growth Forest in OGMAs

***What is the current amount of old growth forest in OGMAs in the CE-CFLB? What is the seral stage breakdown? Where is old growth forest located within OGMAs?***

- In legal OGMAs, 71.0% of area is old forest (18,959.1 ha), 20.3% is mature forest (5,431.3 ha), with minor components of mid-aged forest (0.2% or 44.0 ha) and early (2.3% or 607.8 ha).
- In non-legal OGMAs, 32.3% of the area is old forest (3,911.6 ha), 40.6% is mature forest (4911.9 ha), 16.2% is mid-aged forest (1.965.5 ha) and a minor component of 2.2% is early forest (265.5 ha).

***Which OGMAs meet PNOGO targets by BEC subzone and variant within each LU? Which do not?***

- It is important to note that PNOGO has been rescinded in LUs with legal OGMAs (i.e., is no longer legally applicable), as OGMAs are intended to meet PNOGO targets. This comparison of OGMA area (ha) and amount of old growth within OGMAs (ha) to the PNOGO target is useful to provide an indication of how well that intention is being met.
- In the Robson Valley TSA, there are 66 AUs with legal OGMAs, of which 61 AUs (92%) currently do not have enough old growth within OGMAs to meet PNOGO targets, and 44 AUs (67%) have less than 50% of targets met.
- The remaining 5 AUs with legal OGMAs (8%) currently have enough old growth within OGMAs to meet PNOGO targets. These AUs are Canoe/ICHmm (106%), Crescent Spur/ESSFmm1 (139%), Goat/SBSvk (206%), Lower Morkill/Cushing/SBSvk (151%), and Upper Morkill/ESSFmm1 AUs (129%).
- In the Robson Valley TSA, there are 9 AUs with non-legal OGMAs, of which all (100%) currently have insufficient amounts of old growth compared to targets, with most having less than 50% of targets met.
- Despite this, there is an abundance of old growth forests available outside the OGMA boundaries that could contribute to these targets if incorporated into OGMAs.

*Animal den, Robson Valley – Tammy Baerg*

# LIST OF ACRONYMS

| | |
|---|---|
| **AAC** | Allowable Annual Cut |
| **AU** | Assessment Unit |
| **B.C.** | British Columbia |
| **BCGW** | B.C. Geographical Warehouse |
| **BDG** | Biodiversity Guidebook |
| **BEC** | Biogeoclimatic Ecosystem Classification |
| **BEO** | Biodiversity Emphasis Option |
| **CCR** | Current Condition Report |
| **CE** | Cumulative Effects |
| **CEF** | Cumulative Effects Framework |
| **CFA** | Community Forest Agreement |
| **CFLB** | Crown Forested Land Base |
| **FAIB** | Forest Analysis Inventory Branch |
| **FMLB** | Forest Management Land Base |
| **FPC** | *Forest Practices Code of B.C.* |
| **FRPA** | *Forest and Range Practices Act* |
| **FSP** | Forest Stewardship Plan |
| **LRMP** | Land and Resource Management Plan |
| **LU** | Landscape Unit |
| **LUPG** | Landscape Unit Planning Guidebook |
| **MPB** | Mountain Pine Beetle |
| **NDT** | Natural Disturbance Type |
| **OGC** | Oil and Gas Commission |
| **OGMA** | Old Growth Management Area |
| **OGAA** | *Oil and Gas Activities Act* |
| **PNOGO** | Provincial Non-Spatial Old Growth Order |
| **RESULTS** | Reporting Silviculture Updates and Land Status Tracking System |
| **THLB** | Timber Harvesting Land Base |
| **TSA** | Timber Supply Area |
| **TSR** | Timber Supply Review |
| **UWR** | Ungulate Winter Range |
| **VRI** | Vegetation Resources Inventory |
| **WLRS** | Ministry of Water, Land and Resource Stewardship |

## Biogeoclimatic Ecosystem Classification Zone Acronyms

| | |
|---|---|
| **BAFA** | Boreal Altai Fescue Alpine |
| **ESSF** | Engelmann Spruce-Subalpine Fir |
| **ICH** | Interior Cedar Hemlock |
| **IMA** | Interior Mountain-heather Alpine |
| **SBS** | Sub-Boreal Spruce |

# GLOSSARY

**Assessment Unit (AU):** Assessment units (AUs) are used to describe the current state of old growth forests on the CE-CFLB in Cumulative Effects reporting. Assessment Units are based on the combinations of LU, NDT, BEO, and BEC subzone and/or variant.

**Baseline Thematic Mapping (BTM):** A digital integration of satellite imagery, land use, land cover, and topographic data to produce an "image map" of the land base. Land Information specialists frequently use BTM as a critical comprehensive base-line inventory of human activity and natural resources. BTM can be used to monitor land use activities and is a mandatory input into the Land Resource Management Plans process (NRCan, 2016; Province of B.C., 2022).

**Biogeoclimatic Ecosystem Classification (BEC) system zone/ subzone/variant:** A multi-scaled, hierarchical, ecosystem-based classification system that groups ecologically similar sites based on climate, site, soils, and vegetation, and is widely used as a framework for resource management and scientific research in B.C.

BEC zones have similar patterns of energy flow, vegetation, and soils as a result of a broadly homogeneous macroclimate. There are 16 zones in B.C. which are subdivided into subzones and variants (see List of Acronyms). Subzones reflect differences in regional climate, while variants recognize sub-regional variation (e.g., areas that are slightly drier, wetter, snowier, warmer, or colder than other areas in the subzone) (MFR, 2008).

**Biodiversity Emphasis Option (BEO):** A range of management alternatives that emphasize different levels of natural biodiversity within forested landscapes. There are three options for emphasizing biodiversity at the landscape level: high, intermediate, and low. Each option is designed to establish a level of natural biodiversity and a different risk of losing elements of natural biodiversity (Province of B.C., 1995). Overall, the BEO informs the amount of old growth to be retained.

**Component:** Features and attributes of a value that should be measured and managed to meet objectives associated with values (Province of B.C., 2016).

**Crown Forested Land Base (CFLB):** The forested area that the provincial government manages for a variety of natural resources values. This excludes non-vegetated areas (e.g., water, rock, ice), non-forested ecosystems (e.g., grasslands, wetlands), non-productive forest (e.g., alpine, areas with very low productivity), and non-commercial forest (e.g., shrub/brush areas). The CFLB includes provincially and federally protected areas (e.g., provincial and national parks), conservancies, wildlife habitat areas, wildlife management areas, etc., because of their contribution to biodiversity.

**Crown Land:** Land, whether it is covered by water or not, or an interest in land, recognized in Canadian law as vested in the provincial government of B.C. In B.C., all land categorized as Crown land is also the traditional territory of one or more First Nations (*Land Act*, RSBC, 1996).

**Cumulative Effects:** Changes to environmental, social, and economic values caused by the combined effect of past, present, and potential future human activities and natural processes (Province of B.C., 2016).

**Cumulative Effects Crown Forested Land Base (CE-CFLB):** Provincial Crown land with forest cover that is managed for timber supply or other forest management objectives. This layer includes all forested Crown land, including Crown Land in area-based tenures (e.g., tree farm licenses, woodlots, community forests, First Nations woodland licenses), and all forested portions of provincial parks, protected areas, ecological reserves, and federal parks that contribute to the current state of old growth forest. See Crown Forested Land Base (CFLB) above.

**Cumulative Effects Framework (CEF):** A set of policies, procedures and decision-support tools that helps identify and manage cumulative effects consistently and transparently across British Columbia's natural resource sector.

**Current Condition Assessment/Report (CCR):** An assessment/report on the current state or condition of individual CEF values in relation to selected state or pressure indicators (Province of B.C., 2016).

**Edge Effect:** The changes in populations or communities along the boundary or edge of an existing habitat.

**Forest Management Land Base (FMLB) Indicator:** An attribute field in the Vegetation Resources Inventory (VRI) that indicates whether an inventory polygon is currently forested (or has been forested) and is capable of producing a stand of trees. The FMLB is a coarse-scale indicator of forested areas, whereas the CFLB is a finer-scale management tool (see CFLB definition above).

**Fragmentation:** The process of transforming large contiguous patches of forest into smaller and isolated patches surrounded by disturbed areas, either through human activities (e.g., roads, forestry cutblocks) or natural disturbances. Fragmentation may lead to a decline in biodiversity through loss of habitat (conversion of forests from natural to managed stands), increase in microclimatic and forest edge effects, and increase in isolation of the remaining forest patches (Province of B.C., 1995).

**Incursion:** Anthropogenic (human-caused) disturbance footprints within old growth management areas from resource development activities such as forest harvesting, road construction, or mining. It does not include impacts from natural disturbance, such as forest fires or insects.

**Indicator(s):** The metrics used to measure and report on the condition and trend of a component. There are two main types of indicators: state indicators and pressure indicators. State indicators that directly measure and report on the condition of a component, and pressure indicators that measure and report on processes that act upon or influence the condition of a component (Province of B.C., 2016).

**Landscape Unit (LU):** An area used for long-term planning and monitoring of resource management activities. These units contain land and water and are typically at the scale of a watershed or a group of watersheds, with areas ranging from 5,000 to 400,000 hectares (MFR, 2008).

**Landscape Unit Planning Guide (LUPG):** A guidance document published by the Ministry of Forests and Ministry of Environment, Lands and Parks (1999) that outlines procedures to implement landscape unit planning throughout B.C. (including the development of objectives and strategies). The guide focuses on the priority of forest biodiversity including the retention of old growth forest and guidance for stand-level biodiversity management through wildlife tree retention (Province of B.C., 1999).

**Mature Forest:** Stands that have progressed through successional development stages including natural thinning. Vertical structure has developed but stands lack the complex structure typical of old growth forests.

The time required for mature forest to develop varies by ecosystem. In B.C., the minimum age of mature forest is 80 years in productive coastal and cool, northern boreal forests, 120 years in high elevation forests, and 100 years in the remaining forests. Mature forest ages are determined by NDT and BEC zone.

**Mature-plus-Old Forest:** Biodiversity objectives for mature forest retention are set as a minimum requirement for mature-plus-old forest, meaning that retention targets include the minimum requirements for old growth forest plus additional targets that can be met by mature and/or old forest (BDG, 1995). The additional targets for mature-plus-old forest can be met using mature and/or old forest, but the old forest portion of the target must be met using old growth forest (where available). When the mature-plus-old forest target is the same as the old growth forest target, there are no additional requirements for mature forest area. Mature-plus-old targets are specified in the Biodiversity Guidebook but are not required in many regional land use orders, including the Provincial Non-spatial Old Growth Order.

**Natural Disturbance Type (NDT):** A coarse-level classification system that broadly describes disturbance regimes across B.C. based on the long-term average frequency of stand-initiating disturbances such as wildfires, insects, or wind. Five NDT categories form the basis for the old growth forest targets in the Biodiversity Guidebook (Province of B.C., 1995).

**Non-Contributing Timber Harvesting Land Base:** Areas on the land base that are excluded from the Timber Harvesting Land Base (THLB) and do not contribute to the allowable annual cut for a specified area. This includes Parks and Protected Areas, no harvest zones within wildlife management areas (e.g., ungulate winter ranges, wildlife habitat areas), riparian reserves, and inoperable forests.

**Non-spatial Old Growth Management:** The percentage or amount (in hectares) of old growth forest to be retained within a specified area (i.e., by BEC subzone/variant in a landscape unit) as an alternative management approach from establishing spatial OGMAs. The amount of old growth forest present in forest stands may be noted by stand age using vegetation inventories, but patches of old growth are not delineated and mapped (FPB, 2012). Non-spatial is also referred to as aspatial.

**Old Growth Forest:** The Province of B.C. defines old growth forest based on age. Minimum ages for old growth forest are greater than 250 years old in ecosystems with infrequent stand-initiating disturbance (coastal, interior wet and moist climates, and dry, fire-maintained ecosystems; NDT 1, 2, 4) and greater than 140 years old in drier ecosystems with frequent stand-initiating disturbance (NDT 3).

These age definitions are intended to capture forests dominated by old trees. Ecologically, old growth forests contain live and dead trees that vary by size, species, composition, and age class structure, which varies significantly by forest type and by BEC unit (BDG, 1995). They are communities of trees, plants, fungi, animals, and microbes that have lived together long enough to develop complex, interconnected relationships (Old Growth Technical Advisory Panel, 2021). Old growth characteristics vary by ecosystem and tree species, and typically have more large trees with unique characteristics such as forked, dead, or broken tops, cavities, or large lateral branches, and more large standing dead trees (snags) and decomposing wood than younger forests (FLNRORD, 2017). Trees are large for the ecosystem, and the forest canopy is often layered with openings that allow light and encourage the growth of understory vegetation.

For the purposes of the CEF, the term "old growth forest" is used to describe these ecosystems more broadly (i.e., considering stand attributes), with the awareness that it includes the "old forest" age-based definition currently used in forest management practices.

**Old Growth Management Area (OGMA):** Defined areas that contain (or are managed to attain) specific structural old growth forest attributes. These are delineated and mapped as fixed areas (FPB, 2012). An OGMA may be defined as a legal OGMA or a draft (non-legal) OGMA:

**Legal OGMA** - OGMAs that have been declared in an old growth Ministerial Order. Forest licensees must incorporate the legal OGMAs into Forest Stewardship Plans (FSPs).

**Draft (non-legal) OGMA** - OGMAs that have been mapped but not declared in an old growth order. Forest licensees may choose to incorporate the non-legal OGMAs into FSPs as a way of achieving the non-spatial order that is in effect in the management area where they operate (FPB, 2012).

**Recruitment:** The act of identifying stands (either spatially or non-spatially) that do not currently meet the requisite old growth characteristics but are intended to develop those characteristics in the future. In some circumstances, recruitment areas can contribute to old growth targets in landscapes where there is not enough old growth forest to meet targets.

**Seral Stage:** Represents the different stages in the sequence of forest development, from early to mid, mature, and old forests, including successional shifts in species composition and vegetation structure (e.g., see definitions for mature forest and old growth forest above). Stand age, as reported in the provincial Vegetation Resources Inventory, is used to estimate seral stage.

**Spatial Old Growth Management:** The process of identifying and delineating areas containing old growth forest attributes. Spatially identifying (i.e., mapping) these areas can lead to their designation as legal or non-legal OGMAs (FPB, 2012).

**Timber Harvesting Land Base (THLB):** A spatial (mapped) estimate of the forested land area 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 an assessment of forest management practices and assumptions described in a Timber Supply Review (TSR).

**Timber Supply Review (TSR):** A process that evaluates all forests within a timber supply area for their contribution to the THLB. At the end of the TSR process, the Chief Forester determines an allowable annual cut (AAC) (i.e., the harvest volume appropriate for an area) based on the amount of timber that is forecast to be available for harvesting over a specified time and under a particular management regime.

**Value(s):** The things that the people and government of British Columbia care about and see as important for assuring the integrity and well-being of the province's people and communities, economies, and ecological systems, defined in policy, legislation, or agreements with First Nations (Province of B.C., 2016).

# 1 INTRODUCTION

The Province of British Columbia (the Province) developed the Cumulative Effects Framework (CEF) to measure the effects of natural resource activities on values deemed important by the people of British Columbia (B.C.). Current condition assessments aim to report on the current state or condition of individual CEF values using indicators to demonstrate the cumulative effects (CE) of natural resource activities on each value.

*Minnow Creek, Robson Valley – Bruce Rogers*

As part of the CEF, the Province carried out a provincial assessment of the current condition of several resource values of importance to British Columbians, using indicators for each value that illustrate the cumulative effects of natural resource activities on these identified values. Old growth forest is one of the five CEF values that are assessed across B.C. since they are important for the conservation and maintenance of biodiversity at all scales. Old growth forest is defined by age, which is determined by the natural disturbance type (NDT) and biogeoclimatic ecosystem classification (BEC) zone.

This report provides an overview of the current condition of old growth forest in the Robson Valley Timber Supply Area (TSA), which is located within a portion of the Prince George Natural Resource District (the District) in the Omineca Region. For the Robson Valley TSA, old growth forest is generally between 140 and 250 years old. Mature forest is also defined by age and is determined by NDT and BEC zone. In the Robson Valley TSA, mature forests range between 80 and 120 years old.

This CE assessment compares the amount of old growth currently on the landscape to old growth targets. The Provincial Non-Spatial Old Growth Order (PNOGO) (2004) is the legal order that is used as the default for the old growth targets applied in this assessment. Policy targets from the Biodiversity Guidebook (BDG) (1995) were applied to assess the mature-plus-old forest on the landscape.

Assessment indicators were developed to understand the current condition of the old growth forest value. The report includes a series of maps with interpretations and reports on trends for the following four indicators:

- the current amount of old growth forest relative to legal targets (PNOGO);
- the current amount of mature-plus-old forest relative to policy targets (BDG);
- incursions into Old Growth Management Areas (OGMAs) relative to accepted levels of incursion defined by the legal order; and
- the current amount of old growth forest in OGMAs as compared to PNOGO.

The assessment was completed within the Cumulative Effects Crown Forested Land Base (CE-CFLB) (Table 1). Assessment units (AUs) are based on the unique combinations of landscape unit (LU), biodiversity emphasis option (BEO), NDT, and BEC to the subzone and/or variant across the reporting area.

This report interprets the current condition of old growth forest compared to the legal order targets established within the Robson Valley TSA and the non-legal policy targets at a broad level. **It does not consider whether these targets are effective at conserving sufficient old growth forest to maintain biodiversity. If current condition reports indicate that the legal old growth targets are not being met for a specific area, additional analysis and evaluation should occur.**

The intended audience for these reports includes government natural resource staff and statutory decision-makers who can use it to inform collaborative decision-making, discussions with First Nations, natural resource industries and community stakeholders to ensure that cumulative effects are identified, considered, and managed appropriately.

*Old growth spruce providing hiding/denning habitat – Traci Van Spengen*

# 2 ROBSON VALLEY OVERVIEW

## 2.1 Land Base Description

Robson Valley TSA is located within the Omineca Region in east-central B.C. It is part of the Prince George District and includes the communities of Valemount, McBride, Tete Jaune Cache, Crescent Spur-Loss, Dunster and Albreda (Figure 1). The Robson Valley TSA is bordered by Bowron Lake, the Cariboo Mountains, and Wells Gray Provincial Park to the west, Kakwa Provincial Park to the north, and with Jasper National Park to the east (the B.C.- Alberta border). Within the TSA, there are 18 provincial parks or protected areas and one ecological reserve.

The terrain of the Robson Valley TSA varies from flat, rolling valley bottoms along the Rocky Mountain Trench to snow-capped mountains and rugged alpine areas with steep slopes and deeply cut side valleys. This landscape diversity is reflected in the mix of tree species and wildlife habitats present across the TSA. Historically, wildfires, insects and wind events have been the predominant stand-initiating natural disturbances.

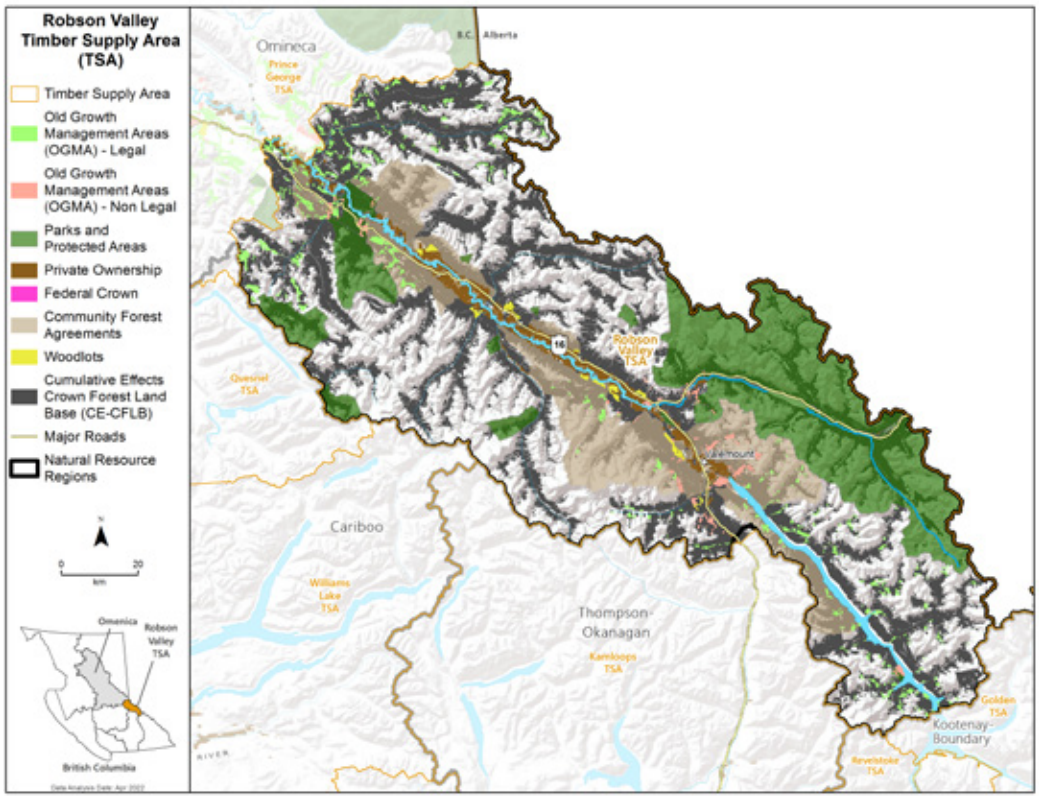



***Figure 1.*** *Ownership and Land Use Classifications in the Robson Valley TSA.*

There are 23 tree species within the Robson Valley TSA, as listed in the provincial Vegetation Resources Inventory (VRI), with large areas dominated by spruce, subalpine fir, lodgepole pine, Douglas-fir, western red cedar, and western hemlock, and smaller components of deciduous species, such as paper birch, aspen, balsam poplar, cottonwood, and various species of willows. In addition, there is approximately 3,150 ha of endangered Whitebark pine (as designated by the *Species at Risk Act*), primarily in the Engelmann Spruce – Subalpine fir (ESSF) ecosystems and distributed throughout the TSA.[2] This diversity results in habitats that support a variety of wildlife, including mountain caribou, grizzly bear, mule deer, wolverine, cougar, wolf and lynx, as well as Chinook salmon, bull trout and Rocky Mountain whitefish.

For the purposes of this CE current condition report on old growth, the land base for all data and analyses presented in this report is based on the Cumulative Effects Crown Forested Land Base (CE-CFLB) (Table 1, Figure 1). The Robson Valley TSA contains 590,042 ha of CE-CFLB, which is 40% of the gross area of the TSA (Table 1).

[2] Based on the BCGW VRI (data extracted in 2019)

## Cumulative Effects Crown Forested Land Base (CE-CFLB) Description

The basic definition of the Crown Forested Land Base (CFLB) is the area of Crown land managed for natural resource values that excludes land ownership (e.g., private land). However, the definition of CFLB can differ across the province and from one provincial initiative to another. For example, the CFLB used in timber supply reviews (TSRs) is different than the definition used for Cumulative Effects (CE) assessments.

The old growth forest CE assessments use the Cumulative Effects Crown Forested Land Base (CE-CFLB) as the denominator to calculate whether old growth forest targets are being achieved. The Forest Management Land Base (FMLB) is the foundation to developing the CE-CFLB and is an attribute of the Vegetation Resource Inventory (VRI) that identifies whether a polygon is forested or is capable of producing a stand of trees. Area-based tenures (e.g., Tree Farm Licences and Community Forests) that are more than 600 ha are included in the CE-CFLB, except for Woodlots regardless of area.

All CE assessment results for this report (see Section 5) are generated using the CE-CFLB. For more detailed information on how the CE-CFLB was developed for the Robson Valley Timber Supply Area (TSA), refer to **Old Growth Forests in British Columbia: Provincial Cumulative Effects Assessment Backgrounder** (WLRS, 2023).

The CE-CFLB for the Robson Valley TSA is 590,042 ha, which is 40% of the gross area of the TSA (Table 1). For comparison and to demonstrate the difference in CFLB definitions across provincial initiatives, the CFLB used for the 2014 Robson Valley TSR (as defined in the Robson Valley TSA Timber Supply Analysis Public Discussion Paper (December 2013, page 6)) was 462,280 ha.

***Table 1.*** *Summary of the Area Designations in the Robson Valley Timber Supply Area (TSA).*

| Land Base | Gross Area (ha) | FMLB Area (ha) | Private Land (ha) | Area-Based Tenures (ha) | Provincial Park (ha) | CE-CFLB Area (ha) |
|---|---|---|---|---|---|---|
| Robson Valley TSA | 1,458,550 | 616,571 | 39,708 | 229,945 | 291,915 | 590,042 |

*** Note: There may be overlap between area designations. Therefore, each area value is presented independently of the others in such a way that they do not sum together to equal the gross area of the TSA. The information presented is based on the Old Growth Cumulative Effects Crown Forested Land Base (CE-CFLB) and Assessment Resultant Dataset derived from the BCGW VRI (data extracted in 2019).

### 2.1.1 Natural Disturbance Types in the Robson Valley TSA

Natural disturbance types (NDTs) characterize areas with different natural disturbance regimes. Of the five NDT that occur in the province, four occur in the Robson Valley TSA (Figure 2).

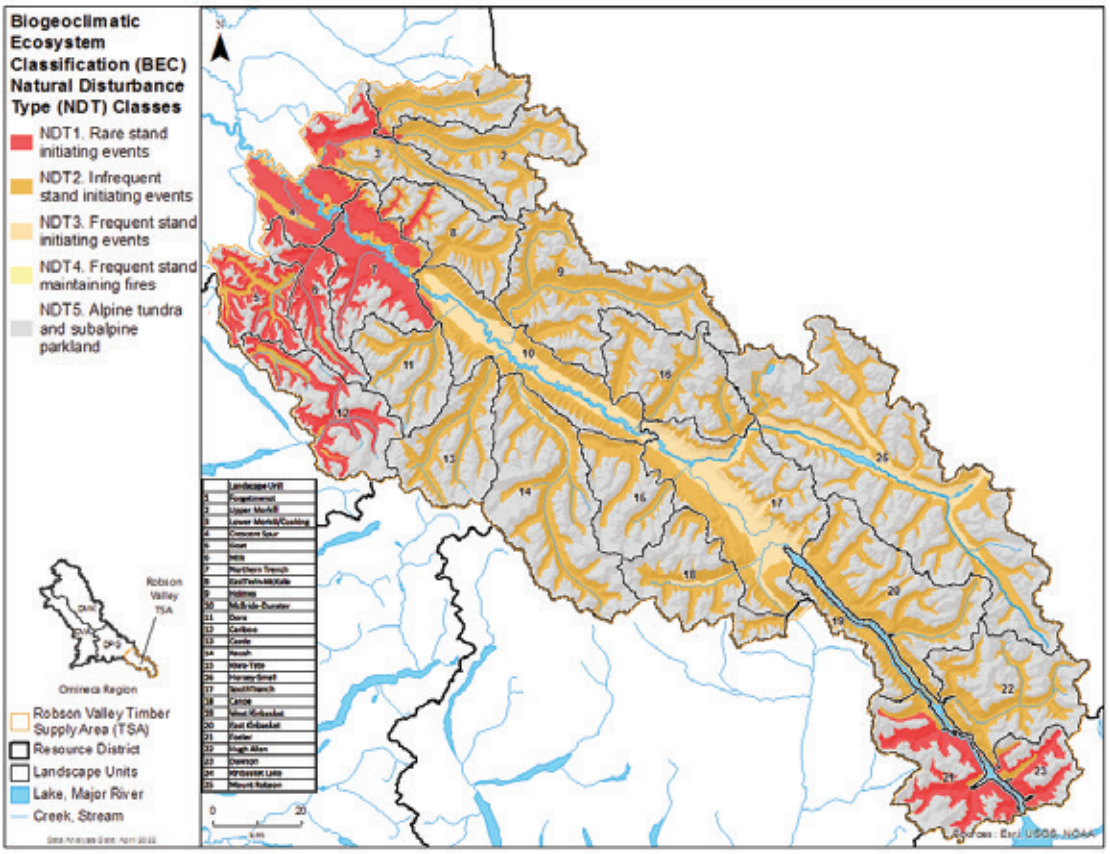



***Figure 2.*** *Distribution of NDTs in the Robson Valley TSA.*

The total area of the CE-CFLB (590,042 ha) is classified by NDT in the Robson Valley (Table 2). However, only NDT1, NDT2 and NDT3 contain old growth forests. The area of CE-CFLB in NDT5 as presented includes Mount Robson LU. The total amount of old growth forest in the CE-CFLB within the Robson Valley TSA is 141,455 ha.

***Table 2.*** *NDTs in the Robson Valley TSA.*

| NDT | Total Gross Area (ha) | Total Area in CE-CFLB (ha) | Total amount of Old Forest in CE-CFLB (ha) |
|---|---|---|---|
| **NDT1** | 166,941 | 130,693 | 51,846 |
| **NDT2** | 489,838 | 354,431 | 79,893 |
| **NDT3** | 87,266 | 43,846 | 9,715 |
| **NDT5** | 573,591 | 61,072 | 0 |
| **Grand Total** | 1,317,636 | 590,042 | 141,455 |

*** Note: The gross area of the TSA is 1,458,550 ha. This table does not report the 140,914 ha associated with Kinbasket Lake LU because there is no BEO or NDT assigned to this LU.

### 2.1.2 Biodiversity Emphasis Options in the Robson Valley TSA

Of the 25 LUs within the Robson Valley TSA, the majority are classified as Low BEO, followed by Intermediate BEO and one LU (Crescent Spur LU) is classified as High BEO (Figure 3, Table 3). There are two LUs with no BEO assigned. The Mount Robson LU has no BEO because it is entirely within the Mount Robson Provincial Park. Kinbasket Lake LU has no BEO because it is entirely within a lake. Even though they are designated LUs, no targets were established in these two areas.

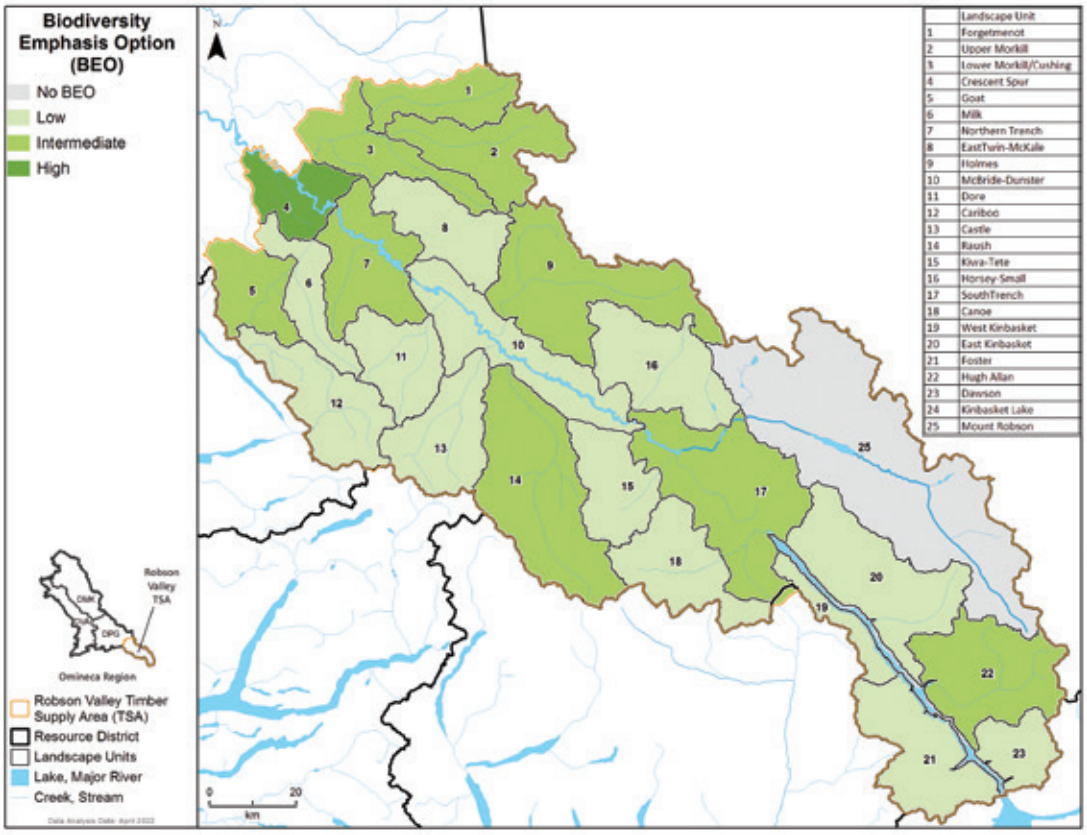



***Figure 3.*** *BEO by LU for the Robson Valley TSA.*

***Table 3.*** *LUs and Associated BEOs in the Robson Valley TSA.*

| Landscape Unit | | BEO | Landscape Unit | | BEO |
|---|---|---|---|---|---|
| **1** | Forgetmenot | Intermediate | **14** | Raush | Intermediate |
| **2** | Upper Morkill | Intermediate | **15** | Kiwa-Tete | Low |
| **3** | Lower Morkill/ Cushing | Intermediate | **16** | Horsey-Small | Low |
| **4** | Crescent Spur | High | **17** | South Trench | Intermediate |
| **5** | Goat | Intermediate | **18** | Canoe | Low |
| **6** | Milk | Low | **19** | West Kinbasket | Low |
| **7** | Northern Trench | Intermediate | **20** | East Kinbasket | Low |
| **8** | East Twin-McKale | Low | **21** | Foster | Low |
| **9** | Holmes | Intermediate | **22** | Hugh Allan | Intermediate |
| **10** | McBride-Dunster | Low | **23** | Dawson | Low |
| **11** | Dore | Low | **24** | Kinbasket Lake | N/A |
| **12** | Cariboo | Low | **25** | Mount Robson | N/A |
| **13** | Castle | Low | | | |

### 2.1.3 Biogeoclimatic Ecosystem Classifications in the Robson Valley TSA

The topographically and ecologically diverse landscape supports a range of BEC zones (Figure 4). Please note that BEC data changes over time as new information becomes available and ecosystem classifications are better understood. At the time of this assessment, the latest BEC was version 11.

The TSA includes five regional BEC zones:

- Interior Cedar-Hemlock (ICH)
- Sub-Boreal Spruce (SBS)
- Engelmann Spruce-Subalpine Fir (ESSF)
- Alpine Tundra (BAFA and IMA)

Further refinement of BEC zones generates 15 subzones (see Figure 4). These 15 subzones include the following:

- dry hot (dh)
- moist mild (mm)
- moist mild parkland (mmp)
- wet cool (wk)
- very wet cool (vk)
- wet cold (wc)
- very wet cold (vc)

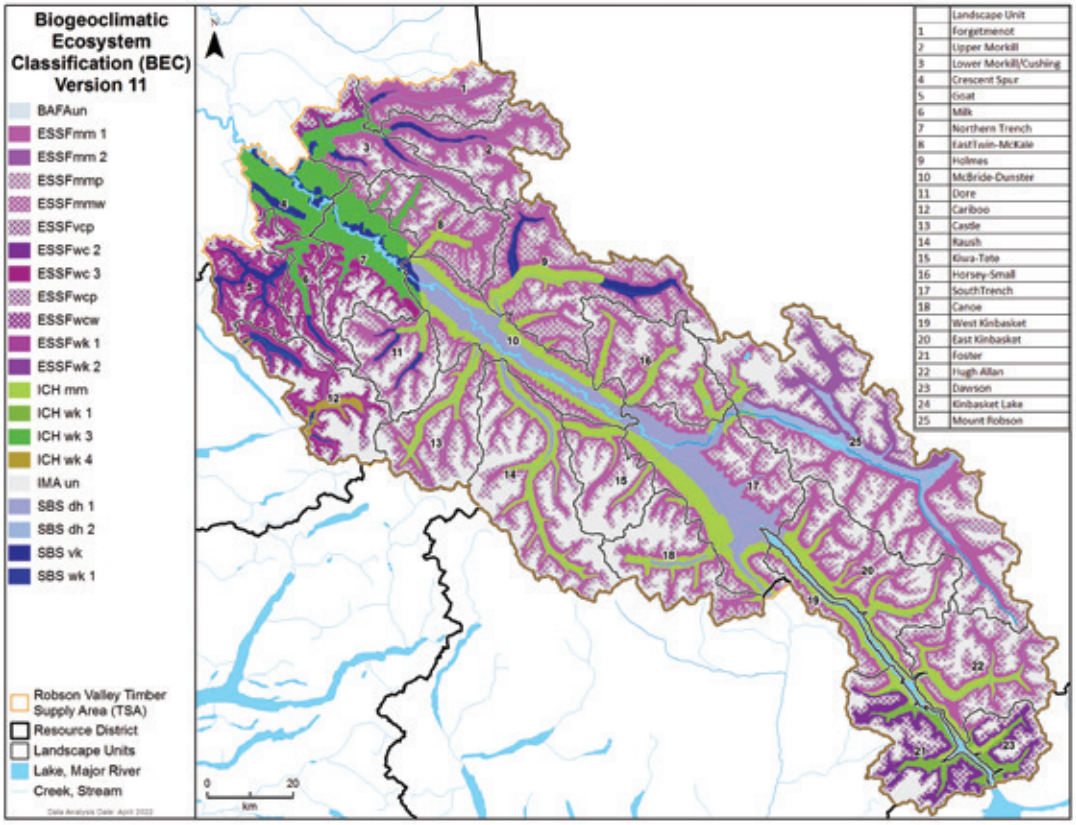



***Figure 4.*** *BEC to Subzone and/or Variant by LU in the Robson Valley TSA.*

Within these subzones, there can be considerable variations in the regional climate as expressed in variants of drier, wetter, snowier, warmer or colder.

The majority of the TSA is within the ESSF (55.3%), primarily in the ESSFmmp (23.6%) and ESSFmm1 (20.1%) subzone variants. There is also a large area of alpine tundra (IMA 20.6%) across the TSA. The ICH occupies 15.5% across the TSA in the valley bottoms. The SBS (8.5%) occurs more frequently in the northern portion of the TSA, along the trench in the middle of the TSA, and into the Mount Robson LU.

In general, the climate in the Robson Valley is mainly continental, but is moderated by warm, moist Pacific air. The TSA has become warmer and wetter over the last century. Temperatures can rise above 30°C in the summer and drop close to -35°C in the winter. Summers are warm and typically dominated by convective storms, while winters are generally long and overtake the early spring and late fall months with below-freezing temperatures. Mean annual precipitation is close to 635 mm, falling fairly evenly across the seasons and more occurring in the mountainous areas.

### 2.1.4 Seral Stages in the Robson Valley TSA

Seral stage ages were derived from the 2019 VRI. The seral stage distribution across the TSA shows general patterns of older and mature forests in higher elevations across the TSA, with more concentrated in the northwestern portion (e.g., Goat and Cariboo LUs) (Figure 5). The majority of the early and mid-seral stages are located in the valley bottoms and into the mid-elevations where the ground is still operationally accessible.

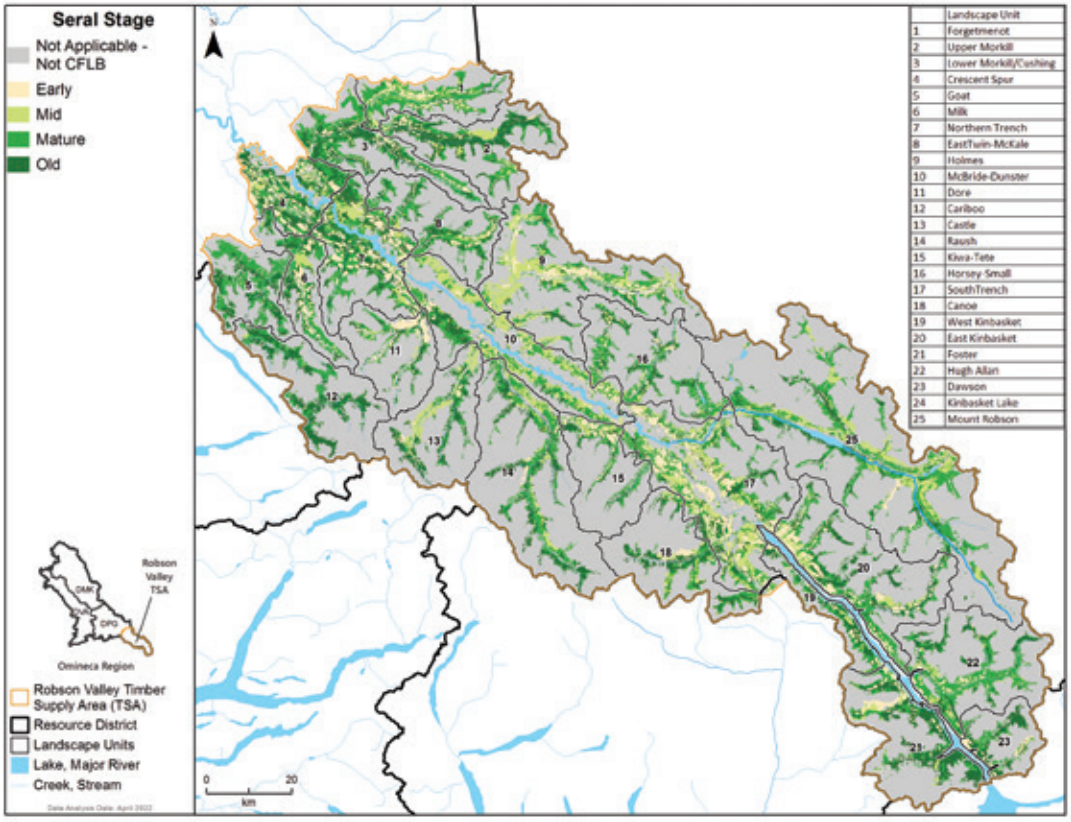



***Figure 5.*** *Current Seral Stage Distribution of Forests in the Robson Valley TSA. Areas shown in light purple have no assigned age and were not included in the assessment.*

Seral stages and the associated ranges of tree age (Table 4) are technical definitions required for the assessment of inventory data related to old growth forest biodiversity. In this report, seral stage categories are referred to in shorthand (i.e., old, mature, mid-age and early forests).

Seral stage ages are assigned for 90% of the CE-CFLB (Table 4). This is mostly due to NDT5 being in the CE-CFLB but lacking age-based definitions and targets for old growth and mature-plus-old forests (Figure 2, Section 2.1.1). The NDT5 is alpine tundra and subalpine parkland, which occurs above the tree line. Areas categorized as NDT5 were not included in the analysis.

***Table 4.*** *Current Seral Stage in the Robson Valley TSA CE-CFLB (includes Mt Robson LU).*

| Seral Stage | Total Area of CE-CFLB (ha) | % of Total CE-CFLB Area |
|---|---|---|
| Early | 74,744 | 13% |
| Mid | 80,165 | 14% |
| Mature | 232,606 | 39% |
| Old | 141,455 | 24% |
| No seral stage assigned | 61,072 | 10% |
| Total | 590,042 | 100% |

*** Note: Age definitions were taken from the Provincial Vegetation Resources Inventory (VRI). There is approximately 61,072 ha of CE-CFLB with no seral stage assigned (including overlap with Mt. Robson LU).

## 2.2 Cumulative Effects in the Robson Valley TSA

Old growth forests are impacted by multiple resource development activities and natural disturbance events, which may result in cumulative effects. A description of the different activities and natural disturbance events for the Robson Valley TSA are outlined below.

### 2.2.1 Land Use

The diverse topography and ecology of the Robson Valley has supported a variety of land uses, including forestry, agriculture, and numerous commercial and non-commercial recreation opportunities. In the past few decades, there has been a strong and steady increase in outdoor recreation-based tourism, including snowmobiling, backcountry skiing, heli-skiing, backcountry hiking, guided hiking, mountain biking, and all-terrain vehicle recreation in the summer. Of note is the proposed Valemount Glacier Destination Ltd. Resort that will bring year-round visitors to the eastern approaches of the Mount Sir Wilfred Laurier massif with access to Mount Arthur Meighen via Mount Pierre Elliot Trudeau.

Implementation of the Robson Valley Land and Resource Management Plan (LRMP) in 1999 resulted in the establishment of new parks and protected areas across the TSA over the years that followed the LRMP's implementation. Currently there are 291,255.0 ha (20% of the gross area of the TSA) reserved in parks and protected areas (Table 1).

Other changes on Crown land included the establishment of legally protected mountain caribou areas under the Omineca U-7-003 Ungulate Winter Range (UWR) Order in 2009. The spatially designated mountain caribou UWR areas cover 163,981.4 ha (10% of the TSA). General wildlife measures are defined in the order and include provisions for modified or no harvesting, as well as considerations for other land uses (e.g., mineral exploration).

There have been few areas of Crown land converted to private and other types of long-term leases, which changes the land use of areas, most often located close to communities. This shift in land use is particularly important with regard to management of established wildlife movement corridors, and the potential impacts these ecosystems and habitats may experience as a result of new management regimes and objectives.

Although agriculture is an important source of livelihood, forestry is the single most important sector in terms of economic and social impacts and is a significant source of employment and income in the Robson Valley (TSR, 2016). Historically, mining and energy developments have not been significant in the Robson Valley's economy, and as a result, the impact on the land base is minor.

The forestry sector has seen fluctuations over the years with mills closing in 2006 in Valemount and McBride, as well as the establishment of the Community Forest Agreements (CFAs) in Valemount (K2T and K5Q), McBride (K1H) and Dunster (K3O) from 2007 to 2014. A First Nations Woodland Agreement (NC3) was established in 2019. The Valemount Community Forest (K5Q) acquired an old mill site in 2014, now called the Valemount Industrial Park, which has been encouraging economic growth and promoting local jobs in recent years.

Several alternative energy source projects have been proposed in the TSA over the years, however, they have not materialized to any formal applications or developments. This includes several run-of-river independent power projects that were unsuccessful due to the lack of a high-power transmission line into the valley to export power. Pipelines have also been discussed in the TSA but have not been formally proposed. Development of these alternative energy sources can impact OGMAs by dissecting large patches of primary old growth forest and affecting interior old growth forest habitat conditions by increasing edge effect and associated impacts.

### 2.2.2 Forest Harvesting

The Robson Valley TSA is a challenging land base for the forest industry. Outside of the trench areas, most forest harvesting involves high operating costs due to the rugged and steep terrain, causing difficult logging and road building, and increased hauling costs from a general lack of local large-scale processing facilities. As a result, significant areas in the TSA remain undeveloped as these areas were historically considered operationally inaccessible. Due to the geography of the TSA, harvesting pressure occurs in the valley bottoms characterized by mature and old stands in the SBS and ICH.

Forest harvesting generally targets older forests to meet volume allocations identified by the Allowable Annual Cut (AAC) determination. In 2014, the AAC for the Robson Valley TSA was set to 400,000 $m^3$ (as per the 2014 Rationale for AAC Determination) and was adjusted to 363,599 $m^3$ in 2016 (Robson Valley TSA – Province of British Columbia, 2023).

Harvesting the forested stands adjacent to old growth forests and OGMAs can have a direct impact on the structure and function of the adjacent old growth forest habitat by increasing the amount of edge forest (Bezzola and Coxson, 2020). Edge effects from forest harvesting can increase risk of blowdown, invasive species and alter climatic conditions to adjacent ecological communities (i.e., increased light). Forest harvesting patterns can contribute to a fragmented landscape and isolation of OGMAs from other old growth forest patches and reduce connectivity to areas of high biodiversity (e.g., wetland complexes). This can reduce the long-term resiliency of these ecosystems and ability to adapt to natural disturbance and climate change (Coxson and Werner, 2019).

In the Robson Valley TSA, the OGMA establishment process was developed using the guidance in the Landscape Unit Planning Guidebook (LUPG, 1999), which focused on limiting the impact of biodiversity and old growth management on the timber supply in the TSA. This meant that the OGMAs were required to be co-located with other non-harvestable designations on the landscape (e.g., Parks, UWR) and to avoid operable timber harvesting ground. The impact of the co-locating policy (LUPG) for all non-timber values is yet to be fully understood, especially how it relates to the representation and distribution of old growth forest across the landscape. However, the Independent Old Growth Strategic Panel Report (Gorley & Merkel, 2020) has recommended a paradigm shift away from the timber-centric policies of old growth management in the province.

### 2.2.3 Natural Disturbances

The Robson Valley TSA has a history of wildfires that may have resulted in large-scale shifts in seral stage distribution and ecosystem composition within many LUs (Table 5). Seral stage is based on the ages reflected in the VRI (see Section 2.1.4). However, shifts in the age classification of a forested polygon due to natural disturbances (including pests and wildfires) may not be reflected in the VRI post disturbance, unless the area has been harvested or re-inventoried. This may result in an over-estimation of old and mature forest in LUs impacted by natural disturbance, especially wildfires.

As a result, the VRI may not reset the ages of the impacted stands post-disturbance, and this CE old growth assessment cannot report on changes to seral stage distribution due to natural disturbances at this time.

The following table provides an overview of the area affected by wildfires in the Robson Valley TSA by Landscape Unit from early 1900s to late 2000s based on the wildfire data source in the BC Geographic Warehouse. This is presented for information only and may not reflect the complete record of all wildfires in the TSA.

***Table 5.*** *Area Affected by Wildfire in Robson Valley TSA by LU.*

| Landscape Unit | Total Fire Area (ha) | Landscape Unit | Total Fire Area (ha) |
|---|---|---|---|
| Canoe | 30,458 | Hugh Allan | 14,948 |
| Castle | 16,666 | Kiwa-Tete | 2,760 |
| Crescent Spur | 4,936 | McBride-Dunster | 102,323 |
| Dawson | 4,950 | Milk | 2,681 |
| Dore | 6,660 | Mount Robson | 18,311 |
| East Kinbasket | 2,825 | Northern Trench | 5,995 |
| East Twin-McKale | 626 | Raush | 4,858 |
| Forgetmenot | 1,612 | South Trench | 38,872 |
| Foster | 6,093 | Upper Morkill | 2,378 |
| Goat | 179 | West Kinbasket | 2,378 |
| Holmes | 96,243 | | |
| Horsey-Small | 1,076 | | |
| | | **Total** | **367,828** |

### 2.2.4 Climate Change

A key area of uncertainty is climate change and the potential rate, amount and specific characteristics of climate change impacts that can be anticipated. Significant changes have occurred in the Omineca Region over the historical record and are projected to continue to change, but at a more rapid rate than previously experienced (Foord, 2016). Climate projections show increases in temperatures almost double those of the past century, however, projections for precipitation are less clear and show marginal annual increases.

From 1914 to 2008, the climate trend in the Robson Valley shows an increase in mean annual temperature by 0.6°C, with significant increases in extreme maximum temperatures (e.g., spring increases of 1.9°C), as well as increases in minimum temperatures, with the most pronounced changes in the spring (2.2°C) and summer (1.5°C) seasons. Winters have warmed the least in the Robson Valley TSA compared to the whole Omineca Region, with no significant trend. Precipitation has also increased during this period, with an annual increase of 14.5% and some seasonal variation, however, the largest increase of precipitation occurred in the spring and summer seasons (22%) (Foord, 2016).

Forests are vulnerable where the natural disturbance regime is projected to change, for example, from a gap-dynamic dominated system to a frequent stand-replacing disturbance regime. In addition, increased temperatures may result in more frequent and longer insect outbreaks that pose a higher risk to increasingly drought-stressed stands. Tree mortality may increase as a result of increased forest health concerns and exacerbated by drought stress and severe disturbance events (e.g., catastrophic wildfire, windstorms). Increased precipitation may result in more frequent and more intense tree infection by forest pathogens, adding to tree stress. Extreme weather events will increase the risk of flooding and potentially trigger mass movements in steep terrain, particularly during rapid melt periods. Given the complexity of variables, the potential for unanticipated outcomes and cumulative effects is high (Sturrock et al., 2011).

*Fall, Robson Valley – Traci Van Spengen*

# 3 OLD GROWTH FOREST MANAGEMENT IN THE ROBSON VALLEY

In the Robson Valley TSA, old growth forests are managed through three mechanisms: non-spatial legal targets, legal OGMAs, and non-legal OGMAs. Legally established OGMAs occur across 13 LUs, while the non-legal OGMAs occur in two LUs. Refer to Appendix 10 for a complete summary of the old growth targets by AU for the Robson Valley TSA.

Management of mature forests for recruitment into old growth is guided through non-legal policy targets, as defined in the BDG. Management of mature forests for forest biodiversity on the landscape has not been a priority or legally established in the Robson Valley or the majority of the province. The inclusion of mature-plus-old as a CE assessment indicator for old growth provides additional information and clarification on the current condition of forest seral stages[3] that may contribute to old growth values.

More information on old growth management in B.C. is provided in the Old Growth Forest Management in British Columbia: Provincial Backgrounder (WLRS, 2023).

## 3.1. Legal Old Growth Orders

In the Robson Valley TSA, old growth forests are managed through legal old growth orders in three mechanisms:

1. Non-spatial old forest targets legally established through PNOGO (2004)
2. Legal OGMAs established through three legal orders:
    i. Order to Establish the East Kinbasket, West Kinbasket, Hugh Allan, Foster, and Dawson Landscape Unit Objectives (2005);
    ii. Order to Establish the Crescent Spur, Lower Morkill/Cushing, Forgetmenot, Upper Morkill, North Trench, and Goat Landscape Unit Objectives (2006); and
    iii. Order to Establish the Kiwa-Tete and Canoe Landscape Unit Objectives (2006), and
3. Non-legal OGMAs designated under the PNOGO, Section 8.

The PNOGO provides the consistent foundation of non-spatial, legal targets for old growth management in the Robson Valley TSA and remains the legal direction in LUs where there are no legal OGMAs. The non-spatial old forest targets from PNOGO were used to identify and establish legal OGMAs. In the Robson Valley, legal OGMAs were established by legal orders in 2005 and 2006. Where legal OGMAs were established, the PNOGO was rescinded and the specific management objectives detailed in the legal order were established. Non-legal OGMAs are designated through a formal process that resulted in the statutory decision-maker specifying that the non-legal OGMAs meet the intent of PNOGO (Section 8 under the PNOGO, Biodiversity Emphasis and Old Growth Objectives) (Figure 6).

[3] See Section 2.1.4 Seral Stages in the Robson Valley TSA

In the Robson Valley, management through non-spatial old forest targets (PNOGO) occurs in eight LUs across 160,045 ha of CE-CFLB: Cariboo, Castle, Dore, East Twin-McKale, Horsey-Small, McBride-Dunster, Milk, and Raush (Table 6).

Legal OGMAs are established across 235,659 ha of CE-CFLB within 13 LUs: Canoe, Crescent Spur, Dawson, East Kinbasket, Forgetmenot, Foster, Goat, Hugh Allen, Kiwa-Tete, Lower Morkshill/Cushing, Northern Trench, Upper Morkill, West Kinbasket (Table 6).

Non-legal OGMAs are designated in the Holmes and South Trench LUs (in 2005 and 2017, respectively). These LUs cover 86,532 ha of CE-CFLB (Table 6).

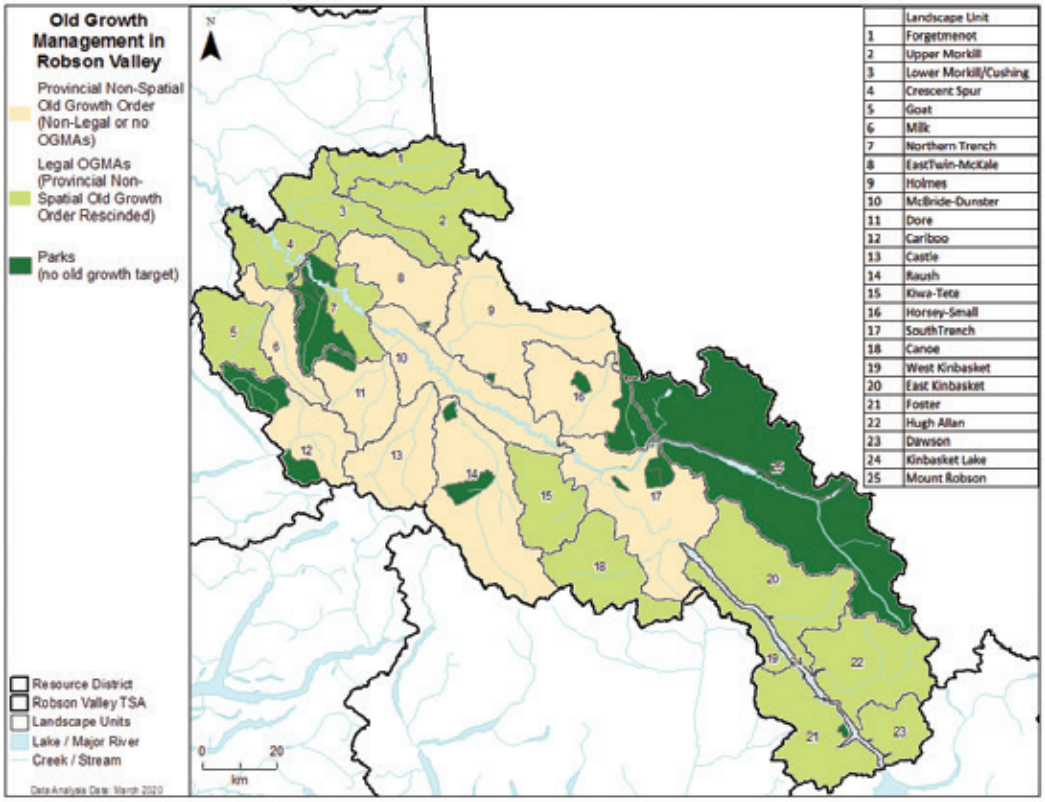



***Figure 6.*** *Locations where Old Growth Forest is Managed by Legal OGMAs and where the PNOGO is the Prevailing Legal Direction (either as Non-Spatial Management or Non-Legal OGMAs) in the Robson Valley TSA.*

In the Robson Valley, a total of 52,939 ha of CE-CFLB with no order for old growth management occurs within the Mount Robson LU, and 54,867 ha of CE-CFLB with no targets occurs within NDT5 (Table 6).

***Table 6.*** *CE-CFLB Area breakdown by Legal Orders for Old Growth Management in the Robson Valley TSA. A total of 107,806 ha (18.3%) has no legal order or targets for old growth and are located within NDT5 or the Mt. Robson LU.*

| Order Type | Landscape Units | Total Area of CE-CFLB in LUs (ha) | % CE-CFLB in LUs |
|---|---|---|---|
| PNOGO | Cariboo, Castle, Dore, East Twin McKale, Horsey-Small, McBride, Dunster, Milk, Raush | 160,045 | 27.1% |
| Legal OGMAs | Canoe, Crescent Spur, Dawson, East Kinbasket, Forgetmenot, Foster, Goat, Hugh Allen, Kiwa-Tete, Lower Morkshill/Cushing, Northern Trench, Upper Morkill, West Kinbasket | 235,659 | 39.9% |
| PNOGO (Non-legal OGMAs) | South Trench, Holmes | 86,532 | 14.7% |
| No Order | Mt. Robson | 52,939 | 9.0% |
| No Order | NDT5 (not shown on map) | 54,867 | 9.3% |
| **Total** | | **590,042** | **100%** |

### 3.1.1 Old Growth Forest Targets

For the Robson Valley TSA, the old growth forest targets used to guide the amount of old growth forest required in legal and non-legal OGMAs originated from the PNOGO. Old growth forest targets are set in PNOGO by LU for each NDT, BEC and BEO combination and age-based definition in the Robson Valley (Table 7). There is no NDT4 in the Robson Valley TSA, and NDT5 has been excluded as no targets are established for alpine tundra and subalpine parklands. In the TSA, this includes the BAFAun, ESSFmmp, ESSFwcp, and IMAun BEC variants.

*Old growth, Robson Valley*

The PNOGO includes the option to reduce old growth forest retention in LUs with Low BEO by up to 2/3, and full targets do not need to be met for 240 years, as a means to avoid impacting timber supply.[4] This 2/3 "drawdown" is described in the LUPG with the intent that full targets will be achieved by the end of the third rotation. **In the Robson Valley reporting, OGMAs were designated to full targets, and this assessment applied full targets to all LUs with low BEO designation.**

***Table 7.*** *Old Growth Forest Targets (%) by BEO and Age Definition of Old Growth Forest from the PNOGO in the Robson Valley TSA.*

| Natural Disturbance Type (NDT) | BEC zone | PNOGO Target: % Old Growth Forest Retention | | | Old Forest Age Definition (years) |
|---|---|---|---|---|---|
| | | Low BEO | Intermediate BEO | High BEO | |
| **NDT1** | ESSF | 19 | 19 | 28 | >250 |
| | ICH | 19 | 13 | 28 | >250 |
| **NDT2** | ESSF | 9 | 9 | 13 | >250 |
| | ICH | 9 | 9 | 13 | >250 |
| | SBS | 9 | 9 | 13 | > 250 |
| **NDT3** | SBS | 11 | 11 | 16 | >140 |

[4] Implementation of the BDG was limited to a 4% impact on provincial timber supply as outlined in the 1996 Forest Practices Code Timber Supply Analysis. The old growth forest targets in the BDG were a negotiated outcome that deviated from expected natural conditions. Impacts to timber supply were further tempered by directing assignment of BEOs to each LU based on a distribution of 45% in Low BEO, 45% in Intermediate BEO, and 10% in High BEO.

### 3.1.2 OGMA Incursions & Amendments

It is common for OGMAs to have historic anthropogenic incursions and natural disturbances included within the OGMA boundary at the time of legal establishment.[5] Natural disturbances such as fires, insects, pathogens, and wind will alter forest stand composition within OGMAs over time. These changes are expected to be most evident in ecosystems with frequent stand-initiating events (NDT3); however, disturbances will naturally occur in all ecosystems.

There are several reasons why incursions into OGMAs are expected due to forest management practices, which include:

- Response to natural disturbance agents to control forest health threat within OGMA to adjacent areas.
- Field checking and verification of OGMA forest conditions and boundaries may not have been completed at time of establishment. Operational adjustments to OGMA boundaries may be required to align with the geographic features.
- Access issues that were unknown at the time of OGMA delineation (e.g., develop safe routes, to access timber beyond the OGMA where no other practicable option exists), as well as to improve access to non-forest resources (e.g., independent power projects, oil and gas, mining, and commercial tourism).
- Result of forestry-related activities, such as requests to improve layout of cutblock boundaries or to address operational considerations that were not known at the time of OGMA delineation.
- New or improved mapping data or information (e.g., more accurate VRI, BEC, wildlife mapping) may warrant minor adjustments to OGMA boundaries that improves value of the OGMA.

Allowable OGMA incursions and amendments are managed through the legal orders (see Section 3.1.3) and Regional OGMA amendment policies. **In the Robson Valley legal OGMA Orders, there are objectives that allow incursions for very specific reasons up to 10% of an OGMA less than 50 ha (equivalent to a maximum of 5 ha), or 5% of an OGMA greater than 50 ha.**

The best available Information to guide the Robson Valley TSA and the Omineca Region more broadly regarding OGMA amendment and replacement process is provided in the *OGMA Amendment Policy for the Mackenzie Natural Resource District (January 2015)*. This policy states that all incursions into OGMAs must have an ecologically suitable replacement unless the adjustment to the OGMA is to accommodate mapping errors or operational adjustment less than 1.0 ha in size.

In this assessment, all incursions were included in assessment results, including those that may have existed when the OGMA was established. It was not possible to remove disturbances and incursions that occurred prior to OGMA establishment from the analysis, because the disturbance date was absent in some of the available data. Consequently, this may skew the assessment results to show incursions that were known and accepted at time of OGMA establishment. At the very least, all OGMA incursion should trigger further inquiry.

[5] The Interim Old Growth Assessment Protocol defines incursions as anthropogenic (human caused) disturbance footprints that are within the legal or non-legal OGMA boundary. These can include roads, cutblocks and oil and gas developments. Natural disturbances such as fire, insect and wind event are not to considered incursions under this assessment.

### 3.1.3 Objectives in Legal OGMA Orders

The legal OGMA Orders for LUs in the Robson Valley provide three objectives with intent to ensure that old forest biodiversity is maintained at the LU/BEC scale:

1. Thresholds for allowable incursions to accommodate operational adjustments, mapping errors, and management of forest health concerns (e.g., sanitation harvesting).

2. Expectations that the distribution of old forests for each LU/BEC will be maintained in OGMAs:

   All OGMA incursions require an evaluation by a qualified professional and potential replacement if the incursion exceeds operational flexibility or the ecological integrity of the OGMA has been impacted due to the disturbance. The evaluation assesses whether the OGMA can continue to meet old growth forest objectives for biodiversity after the disturbance; if not, then a suitable replacement OGMA is established. Replacement OGMAs must be equal to or greater in size than the incursion in the original OGMA, as well as equal or better quality than the original OGMA based on old growth forest attributes understood to be important for biodiversity conservation.

   No-harvest areas like parks and protected areas and spatial habitat designations within the TSA (e.g., UWR), count towards meeting the old forest targets in that LU. These areas are included in the assessment results and as part of the CE-CLFB. **However, reporting on how much of these specific, co-located designations contribute towards meeting targets is not provided in this report.**

3. Objectives for wildlife corridors:

   There are objectives for wildlife corridors on specified waterbodies that required enhance riparian management zones. **The current condition of the wildlife corridors and how they contribute to the old growth legal targets and OGMAs is not provided in this report.**

More information on the specifics related to objectives in legal OGMA Orders is available from the Robson Valley Sustainable Resource Management Plans website.

## 3.2 Non-Legal Old Growth Policy

Mature-plus-old forest targets are not legal requirements in the Robson Valley TSA. The BDG provides policy targets used in this assessment. Even though mature-plus-old policy targets are not legally required, an assessment is provided to better understand the current state of mature forest and where it may be available for recruitment to achieve old forest targets, particularly where old forest is poorly represented, or OGMAs may need to be replaced.

Provincial direction under the LUPG prioritized the management of old growth forest value. Consequently, mature-plus-old targets were not considered or managed for in the Robson Valley at the time when legal orders were established. For this report, analysis included mature-plus-old to better inform the current condition of old growth in AUs and clarify the opportunities for recruitment.

### 3.2.1 Mature-plus-Old Targets

Mature-plus-old forest policy targets are set in the BDG by LU for each NDT, BEC and BEO combination, with targets defined by forest age (Table 8). Targets are incremental to old forest targets; additional old forest can be substituted for mature forest to meet targets, but mature forest cannot be substituted for old forest without an approved recruitment strategy. Younger stands may be used to meet old or mature-plus-old targets provided they have sufficient biological value. **However, this assessment does not report on the ecological and biological effectiveness of these younger stands that may be contributing to mature-plus-old targets.**

As with the old growth forest targets, Table 8 only includes the BEO/BEC/NDTs that have targets provided in the orders. There is no NDT4 in the Robson Valley TSA, and NDT5 has been excluded as no targets are established for alpine tundra and subalpine parklands.

***Table 8.*** *Mature-plus-Old Forest Policy Targets (%) by BEO and Age Definition of Mature Forest (includes old forest) from the Biodiversity Guidebook in the Robson Valley TSA.*

| Natural Disturbance Type (NDT) | BEC zone | Policy Target: % Mature-plus-Old Retention | | | Mature Forest (includes Old Forest) Age Definition (years) |
|---|---|---|---|---|---|
| | | Low BEO | Intermediate BEO | High BEO | |
| **NDT1** | ESSF | 19 | 36 | 54 | >120 |
| | ICH | 17 | 34 | 51 | >100 |
| **NDT2** | ESSF | 14 | 28 | 42 | >120 |
| | ICH | 15 | 31 | 46 | >100 |
| | SBS | 14 | 28 | 42 | > 100 |
| **NDT3** | SBS | 11 | 23 | 34 | >100 |

# 4 CURRENT CONDITION ASSESSMENT METHODOLOGY

The CEF *Interim Assessment Protocol for Old Growth Forest in British Columbia* (FLNRORD, 2017) provides a foundation for a provincially consistent approach to assessing the current condition of old growth forest in B.C. The methodology, data sources, assumptions and limitations for these assessments are provided in the protocol, as well as the Old Growth Forests in British Columbia: Provincial Cumulative Effects Assessment Backgrounder.

Consolidating all resource developments was necessary to assess the current condition of old growth on the landscape. As such, consolidated disturbance layers were developed specifically to address cumulative effects on all provincial CEF values, including old growth and forest biodiversity.

This current condition assessment of old growth uses the 2019 BC Cumulative Effects Human Disturbance with Baseline Thematic Mapping (BTM) dataset (also known as 2019 CE Human Disturbance Layer), and the 2019 BC Cumulative Effects Integrated Road dataset (also known as 2019 CE Road Layer). These datasets were consolidated from publicly accessible data repositories, mainly from the BC Geographic Warehouse (BCGW).

The assessment indicators for old growth and mature-plus-old forests are used in a non-spatial assessment to produce quantitative results that highlight the current condition of old growth compared to legal or policy targets. **The non-spatial area (ha) of old growth forest is a numerical reporting that does not reflect the ecological integrity of the old growth forest biodiversity in the AU. Further inquiry into the ecological integrity and function of the remaining old growth forest is recommended**

## 4.1 Assessment Indicators

The current condition of old growth forest in the Robson Valley TSA was assessed using the four established CEF indicators (Table 9). Each indicator provides specific information to inform the assessment of the current condition of old growth forest in the CE-CFLB. For more detailed information on how the CE-CFLB was developed for the Robson Valley TSA, refer to Old Growth Forests in British Columbia: Provincial Cumulative Effects Assessment Backgrounder (WLRS, 2023).

An additional assessment of the amount of old growth in OGMAs and the proportion of this old growth that meets the PNOGO target is also reported to provide the current condition of OGMAs.

The results from this assessment are reported by AU and at multiple scales that combine LU, BEO, NDT and BEC to the subzone and/or variant for all indicators (Table 9).

***Table 9.*** *Old Growth Forest Indicators used to assess the Current Condition of Old and Mature-plus-Old Forest Retention (amount), Incursions into OGMAs, and the Current Condition of Old Growth in OGMAs in the CE-CFLB. This is reported by AU for the Robson Valley TSA.*

| Indicator | Assessment Questions |
|---|---|
| **Current Condition of Old Growth Forest Retention** | |
| **Amount of Old Growth Forest** | • *What is the current amount of old growth forest in the CE-CFLB? Where is old growth forest located on the land base?*<br>• *Which AUs meet the legal targets for old growth forest?*<br>• *Which AUs are flagged for further consideration?*<br>• *What are some of the possible reasons for the current condition?* |
| **Amount of Mature-plus-Old Forest** | • *What is the current amount of mature-plus-old forest in the CE-CFLB? Where is mature-plus-old forest located on the land base?*<br>• *Which AUs meet the policy targets with mature-plus-old forest?*<br>• *Which AUs are flagged for further consideration?*<br>• *What are some of the possible reasons for the current condition?* |
| **Incursions into Old Growth Management Areas (OGMAs)[6]** | |
| **Incursions into Legal OGMAs and Non-legal OGMAs** | • *Are there anthropogenic incursions in OGMAs? What is the current amount of incursion into OGMAs in the CE-CFLB?*<br>• *Do incursions exceed the order threshold?*<br>• *What is the type of incursion into OGMAs?*<br>• *What is the magnitude of incursions into OGMAs (total % incurred)?* |
| **Current Condition of Old Growth Management Areas (OGMAs) – additional indicator[12]** | |
| **Amount of Old Growth Forest in Legal and non-legal OGMAs** | • *What is the current amount of old growth forest in OGMAs in the CE-CFLB? What is the seral stage breakdown? Where is old growth forest located within OGMAs?*<br>• *Which OGMAs meet and do not meet PNOGO targets by BEC subzone and/or variant within each LU?* |

[6] For this assessment indicator, incursions into OGMAs are defined as anthropogenic disturbance footprints resulting from resource development activities and do not include natural disturbance like wildfires and insects.

## 4.2 Assessment Units

Assessment units (AUs) are defined by combinations of LU, BEO, NDT and BEC to the subzone and/or variant. There are 85 AUs used for this CE assessment in the Robson Valley TSA. These units reflect the scale at which legal and policy targets for old growth retention are applied (e.g., in PNOGO and the BDG). In this report, these assessment units are used to report out on the current state of old growth forests on the CE-CFLB (as per the indicators described in Section 4.1). This report summarizes the AU results by LU, as well as by BEO category and BEC subzone/variant to aid in understanding the current state of old growth at those scales.

A gradient colour scale is used to illustrate the current condition of the old growth forest and mature-plus-old forest indicators (Table 10).

***Table 10.*** *Colour Scale for Interpreting Current Condition Maps and Old Growth and Mature-plus-Old Forest Target Status Categories as a percentage of PNOGO or Policy Targets Met.*

| Gradient Scale for Old Growth Forest Indicator: Legal Targets | Gradient Scale for Mature-plus-Old Forest Indicator: Policy Targets | Indicator Condition Interpretation | Current Condition Status (% of Target Met with Old or Mature-plus-Old Forest) | Analysis Definition (% of Target Met with Old or Mature-plus-Old Forest) |
|---|---|---|---|---|
| | | Below Target | 0 – 30% | 0 – 29.99% |
| | | Below Target | 30 – 50% | 30 – 49.99% |
| | | Below Target | 50 – 75% | 50 – 74.99% |
| | | Below Target | 75 – 100% | 75 – 99.99% |
| | | Target Met | 100 – 110% | 100 – 109.99% |
| | | Above Target | 110 – 125% | 110 – 124.99% |
| | | Above Target | 125+% | 125+% |

# 5 ASSESSMENT RESULTS

This section presents the assessment results for each indicator by AU and summarizes the AU results at multiple scales and combinations of LU, BEO, NDT and BEC through maps and tables, followed by regional commentary to support further discussion. Many of the tables presented in this section have additional information available in the Appendices. The regional commentary interprets the meaning of results, supporting numerical data, possible contributing or causal factors, and limitations. The amount and age of old and mature forests is derived from the provincial BCGW VRI dataset (data extracted in 2019). **The results and discussion are based on the data and information at the time of the assessment (2019). Any activities or disturbances that have occurred after 2019 are not captured in this assessment.**

The results of the current condition reporting for old growth are not a determination or judgement of compliance or non-compliance with legal orders. These assessments are providing an interpretative reporting of current condition based on indicators and thresholds as guided by legal orders or policy. With the limitations of the assessment, it is possible that the amount of old growth for an AU could be overestimated or underestimated.

A table summarizing the denominator (total area considered (ha)) for each indicator is presented in Appendix 1 (Table 31).

# 5.1 Amount of Old Growth Forest

This non-spatial indicator determines the current amount of old growth forest as compared to the targets within each AU in the CE-CFLB. For the Robson Valley, the PNOGO was used as the default legal order to support this assessment. Refer to Table 7 for the age-based definitions of old growth. Appendix 8 provides a complete listing of the old growth targets (%) applied to each AU (by LU and BEC) to determine the current condition.

## 5.1.1 Total Amount of Old Growth Forest in the CE-CFLB

Areas of the CE-CFLB with greater than 50% old growth forest are located in small portions across the TSA (Figure 7). In the CE-CFLB, the highest percentages (greater than 70%) of old growth exists in the Cariboo and Foster LUs. The McBride-Dunster, Forgetmenot, Holmes, and Mount Robson LUs all show large areas with less than 10% old growth forest remaining.

A detailed table summarizing the current amount (ha) of old growth and mature-plus-old in the CE-CFLB by LU/BEC AUs can be found in Appendix 2 (Table 32).

Provincial parks have been included because the presence of old growth forests in these areas contributes to the overall current condition of old growth forests in the CE-CFLB. However, Robson Valley Provincial Park is unique because it is an individual LU (Mount Robson LU) and therefore no targets are applied. As a result, Mount Robson LU is included in reporting the total amount of old growth forest on the CE-CFLB (Figure 7) but not included in the old growth and mature-plus-old indicator assessment comparing amount to legal and policy targets. The total CE-CFLB area without targets is 107,806 ha, of which 54,867 ha occurs in NDT5 and 52,939 ha occurs in Mount Robson LU (Table 6).

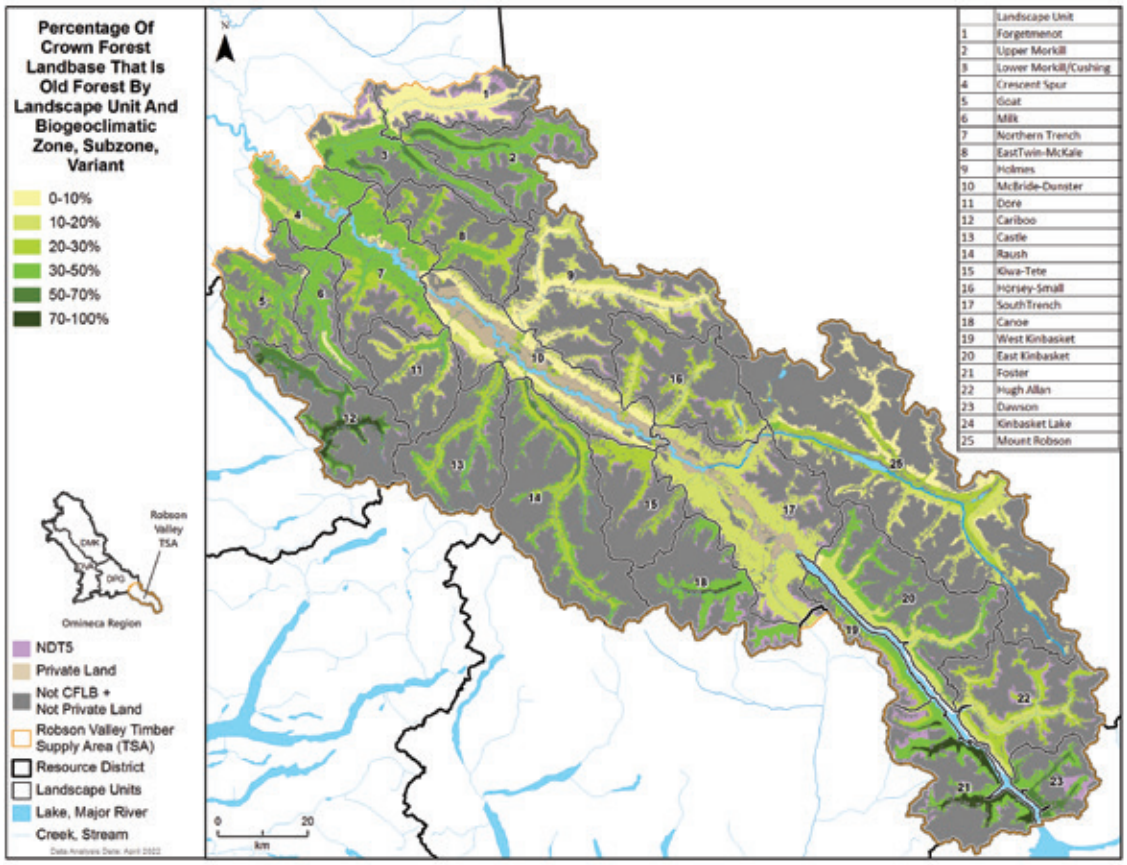



***Figure 7.*** *Current Percent of Old Growth Forest in the CE-CFLB by AU. Mount Robson Provincial Park is included in the map as it contributes to old forest current condition in the CE-CFLB.*

### 5.1.2 Overview of Assessment Units Compared to PNOGO Targets

This section of the report provides a high-level summary of old growth assessment results compared to legal PNOGO targets by AU (LU and BEO) and management approach (legal OGMAs, non-legal OGMAs, no OGMAs) for the Robson Valley.

Of the total CE-CFLB area of 590,042 ha, targets have been assigned to 482,236 ha (Table 11). The total amount of old growth forest in the CE-CFLB is 141,455 ha (24% of the CE-CFLB), of which 47%, 41% and 6% is located within LUs assigned as Low, Intermediate, and High BEO, respectively (Table 11). In the Robson Valley CE-CFLB, one LU is assigned as High BEO (Crescent Spur LU). This LU contains 4% of total CE-CFLB area and 6% (8,635 ha in High BEO) of the total old growth area in the CE-CFLB (141,455 ha).

The BDG policy guidance[7] suggests that 45% of forest area be assigned as Low BEO (within a range of 30-55%), 45% of forest area assigned as Intermediate BEO (35-60%), and 10% of forest area assigned as High BEO (no range provided). In the Robson Valley TSA, the proportion of the total CE-CFLB area assigned as Low, Intermediate and High BEO is approximately 40%, 46%, and 4%, respectively, and the remaining CE-CFLB (~9%) has no BEO assigned (Table 11). Currently, the amount of CE-CFLB assigned to High BEO (4%) in the Robson Valley is less than the recommended BDG (1995) target of 10%. This equates to 34,090 ha of CE-CFLB area below the policy recommendation for High BEO.[8]

***Table 11.*** *Distribution of BEO and Amount of Old Growth Forest in the CE-CFLB for the Robson Valley TSA. The column with no BEO is the Mount Robson LU where no old growth targets are assigned. The gross area of the TSA is 1,458,550 ha. This table does not report the 140,914 ha associated with Kinbasket Lake LU because there is no BEO or NDT assigned to this LU. The area of CE-CFLB with targets is 482,236 ha, and the CE-CFLB area without targets is 107,806 ha (54,867 ha occurs in NDT5 and 52,939 ha occurs in Mount Robson LU (Table 6)).*

| | Robson Valley TSA | Biodiversity Emphasis Options (BEOs) in the CE-CFLB | | | |
|---|---|---|---|---|---|
| | | High BEO | Intermediate BEO | Low BEO | No BEO |
| **# of Landscape Units (LUs)** | 25 | 1 | 9 | 13 | 2 |
| **Gross TSA Area (ha)[9]** | 1.45 million | 32,043 | 564,336 | 577,111 | 144,145 |
| **Total CE-CFLB Area (ha)** | 590,042 | 24,914 | 273,555 | 238,632 | 52,939[10] |
| **% Area of Total CE-CFLB[11]** | 100% | 4% | 46% | 40% | 9% |
| **CE-CFLB Area (ha) with Targets** | 482,236 | 24,727 | 244,550 | 212,959 | 0 |
| **Old Growth Forest CE-CFLB Area (ha)** | 141,455 | 8,635 | 58,607 | 66,759 | 7,453 |
| **% of Old Growth Forest in CE-CFLB by BEO Designation** | 24% | 6% | 41% | 47% | 5% |

[7] Table 1, page 8 of the BDG states "Table 1 illustrates the proportion of the area of a subregional planning unit that should fall under higher, intermediate, or low biodiversity emphasis. These percentages apply to the provincial forest within the subregional planning unit." For the purposes of this report, the CE-CFLB area within each LU is assumed as the area of provincial forest within the subregional planning unit.

[8] The BDG target for High BEO is 10% of the CE-CFLB area, which equates to 59,004 ha. Currently, only 4% (24,914 ha) is assigned to High BEO in the Robson Valley. This results in a difference of 34,090 ha under recommended target. Further, 34,090 ha divided by the area equivalent of the 10% BDG target (59,040 ha) results in the 58% less area assigned to High BEO than recommended in the Robson Valley.

[9] The gross TSA area is provided for information only for context.

[10] Area (ha) of CE-CFLB without targets or BEO designation located within Mount Robson LU.

[11] For the purposes of CE current condition reporting, the percentage of CE-CFLB (forest area) area assigned to each BEO is reported rather than using the gross TSA area (BDG).

Table 12 shows the status of old growth forest as compared to the non-spatial PNOGO targets for all LUs. In the Robson Valley, LUs can contain legal OGMAs, non-legal OGMAs or no OGMAs at all. AUs with less than 100% of the PNOGO target are considered to be in deficit of old growth forest. It is important to note that PNOGO has been rescinded in LUs with legal OGMAs (i.e., is no longer the legally applicable), as OGMAs are intended to meet PNOGO targets. This comparison of OGMA area (ha) and amount of old growth within OGMAs (ha) to the PNOGO target is useful to provide an indication of how well that intention is being met.

Of the 85 AUs in the Robson Valley TSA, currently 70 (82%) have sufficient amounts of old growth forest compared to the defined targets, while the remaining 15 units (18%) have not met the defined targets with old growth forest (Table 12).

Of the 23 LUs in the Robson Valley TSA, 13 LUs (56%) currently have sufficient amounts of old growth forest in all AUs compared to the established targets, and 10 LUs (43%) do not have enough old growth in some AUs within the LU to meet the targets (Table 12). Of the 10 LUs not meeting target:

- Six LUs contain legal OGMAs (East Kinbasket, Forgetmenot, Goat, Kiwa-Tete, Lower Morkill/Cushing, and Northern Trench),
- One LU contains non-legal OGMAs (Holmes),
- Three LUs currently have no spatial OGMAs established (Horsey-Small, McBride-Dunster, and Milk).

***Table 12.*** *Summary of the Old Growth Assessment Results compared to PNOGO Targets by AUs (LUs and BEO). AUs with less than 100% of the PNOGO target are considered to be in deficit of old growth forest.*

| Assessment Unit (AU) | | Total # Assessment Units (AUs) | # of AUs meeting Old Growth Targets under PNOGO | % of AUs meeting Old Growth Targets |
|---|---|---|---|---|
| **Landscape Unit (LU)** | **BEO** | | | |
| **LUs with Legal OGMAs (PNOGO provides target reference)** | | | | |
| **Canoe** | Low | 3 | 3 | 100% |
| **Crescent Spur** | High | 5 | 5 | 100% |
| **Dawson** | Low | 4 | 4 | 100% |
| **East Kinbasket** | Low | 3 | 2 | 67% |
| **Forgetmenot** | Intermediate | 3 | 1 | 33% |
| **Foster** | Low | 4 | 4 | 100% |
| **Goat** | Intermediate | 4 | 3 | 75% |
| **Hugh Allan** | Intermediate | 3 | 3 | 100% |
| **Kiwa-Tete** | Low | 3 | 2 | 67% |
| **Lower Morkill/Cushing** | Intermediate | 5 | 3 | 60% |
| **Northern Trench** | Intermediate | 6 | 5 | 83% |
| **Upper Morkill** | Intermediate | 3 | 3 | 100% |
| **West Kinbasket** | Low | 3 | 3 | 100% |
| **Sub-total** | | **49** | **41** | |
| **LUs with Non-Legal OGMAs (PNOGO provides legal targets)** | | | | |
| **Holmes** | Intermediate | 4 | 1 | 25% |
| **South Trench** | Intermediate | 3 | 3 | 100% |
| **Sub-total** | | **7** | **4** | |
| **LUs with No OGMAs (PNOGO provides legal targets)** | | | | |
| **Cariboo** | Low | 5 | 5 | 100% |
| **Castle** | Low | 3 | 3 | 100% |
| **Dore** | Low | 3 | 3 | 100% |
| **East Twin-McKale** | Low | 3 | 3 | 100% |
| **Horsey-Small** | Low | 3 | 2 | 67% |
| **McBride-Dunster** | Low | 5 | 3 | 60% |
| **Milk** | Low | 4 | 3 | 75% |
| **Raush** | Intermediate | 3 | 3 | 100% |
| **Sub-total** | | **29** | **25** | |
| **Total** | **23 LUs** | **85 AUs** | **70** | **82%** |

### 5.1.3 Current Condition of Old Growth Forest Compared to PNOGO Legal Targets

The current condition of old growth forest is one of four assessment indicators, and results are presented following the colour scheme and categories as a percentage of PNOGO targets met (Figure 8), as presented in Section 4.

In general, the distribution of old growth forests as compared to targets is uneven, with more old growth in the higher elevations and less in the valley bottoms. There is sufficient old growth forest to meet or exceed targets in 82% of AUs. The AUs with 100-110% of the target amount of old growth occur in Crescent Spur and McBride-Dunster LUs; AUs with 110-125% of the target amount of old growth occur in Crescent Spur, North Trench and Goat LUs (Table 13). In addition, due to the large number of AUs with greater than 125% of old growth targets met, these results are summarized in Appendix 3 (Table 33).

There is insufficient old growth forest to meet targets in 18% of AUs. In the northern half of the TSA and along the trench, there are large areas with 75-100% of the targets met (Forgetmenot LU), 50-75% of the target met (Holmes LU), and 30-50% of the target met (Lower Morkill/ Cushing LU) (Table 13). The areas on the map displaying less than 30% old growth forest compared to the established targets correspond to small AUs, with less than 700 ha of CE-CFLB, and are in the Forgetmenot, Holmes, Horsey-Small, Kiwa-Tete, and McBride-Dunster LUs.

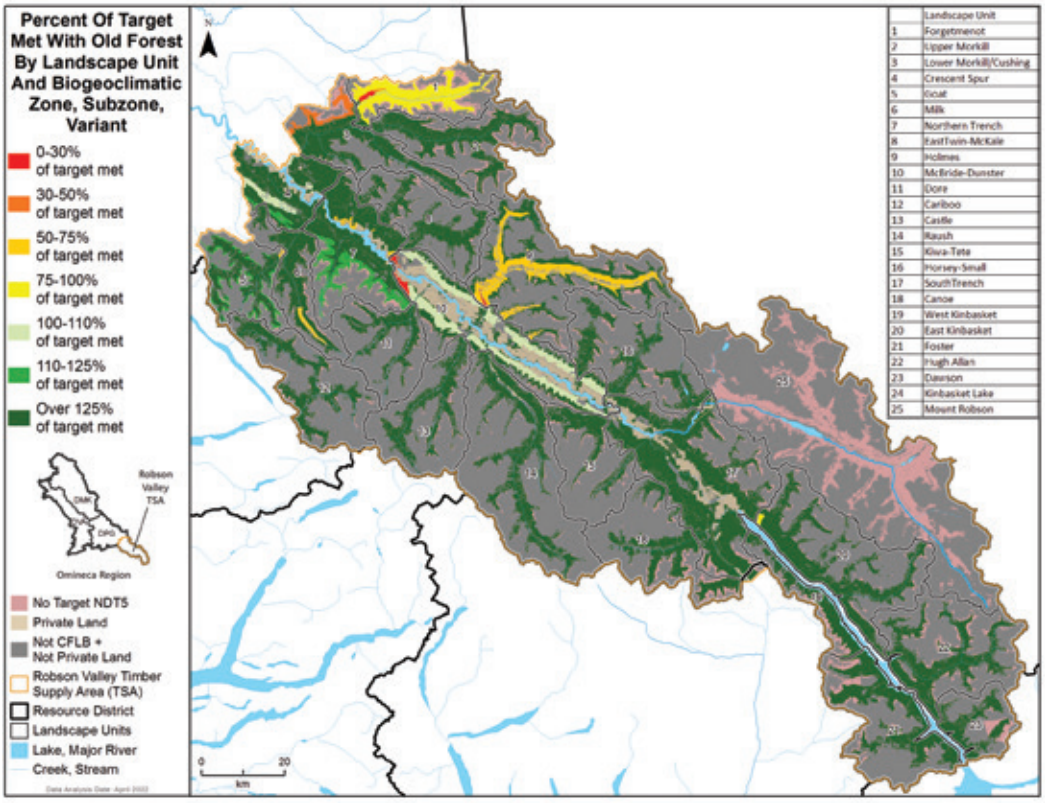



***Figure 8.*** *Current Condition of Old Growth Forest based on the Cumulative Effects Indicator Categories as a percent of PNOGO targets met. Any AUs with less than 100% of the target met are considered to be in deficit of old growth forest.*

With the exception of the Holmes, Forgetmenot, McBride-Dunster, and Lower Morkill/Cushing LUs, the AUs identified as currently having insufficient old growth forest compared to the established targets are small areas of the CE-CFLB (Table 13). It is important to note how the area of LU/BEC influences the resulting indicator reporting. For example, in the 0-30% of target met category, the total CE-CFLB area for the Kiwa-Tete SBSdh1 LU/BEC unit is 1.1 ha. This small amount of area compared to the total CE-CFLB (590,042 ha) influences the ability of this unit to meet the PNOGO target.

The six AUs with 0-30% of the target met are at risk for compromising biodiversity values in those AUs (Table 13). These AUs are primarily in the SBS zone (three AUs in the SBSdh1 and two AUs in the SBSvk), with one AU in the ICHwk3. There are two AUs with 30-50% of the target in old forest, both of which are in the ESSF (the only AU in the ESSFwk2 and one AU in the ESSFwc3). There are five AUs with 50-75% of the target in old forest, two of which are in the ICH (ICHmm and ICHwk3), with the remaining three AUs in the SBSvk. The remaining two AUs have 75-100% of the target in old forest in the ESFmm1 and SBSdh1.

Of the 70 units that have sufficient old growth forest compared to the targets, 16 have more than 400% of the target old growth forest amount (Appendix 5, Table 34). However, several of these units are relatively small (less than 500 ha). In addition, 37 units have between 200 and 400% of the target old growth forest amount. The BEC units with greater than 100% of the target old growth forest amount and more than 1,000 ha CE-CFLB occur in the SBSvk (Upper Morkill and Lower Morkill/ Cushing), SBSwk1 (Cariboo), SBSdh1 (Raush), ICHmm (Canoe), ICHwk1 (Foster), ICHwk4 (Cariboo), and ESSFmm1 (Castle and Upper Morkill).

***Table 13.*** *AUs with Old Growth Amounts of 0-125% of PNOGO Targets. This table is displaying the current condition based on the cumulative effects indicator categories (as a percentage of the PNOGO targets met). Refer to Appendix 3: Table 33 for the AUs where the indicator condition is more than 125% of the PNOGO target.*

| Column Calculations | | | | A | B | C = B/A | D | E = C/D |
|---|---|---|---|---|---|---|---|---|
| Indicator Condition[12] | Assessment Unit (AU) | | | | | | | |
| | BEC | Landscape Unit | BEO | LU/BEC Area in CE-CFLB (ha) | Existing Old Forest Area in AU (ha) | Existing Old Forest in AU (%) | PNOGO Old Forest Target (%) | % of PNOGO Target Met in AU |
| 0 - 30% | SBSdh1 | Kiwa-Tete | Low | 1.1 | 0.0 | 0% | 11% | **0.0%** |
| | SBSdh1 | Horsey-Small | Low | 45.2 | 0.0 | 0% | 11% | **0.0%** |
| | SBSvk | McBride-Dunster | Low | 553.1 | 0.0 | 0% | 9% | **0.0%** |
| | ICHwk3 | McBride-Dunster | Low | 689.1 | 0.2 | 0% | 13% | **0.3%** |
| | SBSdh1 | Holmes | Int. | 196.2 | 1.5 | 0.7% | 11% | **6.8%** |
| | SBSvk | Forgetmenot | Int. | 511.1 | 4.3 | 0.8% | 9% | **9.3%** |
| 30 - 50% | ESSFwc3 | Lower Morkill/ Cushing | Int. | 1,606.1 | 114.9 | 7.1% | 19% | **37.6%** |
| | ESSFwk2 | Lower Morkill/ Cushing | Int. | 1,617.7 | 140.6 | 8.7% | 19% | **45.7%** |
| 50 - 75% | SBSvk | Northern Trench | Int. | 1,218.2 | 63.7.8 | 5.2% | 9% | **58.1%** |
| | ICHmm1 | Holmes | Int. | 9,448.9 | 497.1 | 5.2 | 9% | **58.5%** |
| | ICHwk3 | Goat | Int. | 230.8 | 18.6 | 8.05% | 13% | **61.9%** |
| | SBSvk | Holmes | Int. | 5,870.4 | 340.8 | 5.8% | 9% | **64.5%** |
| | SBSvk | Milk | Low | 912.7 | 564 | 6.1% | 9% | **68.7%** |
| 75 - 100% | SBSdh1 | East Kinbasket | Low | 413.4 | 36.2 | 8.8% | 11% | **79.6%** |
| | ESSFmm1 | Forgetmenot | Int. | 15,548.5 | 1,206.9 | 7.8% | 9% | **86.0%** |
| 100 - 110% | SBSvk | Crescent Spur | High | 3,402.5 | 452.4 | 13.3% | 13% | **102.0%** |
| | ICHmm | McBride-Dunster | Low | 17,418 | 1683.4 | 9.6 | 9% | **107.4%** |
| 110 - 125% | ESSFwk1 | Crescent Spur | High | 1,195.3 | 392.7 | 32.9% | 28% | **117.1%** |
| | ESSFwk1 | Northern Trench | Int. | 3,971.6 | 866.9 | 21.8% | 19% | **114.9%** |
| | ESSFwc3 | Northern Trench | Int. | 4,469.5 | 967.6 | 21.6% | 19% | **113.9%** |
| | ESSFwc3 | Goat | Int. | 4,719.0 | 1,001.0 | 21.2% | 19% | **111.6%** |

[12] See Section 4 for Assessment Indicators, and the colour scheme for categories as a percentage of PNOGO targets met that is applied to current condition results.

Of the CE-CFLB with targets (482,236 ha), 92% (443,373 ha) is meeting or exceeding old growth forest targets; 85% (408,198 ha) of the CE-CFLB has greater than 125% old growth forest compared to the targets (Figure 9). Of the CE-CFLB with targets that does not have enough old growth forest as compared to the PNOGO target, 3% (15,962 ha) falls within the 75-100% target met category, 4% (17,681 ha) falls within 50-75% and 1% is associated with the two indicator categories less than 50% (Figure 9). The total CE-CFLB area without targets is 107,806 ha, of which 54,867 ha occurs in NDT5 and 52,939 ha occurs in Mount Robson LU (Table 6).

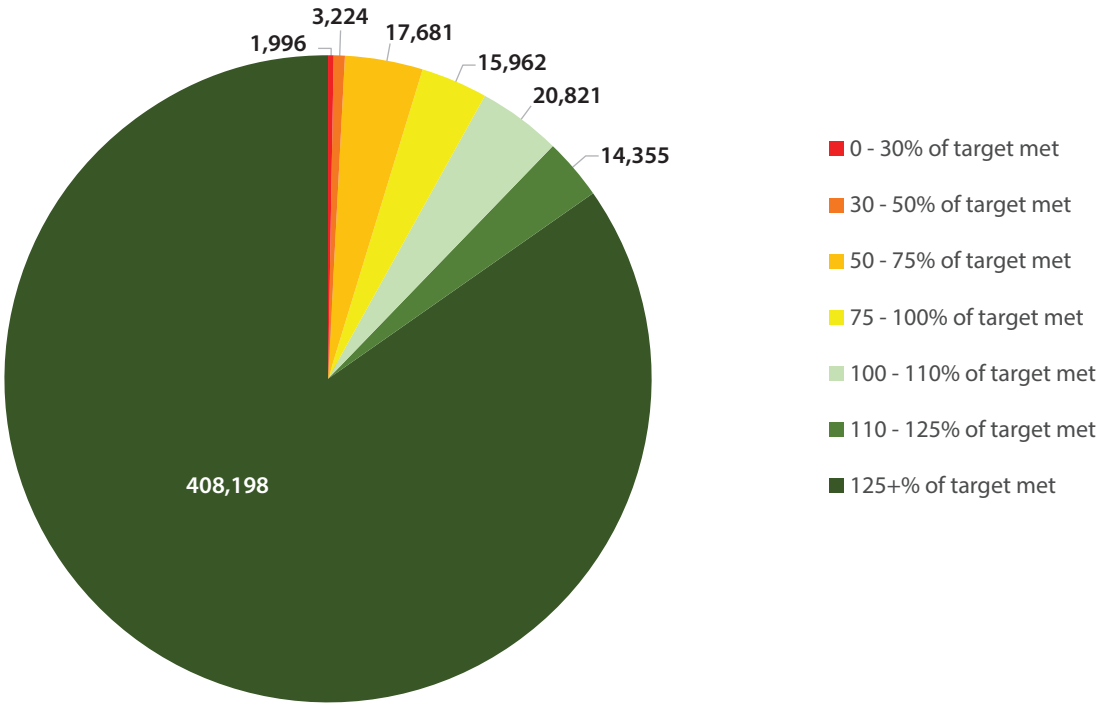



***Figure 9.*** *Distribution of the Amount of Old Growth Forest (ha) in each Indicator Category (as a percentage of PNOGO targets met) in the Robson Valley CE-CFLB with Targets (482,236 ha).*

#### *5.1.3.1 Old Growth Forest and BEO Distribution Compared to PNOGO Targets*

This section provides an overview of the assessment results presented above summarized by the BEO assigned to LUs. The BEO may influence whether there is sufficient old growth forest available to contribute to the established target. The Crescent Spur LU is the only High BEO in the TSA, and all AUs are meeting PNOGO targets (Table 14). However, in the Intermediate and Low BEOs, only 74% and 87%, respectively, have sufficient old growth forest compared to the targets. **The CE assessment for old growth uses the full targets for Low BEO units and does not apply the 2/3 drawdown as allowed under PNOGO.**

Of the total number of AUs, 82% (70/85 AUs) are meeting PNOGO targets for old growth (Table 14). This equates to 92% (443,373 ha) of the CE-CFLB within AUs meeting targets.

***Table 14.*** *AUs by BEO that are meeting the Legal Targets under PNOGO. The area of CE-CFLB with targets is 482,236 ha, and the CE-CFLB area without targets (no BEO) is 107,806 ha. Of this, 54,867 ha occurs in NDT5 and 52,939 ha occurs in Mount Robson LU (Table 6).*

| | Biodiversity Emphasis Options (BEOs) in the CE-CFLB | | | |
|---|---|---|---|---|
| | High BEO | Intermediate BEO | Low BEO | No BEO |
| # Assessment Units (AUs) in BEO | 5 | 34 | 46 | 85 |
| # AUs Meeting PNOGO Target | 5 | 25 | 40 | 70 |
| % AUs Meeting PNOGO Targets | 100% | 74% | 87% | 82% |
| CE-CFLB Area (ha) in AUs with Targets | 24,727 | 244,550 | 212,959 | 482,236 |
| CE-CFLB Area (ha) in AUs Meeting PNOGO Targets | 24,727 | 208,301 | 210,344 | 443,373 |

Of the AUs in the CE-CFLB with assigned BEO, the areas not meeting legal PNOGO targets all occur within the Low and Intermediate BEO categories (Table 15). There are five LUs with Intermediate BEO and five LUs with Low BEO that have AUs with less old growth forest than specified in the PNOGO targets. The total area of CE-CFLB associated with these deficits is 38,862.5 ha, of which 36,247.9 ha is assigned as Intermediate BEO and 2,614.6 ha is assigned as Low BEO.

The majority of total deficit area (81%) occurs in the Forgetmenot (16,059.6 ha) and Holmes (15,515.5 ha) LUs. In the Forgetmenot LU, the ESSFmm1 has the largest area (15,548.5 ha of CE-CFLB) and has 86.0% of the target currently being met. In the Holmes LU, the two BEC subzone/variants with large areas not meeting targets include the ICHmm1 (9,448.9 ha of CE-CFLB) with 58.5% of targets met, and the SBSvk (5,870.4 ha of CE-CFLB) with 64.5% of the target met. The remaining AUs with insufficient old growth forest are relatively small areas compared to the total CE-CFLB area with deficits (Table 15).

***Table 15.*** *AUs not meeting PNOGO Targets by LU and BEO Designation. This table illustrates how much of the existing old forest in the Assessment Unit (Column C) is meeting the PNOGO Target (Column D). AUs with less than 100% of the PNOGO target are considered to be in deficit of old growth forest.*

| Column Calculations | | A | B | C = B/A | D | E = C/D |
|---|---|---|---|---|---|---|
| Assessment Unit (AU) | | | | | | |
| Landscape Unit | BEC | LU/BEC Area in CE-CFLB (ha) | Existing Old Forest Area in AU (ha) | Existing Old Forest in AU (%) | PNOGO Old Forest Target (%) | % of PNOGO Target Met in AU |
| **Intermediate BEO** | | | | | | |
| **Forgetmenot** | SBSvk | 511.1 | 4.3 | 0.8% | 9% | **9.3%** |
| | ESSFmm1 | 15,548.5 | 1,202.9 | 7.7% | 9% | **86.0%** |
| **Goat** | ICHwk3 | 230.8 | 18.6 | 8.0% | 13% | **61.9%** |
| **Holmes** | SBSdh1 | 196.2 | 1.5 | 0.7% | 11% | **6.8%** |
| | ICHmm1 | 9,448.9 | 497.1 | 5.2 | 9% | **58.5%** |
| | SBSvk | 5,870.4 | 340.8 | 5.8% | 9% | **64.5%** |
| **Lower Morkill/ Cushing** | ESSFwc3 | 1,606.1 | 114.9 | 7.1% | 19% | **37.6%** |
| | ESSFwk2 | 1,617.7 | 140.6 | 8.6% | 19% | **45.7%** |
| **Northern Trench** | SBSvk | 1,218.2 | 63.7 | 5.2% | 9% | **58.1%** |
| **Sub-total** | | **36,247.9** | **2,383.5** | | | |
| **Low BEO** | | | | | | |
| **East Kinbasket** | SBSdh1 | 413.4 | 36.2 | 8.7% | 11% | **79.6%** |
| **Horsey-Small** | SBSdh1 | 45.2 | 0.0 | 0.0% | 11% | **0.0%** |
| **Kiwa-Tete** | SBSdh1 | 1.1 | 0.0 | 0.0% | 11% | **0.0%** |
| **McBride-Dunster** | SBSvk | 553.1 | 0.0 | 0.0% | 9% | **0.0%** |
| | ICHwk3 | 689.1 | 0.2 | 0.03% | 13% | **0.0%** |
| **Milk** | SBSvk | 912.7 | 56.4 | 6.1% | 9% | **68.7%** |
| **Sub-total** | | **2,614.6** | **92.8** | | | |
| **Total** | | **38,862.5** | **2476.3** | | | |

#### *5.1.3.2 Old Growth Forest and BEC Zone Distribution Compared to PNOGO Targets*

This section provides an overview of the assessment results presented above, summarized by BEC units. Overall, 82% of AUs (70 of 85) across all BECs in the CE-CFLB are meeting targets in the Robson Valley TSA (Table 16). In the CE-CFLB, the amount of old growth forest is meeting PNOGO targets in 100% of AUs in the ESSFwc2, ESSFwk1, ICHwk1, ICHwk4 and SBSwk1.

In general, the amount of old growth forest is furthest from the targets in the SBSvk (very cool) and SBSdh1 (dry hot), with approximately half (50% and 60%, respectively) of the BECs currently meeting PNOGO targets (Table 16). The only BEC subzone in the SBS that has sufficient (100%) old growth forest to meet the targets is the SBSwk1 (wet cool). However, this is a minor component of the overall land base located in the valley bottoms (2,654.7 ha of the total CE-CFLB with targets). Two AUs in the ICH (mm and wk3) were also found to be in deficit of old growth compared to targets.

***Table 16.*** *Amount of Old Growth Forest summarized by BEC to Subzone and/or Variant as compared to PNOGO Targets. This table demonstrates the distribution of old growth forest across BECs. Only BECs with old growth targets are listed in the table.*[13]

| BEC | Total Area in BEC (ha) | Total CE-CFLB Area (ha) in BEC with Targets | Existing Old Forest Area in CE-CFLB (ha) | Existing Old Forest in CE-CFLB (%) | # Assessment Units (AUs) in BEC | # AUs Meeting Target | % AUs Meeting Targets |
|---|---|---|---|---|---|---|---|
| **ESSFmm1** | 290,245.8 | 177,572.5 | 46,193.2 | 26% | 21 | 20 | 95% |
| **ESSFwc2** | 22,687.9 | 13,889.5 | 6,465.2 | 47% | 2 | 2 | 100% |
| **ESSFwc3** | 32,147.4 | 20,328.5 | 5,688.2 | 28% | 6 | 5 | 83% |
| **ESSFwk1** | 28,402.5 | 22,589.6 | 8,556.8 | 38% | 5 | 5 | 100% |
| **ESSFwk2** | 1,795.5 | 1,617.7 | 140.6 | 9% | 1 | 0 | 0% |
| **ICHmm** | 142,472.6 | 120,472.1 | 23,509.9 | 20% | 16 | 15 | 94% |
| **ICHwk1** | 13,889.8 | 11,763.1 | 7,824.3 | 67% | 3 | 3 | 100% |
| **ICHwk3** | 64,187.9 | 57,570.5 | 21,080.8 | 37% | 9 | 7 | 78% |
| **ICHwk4** | 3,830.0 | 2,933.9 | 2,090.4 | 71% | 1 | 1 | 100% |
| **SBSdh1** | 67,000.0 | 28,247.0 | 5,427.7 | 19% | 10 | 6 | 60% |
| **SBSvk** | 32,017.9 | 22,597.3 | 5389.6 | 24% | 10 | 5 | 50% |
| **SBSwk1** | 3,466.0 | 2,654.7 | 1,635.3 | 62% | 1 | 1 | 100% |
| **Totals** | **702,143.3** | **482,236.4** | **134,002.0** | | **85** | **70** | **82%** |

[13] The total CE-CFLB area is 590,042 ha, of which 107,805 ha of the CE-CFLB that does not have PNOGO targets assigned either because there are AUs in NDT5 or in Mt Robson Park. The BECs that are classified as NDT 5 include IMAun, ESSFwcp, ESSFmmp, BAFAun. Portions of the BECs that are within Mt. Robson Park are ESSFmm1, ESSFmm2, ESSFmmp, ICHmm, SBSdh1, SBSdh2

### 5.1.4 Limitations

This analysis does not evaluate and address whether targets themselves are sufficient and effective at maintaining biodiversity given the ecological function and complexity of old growth forest. In addition, targets applied to BEC subzones cannot assess the ecological factors (e.g., stand productivity, representation, old growth attributes) at the site series and stand level. The age-based definitions of old growth are a proxy that assumes the biodiversity of old growth stands will be present.

### 5.1.5 Summary and Observations of Old Growth Forest Indicator

Of the 85 AUs in the Robson Valley TSA, 82% (70 AUs) have sufficient old growth forest compared to the targets, which accounts for 92% (443,373 ha) of the CE-CFLB area that has targets applied (Table 14). The remaining 15 AUs are in deficit of old growth forest and occur across 10 LUs: East Kinbasket, Forgetmenot, Goat, Holmes, Horsey-Small, Kiwa-Tete, Lower Morkill/Cushing, McBride-Dunster, Milk and Northern Trench. Of the 10 LUs not meeting PNOGO old growth targets, three are managed non-spatially (Horsey-Small, McBride-Dunster, Milk), and one has non-legal OGMAs (Holmes).

The 15 AUs that are in deficit of old growth (relative to the PNOGO targets) account for 8% (38,862 ha) of the CE-CFLB area that has targets applied (Table 15, Table 14).

- Six AUs that are in the greatest deficits (0-30% of the target met) have a small representation of the CE-CFLB in the LUs, typically less than 700 ha.
- There is one LU (Lower Morkill/Cushing LU) with two AUs (ESSFwc3 and ESSFwk2) in the 30-50% of the old growth target category, with an area of 3,223.8 ha.
- There are five AUs in the 50-75% of old growth target category, with a total area of 17,681 ha (in the SBSvk, ICHwk3, and ICHmm).
- The ESSFmm1 (15,548 ha in the Forgetmenot LU) and ICH mm (9,448 ha in the Holmes LU) BEC subzones contain the largest CFLB areas that do not meet the PNOGO targets.

*Hungry Creek – Darcie Fodor*

# 5.2 Amount of Mature-plus-Old Forest

This non-spatial indicator determines the current amount of mature-plus-old forest within each AU in relation to the policy targets for mature-plus-old forest. As mature forest will become old growth forest over time, knowing the current condition of mature forest is important to determine where forest is available to recruit towards old growth forest targets, particularly where old growth forest is currently underrepresented. Policy targets for mature-plus-old forest are specified in the BDG and are not legal targets in the Robson Valley TSA. The results for this assessment are reported by the total amount in the CE-CFLB. Refer to Table 8 for the age-based definitions of mature-plus-old forests.

## 5.2.1 Total Amount of Mature-plus-Old Forest in the CE-CFLB

In contrast to the old growth forest indicator, the majority of the Robson Valley TSA has mature-plus-old forest distributed across the land base, with higher proportions (more than 70%) in the higher elevations across all LUs (Figure 10). The valley bottoms and low elevation areas still show cumulative impacts from harvesting and other developments, resulting in lower amounts (less than 50%) of mature-plus-old forest. The Mount Robson LU also shows some higher elevation areas with less than 10% mature-plus-old forest. Again, Mount Robson LU is considered part of the CE-CFLB, however, is not part of the indicator assessment reporting.

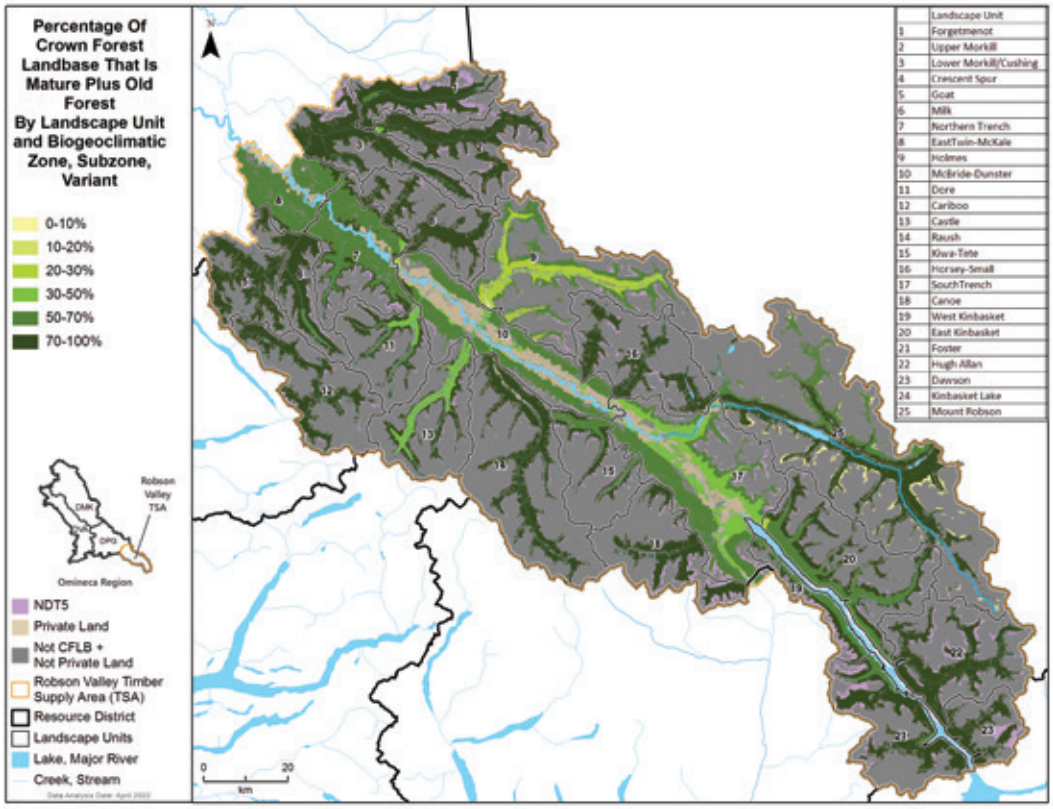



***Figure 10.*** *Current Percent of Mature-Plus-Old Forest in the CE-CFLB by AU. Mount Robson Provincial Park is included in the map as it contributes to the CE-CFLB.*

In Figure 10, beige and light green areas show lower percentages of mature-plus-old forest, dark green areas show higher percentages, and grey areas represent non-forested ecosystems or areas where data was not available at the time of the assessment.

A detailed table summarizing the current amount (ha) of old growth and mature-plus-old in the CE-CFLB by LU/BEC can be found in Appendix 2 (Table 31).

### 5.2.2 Overview of Assessment Units Compared to Policy Targets

Of the total CE-CFLB area of 590,042 ha, targets have been assigned to 482,236 ha (Table 17). The total amount of mature-plus-old forest in the CE-CFLB is 374,061 ha (63% of the CE-CFLB), of which 42%, 45% and 5% is located within LUs assigned as Low, Intermediate, and High BEO, respectively (Table 17).

There is considerably more mature-plus-old forest across the CE-CFLB (63%) compared to old growth forest alone (24%) (Table 17).

***Table 17.*** *Distribution of BEO, LUs and Amount of Mature-plus-Old Forest (ha) in the CE-CFLB in the Robson Valley TSA. The column with no BEO is the CE-CFLB area of Mt. Robson LU where no policy targets are assigned. The area of CE-CFLB with targets is 482,236 ha and the CE-CFLB area without targets is 107,806 ha (54,867 ha occurs in NDT5 and 52,939 ha occurs in Mount Robson LU (Table 6)).*

| | Robson Valley | Biodiversity Emphasis Option (BEO) designations in the CE-CFLB | | | |
|---|---|---|---|---|---|
| | | High BEO | Intermediate BEO | Low BEO | No BEO |
| **# of Landscape Units** | 24 | 1 | 9 | 13 | 1 |
| **Total Area (ha)** | 1.45 million | 32,043 | 564,336 | 577,111 | 144,145 |
| **Total CE-CFLB Area (ha)** | 590,042 | 24,914 | 273,555 | 238,632 | 52,939[14] |
| **CE-CFLB Area (ha) with Targets** | 482,236 | 24,727 | 244,550 | 212,959 | 0 |
| **Old Growth Forest Area (ha)** | 141,455 | 8,635 | 58,607 | 66,759 | 7,453.0 |
| **Mature-plus-Old Forest Area (ha)** | 374,061 | 16,960 | 168,044 | 155,605 | 33,449 |
| **% of Old Growth Forest in CE-CFLB by BEO Designation** | 24% | 6% | 41% | 47% | 5% |
| **% of Mature-plus-Old in CE-CFLB by BEO Designation** | 63% | 5% | 45% | 42% | 9% |

The majority (95%) of the AUs have sufficient mature-plus-old forest compared to the policy targets (Table 18). The AUs with insufficient mature-plus-old forests compared to the policy targets are in the Holmes and Kiwa-Tete LUs. Within those LUs, 25% and 67% of AUs are meeting policy targets, respectively. The Kiwa-Tete LU has legally established OGMAs, while the Holmes LU has non-legal OGMAs in place.

There are five LUs with legal OGMAs established that have AUs with less than the target amount of old growth, however, all the AUs within those LUs have sufficient amounts of mature-plus-old forest. These were East Kinbasket, Forgetmenot, Lower Morkill/ Cushing, Goat and Northern Trench. There were also three LUs with non-legal OGMAs that have AUs with less than the target amount of old growth but have sufficient amounts of mature-plus-old forest compared to the policy targets. These were McBride-Dunster, Horsey-Small, and Milk.

[14] Area (ha) of CE-CFLB without targets or BEO designation located within Mount Robson LU.

***Table 18.*** *Summary of AUs by LUs Compared to Policy Targets from the Biodiversity Guidebook in the CE-CFLB. This table only presents AUs that have assigned policy targets.*

| Landscape Units (LUs) | # Assessment Units (AUs) | # of AUs Meeting Policy Targets with Mature-plus-Old Forest | % of AUs Meeting Policy Targets with Mature-plus-Old Forest |
|---|---|---|---|
| **LUs with Legal OGMAs** | | | |
| **Canoe** | 3 | 3 | 100% |
| **Crescent Spur** | 5 | 5 | 100% |
| **Dawson** | 4 | 4 | 100% |
| **East Kinbasket** | 3 | 3 | 100% |
| **Forgetmenot** | 3 | 3 | 100% |
| **Foster** | 4 | 4 | 100% |
| **Goat** | 4 | 4 | 100% |
| **Hugh Allan** | 3 | 3 | 100% |
| **Kiwa-Tete** | 3 | 2 | 67% |
| **Lower Morkill/Cushing** | 5 | 5 | 100% |
| **Northern Trench** | 6 | 6 | 100% |
| **Upper Morkill** | 3 | 3 | 100% |
| **West Kinbasket** | 3 | 3 | 100% |
| **Sub-total** | **49** | **48** | |
| **LUs with Non-Legal OGMAs** | | | |
| **Holmes** | 4 | 1 | 25% |
| **South Trench** | 3 | 3 | 100% |
| **Sub-total** | **7** | **4** | |
| **LUs with No OGMAs** | | | |
| **Caribou** | 5 | 5 | 100% |
| **Castle** | 3 | 3 | 100% |
| **Dore** | 3 | 3 | 100% |
| **East Twin-McKale** | 3 | 3 | 100% |
| **Horsey-Small** | 3 | 3 | 100% |
| **McBride-Dunster** | 5 | 5 | 100% |
| **Milk** | 4 | 4 | 100% |
| **Raush** | 3 | 3 | 100% |
| **Sub-total** | **29** | **29** | |
| **Total** | **85** | **81** | **95%** |

### 5.2.3 Current Condition of Mature-plus-Old Forest Compared to Policy Targets

In general, there is currently sufficient mature-plus-old forest compared to the policy targets across the TSA, except in Holmes and Kiwa-Tete LUs (Figure 11). The Mount Robson LU has no targets applied, which is why the entire LU is showing as "no policy target."

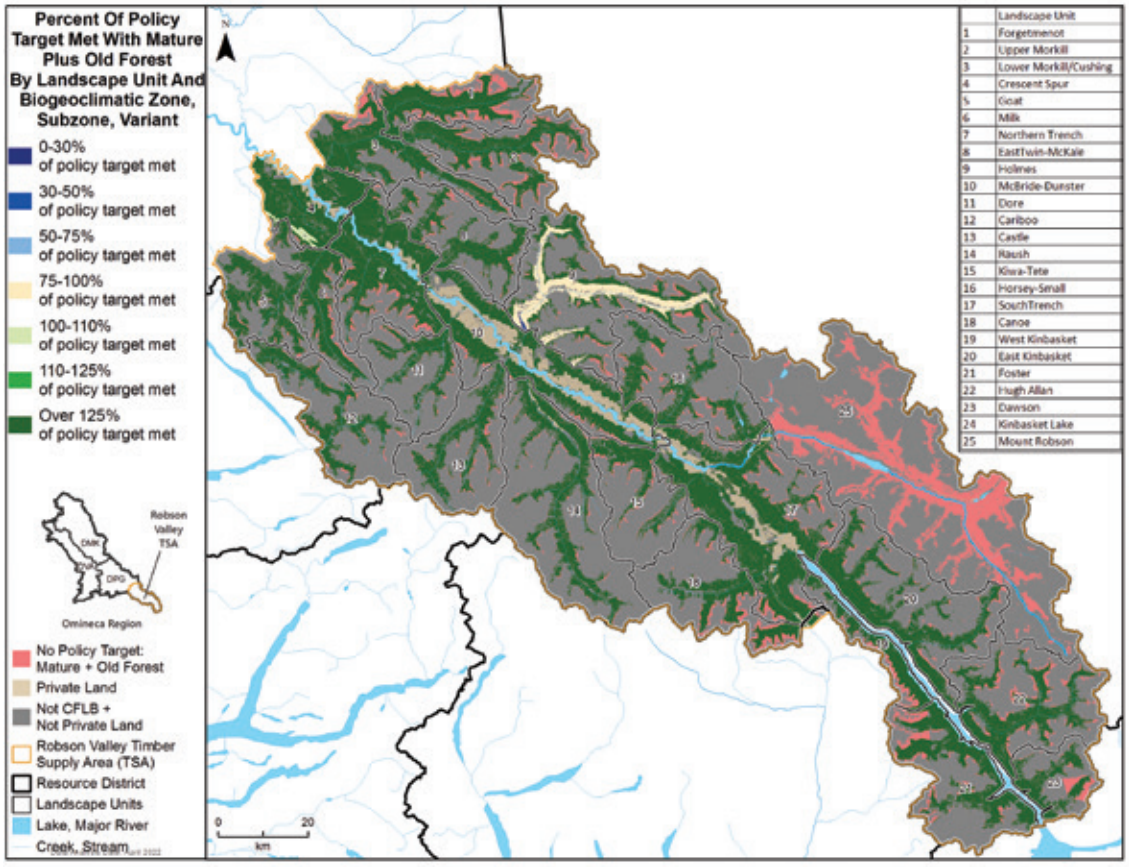



***Figure 11.*** *Current Amount of Mature-plus-Old Forest in the Robson Valley TSA based on Indicator Condition. Percent of policy targets for mature-plus-old is from the Biodiversity Guidebook. Anything less than 100% of the policy target met is considered to be in deficit of mature-plus-old forest.*

There are four AUs with insufficient mature-plus-old to meet policy targets. Two AUs in Holmes and Kiwa-Tete LUs have less than 30% of mature-plus-old forest compared to the policy targets and are within the SBSdh1, with relatively small areas (197.3 ha of CE-CFLB) compared to the CE-CFLB area of their respective LUs (Table 19). For Holmes LU, the majority of the LU area has 75-100% of mature-plus-old forest and a small area of less than 30% mature-plus-old forest compared to the policy targets. For Kiwa-Tete LU, the area of the AU meeting 8.6% of the mature-plus-old target is very small (1.1 ha). The remaining two AUs have greater than 75% of the required mature-plus-old forest and are within the ICHmm and SBSvk with larger areas (15,319.3 ha of CE-CFLB) compared to the respective LUs. There are no AUs in the 30-50%, 50-75% and 110-125% categories. The majority of the CE-CFLB in the Robson Valley TSA has greater than 125% of mature-plus-old forests compared to the policy targets, which is an improvement from the old growth forest indicator (Appendix 4: Table 33).

A table summarizing the AUs with greater than 125% policy targets for amount of mature-plus-old forest (ha) in the CE-CFLB by LU/BEC can be found in Table 33 (Appendix 4).

To see these results presented by BEC to the subzone and/or variant scale, see Appendix 6 (Table 35).

***Table 19.*** *AUs with 0-110% of Mature-plus-Old Forest as Compared to Biodiversity Guidebook Policy Targets. There are no AUs with 110-125% of targets met. Refer to Appendix 4: Table 33 for the AUs that are greater than 125% of the policy target. Anything less than 100% indicates policy target is not being met.*

| Column Calculation | | | | A | B | C = B/A | D | E = C/D |
|---|---|---|---|---|---|---|---|---|
| | Assessment Unit (AU) | | | | | | | |
| Mature-plus-Old Forest: Indicator Condition | BEC | Landscape Unit | BEO | LU/BEC Area in CE-CFLB (ha) | Existing Mature-plus-Old Forest Area in AU (ha) | Existing Mature-plus-Old Forest in AU (%) | Mature-plus-Old Forest Policy Targets (%) | % of Policy Target Met in AU |
| **Intermediate BEO** | | | | | | | | |
| 0-30% | SBSdh1 | Kiwa-Tete | Low | 1.1 | 0 | 0.9% | 11% | **8.6%** |
| | SBSdh1 | Holmes | Int. | 196.2 | 9.4 | 4.7% | 23% | **20.8%** |
| 75-100% | ICHmm | Holmes | Int. | 9,448.9 | 2,255.7 | 23.8% | 31% | **77.0%** |
| | SBSvk | Holmes | Int. | 5,870.4 | 1,558.8 | 26.5% | 31% | **85.7%** |
| 100-110% | ESSFwk1 | Crescent Spur | High | 1,195.3 | 670.5 | 56.1% | 54% | **103.9%** |

Of the CE-CFLB with targets (482,236 ha), 97% (466,720 ha) is meeting or exceeding mature-plus-old forest policy targets, with the majority of that area (465,525 ha) having greater than 125% mature-plus-old forest compared to the targets (Figure 12). Of the CE-CFLB with targets that does not have enough old growth forest as compared to the policy targets, the majority is within the 75-100% indicator condition status (3% or 15,319 ha). Minor components (less than 1%) of the CE-CFLB fall within the 0-30% category (197.2 ha). The total CE-CFLB area without targets is 107,806 ha, of which 54,867 ha occurs in NDT5 and 52,939 ha occurs in Mount Robson LU (Table 6).

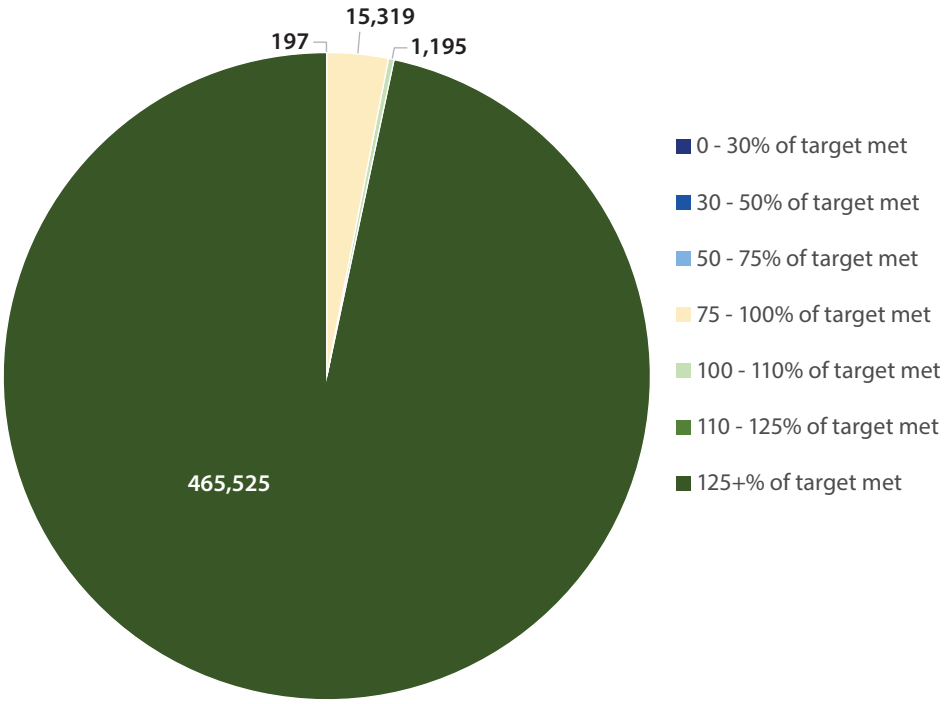



***Figure 12.*** *Distribution of the Amount of Mature-plus-Old Forest (ha) in each Indicator Category (as a percentage of BDG Policy Targets met) in the CE-CFLB with Targets (482,236 ha). Due to small quantities depicted in the figure above, the figure label "197" corresponds to the 0-30% of target met category, and the "1,195" label corresponds to the 100-110% of target met category.*

#### *5.2.3.1 Mature-plus-Old Forest and BEO Distribution Compared to Policy Targets*

This section provides an overview of the assessment results presented above summarized by the BEO assigned to LUs. The Crescent Spur LU is the only High BEO in the CE-CFLB, and all associated AUs currently have sufficient mature-plus-old forest compared to the policy targets. In the Intermediate BEO, 91% of AUs have sufficient mature-plus-old forest compared to the policy targets. In the Low BEO, 98% of AUs have sufficient mature-plus-old. This 98% includes six AUs that were originally insufficient when only the amount of old growth forest was assessed, but when mature forests are considered, the AUs meet the policy target (Table 20).

Of the number of AUs, 95% (81/85 AUs) are meeting the policy targets (BDG) for mature-plus-old growth (Table 20). This equates to 97% (466,720 ha) of the CE-CFLB in AUs with targets meeting BDG targets.

***Table 20.*** *Amount of Mature-plus-Old Forest in AUs Compared to Biodiversity Guidebook Policy Targets by BEO in the CE-CFLB. The area of CE-CFLB with targets is 482,236 ha and the CE-CFLB area without targets (no BEO) is 107,806 ha. Of this, 54,867 ha occurs in NDT5 and 52,939 ha occurs in Mount Robson LU (Table 6).*

| | Biodiversity Emphasis Options (BEOs) in the CE-CFLB | | | |
|---|---|---|---|---|
| | High BEO | Intermediate BEO | Low BEO | Total |
| # Assessment Units (AUs) in BEO | 5 | 34 | 46 | 85 |
| # AUs Meeting Policy Target | 5 | 31 | 45 | 81 |
| % AUs Meeting Policy Targets | 100% | 91% | 98% | 95% |
| CE-CFLB Area (ha) in AUs with Targets | 24,727 | 244,550 | 212,959 | 482,236 |
| CE-CFLB Area (ha) in AUs Meeting BDG Policy Targets | 24,727 | 229,034 | 212,958 | 466,720 |

There are four LUs with Intermediate BEO designation (Forgetmenot, Goat, Lower Morkill/Cushing and Northern Trench LUs) and four LUs with Low BEO designation (East Kinbasket, Horsey-Small, McBride-Dunster and Milk LUs) that contain AUs that have insufficient old growth forest to meet the established targets, however, when including mature forest, these AUs have enough mature-plus-old forest to the BDG policy targets (Table 21).

In particular, for Intermediate BEO designations, the Forgetmenot/SBSvk AU has 0-30% of the old growth forest targets being met but has more than 125% of the mature-plus-old policy target being achieved (Table 21). For Low BEO designations, the Horsey-Small/SBSdh1, McBride-Dunster/ICHwk3 and McBride-Dunster/SBSvk AUs have 0-30% of the old growth forest targets being met, but have more than 125% of the mature-plus-old policy target being achieved (Table 21).

AUs that remained below the policy target for mature-plus-old are summarized in Table 19. Holmes/SBSdh1, Holmes/ICHmm1, Holmes/SBSvk AUs did not meet targets for old growth or mature-plus-old and are designated as Intermediate BEO. Kiwa-Tete/SBSdh1 AU did not meet targets for old growth or mature-plus-old and is designated as Low BEO.

The AUs with greater than 125% of mature-plus-old forests compared to the policy targets are listed in Appendix 4 (Table 33).

***Table 21.*** *AUs that Do Not Meet Old Growth Targets under PNOGO but have Surplus Mature-plus-Old Forest as Compared to Biodiversity Guidebook Policy Targets by LU. AUs are combinations of LUs, BEO, BEC to subzone and/or variant and NDTs.*

| Column Calculation | | A | B | C | D | E | F = D/E | G | H | I = G/H |
|---|---|---|---|---|---|---|---|---|---|---|
| Assessment Unit (AU) | | | | | | | | | | |
| Landscape Unit | BEC Subzone Variant | LU/BEC Area in CE-CFLB (ha) | Existing Old Forest Area (ha) | Existing Mature-plus-Old Forest Area in AU (ha) | Existing Old Forest in AU (%) | PNOGO Old Forest Target (%) | % of PNOGO Old Forest Target Met in AU | Existing Mature-plus-Old Forest in AU (%) | Mature-plus-Old Forest BDG Policy Target % | % of BDG Policy Target Met |
| **Intermediate BEO** | | | | | | | | | | |
| **Forgetmenot** | ESSFmm1 | 15,548.5 | 1,202.9 | 11,217.9 | 7.74% | 9% | **86.0%** | 72.15% | 28% | **258%** |
| | SBSvk | 511.1 | 4.3 | 277.7 | 8.40% | 9% | **9.3%** | 54.33% | 31% | **175%** |
| **Goat** | ICHwk3 | 230.8 | 18.6 | 223.0 | 8.05% | 13% | **61.9%** | 96.62% | 34% | **284%** |
| **Lower Morkill/ Cushing** | ESSFwc3 | 1,606.1 | 114.9 | 1,474.8 | 7.15% | 19% | **37.6%** | 91.82% | 36% | **255%** |
| | ESSFwk2 | 1,617.7 | 140.6 | 1,594.8 | 8.69% | 19% | **45.7%** | 98.58% | 36% | **274%** |
| **Northern Trench** | SBSvk | 1,218.2 | 63.7 | 903.0 | 5.23% | 9% | **58.1%** | 74.13% | 31% | **239%** |
| **Sub-total** | | **20,732.4** | **1,545.0** | | | | | | | |
| **Low BEO** | | | | | | | | | | |
| **East Kinbasket** | SBSdh1 | 413.4 | 36.2 | 119.0 | 8.76% | 11% | **79.6%** | 28.78% | 11% | **262%** |
| **Horsey-Small** | SBSdh1 | 45.2 | 0.0 | 34.1 | 0.0% | 11% | **0.0%** | 75.4% | 11% | **686%** |
| **McBride-Dunster** | ICHwk3 | 689.1 | 0.2 | 502.6 | 0.03% | 13% | **0.3%** | 72.93% | 17% | **429%** |
| | SBSvk | 642.4 | 1,693.6 | 10,031.9 | 0.00% | 9% | **0.0%** | 29.82% | 15% | **199%** |
| **Milk** | SBSvk | 912.7 | 56.4 | 459.5 | 6.18% | 9% | **68.7%** | 50.34% | 15% | **336%** |
| **Sub-total** | | **2,702.8** | **1,786.4** | | | | | | | |
| **Totals** | | **23,435.2** | **3,331.4** | | | | | | | |

#### *5.2.3.2 Mature-plus-Old Forest and BEC Zone Distribution Compared to Policy Targets*

The proportion of AUs meeting targets for mature-plus-old in the Robson Valley TSA is 95% (81 of 85; Table 22), compared to 82% meeting targets for old growth only. The four BEC subzones that did not have enough old growth to meet targets but do have sufficient mature-plus-old forest compared to the policy targets are the ICHwk3, ESSFmm1, ESSFwc3 and ESSFwk3. There are three BEC subzones that do not have enough mature-plus-old forest compared to the policy targets. The SBSdh1 has 80% of AUs meeting mature-plus-old policy targets (compared to 60% of AUs meeting old growth targets). The SBSvk has 90% of AUs meeting mature-plus-old targets (compared to 50% of AUs meeting old growth targets), and the ICHmm has 94% of AUs meeting mature-plus-old targets (with the same number of AUs meeting old growth targets).

***Table 22.*** *Amount of Mature-plus-Old summarized by BEC to Subzone and/or Variant as compared to Biodiversity Guidebook Policy Targets. This table demonstrates the distribution of mature-plus-old across BECs.[15] Only BECs with targets are listed in the table.*

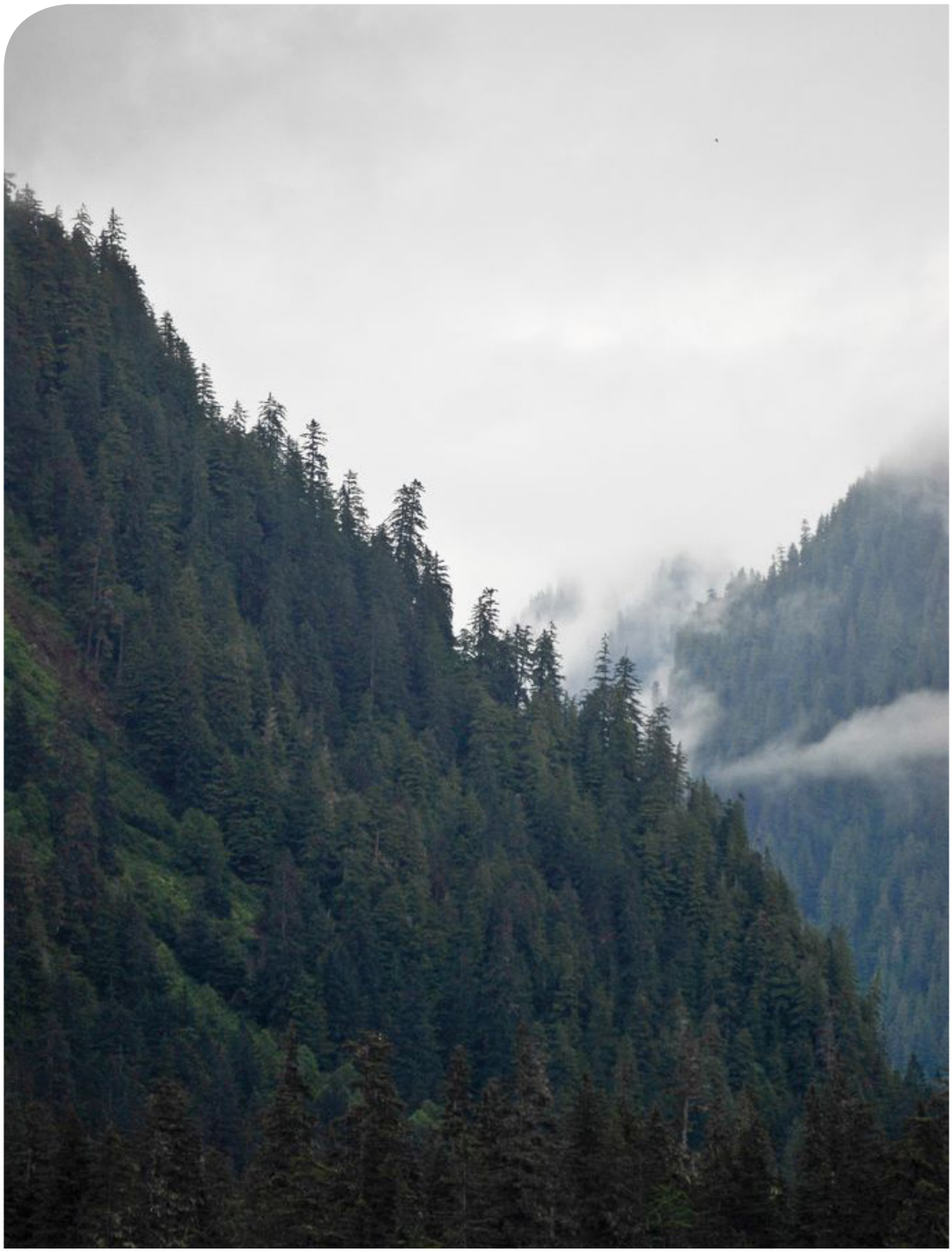
| BEC | Total Area in BEC (ha) | Total CE-CFLB Area (ha) | Existing Mature-plus-Old Forest Area (ha) | Existing Mature-plus-Old Forest in CE-CFLB (%) | # Assessment Units (AUs) | # AUs Units Meeting Target | % AUs Units Meeting Targets |
|---|---|---|---|---|---|---|---|
| **ESSFmm1** | 290,245.8 | 177,572.5 | 135,891.0 | 77% | 21 | 21 | 100% |
| **ESSFwc2** | 22,687.9 | 13,889.5 | 10,874.1 | 78% | 2 | 2 | 100% |
| **ESSFwc3** | 32,147.4 | 20,328.5 | 18,620.9 | 92% | 6 | 6 | 100% |
| **ESSFwk1** | 28,402.5 | 22,589.6 | 19,164.7 | 85% | 5 | 5 | 100% |
| **ESSFwk2** | 1,795.5 | 1,617.7 | 1,594.8 | 99% | 1 | 1 | 100% |
| **ICHmm** | 142,472.6 | 120,472.1 | 72,582.7 | 60% | 16 | 15 | 94% |
| **ICHwk1** | 13,889.8 | 11,763.1 | 9,985.0 | 85% | 3 | 3 | 100% |
| **ICHwk3** | 64,187.9 | 57,570.5 | 39,693.1 | 69% | 9 | 9 | 100% |
| **ICHwk4** | 3,830.0 | 2,933.9 | 2,887.7 | 98% | 1 | 1 | 100% |
| **SBSdh1** | 67,000.0 | 28,247.0 | 12,673.1 | 45% | 10 | 8 | 80% |
| **SBSvk** | 32,017.9 | 22,597.3 | 13,994.3 | 62% | 10 | 9 | 90% |
| **SBSwk1** | 3,466.0 | 2,654.7 | 2,650.1 | 100% | 1 | 1 | 100% |
| **Total** | **702,143.3** | **482,236.4** | **340,611.5** | | **85** | **81** | **95%** |

[15] The total CE-CFLB area is 590,042 ha, of which 107,805 ha of the CE-CFLB does not have PNOGO targets assigned either because there are AUs in NDT5 or in Mt Robson Park. The BECs that are classified as NDT 5 include IMAun, ESSFwcp, ESSFmmp, BAFAun. Portions of the BECs that are within Mt. Robson Park are ESSFmm1, ESSFmm2, ICHmm, SBSdh1, SBSdh2

### 5.2.4 Summary and Observations of Old and Mature Indicator

There were 12 more AUs meeting mature-plus-old policy targets than AUs meeting old growth targets alone. The TSA has 95% of the AUs (81 AUs of the total 85) with sufficient mature-plus-old forest compared to the policy targets, which accounts for 97% (466,719.9 ha) of CE-CFLB area with targets.

The four AUs with insufficient amounts of mature-plus-old forest account for 3% (15,516.5 ha) of the CE-CFLB area with targets. Of these, two AUs are within the SBSdh1 BEC subzone, with only 0-30% of the required mature-plus-old forest compared to the policy targets, however, the area is relatively small with only 197.3 ha of CLFB.



## 5.3 Incursions into Legal and Non-Legal Old Growth Management Areas

This assessment compares the area of anthropogenic (human-caused) disturbance footprint (i.e., incursions) in OGMAs relative to allowable incursions specified in the legal orders or regional policy.[16] Incursions are defined as alterations to OGMAs caused by permitted activities, such as forestry cutblocks and roads, non-forestry-related activities (e.g., pipelines, oil and gas), and human use features such as recreation sites and trails. Activities included as incursions are those that permanently alter the forested land base or that convert forests to an early seral stage (< 40 years old).[17] This includes only active, initiated, and completed (i.e., "as-built") developments and does not consider proposed or anticipated projects and activities at the time of the assessment.

For the OGMA incursion analysis, cutblocks from the CE Human Disturbance Layer (2019) that were more than 20 years old or pre-date the legal establishment of the OGMA were removed.

The OGMA incursion assessment did not consider natural disturbances (wildfires or insect outbreaks) that were not included in the VRI at the time of data extraction from the BCGW in 2019.

Based on the legal objectives for OGMAs in the Robson Valley TSA, the OGMA incursion assessment uses the total OGMA area (ha) to determine if the allowable incursion threshold has been exceeded within the OGMA. The CE-CFLB area within OGMAs and the associated incurred area is provided for information and consistency across the assessments.

In some cases, and for various reasons, OGMAs were established with known incursions. This was dependent on the process undertaken at the time of OGMA development, which included working in partnership with forest licensees, the requirement to minimize operational impacts while ensuring future timber supply was not isolated, inclusion of First Nations interests, and comments from the public review process. OGMAs were intended to have long-term monitoring to: 1) ensure the intent of the order objectives were being achieved, 2) track incursions into OGMAs against the allowable threshold, and 3) determine if OGMAs need to be amended or replaced if allowable incursion thresholds in the orders were exceeded. However, such monitoring of effectiveness and incursions has not occurred in the Robson Valley TSA to date. The following assessment results for incursions are the beginnings for future monitoring opportunities.

In recent years in the Robson Valley, based on the volume of referrals received, the type, scale and impacts to OGMAs from resource development activities has increased, most notably in the South Trench LU. These impacts are mostly incursions into OGMAs from the National Energy Board (NEB) certified routes for pipelines, Land Act tenures for agricultural expansion, commercial recreational development, and road construction. Under legislation, the proponents of these activities are not required to manage OGMAs, however, provincial experts recommend that old growth forest be addressed in proponent's management plans and within tenure permitting conditions.

[16] OGMA Orders may include objectives that identify maximum allowable levels of disturbance.

[17] Early seral stage as defined in Section 2.1.4

### 5.3.1 Total Amount of Incursions into OGMAs

For this assessment, incursions into OGMAs are anthropogenic disturbance footprints from resource development activities including cutblocks, roads, urban development, land tenuring, oil and gas, mines and fire guards. The source of incursion data to support this analysis is from the Cumulative Effects Consolidated Human Development Layer.

The Robson Valley TSA has a combination of legal and non-legal OGMAs. There are currently 576 total OGMAs that have been established, 473 legal and 103 non-legal (Table 23). **In the Robson Valley TSA legal OGMA Orders, there are objectives that allow incursions, for very specific reasons (**described in Section 3.1**), up to 10% of an OGMA less than 50 ha (equivalent to a maximum of 5 ha), or 5% of an OGMA greater than 50 ha.** Any incursion beyond this acceptable limit requires an ecologically equivalent replacement area of forests with similar age, structure and area. **In the non-legal OGMAs, there is no allowable incursion limit due to lack of legal order objectives.** Any disturbance identified in these non-legal OGMAs are flagged as incursions, and further inquiry is needed to determine whether replacements are required.

Generally, and without comparison to legal orders, 20.1% of legal OGMAs (95 OGMAs) and 38.8% of non-legal OGMAs (40 OGMAs) have some level of incursion (Table 23). Overall, across the Robson Valley TSA, 23.4% of OGMAs (135 OGMAs) have incursions. Within the CE-CFLB, a total of 500 ha of incursions into OGMAs were identified.

***Table 23.*** *Summary of all Incursions into Legal and Non-legal OGMAs by LU for both the Total OGMA Area and the CE-CFLB Area in OGMAs. The OGMA legal order incursion thresholds were not applied, and slivers less than 0.1 ha have been removed.*

| Landscape Unit (LU) | Summary of Incursions by Total OGMA Area and LU | | | | Summary of Incursions by CE-CFLB Area and LU | | |
|---|---|---|---|---|---|---|---|
| | # of OGMAs | # of OGMAs with Incursions | % of OGMAs with Incursions | Total Area of OGMAs in LU (ha) | OGMA Area in CE-CFLB (ha) | Incurred OGMA Area in CE-CFLB (ha) | % of Incurred OGMA Area in CE-CFLB (%) |
| **LUs with Legal OGMAs** | | | | | | | |
| **Canoe** | 28 | 4 | 14.3% | 1,279.8 | 1,152.6 | 4.9 | 0.4 |
| **Crescent Spur** | 42 | 24 | 57.1% | 4,920.3 | 4,692.8 | 53.2 | 1.1 |
| **Dawson** | 20 | 1 | 5.0% | 455.6 | 374.0 | 33.1 | 8.9 |
| **East Kinbasket** | 82 | 12 | 14.6% | 2,811.4 | 2,229.0 | 20.7 | 0.9 |
| **Forgetmenot** | 12 | 5 | 41.7% | 1,288.2 | 1,211.3 | 16.0 | 1.3 |
| **Foster** | 77 | 3 | 3.9% | 2,612.6 | 2,435.6 | 4.6 | 0.2 |
| **Goat** | 31 | 5 | 16.1% | 3,252.9 | 3,158.4 | 2.4 | 0.1 |
| **Hugh Allan** | 43 | 2 | 4.7% | 2,071.1 | 1,637.8 | 2.0 | 0.1 |
| **Kiwa-Tete** | 12 | 7 | 58.3% | 933.1 | 767.6 | 16.3 | 2.1 |
| **Lower Morkill/ Cushing** | 39 | 14 | 35.9% | 2,692.8 | 2,633.6 | 30.2 | 1.1 |
| **Northern Trench** | 26 | 13 | 50.0% | 3,213.6 | 3,076.7 | 54.9 | 1.8 |
| **Upper Morkill** | 45 | 3 | 6.7% | 2,909.8 | 2,572.6 | 5.2 | 0.2 |
| **West Kinbasket** | 16 | 2 | 12.5% | 783.5 | 771.5 | 2.3 | 0.3 |
| **Sub-total** | **473** | **95** | **20.1%** | **29,224.6** | **26,713.3** | **245.8** | **0.9** |
| **LUs with Non-Legal OGMAs** | | | | | | | |
| **Holmes** | 13 | 8 | 61.5% | 9,361.0 | 7,246.4 | 32.1 | 0.4 |
| **South Trench** | 90 | 32 | 35.6% | 5,249.5 | 4,862.2 | 222.1 | 4.6 |
| **Sub-total** | **103** | **40** | **38.8%** | **14,610.5** | **12,108.6** | **254.2** | **2.1** |
| **Total** | **576** | **135** | **23.4%** | **43,835.1** | **38,821.8** | **500.0** | **1.3** |

### 5.3.2 Overview of Incursions Compared to Allowable Thresholds in Legal and Policy Targets

Comparing the incursions into OGMAs against the allowable thresholds in the legal orders resulted in 2.3% of legal OGMAs (11 of 473) identified as disturbed beyond the acceptable threshold limits (Figure 13). No incursions larger than the allowable thresholds occurred in the Forgetmenot, Foster, Goat, Hugh Allan, Northern Trench and West Kinbasket LUs, where legal OGMAs are established. The majority of incursions beyond the allowable incursion threshold into legally established OGMAs occurred in the Dawson LU.

For non-legal OGMAs, all incursions were considered to be beyond the acceptable threshold (zero-tolerance). This resulted in 38.8% of non-legal OGMAs (40 of 103) with incursions beyond acceptable levels in the Holmes and South Trench LUs (Figure 13).

In the following sections (Table 24, Table 25), **the total incurred percentage is calculated using total OGMA area and total area incurred and reflects the magnitude or scale of anthropogenic disturbance within OGMAs.** It is presented to demonstrate the importance of area incurred relative to OGMA size. The total incurred percentage reflects potential impacts to the old growth forest biodiversity within the established OGMAs. For example, with all incursions combined, a total percentage of 60.1% (33.1 ha) of the total OGMA area in the Dawson LU has been incurred (Table 24). This was the result of a cutting permit approval prior to the OGMA being delineated, and as such, this OGMA will need to be amended and replaced.

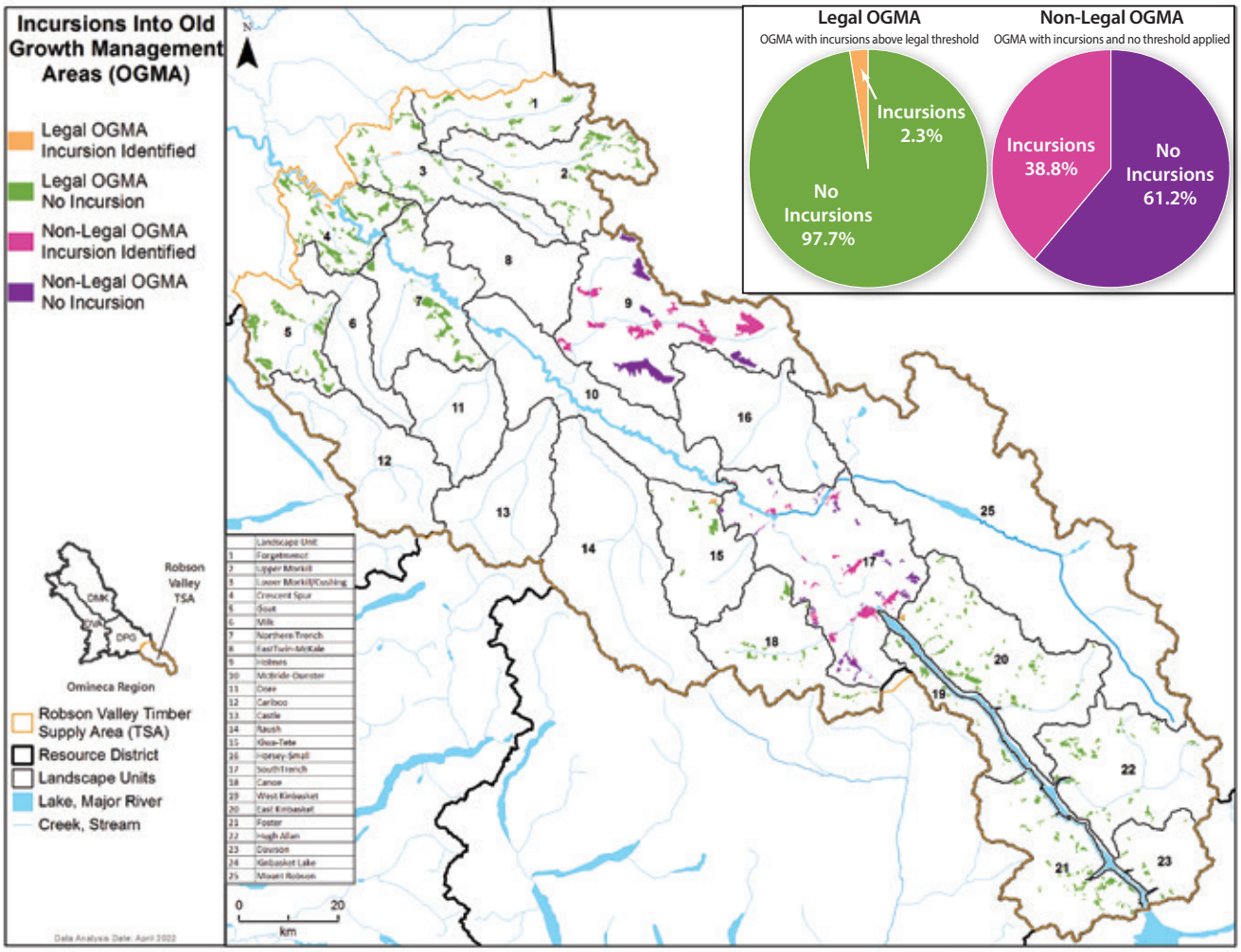



***Figure 13.*** *Incursion status of Legal and Non-Legal OGMAs in the Robson Valley TSA. The insert (pie charts) illustrates the proportion of legal and non-legal OGMAs that are above the respective allowable threshold. Allowable thresholds for legal OGMAs are defined in the legal order. In the non-legal OGMAs, there is no allowable incursion limit due to lack of legal order.*

### 5.3.3 Incursions into Legal OGMAs Compared to Allowance in Legal Targets

The total gross area in legal OGMAs in the Robson Valley TSA is 29,224.6 ha (Table 23).

A total of 11 of 473 legal OGMAs (2.3%) were identified with incursions greater than allowable thresholds (Figure 13). These incursions total 71.3 ha and equate to 0.2% of the total gross legal OGMA area. The majority of these incursions are due to roads (Table 24).

The OGMAs with greatest incurred percent area occur in the Dawson (60.1%), East Kinbasket (17.1% and 13.5%) and Upper Morkill (13.4%) LUs.

Further inquiry into the incursions in legal OGMAS is required to verify results and meet the intent of the legal order to identify ecologically equivalent replacement areas of forests with similar age, structure and area.

A breakdown of each type of incursion area is provided in Appendix 10 (Table 40).

***Table 24.*** *Summary of the 11 Legal OGMAs in the Robson Valley TSA with Incursions Greater than the Allowable Threshold within the Legal Order. The remaining 462 OGMAs do not have incursions greater than allowable limits and are not presented here. Total gross area of legal OGMAs in the Robson Valley TSA is 29,224.6 ha (Table 23).*

| Landscape Unit (LU) | OGMA ID | Total OGMA Area (ha) | Total Incurred Area (ha) | Total Incurred[18] (%) | Legal Order Allowable Threshold Objective (%)[19] | Disturbance Type[20] |
|---|---|---|---|---|---|---|
| **LUs with Legal OGMAs** | | | | | | |
| **Crescent Spur** | PRG_Cres_20 | 78.9 | 4.5 | 5.7% | 5% | Road |
| | PRG_Cres_33B | 89.4 | 6.7 | 7.5% | 5% | Road |
| **Canoe** | PRG_Can_4 | 15.0 | 1.6 | 10.9% | 10% | Road |
| **Dawson** | PRG_Daw_2 | 55.0 | 33.1 | 60.1% | 5% | Road; Cutblocks |
| **East Kinbasket** | PRG_EastK_54A | 3.2 | 0.6 | 17.1% | 10% | Roads |
| | PRG_EastK_54C | 94.0 | 7.1 | 7.5% | 5% | Road |
| | PRG_EastK_6B | 14.4 | 1.9 | 13.5% | 10% | Roads |
| **Kiwa-Tete** | PRG_Kiwa_7B | 92.3 | 6.4 | 7.0% | 5% | Road |
| **Lower Morkill/ Cushing** | PRG_MorCus_22 | 14.1 | 1.6 | 11.2% | 10% | Roads |
| | PRG_MorCus_24 | 70.7 | 6.2 | 8.8% | 5% | Road |
| **Upper Morkill** | PRG_UpMor_41 | 12.4 | 1.7 | 13.4% | 10% | Road |
| **Totals for Legal OGMAs** | **11 Legal OGMAs** | | **71.3** | | | |

[18] Due to rounding of decimal places, the Total Incurred percentage cannot be calculated from the rounded values for Total OGMA Area (ha) and Total Incurred Area (ha) as presented in this table.

[19] Allowable incursion percent is based on legal OGMA size. OGMAs less than 50 hectares have allowable incursions up to 10% of that OGMA size, while OGMAs greater than 50 hectares have allowable incursions up to 5% of that total OGMA size.

[20] Roads were applied various buffer widths depending on the source data attributes and input from regional staff, existing methodology, and satellite imagery. Road widths ranged from 5 metres to 60 metres depending on the road type. All incursions caused by cutblocks are considered current harvesting, defined as occurring in the past 20 years.

#### *5.3.3.1 Disturbance Type of Incursions in Legal OGMAs*

A total of 71.3 ha of incursions beyond acceptable limits in legal OGMAs was identified by the analysis. (Table 24). Across the seven LUs containing legal OGMAs with incursions beyond acceptable limits, 59.1% (42.1 ha) and 40.9% (29.2 ha) of incursions are associated with roads and cutblocks, respectively (Figure 14). Only one OGMA in the Dawson LU contained two types of incursions (i.e., road and cutblock disturbances) (see Appendix 10, Table 39). The area of each incursion beyond acceptable limits ranges from 0.6 ha to 29.2 ha.

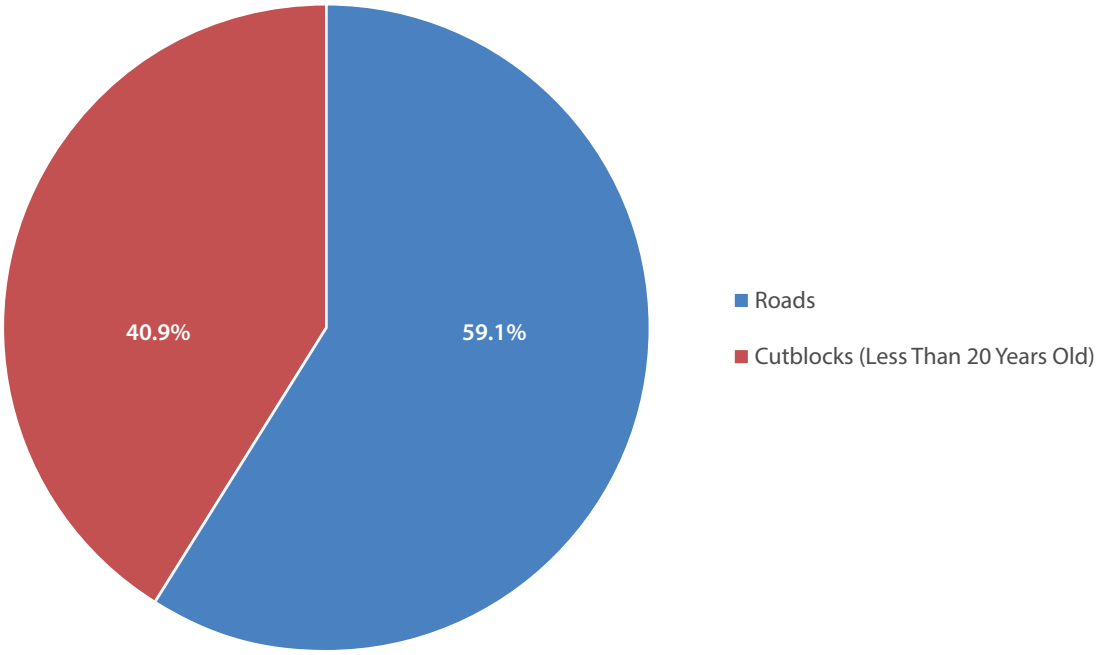



***Figure 14.*** *Disturbance Types within Legal OGMAs with Incursions above Allowable Thresholds as identified in Table 24. The total area with incursions beyond allowable thresholds in legal OGMAs is 71.3 ha.*

### 5.3.3.2 Incursion Magnitude in Legal OGMAs

The magnitude of incursion is assessed to determine the overall impact of incursions based on the size of the OGMA (e.g., the smaller the OGMA, the greater the impact to the OGMA from an incursion) and reported out as the total incurred percentage (i.e., percent disturbed, Figure 15).
The total incurred percentage and additional details are provided in Table 24.

As discussed above, the majority of incursions in legal OGMAs are just above the allowable limit, with 5-25% of the OGMA disturbed (Figure 15). The Dawson LU in the southern portion of the TSA shows the exception where 50-75% of the OGMA is disturbed by incursions (see Appendix 10, Table 39).

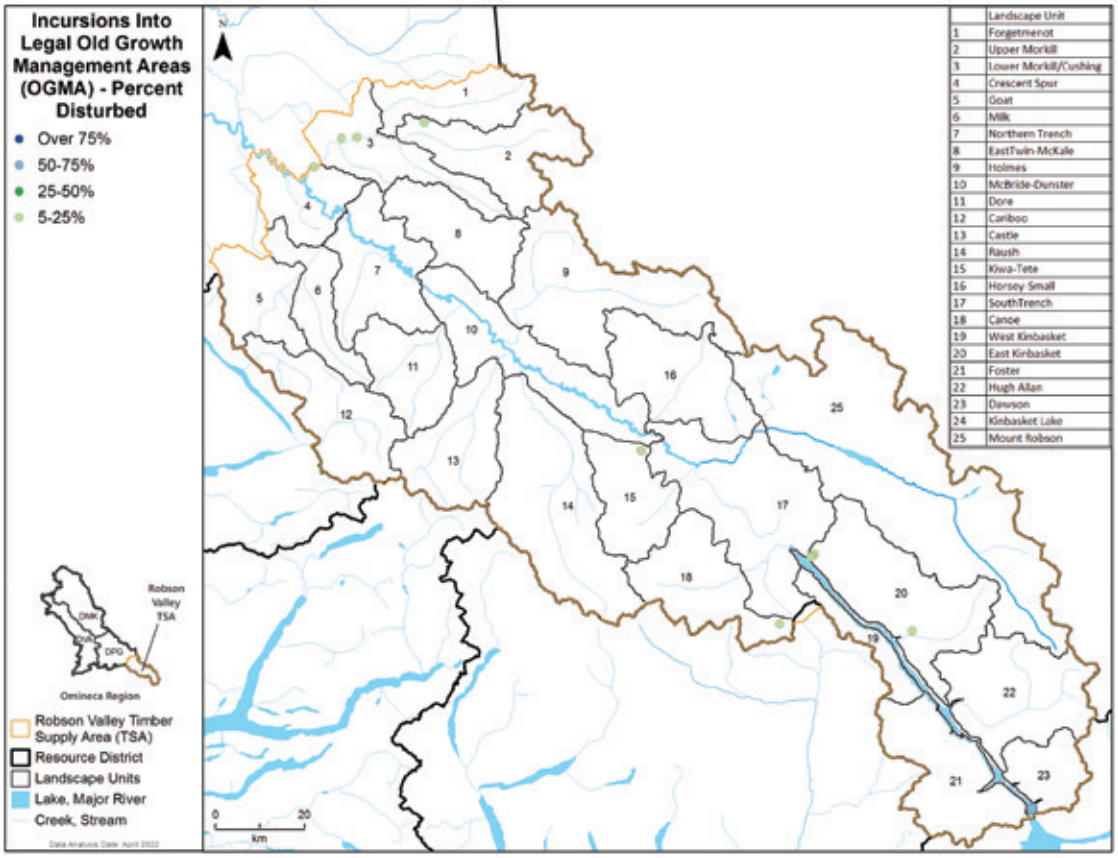



***Figure 15.*** *Magnitude of Incursions in Legal OGMAs with Incursions Greater than the allowable Threshold within the Legal Order. Magnitude of incursion is assessed to determine the overall impact to the OGMA based on the size of the OGMA and scale of disturbance (e.g., the smaller the OGMA, the greater the impact to the OGMA from an incursion). Detailed information is provided in Appendix 10: Table 39.*

### 5.3.4 Incursions into Non-Legal OGMAs Compared to Allowance in Policy Targets

The total gross area in non-legal OGMAs in the Robson Valley TSA is 14,610.5 ha (Table 23). Given there are no objectives for allowable incursion thresholds, all incursions in non-legal OGMAs are reported (Table 25). A total of 40 of 103 non-legal OGMAs (38.8%) were identified with incursions. Of the 40 non-legal OGMAs with incursions, eight OGMAs occur in the Holmes LU and 32 OGMAs occur in South Trench LU.

Within the 40 non-legal OGMAs with incursions, 294.9 ha of non-legal OGMA area is incurred (Table 25). A total of 36.7 ha of incurred area has been identified in eight non-legal OGMAs in the Holmes LU. In the South Trench LU, a total of 258.2 ha of incurred area has been identified in 32 non-legal OGMAs. Across all non-legal OGMAs in the Robson Valley, this equates to 2.0% of the total gross area with some level of incursions.

Further inquiry into the incursions in non-legal OGMAS is required to verify results and determine if a replacement of similar ecological attributes (age, forest structure and area) is required.

A breakdown of each type of incursion area is provided in Appendix 10 (Table 40).

***Table 25.*** *Summary of the 40 Non-Legal OGMAs in the Robson Valley TSA with any Incursions. The remaining 63 non-legal OGMAs do not have incursions and are not presented here. Total gross area of non-legal OGMAs in the Robson Valley is 14,610.5 ha (Table 24).*

| Landscape Unit (LU) | OGMA ID | Total OGMA Area (ha) | Total Incurred Area (ha) | Total Incurred (%)[21] | Allowable Threshold Objective (%) | Disturbance Type[22] |
|---|---|---|---|---|---|---|
| **LUs with Non-Legal OGMAs** | | | | | | |
| **Holmes LU** | PRG_Holmes_2 | 332.1 | 9.6 | 2.9% | 0% | Roads, Cutblocks |
| | PRG_Holmes_3 | 515.1 | 3.9 | 0.8% | 0% | Roads |
| | PRG_Holmes_5 | 743.7 | 0.3 | 0.0% | 0% | Road |
| | PRG_Holmes_6 | 297.2 | 3.0 | 1.0% | 0% | Roads, Urban |
| | PRG_Holmes_7 | 1,187.6 | 3.5 | 0.3% | 0% | Roads, Cutblocks, Urban |
| | PRG_Holmes_8 | 1,495.7 | 2.7 | 0.2% | 0% | Road |
| | PRG_Holmes_10 | 367.1 | 2.2 | 0.6% | 0% | Road |
| | PRG_Holmes_12 | 221.4 | 11.5 | 5.2% | 0% | Roads, Cutblocks |
| **Sub-totals** | **8 Non-Legal OGMAs** | | **36.7** | | | |

[21] Due to rounding of decimal places, the Total Incurred percentage cannot be calculated from the rounded values for Total OGMA Area (ha) and Total Incurred Area (ha) as presented in this table.

[22] Roads were applied various buffer widths depending on the source data attributes and input from Regional staff, existing methodology, and satellite imagery. Road widths ranged from 5 metres to 60 metres depending on the road type. All incursions caused by cutblocks are considered current harvesting, defined as occurring in the past 20 years.

| Landscape Unit (LU) | OGMA ID | Total OGMA Area (ha) | Total Incurred Area (ha) | Total Incurred (%)[21] | Allowable Threshold Objective (%) | Disturbance Type[22] |
|---|---|---|---|---|---|---|
| South Trench LU | PRG_SouthT_3 | 27.4 | 2.3 | 8.3% | 0% | Roads, Power |
| | PRG_SouthT_13 | 204.4 | 13.3 | 6.5% | 0% | Right-of-Way, Pipelines, Railway |
| | PRG_SouthT_16 | 6.1 | 1.0 | 16.4% | 0% | Road, Cutblocks |
| | PRG_SouthT_18 | 6.0 | 0.9 | 14.4% | 0% | Roads, Cutblocks |
| | PRG_SouthT_19 | 3.2 | 0.2 | 7.1% | 0% | Cutblocks |
| | PRG_SouthT_25 | 19.9 | 18.2 | 91.5% | 0% | Roads, Cutblocks, Railway |
| | PRG_SouthT_26 | 90.9 | 3.0 | 3.2% | 0% | Road |
| | PRG_SouthT_29 | 139.5 | 1.2 | 0.9% | 0% | Roads |
| | PRG_SouthT_33 | 22.2 | 18.2 | 82.4% | 0% | Roads, Cutblocks |
| | PRG_SouthT_39 | 35.6 | 0.9 | 2.6% | 0% | Roads, Cutblocks |
| | PRG_SouthT_40 | 2.2 | 2.1 | 98.9% | 0% | Cutblocks |
| | PRG_SouthT_44 | 69.0 | 26.6 | 38.5% | 0% | Road, Cutblocks |
| | PRG_SouthT_45 | 47.3 | 25.8 | 54.5% | 0% | Roads, Cutblocks, Right-of-Way, Power |
| | PRG_SouthT_48 | 391.7 | 3.2 | 0.8% | 0% | Road |
| | PRG_SouthT_52 | 15.2 | 0.3 | 1.9% | 0% | Road |
| | PRG_SouthT_55 | 27.9 | 9.9 | 35.4% | 0% | Road, Cutblocks |
| | PRG_SouthT_56 | 59.1 | 5.6 | 9.4% | 0% | Road, Right-of-Way |
| | PRG_SouthT_57 | 20.2 | 0.3 | 1.5% | 0% | Road, Right-of-Way |
| | PRG_SouthT_58 | 13.5 | 0.4 | 3.1% | 0% | Road, Urban |
| | PRG_SouthT_59 | 422.8 | 6.0 | 1.4% | 0% | Road, Cutblocks |
| | PRG_SouthT_65 | 15.6 | 0.2 | 1.2% | 0% | Cutblock |
| | PRG_SouthT_68 | 666.0 | 32.7 | 4.9% | 0% | Road, Cutblocks, Mining, Urban |
| | PRG_SouthT_70 | 6.0 | 0.7 | 11.7% | 0% | Road, Cutblock |
| | PRG_SouthT_73 | 48.5 | 0.6 | 1.2% | 0% | Road |
| | PRG_SouthT_75 | 36.4 | 2.3 | 6.3% | 0% | Road, Urban |
| | PRG_SouthT_76 | 155.5 | 0.3 | 0.2% | 0% | Road |
| | PRG_SouthT_77 | 29.1 | 17.9 | 61.5% | 0% | Road, Cutblocks |
| | PRG_SouthT_78 | 43.3 | 2.3 | 5.1% | 0% | Pipeline, Right-of-Way |
| | PRG_SouthT_81 | 60.0 | 2.7 | 4.5% | 0% | Road |
| | PRG_SouthT_82 | 167.5 | 26.7 | 15.9% | 0% | Road |
| | PRG_SouthT_88 | 27.4 | 0.9 | 3.4% | 0% | Roads |
| | PRG_SouthT_90 | 69.6 | 31.4 | 45.1% | 0% | Road, Cutblocks, Rail, Urban |
| **Sub-totals** | **32 Non-Legal OGMAs** | | **258.2** | | | |
| **Totals for Non-Legal OGMAs** | **40 Non-Legal OGMAs** | | **294.9** | | | |

### 5.3.4.1 Disturbance Type of Incursions in Non-Legal OGMAs

A total of 294.9 ha of incursions into non-legal OGMAs in the Robson Valley TSA was identified by the analysis (Table 26). All non-legal OGMAs occur in the Holmes and South Trench LUs, and the disturbance type is more variable than incursions in legal OGMAs.

***Table 26.*** *Summary of Incurred Area (ha) by Disturbance Type for Non-Legal OGMAs in the Holmes and South Trench LUs. The total incurred area into non-legal OGMAs is 294.9 ha.*

| Disturbance Type | Non-legal OGMAs in Holmes LU | | Non-legal OGMAs in South Trench LU | |
|---|---|---|---|---|
| | Incurred Area (ha) | Incurred Area (%) | Incurred Area (ha) | Incurred Area (%) |
| **Road** | 25.1 | 68.4% | 90.2 | 34.9% |
| **Cutblocks** | 9.6 | 26.1% | 152.2 | 58.9% |
| **Rail Infrastructure** | 2.0 | 5.6% | 6.1 | 2.3% |
| **Urban** | – | – | 0.3 | 0.1% |
| **ROW** | – | – | 4.0 | 1.5% |
| **Power** | – | – | 2.5 | 1.0% |
| **Pipelines** | – | – | 2.0 | 0.8% |
| **Mining** | – | – | 1.0 | 0.4% |
| **Total** | **36.7** | | **258.2** | |

Of the total incurred area in non-legal OGMAs in the Holmes LU (36.7 ha), the majority of incursions are a result of road disturbances (68.4%), 2 incursions due to recent cutblocks (26.1%) and 1 incursion due to urban development (5.6%) (Figure 16).

Within the 8 non-legal OGMAs with incursions, 3 OGMAs have two different records of incursions, each summing to a total of 11 incursions (see Appendix 10, Table 40). The area of each incursion ranges from 0.1 ha to 10.3 ha.

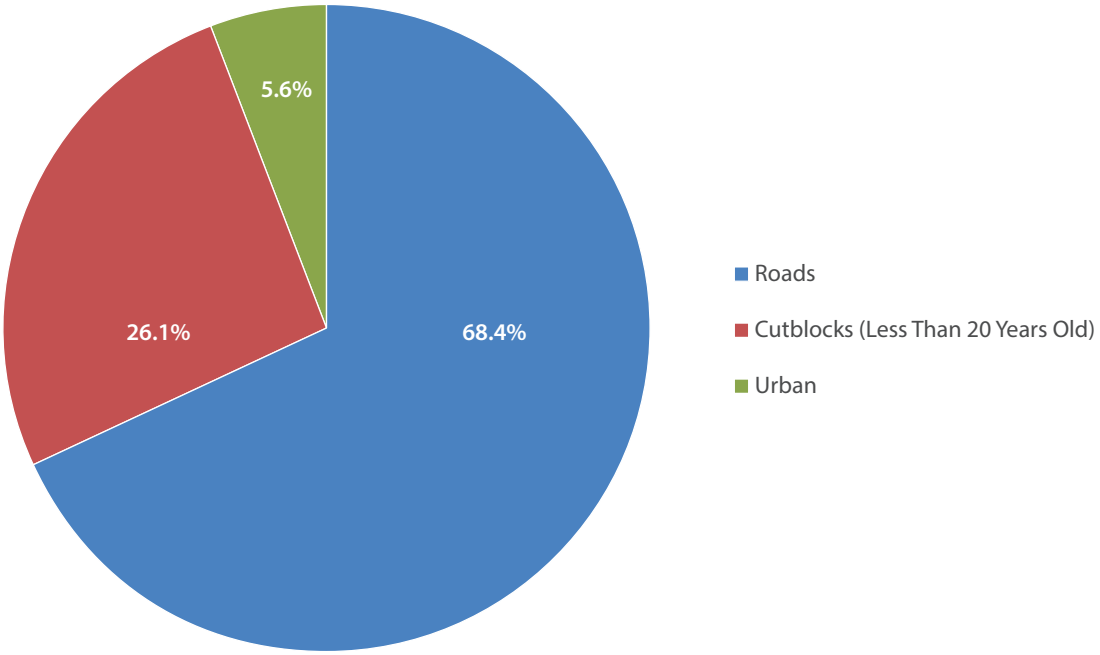



***Figure 16.*** *Percentage Distribution of Total Incursions by Disturbance Types within Non-Legal OGMAs in the Holmes LU. The total area with incursions beyond allowable thresholds (0%) in non-legal OGMAs in the Holmes LU is 36.7 ha.*

Of the total incurred area in non-legal OGMAs in the South Trench LU (258.0 ha), the majority of incursions are a result of cutblocks (58.9%) and road disturbances (34.9%) with small incursions due to other disturbance types (Figure 17).

Within the 32 non-legal OGMAs with incursions, 19 OGMAs have multiple records of incursions (see Appendix 12, Table 40). The area of each incursion ranges from 0.1 ha to 27.6 ha.

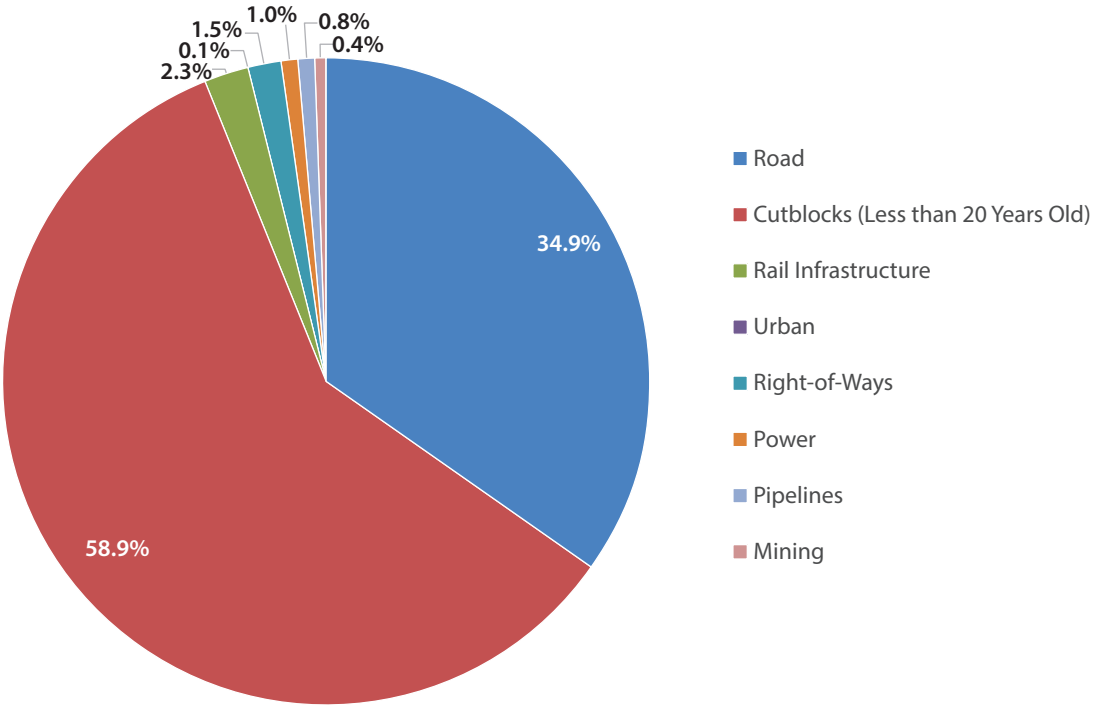



***Figure 17.*** *Percentage Distribution of Total Incursions by Disturbance Types within Non-Legal OGMAs in the South Trench LU. The total area with incursions beyond allowable thresholds (0%) in non-legal OGMAs in the South Trench LU is 258.2 ha.*

### 5.3.4.2 Incursion Magnitude in Non-Legal OGMAs

Magnitude[23] of incursions in non-legal OGMAs is more variable and covers a wider range of percent categories than magnitude of incursions into legal OGMAs. (Figure 18). The total incurred percentage and additional details are provided in Table 25 and Table 26.

For non-legal OGMAS in the Holmes LU, 88% (7 of 8) of OGMAs fall within the 0-5% category of magnitude and 12% (1 of 8) of OGMAs fall with 5-25% category of magnitude (Figure 18 and Table 25).

For non-legal OGMAs in the South Trench LU, 44% (14 of 32) of OGMAs fall within 0-5% magnitude category, 31% (10 of 32) OGMAs fall within the 5-25% magnitude category, 9% (3 of 32) of OGMAs
fall within the 25-50% magnitude category, 6% (2 of 32) in the 50-75% magnitude category, and 9% (3 of 32) in the > 75% magnitude category (Figure 18 and Table 25).

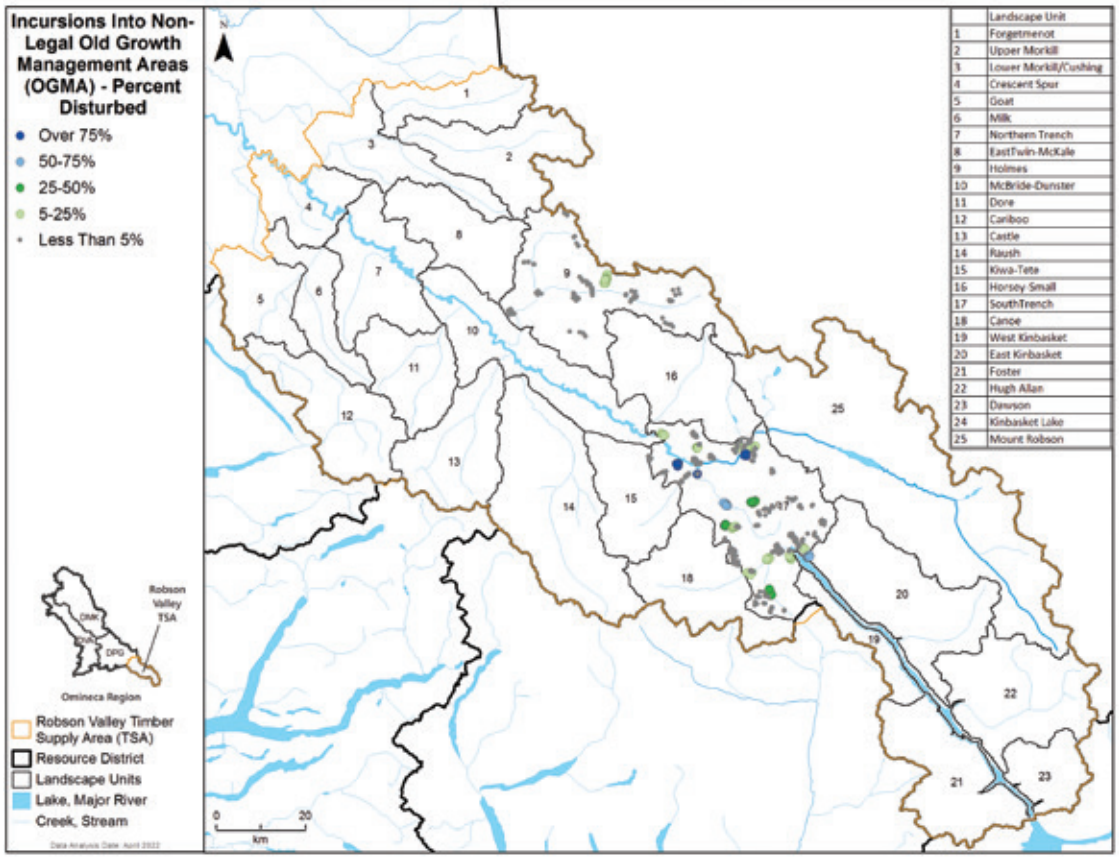



***Figure 18.*** *Magnitude of Incursions in Non-Legal OGMAs with Incursions Greater than 0%.*

[23] The magnitude of incursion is presented to determine the overall impact of incursions based on the size of the OGMA (e.g., the smaller the OGMA, the greater the impact to the OGMA from an incursion) and reported out as the total incurred percentage.

### 5.3.5 Limitations

In this assessment, all incursions (i.e., anthropogenic disturbance footprints) were included regardless of when they occurred (e.g., prior to or after the OGMA was established), except for cutblocks. All cutblocks that pre-dated the establishment of the OGMA and those that occurred more than 20 years before the assessment were removed. As a result, OGMA incursion results may overestimate incursions due to the inclusion of incursions that were known and considered acceptable at the time of OGMA delineation.

In addition, road widths applied in the assessment were not verified on the ground and instead represent a best estimation based on the available information and input from government staff. Due to the variation in accuracy of spatial road data (e.g., roads represented in the data that were not built on the ground, varying road widths based on local terrain), it is possible that some OGMA incursions due to roads are a result of incorrect road data and not necessarily an actual incursion into the OGMA.

The LUPG provided the direction for OGMA delineation based on a rigorous rules-based approach that focused on managing timber supply impacts (e.g., co-locating in no-harvest areas like parks, then delineating stands in the non-contributing land base), ensuring the biodiversity conservation was within the timber supply impact levels set by government (no more than a 4% impact to timber supply). As a result, there may have been unintended outcomes to biodiversity objectives and old growth forest management. Assessing how OGMAs were designed and implemented as per provincial policy/guidance was outside the scope of this assessment.

*Lichen in Hungry Creek – Darcie Fodor*

### 5.3.6 Summary and Observations of OGMA Incursion Indicator

In the legal OGMA Orders, allowable incursion percent is based on legal OGMA size. OGMAs less than 50 ha have allowable incursions up to 10% of OGMA area (up to 5.0 ha), while OGMAs greater than 50 ha have allowable incursions up to 5% of total OGMA area. Therefore, incursions into legal OGMAs below the allowable thresholds were not reported by individual OGMAs. This information was reported by LU in the summary table in Section 5.3.1. In the non-legal OGMAs, there is no allowable threshold for incursion, therefore any disturbances recorded within OGMAs was flagged as an incursion and reported.

Currently, 576 OGMAs have been mapped in the Robson Valley consisting of 473 legal OGMAs and 103 non-legal OGMAs. Legal OGMAs are primarily established in the northern and southern portions of the TSA across 13 LUs, and the non-legal OGMAs are in the Holmes and South Trench LUs.

Overall, 2.3% of legal OGMAs have incursions greater than the allowable threshold. These incursions represent 0.2% of the total legal OGMA area in the Robson Valley TSA. For non-legal OGMAs, 38.8% show some level of incursions. These incursions represent 2.0% of the total non-legal OGMA area in the Robson Valley TSA. The higher percentage of incursions into non-legal OGMAs may reflect the lack of allowable thresholds for non-legal OGMAs.

In legal OGMAs, most incursions by area were due to road disturbances and recent harvesting. The majority of incursions in non-legal OGMAs were due to recent harvest activities (within the last 20 years) and road disturbances. The other disturbance types identified were rail infrastructure, rights-of-way, oil and gas infrastructure, power, mining, and urban developments.

As discussed throughout the report, incursions into OGMAs may have occurred for several reasons. It is recommended that further inquiry be completed to better understand the amount, type and magnitude of OGMA incursions to determine if the intent of the legal orders is being maintained and if OGMAs need to be replaced or monitored.

Through the OGMA establishment process, the LUPG included the provision that OGMAs will not have an impact on the status of existing mineral and gas permits and tenures. As such, these related exploration and development activities are permitted in OGMAs. These activities may proceed to the point of significantly impacting old growth forest values within OGMAs, and even though the activities are exempt from the orders, OGMA amendment and replacement should be considered.

This assessment provides the first attempt at reporting the cumulative disturbance from all sectors regardless of legal obligations. The results can be considered in context of how new permitting and authorization decisions may contribute to further cumulative impacts and can support the review of current condition of OGMAs to determine if amendment or replacement is required.

## 5.4 Amount of Old Growth Forest in OGMAs relative to Targets

OGMAs are the implementation strategy used to meet old growth forest retention targets. Identifying how much old growth forest exists within legal and non-legal OGMAs relative to targets (as defined in PNOGO) can assess whether OGMAs are currently achieving retention targets for old growth forest in the CE-CFLB. In addition, assessing how much mature forest exists within legal and non-legal OGMAs can help identify the amount of potentially eligible stands available for future recruitment to achieve old growth and biodiversity objectives.

The LUPG provides a strict "rules-based" approach on how OGMAs were to be designed to mitigate additional impacts on timber supply. This approach required that all old growth retention targets be met (i.e., co-located) in areas with harvesting restrictions first (e.g., parks, ecological reserves, WHAs, UWRs). Only after the old growth target is co-located, the remaining target area could be defined as spatial OGMAs in the LU/BEC. If there was not enough old growth forest in the LU/BEC to meet the target, then the next oldest available forest (generally mature forest) could be recruited. While this assessment includes the amount of old growth within these other protected areas as part of the overall old growth available in a given AU, it does not report specifically on the area and amount of old growth within these other protected areas. Therefore, where the results indicate that the area or amount of old growth in OGMAs is not sufficient to meet PNOGO targets, it may be because the remaining amount of old growth needed to meet those targets is captured in these other protected areas, and further inquiry is required.

This assessment does not consider the 2/3 drawdown allowed for Low BEOs that may be applied in implementation of OGMA design, and thus is comparing the amount of old and mature forest (ha) to the full targets. Where OGMA area or the amount of old growth forest in OGMAs is below old growth forest retention targets, it does not necessarily mean targets are not being met.

Robson Valley legal orders objectives state that OGMAs are to be managed to the polygon (area) to meet the distribution of old growth forest for each LU/BEC. These legal orders do not require the management of the seral stage within OGMAs. The intent of OGMAs was to meet the target amount of old forest (ha) under PNOGO. Once OGMAs are legally established, the assumption is that the total amount (ha) of area within OGMAs meets the old forest seral stage[24] targets under PNOGO.

**This assessment is intended to provide a starting point for further analysis and inquiry to examine how OGMA designations are meeting PNOGO targets for old growth forest retention.**

[24] Seral stage ages were derived from the 2019 VRI. Refer to Section 2.1.4 for definitions.

### 5.4.1 Total Amount of Old Growth in OGMAs

The current seral stage[25] in OGMAs shows a general pattern of old and mature forest stands in most legal OGMAs, while the non-legal OGMAs show more mature and mid seral stage forest (Figure 19).

There is a total of 38,823 ha of CE-CFLB in OGMAs in the Robson Valley TSA, of which 26,714 ha and 12,108 ha are within legal and non-legal OGMAs, respectively (Table 27).

In legal OGMAs, 71% of area is old forest (18,959.1 ha), 20.3% is mature forest (5,431.3 ha), with minor components of mid seral stage forest (0.2% or 44 ha) and early (2.3% or 607.8 ha) (Table 27).

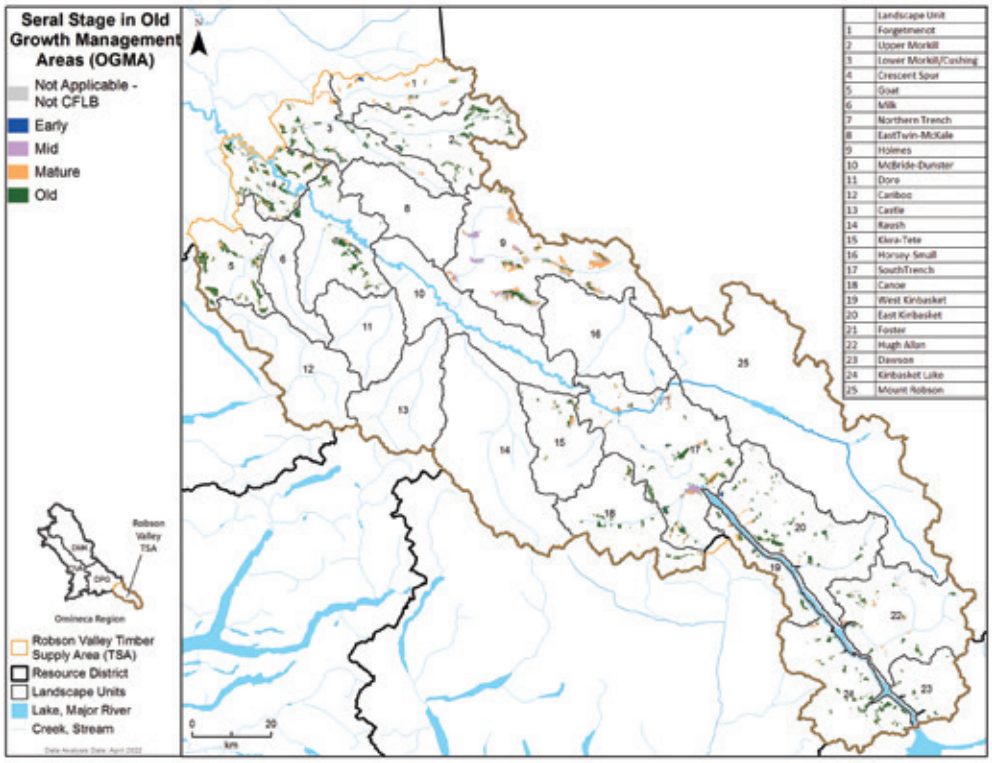



***Figure 19.*** *Current Seral Stage of Forests in Legal and Non-Legal OGMAs in the CE-CFLB in the Robson Valley TSA. Refer to Section 2.1.4 for definitions of seral stages. All non-legal OGMAs are located within the Holmes and South Trench LUs.*

In non-legal OGMAs, 32.3% of the area is old forest (3,911.6 ha), 40.6% is mature forest (4911.9 ha), 16.2% is mid seral stage forest (1.965.5 ha), and a minor component of 2.2% is early forest (265.5 ha) (Table 27).

***Table 27.*** *Current Seral Stage of Forests in Legal and Non-Legal OGMAs in the CE-CFLB in the Robson Valley TSA. Area with no seral stage assigned is included in the CE-CFLB area but has no targets. It is located in high elevation BECs but counts towards meeting the old growth targets in OGMAs. There is a total of 38,823 ha of CE-CFLB in OGMAs in the Robson Valley TSA when including these areas without targets.*

| CE-CFLB Area (ha) in OGMAs by Seral Stage | | | | | |
|---|---|---|---|---|---|
| **Seral Stage** | **Area (ha) in Legal OGMA** | **Area (%) in Legal OGMA** | **Area (ha) in Non-Legal OGMA** | **Area (%) in Non-Legal OGMA** | **Total Area (ha) of CE-CFLB in OGMAs** |
| Early | 607.8 | 2.3% | 265.5 | 2.2% | 873.3 |
| Mid | 44.0 | 0.2% | 1,965.5 | 16.2% | 2,009.5 |
| Mature | 5,431.3 | 20.3% | 4,911.9 | 40.6% | 10,343.2 |
| Old | 18,959.1 | 71.0% | 3,911.6 | 32.3% | 22,870.7 |
| No seral stage assigned | 1,671.9 | 6.3% | 1,053.9 | 8.7% | 2,725.8 |
| Total | **26714.1** | | **12,108.4** | | **38,822.5** |

[25] Seral stage ages were derived from the 2019 VRI. Refer to Section 2.1.4 for definitions.

In the Robson Valley TSA, there are 66 AUs with legal OGMAs, of which 5 AUs (7.6%) currently have sufficient amounts of old growth forest (100% or more) within those OGMAs to meet PNOGO targets. Sufficient old growth is currently found within OGMAs in the Canoe/ICHmm (106%), Crescent Spur/ESSFmm1 (139%), Goat/SBSvk (206%), Lower Morkill/Cushing/SBSvk (151%), and Upper Morkill/ESSFmm1 AUs (129%) (Table 28). The other 61 AUs (92.4%) currently have insufficient amounts of old growth forest (less than 100%) within established OGMAs compared to PNOGO targets. Further, 44 AUs (66.7%) have less than 50% of targets met using old growth within OGMAs.

In the Robson Valley TSA, there are 9 AUs with non-legal OGMAs, of which five AUs occur in the Holmes LU and four AUs occur in South Trench LU (Table 29). Currently, all AUs (100%) have insufficient amounts of old growth compared to PNOGO targets, with most having less than 50% of targets met using old growth within OGMAs.

**Despite this, in most AUs there is an abundance of old growth forests available outside the OGMA boundaries that could contribute to these targets if incorporated into OGMAs (as presented in columns D & G for each AU in Table 28 and Table 29).**

Further, Table 28 presents the current condition of CE-CFLB within legal OGMAs in the Robson Valley TSA at three distinct levels: 1) landscape level, 2) OGMA polygon, 3) old growth forest within OGMA. This is presented as an area of CE-CFLB (ha) and as a percentage of PNOGO target met. The results and interpretation for old growth in non-legal OGMAs is presented following the same structure in Table 29.

Landscape level (column D & G) is providing the amount of old growth forest within the CE-CFLB portion of each LU/BEC that contain OGMAs and indicates how much old growth forest is currently available as compared to the PNOGO target for each LU/BEC. This information provides context for the amount of old growth forest outside of OGMAs but still within the same BEC subzone and/or variant and represents the future potential of the LU/BEC to improve old growth forest retention, conservation, distribution and management on the landscape.

For example, in Canoe/ESSFmm1 AU, there is 2,836.3 ha of old forest, which equates to 342% old forest compared to PNOGO. This translates to this LU/BEC (AU) having 3.42 times more old forest available than currently required by PNOGO.

It is important to note that for most of the LU/BECs, the targets are associated with Low or Intermediate BEO designations, and therefore there is an overachievement of old growth forest compared to the retention targets which range from 9-13%.

The OGMA polygon level (Column E & H, Table 28) is providing the total amount of CE-CFLB (ha) within the OGMA and compares that total area to the PNOGO target. This explores the original intent of OGMAs to contain old growth forest and provides an indication of how the current OGMAs are meeting and/or exceeding targets if total CE-CFLB area is assumed to be old growth forest. Although the legal order is to manage to the OGMA polygon (which could include non-forested area), the amount of CE-CFLB (ha) in the OGMA reflects the current maximum potential of the forested portion of the OGMA to meet PNOGO targets.

For example, in Canoe/ESSFmm1 AU, there is 575.2 ha of CE-CFLB in OGMAs, which equates to 69% of the PNOGO target met in area. This means that the OGMAs will not meet the area-based target for that AU regardless of how much old forest they contain. Conversely, in Canoe/ICHmm AU, there is 527.1 ha of CE-CFLB in OGMAs, which equates to 119% of the PNOGO target met in area. This means that the OGMAs meet and exceed the area-based target, regardless of how much old forest they contain.

It is important to note that this information is an administrative result that provides the context for evaluating if OGMA delineation captured enough area to meet the targets, regardless of age of the forest.

The results for the old growth forest within OGMA (Column F & J, Table 28) provides the actual amount of old forest in OGMAs in CE-CFLB based on the VRI and compares it to the PNOGO targets for old retention. For example, in the Canoe/ESSFmm1 AU, there is 482.3 ha of old forest in OGMAs, which equates to 58% of PNOGO target met with old forest. Conversely, in Canoe/ICHmm AU, there is 527.1 ha of old forest in OGMAs, which equates to 106% of PNOGO target met and exceeded with old forest.

By reporting on both the CE-CFLB area in OGMAs (column E & H) and the amount of old in OGMAs (column F & J), the results provide a clearer depiction of current condition and old growth management in LU/BECs (AUs) with OGMAs (legal and non-legal) and where there are opportunities for improvements in the future at the landscape level (column D & G) (Table 28, Table 29).

The same interpretation applies to the amount of old growth in non-legal OGMAs (Table 29).

**In Table 28 and Table 29, there are AUs with BECs in high elevation areas (ESSFmmp and ESSFwcp) that have zero values for the PNOGO targets and all other columns except area of CE-CFLB. These zero values indicate areas that have no seral stage or targets assigned. However, the area of CE-CFLB associated with these AUs counts towards meeting the old growth targets in OGMAs.**

***Table 28.*** *Total Amount of Old Growth Forest in Legal OGMAs by AU, LU and BEC. This table is comparing the amount of old in OGMAs (as a percentage) to the PNOGO targets. There are 66 AUs with legal OGMAs in the CE-CFLB. These zero values indicate areas that have no seral stage or targets assigned. However, the area of CE-CFLB associated with these AUs counts towards meeting the old growth targets in OGMAs.*

| Column Calculation | A | B | C=A*B | D | E | F | G=D/C | H=E/C | J=F/C |
|---|---|---|---|---|---|---|---|---|---|
| **LU/BEC with OGMAs** | **Total CE-CLFB Area of LU/BEC with OGMAs (ha)** | **PNOGO Old Forest Target (%)** | **PNOGO Old Forest Target (ha)** | **Area of CE-CFLB Old Forest in LU/BEC with OGMAs (ha)** | **CE-CFLB Area in OGMAs (ha)** | **Area of CE-CFLB Old Forest in OGMA (ha)** | **Old in CE-CFLB in LU/BEC (% of Target)** | **CE-CFLB Area in OGMAs (% of Target)** | **CE-CFLB Old Forest in OGMA (% Target)** |
| **Canoe** | | | | | | | | | |
| ESSFmm1 | 9,207.0 | 9% | 828.6 | 2,836.3 | 575.2 | 482.3 | 342% | 69% | 58% |
| ESSFmmp | 3,779.5 | 0% | 0.0 | 0.0 | 40.0 | 0.0 | 0% | 0% | 0% |
| ICHmm | 4,915.7 | 9% | 442.4 | 2,211.5 | 527.1 | 467.2 | 500% | 119% | 106% |
| SBSdh1 | 491.0 | 11% | 54.0 | 372.5 | 10.3 | 10.3 | 690% | 19% | 19% |
| **Subtotal** | **18,393.2** | | **1,325.1** | **5,420.3** | **1,152.6** | **959.8** | | | |
| **Crescent Spur** | | | | | | | | | |
| ESSFmm1 | 845.0 | 13% | 109.9 | 332.2 | 298.0 | 152.2 | 302% | 271% | 139% |
| ESSFmmp | 33.9 | 0% | 0.0 | 0.0 | 12.4 | 0.0 | 0% | 0% | 0% |
| ESSFwc3 | 623.2 | 28% | 174.5 | 247.2 | 122.7 | 44.7 | 142% | 70% | 26% |
| ESSFwcp | 153.4 | 0% | 0.0 | 0.0 | 76.9 | 0.0 | 0% | 0% | 0% |
| ESSFwk1 | 1,195.3 | 28% | 334.7 | 392.7 | 337.6 | 236.0 | 117% | 101% | 71% |
| ICHwk3 | 18,661.3 | 19% | 3,545.6 | 7,260.7 | 3,586.5 | 2,772.8 | 205% | 101% | 78% |
| SBSvk | 3,402.5 | 13% | 442.3 | 452.3 | 258.8 | 174.0 | 102% | 59% | 39% |
| **Subtotal** | **24,914.7** | | **4,607.0** | **8,685.2** | **4,692.8** | **3,379.6** | | | |

| Column Calculation | A | B | C=A*B | D | E | F | G=D/C | H=E/C | J=F/C |
|---|---|---|---|---|---|---|---|---|---|
| LU/BEC with OGMAs | Total CE-CLFB Area of LU/BEC with OGMAs (ha) | PNOGO Old Forest Target (%) | PNOGO Old Forest Target (ha) | Area of CE-CFLB Old Forest in LU/BEC with OGMAs (ha) | CE-CFLB Area in OGMAs (ha) | Area of CE-CFLB Old Forest in OGMA (ha) | Old in CE-CFLB in LU/BEC (% of Target) | CE-CFLB Area in OGMAs (% of Target) | CE-CFLB Old Forest in OGMA (% Target) |
| **Dawson** | | | | | | | | | |
| ESSFmm1 | 396.2 | 9% | 35.7 | 149.7 | 7.0 | 7.0 | 420% | 20% | 20% |
| ESSFwc2 | 3,515.3 | 19% | 667.9 | 1,741.2 | 190.0 | 155.3 | 261% | 28% | 23% |
| ESSFwcp | 1,432.8 | 0% | 0.0 | 0.0 | 11.4 | 0.0 | 0% | 0% | 0% |
| ICHmm | 1,129.7 | 9% | 101.7 | 341.5 | 40.5 | 22.8 | 336% | 40% | 22% |
| ICHwk1 | 3,579.3 | 13% | 465.3 | 1,896.6 | 125.1 | 89.4 | 408% | 27% | 19% |
| **Subtotal** | **10,053.3** | | **1,270.5** | **4,128.9** | **373.9** | **274.4** | | | |
| **East Kinbasket** | | | | | | | | | |
| ESSFmm1 | 14,639.0 | 9% | 1,317.5 | 4,681.3 | 941.8 | 856.2 | 355% | 71% | 65% |
| ESSFmmp | 2,250.5 | 0% | 0.0 | 0.0 | 65.3 | 0.0 | 0% | 0% | 0% |
| ICHmm | 13,996.8 | 9% | 1,259.7 | 2,732.2 | 1,104.1 | 878.1 | 217% | 88% | 70% |
| SBSdh1 | 413.4 | 11% | 45.5 | 36.2 | 117.8 | 26.9 | 80% | 259% | 59% |
| **Subtotal** | **31,299.7** | | **2,622.7** | **7,449.7** | **2,229.0** | **1,761.3** | | | |
| **Forgetmenot** | | | | | | | | | |
| ESSFmm1 | 15,548.5 | 9% | 1,399.4 | 1,202.9 | 1,063.3 | 235.8 | 86% | 76% | 17% |
| ESSFmmp | 4,846.3 | 0% | 0.0 | 0.0 | 100.7 | 0.0 | 0% | 0% | 0% |
| ICHwk3 | 861.3 | 13% | 112.0 | 339.4 | 47.2 | 41.6 | 303% | 42% | 37% |
| SBSvk | 511.1 | 9% | 46.0 | 4.3 | 0.0 | 0.0 | 9% | 0% | 0% |
| **Subtotal** | **21,767.1** | | **1,557.3** | **1,546.7** | **1,211.2** | **277.4** | | | |
| **Foster** | | | | | | | | | |
| ESSFmm1 | 1,302.8 | 9% | 117.2 | 305.3 | 119.8 | 36.8 | 260% | 102% | 31% |
| ESSFmmp | 931.7 | 0% | 0.0 | 0.0 | 36.7 | 0.0 | 0% | 0% | 0% |
| ESSFwc2 | 10,374.2 | 19% | 1,971.1 | 4,724.0 | 1,358.8 | 1,322.0 | 240% | 69% | 67% |
| ESSFwcp | 3,004.5 | 0% | 0.0 | 0.0 | 80.4 | 0.0 | 0% | 0% | 0% |
| ICHmm | 3,208.8 | 9% | 288.8 | 1,082.1 | 236.3 | 228.6 | 375% | 82% | 79% |
| ICHwk1 | 8,079.1 | 13% | 1,050.3 | 5,894.7 | 603.5 | 572.9 | 561% | 57% | 55% |
| **Subtotal** | **26,901.0** | | **3,427.4** | **12,006.1** | **2,435.5** | **2,160.4** | | | |

| Column Calculation | A | B | C=A*B | D | E | F | G=D/C | H=E/C | J=F/C |
|---|---|---|---|---|---|---|---|---|---|
| LU/BEC with OGMAs | Total CE-CLFB Area of LU/BEC with OGMAs (ha) | PNOGO Old Forest Target (%) | PNOGO Old Forest Target (ha) | Area of CE-CFLB Old Forest in LU/BEC with OGMAs (ha) | CE-CFLB Area in OGMAs (ha) | Area of CE-CFLB Old Forest in OGMA (ha) | Old in CE-CFLB in LU/BEC (% of Target) | CE-CFLB Area in OGMAs (% of Target) | CE-CFLB Old Forest in OGMA (% Target) |
| **Goat** | | | | | | | | | |
| ESSFwc3 | 4,719.0 | 19% | 896.6 | 1,001.0 | 693.5 | 473.6 | 112% | 77% | 53% |
| ESSFwcp | 681.4 | 0% | 0.0 | 0.0 | 93.2 | 0.0 | 0% | 0% | 0% |
| ESSFwk1 | 6,475.7 | 19% | 1,230.4 | 2,171.7 | 1,350.8 | 1,110.0 | 177% | 110% | 90% |
| ICHwk3 | 230.8 | 13% | 30.0 | 18.6 | 7.6 | 0.0 | 62% | 25% | 0% |
| SBSvk | 4,752.6 | 9% | 427.7 | 1,832.5 | 1,013.3 | 882.7 | 428% | 237% | 206% |
| **Subtotal** | **16,859.5** | | **2,584.7** | **5,023.7** | **3,158.4** | **2,466.3** | | | |
| **Hugh Allan** | | | | | | | | | |
| ESSFmm1 | 13,062.9 | 9% | 1,175.7 | 3,738.1 | 832.0 | 578.1 | 318% | 71% | 49% |
| ESSFmmp | 4,434.9 | 0% | | 0.0 | 301.6 | 0.0 | 0% | 0% | 0% |
| ICHmm | 9,613.7 | 9% | 865.2 | 1,158.3 | 504.3 | 266.1 | 134% | 58% | 31% |
| ICHwk1 | 104.7 | 13% | 13.6 | 33.1 | 0.0 | 0.0 | 243% | 0% | 0% |
| **Subtotal** | **27,216.0** | | **2,054.5** | **4,929.4** | **1,637.9** | **844.2** | | | |
| **Kiwa-Tete** | | | | | | | | | |
| ESSFmm1 | 5,292.6 | 9% | 476.3 | 1,378.8 | 395.6 | 176.8 | 289% | 83% | 37% |
| ESSFmmp | 1,590.9 | 0% | 0.0 | 0.0 | 97.3 | 0.0 | 0% | 0% | 0% |
| ICHmm | 4,188.9 | 9% | 377.0 | 875.2 | 275.5 | 197.7 | 232% | 73% | 52% |
| SBSdh1 | 1.1 | 11% | 0.1 | 0.0 | 0.0 | 0.0 | 0% | 0% | 0% |
| **Subtotal** | **11,073.5** | | **853.5** | **2,254.0** | **768.4** | **374.5** | | | |
| **Lower Morkill/Cushing** | | | | | | | | | |
| ESSFmm1 | 10,080.9 | 9% | 907.3 | 3,399.5 | 772.9 | 567.9 | 375% | 85% | 63% |
| ESSFmmp | 1,282.9 | 0% | 0.0 | 0.0 | 14.7 | 0.0 | 0% | 0% | 0% |
| ESSFwc3 | 1,606.1 | 19% | 305.2 | 114.9 | 245.0 | 46.9 | 38% | 80% | 15% |
| ESSFwcp | 1,734.0 | 0% | 0.0 | 0.0 | 60.4 | 0.0 | 0% | 0% | 0% |
| ESSFwk2 | 1,617.7 | 19% | 307.4 | 140.6 | 273.5 | 55.8 | 46% | 89% | 18% |
| ICHwk3 | 6,776.2 | 13% | 880.9 | 3,281.7 | 950.4 | 728.9 | 373% | 108% | 83% |
| SBSvk | 2,032.8 | 9% | 183.0 | 1,042.7 | 316.9 | 276.9 | 570% | 173% | 151% |
| **Subtotal** | **25,130.6** | | **2,583.7** | **7,979.3** | **2,633.8** | **1,676.5** | | | |

| Column Calculation | A | B | C=A*B | D | E | F | G=D/C | H=E/C | J=F/C |
|---|---|---|---|---|---|---|---|---|---|
| LU/BEC with OGMAs | Total CE-CLFB Area of LU/BEC with OGMAs (ha) | PNOGO Old Forest Target (%) | PNOGO Old Forest Target (ha) | Area of CE-CFLB Old Forest in LU/BEC with OGMAs (ha) | CE-CFLB Area in OGMAs (ha) | Area of CE-CFLB Old Forest in OGMA (ha) | Old in CE-CFLB in LU/BEC (% of Target) | CE-CFLB Area in OGMAs (% of Target) | CE-CFLB Old Forest in OGMA (% Target) |
| **Northern Trench** | | | | | | | | | |
| ESSFmm1 | 1,826.2 | 9% | 164.4 | 398.0 | 209.5 | 135.7 | 242% | 127% | 83% |
| ESSFmmp | 238.2 | 0% | 0.0 | 0.0 | 38.5 | 0.0 | 0% | 0% | 0% |
| ESSFwc3 | 4,469.5 | 19% | 849.2 | 967.6 | 293.5 | 239.4 | 114% | 35% | 28% |
| ESSFwcp | 2,193.4 | 0% | 0.0 | 0.0 | 242.0 | 0.0 | 0% | 0% | 0% |
| ESSFwk1 | 3,971.6 | 19% | 754.6 | 866.9 | 310.3 | 300.1 | 115% | 41% | 40% |
| ICHmm | 429.8 | 9% | 38.7 | 98.9 | 0.0 | 0.0 | 256% | 0% | 0% |
| ICHwk3 | 22,650.7 | 13% | 2,944.6 | 7,725.4 | 1,983.1 | 1,545.8 | 262% | 67% | 52% |
| SBSvk | 1,218.2 | 9% | 109.6 | 63.7 | 0.0 | 0.0 | 58% | 0% | 0% |
| **Subtotal** | **36,997.6** | | **4,861.1** | **10,120.6** | **3,076.9** | **2,221.0** | | | |
| **Upper Morkill** | | | | | | | | | |
| ESSFmm1 | 18,115.0 | 9% | 1,630.3 | 8,465.6 | 2,179.9 | 2,108.4 | 519% | 134% | 129% |
| ESSFmmp | 4,330.5 | 0% | 0.0 | 0.0 | 384.6 | 0.0 | 0% | 0% | 0% |
| ICHwk3 | 273.3 | 13% | 35.5 | 63.9 | 0.0 | 0.0 | 180% | 0% | 0% |
| SBSvk | 2,008.2 | 9% | 180.7 | 1,275.9 | 8.1 | 7.8 | 706% | 4% | 4% |
| **Subtotal** | **24,727.0** | | **1,846.6** | **9,805.4** | **2,572.6** | **2,116.3** | | | |
| **West Kinbasket** | | | | | | | | | |
| ESSFmm1 | 3,632.6 | 9% | 326.9 | 827.2 | 256.7 | 92.4 | 253% | 79% | 28% |
| ESSFmmp | 1,847.7 | 0% | 0.0 | 0.0 | 15.6 | 0.0 | 0% | 0% | 0% |
| ICHmm | 6,532.9 | 9% | 588.0 | 2,321.8 | 499.2 | 355.0 | 395% | 85% | 60% |
| SBSdh1 | 0.0 | 11% | 0.0 | 0.0 | 0.0 | 0.0 | 0% | 0% | 0% |
| **Subtotal** | **12,013.2** | | **914.9** | **3,148.9** | **771.5** | **447.4** | | | |
| **Total** | **287,346.0** | | **30,509.0** | **82,498.2** | **26,714.6** | **18,959.0** | | | |

***Table 29.*** *Total Amount of Old Growth Forest in Non-Legal OGMAs by AU, LU and BEC. This table is comparing the amount of old in OGMAs (as a percentage) to the PNOGO targets. There are 9 AUs with non-legal OGMAs in the CE-CFLB. These zero values indicate areas that have no seral stage or targets assigned. However, the area of CE-CFLB associated with these AUs counts towards meeting the old growth targets in OGMAs.*

| Column Calculation | A | B | C=A*B | D | E | F | G=D/C |
|---|---|---|---|---|---|---|---|
| **LU/BEC with Non-Legal OGMAs** | **CE-CLFB (ha)** | **PNOGO Old Forest Target (%)** | **PNOGO Old Forest Target (ha)** | **Total Area of Old Forest in CE-CFLB in LU/BEC** | **Total CE-CFLB by BEC in OGMA (ha)** | **Total Old Forest in OGMA in CE-CFLB (ha)** | **Old Forest Area in LU/BEC in CE-CFLB (% of Target)** |
| **Holmes** | | | | | | | |
| ESSFmm1 | 17,918.5 | 9 | 1,612.7 | 2,184.6 | 4,508.8 | 1,082.8 | 135% |
| ESSFmmp | 2,994.2 | 0 | 0.0 | 0.0 | 744.6 | 0.0 | 0% |
| ICHmm | 9,448.9 | 9 | 850.4 | 497.1 | 1,209.7 | 343.1 | 58% |
| SBSdh1 | 196.2 | 11 | 21.6 | 1.5 | 17.2 | 1.5 | 7% |
| SBSvk | 5,870.4 | 9 | 528.3 | 340.8 | 766.1 | 110.0 | 64% |
| **Subtotal** | **36,428.1** | | **3,013.0** | **3,024.0** | **7,246.4** | **1,537.4** | |
| **South Trench** | | | | | | | |
| ESSFmm1 | 13,646.4 | 9 | 1,228.2 | 2,156.0 | 1,173.4 | 745.1 | 176% |
| ESSFmmp | 4,169.3 | 0 | 0.0 | 0.0 | 309.4 | 0.0 | 0% |
| ICHmm | 17,970.3 | 9 | 1,617.3 | 2,359.3 | 1,018.4 | 610.1 | 146% |
| SBSdh1 | 21,481.6 | 11 | 2,362.9 | 3,210.9 | 2,360.9 | 1,018.9 | 135% |
| **Subtotal** | **57,267.5** | | **5,208.4** | **7,726.2** | **4,862.1** | **2,374.2** | |
| **Total** | **93,695.6** | | **8,221.4** | **10,750.2** | **12,108.5** | **3,911.6** | |

### 5.4.2 Limitations

It is unclear if the non-legal OGMAs in the Robson Valley TSA will be converted to legal designations and if LUs currently without spatial OGMAs will receive legally established OGMAs in the future. Legally establishing spatial OGMAs in these LUs would address some of the limitations and assessment results identified in this report. The lack of spatially designated OGMAs in the Robson Valley TSA presents a challenge for meeting old growth forest biodiversity objectives at a landscape level. While there are many AUs with a surplus of old and mature seral stage forests, these areas tend to be located outside of the existing OGMAs. If these areas are not included in future OGMA designations, they will not be excluded from harvesting opportunities, and therefore, these areas are less likely to effectively contribute to biodiversity objectives in the near term.

*Rosebud Mountain – Darcie Fodor*

### 5.4.3 Summary and Observations of Amount of Old Growth Forest in OGMA

Old growth forest exists in sufficient amounts in most LUs compared to PNOGO targets. However, it generally is not occurring within the OGMAs. This may be a result of previous land management decisions, such as the allowable 2/3 drawdown in Low BEOs at the time of OGMA establishment and using already protected old growth forests outside of OGMAs (i.e., parks and no-harvest ungulate winter ranges) to meet targets. In the Robson Valley TSA at the time of OGMA delineation, there may not have been enough old in the LU/BEC. This may have required the recruitment of mid-age and mature forest into OGMAs to meet the target.

In the Robson Valley TSA, there are only five AUs that have sufficient amounts of old growth forest within designated legal OGMAs relative to the PNOGO targets, while the remaining 61 AUs currently have insufficient amounts of old growth forests within OGMAs to meet PNOGO targets. There are no AUs that have sufficient amounts of old growth forest within non-legal OGMAs relative to PNOGO targets.

Despite this, there is an abundance of old growth forests available in the CE-CFLB outside of the established OGMA boundaries that could contribute to these targets. The lack of old forest in OGMAs in the majority of AUs suggests that current placement of OGMAs is not fully capitalizing on the available old growth forest on the landscape.

In Robson Valley TSA, the OGMA planning and establishment in the northern six and southern eight LUs was done in partnership with the forest licensees, community forest, woodlot association and villages of McBride and Valemount. There was a strong commitment to mitigate impacts to timber supply, especially in LU/BEC with historic harvesting and fire disturbance. OGMA placement was conducted as best possible to achieve larger patches with elevation connectivity, while meeting the concerns of industry at the time. This meant that the full legal target of old growth forest may not have been established in the OGMA or that the OGMA target was met with old forest in order to address the socio-economic interests.

*Hungry Creek ICHvk2 Forest – Darcie Fodor*

# 6 CONCLUSION

The Robson Valley TSA covers 1.45 million ha that includes 590,042 ha of CE-CFLB. Currently, 24% of the CE-CFLB is old growth forest (141,455 ha).

Overall, 70 out of the total 85 AUs (82%) in the CE-CFLB have sufficient old growth forest compared to the targets, and 15 AUs (18%) have insufficient old growth forest, equaling 38,862.5 ha. The insufficient AUs are concentrated in the northern half of the TSA, primarily in valley bottoms and at lower elevations where human disturbances are common and the land base is more accessible (e.g., forest harvesting and human-caused wildfires).

Patterns for mature-plus-old forest improve across the TSA, with 95% of the AUs in the CE-CFLB containing sufficient mature-plus-old forest compared to the policy targets, resulting in four AUs (5%) with insufficient mature-plus-old forest. These insufficient AUs are generally concentrated in the Holmes LU, where non-legal OGMAs are established.

There are currently 576 OGMAs mapped across the TSA, 473 of which are legally established OGMAs distributed across 13 LUs and 103 are non-legal OGMAs established in two LUs. Only 2.3% of legal OGMAs and 38.8% of non-legal OGMAs have been identified as disturbed beyond the acceptable legal threshold limits. The majority of incursions are due to recent forest harvesting activities (cutblocks within the last 20 years), road disturbances and railway infrastructure.

Very few AUs (7.6%) with legal OGMAs and no AUs with non-legal OGMAs have sufficient amounts of old growth forest within those OGMAs alone to meet PNOGO targets. Despite this, there is an abundance of old growth forests available outside the OGMA boundaries that could contribute to these targets. The lack of old forest in OGMAs in the majority of the CE-CFLB suggests that current OGMA placement is not fully capitalizing on the available old growth forest on the landscape.

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# 8 APPENDICES

## Appendix 1 – Denominator Table

***Table 30.*** *Denominators for each indicator assessment. For all indicators, the CE-CFLB is the initial land base that is further refined, except for Indicator 3 (Incursions into OGMAs) where the comparison between the total incurred area (ha) and targets is made based on the gross area of the OGMAs. The sub-totals are provided to show the two types of areas that contribute to the total CE-CFLB with no targets for indicators 1 and 2, and the area breakdown (ha) for legal and non-legal OGMAs for indicators 3 and 4.*

| CE Indicator | Results Section | Description | Sub-totals (ha) | Totals (ha) |
|---|---|---|---|---|
| | | Total CE-CFLB in RV TSA | - | **590,042** |
| Old Growth and Mature-plus-Old Forests (Indicator 1 & 2) | 5.1 & 5.2 | CE-CFLB with No Targets (NDT5) | 54,867 | - |
| | | CE-CFLB with No BEO (Mt. Robson LU) | 52,939 | - |
| | | Total CE-CFLB with No targets (excluded) | - | 107,806 |
| | | CE-CFLB with Legal Targets and Policy Targets | - | **482,236** |
| Incursions into OGMAs (Indicator 3) | 5.3 | Total Gross Area in OGMAs (ALL) | - | **43,835** |
| | | Total Gross Area in Legal OGMAs | 29,225 | - |
| | | Total Gross Area in Non-Legal OGMAs | 14,611 | - |
| Old Growth in OGMAs (Indicator 4) | 5.4 | CE-CFLB Area in OGMAs (ALL) | - | **38,823** |
| | | CE-CFLB Area in Legal OGMAs | 26,715 | - |
| | | CE-CFLB Area in Non-Legal OGMAs | 12,109 | - |

# Appendix 2 – Robson Valley Overview by LU/BEC

***Table 31.*** *Summary of CFLB (ha) and Current Amount of Old Growth (ha) and Mature-plus- Old Forest (ha) by LU, BEO and BEC to the Subzone and/or Variant. Only BECs with targets are being reported in this table. The total CE-CFLB in the Robson Valley TSA is 590,042 ha. These values correspond to the percentages shown in Figure 7 and Figure 10.*

| Landscape Unit | BEO | BEC Variant | Existing Mature-plus-Old Forest Area in CE-CFLB (ha) | Existing Old Forest Area in CE-CFLB (ha) | CE-CFLB Area (ha) | Gross LU Area (ha) |
|---|---|---|---|---|---|---|
| Canoe | Low | ESSFmm1 | 6,596.08 | 2,836.30 | 9,207.04 | 52,811.56 |
| | | ESSFmmp | - | - | 3,779.46 | |
| | | ICHmm | 3,940.87 | 2,211.52 | 4,915.71 | |
| | | IMAun | - | - | 20.22 | |
| | | SBSdh1 | 456.04 | 372.45 | 491.01 | |
| **LU Total** | | | **10,993.00** | **5,420.27** | **18,413.43** | **52,811.56** |
| Cariboo | Low | ESSFmm1 | 3.45 | 3.45 | 3.45 | 54,559.88 |
| | | ESSFwc3 | 4,458.72 | 1,987.57 | 4,529.81 | |
| | | ESSFwcp | - | - | 1,484.54 | |
| | | ESSFwk1 | 5,621.39 | 3,523.55 | 5,740.52 | |
| | | ICHwk4 | 2,887.69 | 2,090.38 | 2,933.85 | |
| | | IMAun | - | - | 2.15 | |
| | | SBSwk1 | 2,650.07 | 1,635.26 | 2,654.68 | |
| **LU Total** | | | **15,621.32** | **9,240.21** | **17,348.99** | **54,559.88** |
| Castle | Low | ESSFmm1 | 5,742.80 | 3,124.39 | 6,912.16 | 37,286.25 |
| | | ESSFmmp | - | - | 1,187.76 | |
| | | ICHmm | 2,850.46 | 1,508.73 | 6,441.55 | |
| | | SBSdh1 | 46.14 | 35.80 | 83.77 | |
| **LU Total** | | | **8,639.40** | **4,668.92** | **14,625.24** | **37,286.25** |
| Crescent Spur | High | ESSFmm1 | 844.23 | 332.25 | 845.04 | 32,043.62 |
| | | ESSFmmp | - | - | 33.93 | |
| | | ESSFwc3 | 568.63 | 247.20 | 623.23 | |
| | | ESSFwcp | - | - | 153.41 | |
| | | ESSFwk1 | 670.53 | 392.72 | 1,195.31 | |
| | | ICHwk3 | 12,623.81 | 7,212.48 | 18,661.29 | |
| | | SBSvk | 2,253.64 | 450.88 | 3,402.55 | |
| **LU Total** | | | **16,960.84** | **8,635.53** | **24,914.75** | **32,043.62** |

| Landscape Unit | BEO | BEC Variant | Existing Mature-plus-Old Forest Area in CE-CFLB (ha) | Existing Old Forest Area in CE-CFLB (ha) | CE-CFLB Area (ha) | Gross LU Area (ha) |
|---|---|---|---|---|---|---|
| Dawson | Low | ESSFmm1 | 389.72 | 149.68 | 396.20 | 24,733.14 |
| | | ESSFmmp | - | - | 57.79 | |
| | | ESSFwc2 | 2,917.28 | 1,741.23 | 3,515.33 | |
| | | ESSFwcp | - | - | 1,432.81 | |
| | | ICHmm | 881.20 | 341.46 | 1,129.69 | |
| | | ICHwk1 | 2,713.03 | 1,896.56 | 3,579.28 | |
| | | IMAun | - | - | 458.42 | |
| **LU Total** | | | **6,901.23** | **4,128.94** | **10,569.52** | **24,733.14** |
| Dore | Low | ESSFmm1 | 4,376.43 | 1,216.63 | 6,215.97 | 28,610.53 |
| | | ESSFmmp | - | - | 823.29 | |
| | | ICHmm | 861.72 | 648.17 | 2,113.80 | |
| | | SBSvk | 692.16 | 322.40 | 1,335.59 | |
| **LU Total** | | | **5930.30** | **2,187.20** | **10,488.65** | **28,610.53** |
| East Kinbasket | Low | ESSFmm1 | 12,058.24 | 4,681.33 | 14,638.99 | 77,235.53 |
| | | ESSFmmp | - | - | 2,250.52 | |
| | | ICHmm | 7,600.42 | 2,732.16 | 13,996.81 | |
| | | IMAun | - | - | 0.09 | |
| | | SBSdh1 | 118.99 | 36.19 | 413.38 | |
| **LU Total** | | | **19777.65** | **7,449.68** | **31,299.78** | **77,235.53** |
| EastTwin-McKale | Low | ESSFmm1 | 8,203.72 | 2,094.89 | 9,678.39 | 39341.24 |
| | | ESSFmmp | - | - | 1,368.99 | |
| | | ICHmm | 2,594.29 | 1,020.59 | 2,934.88 | |
| | | ICHwk3 | 2,208.69 | 909.12 | 2,525.67 | |
| **LU Total** | | | **13006.70** | **4,024.60** | **16,507.94** | **39,341.24** |
| Forgetmenot | Intermediate | BAFAun | - | - | 11.51 | 34,822.11 |
| | | ESSFmm1 | 11,217.87 | 1,202.93 | 15,548.45 | |
| | | ESSFmmp | - | - | 4,846.27 | |
| | | ICHwk3 | 665.97 | 339.45 | 861.31 | |
| | | IMAun | - | - | 266.04 | |
| | | SBSvk | 277.68 | 4.28 | 511.08 | |
| **LU Total** | | | **12,161.52** | **1,546.65** | **22,044.66** | **34,822.11** |
| Foster | Low | ESSFmm1 | 1,106.95 | 305.34 | 1,302.75 | 58,703.50 |
| | | ESSFmmp | - | - | 931.74 | |
| | | ESSFwc2 | 7,956.82 | 4,723.98 | 10,374.20 | |
| | | ESSFwcp | - | - | 3,004.45 | |
| | | ICHmm | 1,821.69 | 1,082.09 | 3,208.80 | |
| | | ICHwk1 | 7,197.46 | 5,894.70 | 8,079.10 | |
| | | IMAun | - | - | 162.17 | |
| **LU Total** | | | **18,081.93** | **12,006.11** | **27,063.21** | **58,703.50** |

| Landscape Unit | BEO | BEC Variant | Existing Mature-plus-Old Forest Area in CE-CFLB (ha) | Existing Old Forest Area in CE-CFLB (ha) | CE-CFLB Area (ha) | Gross LU Area (ha) |
|---|---|---|---|---|---|---|
| Goat | Intermediate | ESSFwc3 | 4,670.49 | 1,001.02 | 4,718.95 | 34,610.84 |
| | | ESSFwcp | - | - | 681.42 | |
| | | ESSFwk1 | 6,437.69 | 2,171.70 | 6,475.70 | |
| | | ICHwk3 | 222.99 | 18.58 | 230.79 | |
| | | IMAun | - | - | 0.01 | |
| | | SBSvk | 4,710.52 | 1,832.45 | 4,752.64 | |
| **LU Total** | | | **16,041.68** | **5,023.75** | **16,859.51** | **34,610.84** |
| Holmes | Intermediate | ESSFmm1 | 11,577.49 | 2,184.59 | 17,918.49 | 84,107.35 |
| | | ESSFmmp | - | - | 2,994.11 | |
| | | ICHmm | 2,255.72 | 497.08 | 9,448.86 | |
| | | SBSdh1 | 9.40 | 1.47 | 196.16 | |
| | | SBSvk | 1,558.76 | 340.85 | 5,870.39 | |
| **LU Total** | | | **15,401.37** | **3,023.99** | **36,428.02** | **84,107.35** |
| Horsey-Small | Low | ESSFmm1 | 8,651.68 | 2,540.07 | 9,970.26 | 47,205.12 |
| | | ESSFmmp | - | - | 2,594.98 | |
| | | ICHmm | 6,154.00 | 1,430.75 | 7,388.42 | |
| | | SBSdh1 | 34.10 | - | 45.22 | |
| **LU Total** | | | **14,839.79** | **3,970.82** | **19998.88** | **47,205.12** |
| Hugh Allan | Intermediate | ESSFmm1 | 11,480.74 | 3,738.09 | 13,062.93 | 68,493.62 |
| | | ESSFmmp | - | - | 4,434.88 | |
| | | ICHmm | 7,466.16 | 1,158.27 | 9,613.73 | |
| | | ICHwk1 | 74.49 | 33.08 | 104.73 | |
| | | IMAun | - | - | 0.74 | |
| **LU Total** | | | **19,021.39** | **4,929.45** | **27,217.01** | **68,493.62** |
| Kiwa-Tete | Low | ESSFmm1 | 4,218.79 | 1,378.84 | 5,292.63 | 40,899.16 |
| | | ESSFmmp | - | - | 1,590.92 | |
| | | ICHmm | 2,535.58 | 875.16 | 4,188.88 | |
| | | IMAun | - | - | 0.27 | |
| | | SBSdh1 | 0.01 | - | 1.08 | |
| **LU Total** | | | **6,754.38** | **2,254.00** | **11,073.78** | **40,899.16** |
| Lower Morkill/ Cushing | Intermediate | BAFAun | - | - | 81.95 | 43,863.97 |
| | | ESSFmm1 | 8,657.40 | 3,399.49 | 10,080.89 | |
| | | ESSFmmp | - | - | 1,282.89 | |
| | | ESSFwc3 | 1,474.82 | 114.85 | 1,606.14 | |
| | | ESSFwcp | - | - | 1,733.98 | |
| | | ESSFwk2 | 1,594.76 | 140.58 | 1,617.70 | |
| | | ICHwk3 | 5,765.39 | 3,281.70 | 6,776.16 | |
| | | SBSvk | 1,433.79 | 1,042.69 | 2,032.79 | |
| **LU Total** | | | **18,926.16** | **7,994.10** | **25,212.55** | **43,863.97** |

| Landscape Unit | BEO | BEC Variant | Existing Mature-plus-Old Forest Area in CE-CFLB (ha) | Existing Old Forest Area in CE-CFLB (ha) | CE-CFLB Area (ha) | Gross LU Area (ha) |
|---|---|---|---|---|---|---|
| McBride-Dunster | Low | ESSFmm1 | 4,295.15 | 1,069.49 | 8,433.72 | 67,306.91 |
| | | ESSFmmp | - | - | 1,216.35 | |
| | | ICHmm | 9270.94 | 1,683.40 | 17418.15 | |
| | | ICHwk3 | 502.58 | 0.23 | 689.14 | |
| | | SBSdh1 | 1934.80 | 948.15 | 4,058.52 | |
| | | SBSvk | 164.93 | 0.02 | 553.05 | |
| **LU Total** | | | **16,168.40** | **3,701.28** | **32,368.93** | **67,306.91** |
| Milk | Low | ESSFwc3 | 3,697.41 | 1,369.91 | 4,380.87 | 30,767.82 |
| | | ESSFwcp | - | - | 1,430.54 | |
| | | ESSFwk1 | 3,797.09 | 1,601.88 | 5,206.50 | |
| | | ICHwk3 | 3,490.98 | 1,529.94 | 4,902.11 | |
| | | IMAun | - | - | 0.23 | |
| | | SBSvk | 459.50 | 56.42 | 912.75 | |
| **LU Total** | | | **11,444.97** | **4,558.16** | **16,833.01** | **30,767.82** |
| Mount Robson | N/A | ESSFmm1 | 13,605.09 | 2,234.48 | 17,884.51 | 144,145.01 |
| | | ESSFmm2 | 7,119.09 | 768.15 | 11,951.69 | |
| | | ESSFmmp | - | - | 6,206.10 | |
| | | ICHmm | 903.74 | 163.16 | 1,297.96 | |
| | | SBSdh1 | 343.40 | 111.59 | 369.03 | |
| | | SBSdh2 | 11,478.42 | 4,175.61 | 15,230.12 | |
| **LU Total** | | | **33,449.75** | **7,453.00** | **52,939.41** | **144,145.01** |
| Northern Trench | Intermediate | ESSFmm1 | 1,363.41 | 398.02 | 1,826.20 | 55,938.38 |
| | | ESSFmmp | - | - | 238.21 | |
| | | ESSFwc3 | 3,750.85 | 967.61 | 4,469.51 | |
| | | ESSFwcp | - | - | 2,193.36 | |
| | | ESSFwk1 | 2,637.99 | 866.94 | 3,971.60 | |
| | | ICHmm | 207.39 | 98.91 | 429.78 | |
| | | ICHwk3 | 14,076.03 | 7,725.37 | 22,650.73 | |
| | | IMAun | - | - | 13.34 | |
| | | SBSvk | 903.05 | 63.72 | 1,218.23 | |
| **LU Total** | | | **22,938.60** | **10,120.56** | **37,010.96** | **55,938.38** |

| Landscape Unit | BEO | BEC Variant | Existing Mature-plus-Old Forest Area in CE-CFLB (ha) | Existing Old Forest Area in CE-CFLB (ha) | CE-CFLB Area (ha) | Gross LU Area (ha) |
|---|---|---|---|---|---|---|
| Raush | Intermediate | ESSFmm1 | 8,660.55 | 4,088.66 | 10,845.00 | 100,357.33 |
| | | ESSFmmp | - | - | 1,722.17 | |
| | | ICHmm | 10,729.01 | 3,540.60 | 12,739.88 | |
| | | IMAun | - | - | 0.27 | |
| | | SBSdh1 | 1,260.09 | 822.73 | 1,476.20 | |
| **LU Total** | | | **20,649.65** | **8,451.99** | **26,783.52** | **100,357.32** |
| South Trench | Intermediate | ESSFmm1 | 8,286.06 | 2,156 | 13,646.36 | 100,515.41 |
| | | ESSFmmp | - | - | 4,169.27 | |
| | | ICHmm | 8,986.31 | 2,359.28 | 17,970.27 | |
| | | IMAun | - | - | 5.03 | |
| | | SBSdh1 | 8813.46 | 3,210.88 | 21,481.57 | |
| **LU Total** | | | **26,085.84** | **7,726.16** | **57,272.50** | **100,515.41** |
| Upper Morkill | Intermediate | ESSFmm1 | 15,141.63 | 8,465.56 | 18,114.98 | 41,627.32 |
| | | ESSFmmp | - | - | 4,330.53 | |
| | | ICHwk3 | 136.65 | 63.90 | 273.32 | |
| | | SBSvk | 1,540.30 | 1,275.90 | 2,008.18 | |
| **LU Total** | | | **16,818.57** | **9,805.36** | **24,727.00** | **41627.32** |
| West Kinbasket | Low | ESSFmm1 | 3,019.59 | 827.18 | 3,632.62 | 17,650.34 |
| | | ESSFmmp | - | - | 1,847.94 | |
| | | ICHmm | 4,426.89 | 2,321.76 | 6,532.87 | |
| | | IMAun | - | - | 27.58 | |
| | | SBSdh1 | 0.04 | 0.04 | 0.04 | |
| **LU Total** | | | **7,446.53** | **3,148.98** | **12,041.06** | **17,650.34** |
| **TSA TOTAL** | | | **374,061.06** | **141,454.91** | **590,042.35** | **1,317,635.92** |

# Appendix 3 – Existing Area of Old Growth Forest Compared to PNOGO Targets

***Table 32.*** *Assessment Units meeting PNOGO Targets by Landscape Unit. This table illustrates how much of the percent existing old forest in the AU (Column C) is meeting greater than 125% of the PNOGO target % (Column D). The remainder of the results are presented in Table 13.*

| Column Calculations | | | A | B | C=(B/A) | D | E=(C/D) |
|---|---|---|---|---|---|---|---|
| Old-Growth Forest Target Status | BEC Variant | Landscape Unit | LU/BEC Area in CE-CFLB (ha) | Existing Old Forest Area in CE-CFLB (ha) | Existing Old Forest in CE-CFLB (%) in AU | PNOGO Old Forest Target (%) | % of PNOGO Target Met in AU |
| 125+% | SBSdh1 | Canoe | 491.01 | 372.45 | 75.85 | 11% | **690%** |
| 125+% | ICHmm | Canoe | 4915.71 | 2211.52 | 44.99 | 9% | **500%** |
| 125+% | ESSFmm1 | Canoe | 9207.04 | 2836.30 | 30.81 | 9% | **342%** |
| 125+% | SBSwk1 | Cariboo | 2654.68 | 1635.26 | 61.60 | 9% | **684%** |
| 125+% | ICHwk4 | Cariboo | 2933.85 | 2090.38 | 71.25 | 13% | **548%** |
| 125+% | ESSFwk1 | Cariboo | 5740.52 | 3523.55 | 61.38 | 19% | **323%** |
| 125+% | ESSFwc2 | Cariboo | 4529.81 | 1987.57 | 43.88 | 19% | **231%** |
| 125+% | ESSFmm1 | Cariboo | 3.45 | 3.45 | 100.00 | 9% | **1111%** |
| 125+% | SBSdh1 | Castle | 83.77 | 35.80 | 42.74 | 11% | **389%** |
| 125+% | ICHmm | Castle | 6441.55 | 1508.73 | 23.42 | 9% | **260%** |
| 125+% | ESSFmm1 | Castle | 6912.16 | 3124.39 | 45.20 | 9% | **502%** |
| 125+% | ICHwk3 | Crescent Spur | 18661.29 | 7212.48 | 38.65 | 19% | **203%** |
| 125+% | ESSFwc2 | Crescent Spur | 623.23 | 247.20 | 39.66 | 28% | **142%** |
| 125+% | ESSFmm1 | Crescent Spur | 845.04 | 332.25 | 39.32 | 13% | **302%** |
| 125+% | ICHwk1 | Dawson | 3579.28 | 1896.56 | 52.99 | 13% | **408%** |
| 125+% | ICHmm | Dawson | 1129.69 | 341.46 | 30.23 | 9% | **336%** |
| 125+% | ESSFwc2 | Dawson | 3515.33 | 1741.23 | 49.53 | 19% | **261%** |
| 125+% | ESSFmm1 | Dawson | 396.20 | 149.68 | 37.78 | 9% | **420%** |
| 125+% | SBSvk | Dore | 1335.59 | 322.40 | 24.14 | 9% | **268%** |
| 125+% | ICHmm | Dore | 2113.80 | 648.17 | 30.66 | 9% | **341%** |
| 125+% | ESSFmm1 | Dore | 6215.97 | 1216.63 | 19.57 | 9% | **217%** |
| 125+% | ICHmm | East Kinbasket | 13996.81 | 2732.16 | 19.52 | 9% | **217%** |
| 125+% | ESSFmm1 | East Kinbasket | 14638.99 | 4681.33 | 31.98 | 9% | **355%** |

| Column Calculations | | | A | B | C=(B/A) | D | E=(C/D) |
|---|---|---|---|---|---|---|---|
| Old-Growth Forest Target Status | BEC Variant | Landscape Unit | LU/BEC Area in CE-CFLB (ha) | Existing Old Forest Area in CE-CFLB (ha) | Existing Old Forest in CE-CFLB (%) in AU | PNOGO Old Forest Target (%) | % of PNOGO Target Met in AU |
| 125+% | ICHwk3 | EastTwin-McKale | 2525.67 | 909.12 | 36.00 | 13% | **277%** |
| 125+% | ICHmm | EastTwin-McKale | 2934.88 | 1020.59 | 34.77 | 9% | **386%** |
| 125+% | ESSFmm1 | EastTwin-McKale | 9678.39 | 2094.89 | 21.65 | 9% | **241%** |
| 125+% | ICHwk3 | Forgetmenot | 861.31 | 339.45 | 39.41 | 13% | **303%** |
| 125+% | ICHwk1 | Foster | 8079.10 | 5894.70 | 72.96 | 13% | **561%** |
| 125+% | ICHmm | Foster | 3208.80 | 1082.09 | 33.72 | 9% | **375%** |
| 125+% | ESSFwc2 | Foster | 10374.20 | 4723.98 | 45.54 | 19% | **240%** |
| 125+% | ESSFmm1 | Foster | 1302.75 | 305.34 | 23.44 | 9% | **260%** |
| 125+% | SBSvk | Goat | 4752.64 | 1832.45 | 38.56 | 9% | **428%** |
| 125+% | ESSFwk1 | Goat | 6475.70 | 2171.70 | 33.54 | 19% | **177%** |
| 125+% | ESSFmm1 | Holmes | 17918.49 | 2184.59 | 12.19 | 9% | **135%** |
| 125+% | ICHmm | Horsey-Small | 7388.42 | 1430.75 | 19.36 | 9% | **215%** |
| 125+% | ESSFmm1 | Horsey-Small | 9970.26 | 2540.07 | 25.48 | 9% | **283%** |
| 125+% | ICHwk1 | Hugh Allan | 104.73 | 33.08 | 31.59 | 13% | **243%** |
| 125+% | ICHmm | Hugh Allan | 9613.73 | 1158.27 | 12.05 | 9% | **134%** |
| 125+% | ESSFmm1 | Hugh Allan | 13062.93 | 3738.09 | 28.62 | 9% | **318%** |
| 125+% | ICHmm | Kiwa-Tete | 4188.88 | 875.16 | 20.89 | 9% | **232%** |
| 125+% | ESSFmm1 | Kiwa-Tete | 5292.63 | 1378.84 | 26.05 | 9% | **289%** |
| 125+% | SBSvk | Lower Morkill/Cushing | 2032.79 | 1042.69 | 51.29 | 9% | **570%** |
| 125+% | ICHwk3 | Lower Morkill/Cushing | 6776.16 | 3281.70 | 48.43 | 13% | **373%** |
| 125+% | ESSFmm1 | Lower Morkill/Cushing | 10080.89 | 3399.49 | 33.72 | 9% | **375%** |
| 125+% | SBSdh1 | McBride-Dunster | 4058.52 | 948.15 | 23.36 | 11% | **212%** |
| 125+% | ESSFmm1 | McBride-Dunster | 8433.72 | 1069.49 | 12.68 | 9% | **141%** |
| 125+% | ICHwk3 | Milk | 4902.11 | 1529.94 | 31.21 | 13% | **240%** |
| 125+% | ESSFwk1 | Milk | 5206.50 | 1601.88 | 30.77 | 19% | **162%** |
| 125+% | ESSFwc2 | Milk | 4380.87 | 1369.91 | 31.27 | 19% | **165%** |
| 125+% | ICHwk3 | Northern Trench | 22650.73 | 7725.37 | 34.11 | 13% | **262%** |
| 125+% | ICHmm | Northern Trench | 429.78 | 98.91 | 23.01 | 9% | **256%** |

| Column Calculations | | | A | B | C=(B/A) | D | E=(C/D) |
|---|---|---|---|---|---|---|---|
| Old-Growth Forest Target Status | BEC Variant | Landscape Unit | LU/BEC Area in CE-CFLB (ha) | Existing Old Forest Area in CE-CFLB (ha) | Existing Old Forest in CE-CFLB (%) in AU | PNOGO Old Forest Target (%) | % of PNOGO Target Met in AU |
| 125+% | ESSFmm1 | Northern Trench | 1826.20 | 398.02 | 21.79 | 9% | **242%** |
| 125+% | SBSdh1 | Raush | 1476.20 | 822.73 | 55.73 | 11% | **507%** |
| 125+% | ICHmm | Raush | 12739.88 | 3540.60 | 27.79 | 9% | **309%** |
| 125+% | ESSFmm1 | Raush | 10845.00 | 4088.66 | 37.70 | 9% | **419%** |
| 125+% | SBSdh1 | South Trench | 21481.57 | 3210.88 | 14.95 | 11% | **136%** |
| 125+% | ICHmm | South Trench | 17970.27 | 2359.28 | 13.13 | 9% | **146%** |
| 125+% | ESSFmm1 | South Trench | 13646.36 | 2156.00 | 15.80 | 9% | **176%** |
| 125+% | SBSvk | Upper Morkill | 2008.18 | 1275.90 | 63.53 | 9% | **706%** |
| 125+% | ICHwk3 | Upper Morkill | 273.32 | 63.90 | 23.38 | 13% | **180%** |
| 125+% | ESSFmm1 | Upper Morkill | 18114.98 | 8465.56 | 46.73 | 9% | **519%** |
| 125+% | SBSdh1 | West Kinbasket | 0.04 | 0.04 | 100.00 | 11% | **909%** |
| 125+% | ICHmm | West Kinbasket | 6532.87 | 2321.76 | 35.54 | 9% | **395%** |
| 125+% | ESSFmm1 | West Kinbasket | 3632.62 | 827.18 | 22.77 | 9% | **253%** |

# Appendix 4 – Existing Area of Mature-plus-Old Forest Compared to Policy Targets

***Table 33.*** *Existing Area and Percent of Mature-plus-Old Forest by LU and BEC Subzone and Variant Compared to the Policy Targets where Current Mature-plus-Old Forest is Greater than 125% of the Policy Target. The remainder of the results are presented in Table 19.*

| Mature-plus-Old Forest Status | BEC | Landscape Unit | BEO | LU/BEC Area in CE-CFLB (ha) | Existing Mature-plus-Old Forest Area (ha) | Existing Mature-plus-Old Forest % | Mature-plus-Old Forest Policy Target % | % of Policy Target Met |
|---|---|---|---|---|---|---|---|---|
| 125+% of target met | SBSdh1 | Canoe | Low | 491.0 | 456.0 | 92.88 | 11% | **844.4%** |
| 125+% of target met | ICHmm | Canoe | Low | 4915.7 | 3940.9 | 80.17 | 15% | **534.5%** |
| 125+% of target met | ESSFmm1 | Canoe | Low | 9207.0 | 6596.1 | 71.64 | 14% | **511.7%** |
| 125+% of target met | ESSFmm1 | Cariboo | Low | 3.4 | 3.4 | 100.00 | 14% | **714.3%** |
| 125+% of target met | SBSwk1 | Cariboo | Low | 2654.7 | 2650.1 | 99.83 | 15% | **665.5%** |
| 125+% of target met | ICHwk4 | Cariboo | Low | 2933.9 | 2887.7 | 98.43 | 17% | **579.0%** |
| 125+% of target met | ESSFwc3 | Cariboo | Low | 4529.8 | 4458.7 | 98.43 | 19% | **518.1%** |
| 125+% of target met | ESSFwk1 | Cariboo | Low | 5740.5 | 5621.4 | 97.92 | 19% | **515.4%** |
| 125+% of target met | ESSFmm1 | Castle | Low | 6912.2 | 5742.8 | 83.08 | 14% | **593.4%** |
| 125+% of target met | SBSdh1 | Castle | Low | 83.8 | 46.1 | 55.08 | 11% | **500.8%** |
| 125+% of target met | ICHmm | Castle | Low | 6441.6 | 2850.5 | 44.25 | 15% | **295.0%** |
| 125+% of target met | ESSFmm1 | Crescent Spur | High | 845.0 | 844.2 | 99.90 | 42% | **237.9%** |
| 125+% of target met | ESSFwc3 | Crescent Spur | High | 623.2 | 568.6 | 91.24 | 54% | **169.0%** |
| 125+% of target met | SBSvk | Crescent Spur | High | 3402.5 | 2253.6 | 66.23 | 46% | **144.0%** |
| 125+% of target met | ICHwk3 | Crescent Spur | High | 18661.3 | 12623.8 | 67.65 | 51% | **132.6%** |
| 125+% of target met | ESSFmm1 | Dawson | Low | 396.2 | 389.7 | 98.36 | 14% | **702.6%** |
| 125+% of target met | ICHmm | Dawson | Low | 1129.7 | 881.2 | 78.00 | 15% | **520.0%** |
| 125+% of target met | ICHwk1 | Dawson | Low | 3579.3 | 2713.0 | 75.80 | 17% | **445.9%** |
| 125+% of target met | ESSFwc2 | Dawson | Low | 3515.3 | 2917.3 | 82.99 | 19% | **436.8%** |
| 125+% of target met | ESSFmm1 | Dore | Low | 6216.0 | 4376.4 | 70.41 | 14% | **502.9%** |
| 125+% of target met | SBSvk | Dore | Low | 1335.6 | 692.2 | 51.82 | 15% | **345.5%** |
| 125+% of target met | ICHmm | Dore | Low | 2113.8 | 861.7 | 40.77 | 15% | **271.8%** |
| 125+% of target met | ESSFmm1 | East Kinbasket | Low | 14639.0 | 12058.2 | 82.37 | 14% | **588.4%** |
| 125+% of target met | ICHmm | East Kinbasket | Low | 13996.8 | 7600.4 | 54.30 | 15% | **362.0%** |

| Mature-plus-Old Forest Status | BEC | Landscape Unit | BEO | LU/BEC Area in CE-CFLB (ha) | Existing Mature-plus-Old Forest Area (ha) | Existing Mature-plus-Old Forest % | Mature-plus-Old Forest Policy Target % | % of Policy Target Met |
|---|---|---|---|---|---|---|---|---|
| 125+% of target met | SBSdh1 | East Kinbasket | Low | 413.4 | 119.0 | 28.78 | 11% | **261.7%** |
| 125+% of target met | ESSFmm1 | EastTwin-McKale | Low | 9678.4 | 8203.7 | 84.76 | 14% | **605.5%** |
| 125+% of target met | ICHmm | EastTwin-McKale | Low | 2934.9 | 2594.3 | 88.39 | 15% | **589.3%** |
| 125+% of target met | ICHwk3 | EastTwin-McKale | Low | 2525.7 | 2208.7 | 87.45 | 17% | **514.4%** |
| 125+% of target met | ESSFmm1 | Forgetmenot | Intermediate | 15548.5 | 11217.9 | 72.15 | 28% | **257.7%** |
| 125+% of target met | ICHwk3 | Forgetmenot | Intermediate | 861.3 | 666.0 | 77.32 | 34% | **227.4%** |
| 125+% of target met | SBSvk | Forgetmenot | Intermediate | 511.1 | 277.7 | 54.33 | 31% | **175.3%** |
| 125+% of target met | ESSFmm1 | Foster | Low | 1302.8 | 1106.0 | 84.89 | 14% | **606.4%** |
| 125+% of target met | ICHwk1 | Foster | Low | 8079.1 | 7197.5 | 89.09 | 17% | **524.0%** |
| 125+% of target met | ESSFwc2 | Foster | Low | 10374.2 | 7956.8 | 76.70 | 19% | **403.7%** |
| 125+% of target met | ICHmm | Foster | Low | 3208.8 | 1821.7 | 56.77 | 15% | **378.5%** |
| 125+% of target met | SBSvk | Goat | Intermediate | 4752.6 | 4710.5 | 99.11 | 31% | **319.7%** |
| 125+% of target met | ICHwk3 | Goat | Intermediate | 230.8 | 223.0 | 96.62 | 34% | **284.2%** |
| 125+% of target met | ESSFwk1 | Goat | Intermediate | 6475.7 | 6437.7 | 99.41 | 36% | **276.1%** |
| 125+% of target met | ESSFwc3 | Goat | Intermediate | 4719.0 | 4670.5 | 98.97 | 36% | **274.9%** |
| 125+% of target met | ESSFmm1 | Holmes | Intermediate | 17918.5 | 11577.5 | 64.61 | 28% | **230.8%** |
| 125+% of target met | SBSdh1 | Horsey-Small | Low | 45.2 | 34.1 | 75.41 | 11% | **685.6%** |
| 125+% of target met | ESSFmm1 | Horsey-Small | Low | 9970.3 | 8651.7 | 86.77 | 14% | **619.8%** |
| 125+% of target met | ICHmm | Horsey-Small | Low | 7388.4 | 6154.0 | 83.29 | 15% | **555.3%** |
| 125+% of target met | ESSFmm1 | Hugh Allan | Intermediate | 13062.9 | 11480.7 | 87.89 | 28% | **313.9%** |
| 125+% of target met | ICHmm | Hugh Allan | Intermediate | 9613.7 | 7466.2 | 77.66 | 31% | **250.5%** |
| 125+% of target met | ICHwk1 | Hugh Allan | Intermediate | 104.7 | 74.5 | 71.12 | 34% | **209.2%** |
| 125+% of target met | ESSFmm1 | Kiwa-Tete | Low | 5292.6 | 4218.8 | 79.71 | 14% | **569.4%** |
| 125+% of target met | ICHmm | Kiwa-Tete | Low | 4188.9 | 2535.6 | 60.53 | 15% | **403.5%** |
| 125+% of target met | ESSFmm1 | Lower Morkill/Cushing | Intermediate | 10080.9 | 8657.4 | 85.88 | 28% | **306.7%** |
| 125+% of target met | ESSFwk2 | Lower Morkill/Cushing | Intermediate | 1617.7 | 1594.8 | 98.58 | 36% | **273.8%** |
| 125+% of target met | ESSFwc3 | Lower Morkill/Cushing | Intermediate | 1606.1 | 1474.8 | 91.82 | 36% | **255.1%** |
| 125+% of target met | ICHwk3 | Lower Morkill/Cushing | Intermediate | 6776.2 | 5765.4 | 85.08 | 34% | **250.2%** |

| Mature-plus-Old Forest Status | BEC | Landscape Unit | BEO | LU/BEC Area in CE-CFLB (ha) | Existing Mature-plus-Old Forest Area (ha) | Existing Mature-plus-Old Forest % | Mature-plus-Old Forest Policy Target % | % of Policy Target Met |
|---|---|---|---|---|---|---|---|---|
| 125+% of target met | SBSvk | Lower Morkill/Cushing | Intermediate | 2032.8 | 1433.8 | 70.53 | 31% | **227.5%** |
| 125+% of target met | SBSdh1 | McBride-Dunster | Low | 4058.5 | 1934.8 | 47.67 | 11% | **433.4%** |
| 125+% of target met | ICHwk3 | McBride-Dunster | Low | 689.1 | 502.6 | 72.93 | 17% | **429.0%** |
| 125+% of target met | ESSFmm1 | McBride-Dunster | Low | 8433.7 | 4295.2 | 50.93 | 14% | **363.8%** |
| 125+% of target met | ICHmm | McBride-Dunster | Low | 17418.2 | 9270.9 | 53.23 | 15% | **354.8%** |
| 125+% of target met | SBSvk | McBride-Dunster | Low | 553.1 | 164.9 | 29.82 | 15% | **198.8%** |
| 125+% of target met | ESSFwc3 | Milk | Low | 4380.9 | 3697.4 | 84.40 | 19% | **444.2%** |
| 125+% of target met | ICHwk3 | Milk | Low | 4902.1 | 3491.0 | 71.21 | 17% | **418.9%** |
| 125+% of target met | ESSFwk1 | Milk | Low | 5206.5 | 3797.1 | 72.93 | 19% | **383.8%** |
| 125+% of target met | SBSvk | Milk | Low | 912.7 | 459.5 | 50.34 | 15% | **335.6%** |
| 125+% of target met | ESSFmm1 | Northern Trench | Intermediate | 1826.2 | 1363.4 | 74.66 | 28% | **266.6%** |
| 125+% of target met | SBSvk | Northern Trench | Intermediate | 1218.2 | 903.0 | 74.13 | 31% | **239.1%** |
| 125+% of target met | ESSFwc3 | Northern Trench | Intermediate | 4469.5 | 3750.8 | 83.92 | 36% | **233.1%** |
| 125+% of target met | ESSFwk1 | Northern Trench | Intermediate | 3971.6 | 2638.0 | 66.42 | 36% | **184.5%** |
| 125+% of target met | ICHwk3 | Northern Trench | Intermediate | 22650.7 | 14076.0 | 62.14 | 34% | **182.8%** |
| 125+% of target met | ICHmm | Northern Trench | Intermediate | 429.8 | 207.4 | 48.25 | 31% | **155.7%** |
| 125+% of target met | SBSdh1 | Raush | Intermediate | 1476.2 | 1260.1 | 85.36 | 23% | **371.1%** |
| 125+% of target met | ESSFmm1 | Raush | Intermediate | 10845.0 | 8660.6 | 79.86 | 28% | **285.2%** |
| 125+% of target met | ICHmm | Raush | Intermediate | 12739.9 | 10729.0 | 84.22 | 31% | **271.7%** |
| 125+% of target met | ESSFmm1 | South Trench | Intermediate | 13646.4 | 8286.1 | 60.72 | 28% | **216.9%** |
| 125+% of target met | SBSdh1 | South Trench | Intermediate | 21481.6 | 8813.5 | 41.03 | 23% | **178.4%** |
| 125+% of target met | ICHmm | South Trench | Intermediate | 17970.3 | 8986.3 | 50.01 | 31% | **161.3%** |
| 125+% of target met | ESSFmm1 | Upper Morkill | Intermediate | 18115.0 | 15141.6 | 83.59 | 28% | **298.5%** |
| 125+% of target met | SBSvk | Upper Morkill | Intermediate | 2008.2 | 1540.3 | 76.70 | 31% | **247.4%** |
| 125+% of target met | ICHwk3 | Upper Morkill | Intermediate | 273.3 | 136.7 | 50.00 | 34% | **147.1%** |
| 125+% of target met | SBSdh1 | West Kinbasket | Low | 0.0 | 0.0 | 100.00 | 11% | **909.1%** |
| 125+% of target met | ESSFmm1 | West Kinbasket | Low | 3632.6 | 3019.6 | 83.12 | 14% | **593.7%** |
| 125+% of target met | ICHmm | West Kinbasket | Low | 6532.9 | 4426.9 | 67.76 | 15% | **451.8%** |

# Appendix 5 – Old Growth Forest Compared to PNOGO Targets by Biogeoclimatic Ecosystem Classification (BEC) to Subzone and/or Variant

The following table provides the current condition reporting of old growth forest compared to PNOGO targets by BEC to support ecosystem-based contemplation of the results. These results are presented by indicator condition (percent of target met categories) in Table 10.

***Table 34.*** *AUs by BEC to Subzone and/or Variant reporting the Amount of Old Growth Forest as Compared to PNOGO Targets across all Indicator Categories.*

| BEC | Landscape Unit | Total Area (ha) | CE-CFLB Area (ha) | Current Amount of Old Forest (ha) | Target Amount of Old Forest (ha) | Current % Old Forest | Old Forest Target % | Old Growth Forest % of Target* |
|---|---|---|---|---|---|---|---|---|
| ESSFmm1 | Canoe | 13,521.8 | 9,207.0 | 2,836.4 | 828.6 | 30.8 | 9 | **342.3%** |
| | Cariboo | 107.7 | 3.4 | 3.4 | 0.3 | 100.0 | 9 | **1111.1%** |
| | Castle | 13,673.3 | 6,912.2 | 3,124.4 | 622.1 | 45.2 | 9 | **502.2%** |
| | Crescent Spur | 956.7 | 845.0 | 332.2 | 109.9 | 39.3 | 13 | **302.4%** |
| | Dawson | 639.7 | 396.2 | 149.7 | 35.7 | 37.8 | 9 | **419.8%** |
| | Dore | 10,762.6 | 6,216.0 | 1,216.6 | 559.4 | 19.6 | 9 | **217.5%** |
| | East Kinbasket | 23,065.6 | 14,639.0 | 4,681.3 | 1,317.5 | 32.0 | 9 | **355.3%** |
| | East Twin-McKale | 14,767.7 | 9,678.4 | 2,094.9 | 871.1 | 21.6 | 9 | **240.5%** |
| | Forgetmenot | 16,997.2 | 15,548.5 | 1,202.9 | 1,399.4 | 7.7 | 9 | **86.0%** |
| | Foster | 1,406.0 | 1,302.8 | 305.3 | 117.2 | 23.4 | 9 | **260.4%** |
| | Holmes | 29,650.7 | 17,918.5 | 2,184.6 | 1,612.7 | 12.2 | 9 | **135.5%** |
| | Horsey-Small | 16,113.1 | 9,970.3 | 2,540.1 | 897.3 | 25.5 | 9 | **283.1%** |
| | Hugh Allan | 17,745.1 | 13,062.9 | 3,738.1 | 1,175.7 | 28.6 | 9 | **318.0%** |
| | Kiwa-Tete | 8754.2 | 5292.6 | 1378.8 | 476.3 | 26.1 | 9 | **289.5%** |
| | Lower Morkill/ Cushing | 12822.0 | 10080.9 | 3399.5 | 907.3 | 33.7 | 9 | **374.7%** |
| | McBride-Dunster | 10663.6 | 8433.7 | 1069.5 | 759.0 | 12.7 | 9 | **140.9%** |
| | Northern Trench | 1995.6 | 1826.2 | 398.0 | 164.4 | 21.8 | 9 | **242.2%** |
| | Raush | 21141.1 | 10845.0 | 4088.7 | 976.1 | 37.7 | 9 | **418.9%** |
| | South Trench | 17864.2 | 13646.4 | 2156.0 | 1228.2 | 15.8 | 9 | **175.5%** |
| | Upper Morkill | 21068.0 | 18115.0 | 8465.6 | 1630.3 | 46.7 | 9 | **519.2%** |
| | West Kinbasket | 4476.9 | 3632.6 | 827.2 | 326.9 | 22.8 | 9 | **253.0%** |

| BEC | Landscape Unit | Total Area (ha) | CE-CFLB Area (ha) | Current Amount of Old Forest (ha) | Target Amount of Old Forest (ha) | Current % Old Forest | Old Forest Target % | Old Growth Forest % of Target* |
|---|---|---|---|---|---|---|---|---|
| ESSFwc2 | Dawson | 6006.8 | 3515.3 | 1741.2 | 667.9 | 49.5 | 19 | 260.7% |
| | Foster | 16681.2 | 10374.2 | 4724.0 | 1971.1 | 45.5 | 19 | 239.7% |
| ESSFwc3 | Cariboo | 8505.6 | 4529.8 | 1987.6 | 860.7 | 43.9 | 19 | 230.9% |
| | Crescent Spur | 698.2 | 623.2 | 247.2 | 174.5 | 39.7 | 28 | 141.7% |
| | Goat | 8941.4 | 4719.0 | 1001.0 | 896.6 | 21.2 | 19 | 111.6% |
| | Lower Morkill/Cushing | 2080.7 | 1606.1 | 114.9 | 305.2 | 7.2 | 19 | 37.6% |
| | Milk | 6324.8 | 4380.9 | 1369.9 | 832.4 | 31.3 | 19 | 164.6% |
| | Northern Trench | 5596.6 | 4469.5 | 967.6 | 849.2 | 21.6 | 19 | 113.9% |
| ESSFwk1 | Cariboo | 8350.5 | 5740.5 | 3523.6 | 1090.7 | 61.4 | 19 | 323.1% |
| | Crescent Spur | 1238.3 | 1195.3 | 392.7 | 334.7 | 32.9 | 28 | 117.3% |
| | Goat | 8607.2 | 6475.7 | 2171.7 | 1230.4 | 33.5 | 19 | 176.5% |
| | Milk | 5978.0 | 5206.5 | 1601.9 | 989.2 | 30.8 | 19 | 161.9% |
| | Northern Trench | 4228.6 | 3971.6 | 866.9 | 754.6 | 21.8 | 19 | 114.9% |
| ESSFwk2 | Lower Morkill/Cushing | 1795.5 | 1617.7 | 140.6 | 307.4 | 8.7 | 19 | 45.7% |

| BEC | Landscape Unit | Total Area (ha) | CE-CFLB Area (ha) | Current Amount of Old Forest (ha) | Target Amount of Old Forest (ha) | Current % Old Forest | Old Forest Target % | Old Growth Forest % of Target* |
|---|---|---|---|---|---|---|---|---|
| ICHmm | Canoe | 5979.8 | 4915.7 | 2211.5 | 442.4 | 45.0 | 9 | 499.9% |
| | Castle | 7747.9 | 6441.6 | 1508.7 | 579.7 | 23.4 | 9 | 260.2% |
| | Dawson | 1290.3 | 1129.7 | 341.5 | 101.7 | 30.2 | 9 | 335.8% |
| | Dore | 2428.2 | 2113.8 | 648.2 | 190.2 | 30.7 | 9 | 340.7% |
| | East Kinbasket | 15382.5 | 13996.8 | 2732.2 | 1259.7 | 19.5 | 9 | 216.9% |
| | EastTwin-McKale | 3266.7 | 2934.9 | 1020.6 | 264.1 | 34.8 | 9 | 386.4% |
| | Foster | 3301.8 | 3208.8 | 1082.1 | 288.8 | 33.7 | 9 | 374.7% |
| | Holmes | 11214.3 | 9448.9 | 497.1 | 850.4 | 5.3 | 9 | 58.5% |
| | Horsey-Small | 9481.7 | 7388.4 | 1430.8 | 665.0 | 19.4 | 9 | 215.2% |
| | Hugh Allan | 10522.1 | 9613.7 | 1158.3 | 865.2 | 12.0 | 9 | 133.9% |
| | Kiwa-Tete | 5064.0 | 4188.9 | 875.2 | 377.0 | 20.9 | 9 | 232.1% |
| | McBride-Dunster | 21316.9 | 17418.2 | 1683.4 | 1567.6 | 9.7 | 9 | 107.4% |
| | Northern Trench | 445.7 | 429.8 | 98.9 | 38.7 | 23.0 | 9 | 255.7% |
| | Raush | 15423.1 | 12739.9 | 3540.6 | 1146.6 | 27.8 | 9 | 308.8% |
| | South Trench | 19990.9 | 17970.3 | 2359.3 | 1617.3 | 13.1 | 9 | 145.9% |
| | West Kinbasket | 7138.6 | 6532.9 | 2321.8 | 588.0 | 35.5 | 9 | 394.9% |
| ICHwk1 | Dawson | 4463.2 | 3579.3 | 1896.6 | 465.3 | 53.0 | 13 | 407.6% |
| | Foster | 9319.7 | 8079.1 | 5894.7 | 1050.3 | 73.0 | 13 | 561.2% |
| | Hugh Allan | 106.8 | 104.7 | 33.1 | 13.6 | 31.6 | 13 | 243.0% |
| ICHwk3 | Crescent Spur | 21611.4 | 18661.3 | 7212.5 | 3545.6 | 38.6 | 19 | 203.4% |
| | EastTwin-McKale | 3133.7 | 2525.7 | 909.1 | 328.3 | 36.0 | 13 | 276.9% |
| | Forgetmenot | 901.5 | 861.3 | 339.4 | 112.0 | 39.4 | 13 | 303.2% |
| | Goat | 312.7 | 230.8 | 18.6 | 30.0 | 8.1 | 13 | 61.9% |
| | Lower Morkill/Cushing | 7071.0 | 6776.2 | 3281.7 | 880.9 | 48.4 | 13 | 372.5% |
| | McBride-Dunster | 755.4 | 689.1 | 0.2 | 89.6 | 0.0 | 13 | 0.3% |
| | Milk | 5312.4 | 4902.1 | 1529.9 | 637.3 | 31.2 | 13 | 240.1% |
| | Northern Trench | 24804.6 | 22650.7 | 7725.4 | 2944.6 | 34.1 | 13 | 262.4% |
| | Upper Morkill | 285.2 | 273.3 | 63.9 | 35.5 | 23.4 | 13 | 179.8% |

| BEC | Landscape Unit | Total Area (ha) | CE-CFLB Area (ha) | Current Amount of Old Forest (ha) | Target Amount of Old Forest (ha) | Current % Old Forest | Old Forest Target % | Old Growth Forest % of Target* |
|---|---|---|---|---|---|---|---|---|
| ICHwk4 | Cariboo | 3830.0 | 2933.9 | 2090.4 | 381.4 | 71.3 | 13 | 548.1% |
| SBSdh1 | Canoe | 1000.2 | 491.0 | 372.5 | 54.0 | 75.9 | 11 | 689.6% |
| | Castle | 110.2 | 83.8 | 35.8 | 9.2 | 42.7 | 11 | 388.5% |
| | East Kinbasket | 418.4 | 413.4 | 36.2 | 45.5 | 8.8 | 11 | 79.6% |
| | Holmes | 225.0 | 196.2 | 1.5 | 21.6 | 0.7 | 11 | 6.8% |
| | Horsey-Small | 157.7 | 45.2 | 0.0 | 5.0 | 0.0 | 11 | 0.0% |
| | Kiwa-Tete | 1.1 | 1.1 | 0.0 | 0.1 | 0.0 | 11 | 0.0% |
| | McBride-Dunster | 26186.6 | 4058.5 | 948.1 | 446.4 | 23.4 | 11 | 212.4% |
| | Raush | 2789.2 | 1476.2 | 822.7 | 162.4 | 55.7 | 11 | 506.7% |
| | South Trench | 35706.0 | 21481.6 | 3210.9 | 2363.0 | 14.9 | 11 | 135.9% |
| | West Kinbasket | 2.8 | 0.0 | 0.0 | 0.0 | 100.0 | 11 | 909.1% |
| SBSvk | Crescent Spur | 6679.7 | 3402.5 | 450.9 | 442.3 | 13.3 | 13 | 101.9% |
| | Dore | 1930.8 | 1335.6 | 322.4 | 120.2 | 24.1 | 9 | 268.2% |
| | Forgetmenot | 530.4 | 511.1 | 4.3 | 46.0 | 0.8 | 9 | 9.3% |
| | Goat | 5610.3 | 4752.6 | 1832.5 | 427.7 | 38.6 | 9 | 428.4% |
| | Holmes | 6914.0 | 5870.4 | 340.8 | 528.3 | 5.8 | 9 | 64.5% |
| | Lower Morkill/Cushing | 2219.5 | 2032.8 | 1042.7 | 183.0 | 51.3 | 9 | 569.9% |
| | McBride-Dunster | 1512.0 | 553.1 | 0.0 | 49.8 | 0.0 | 9 | 0.0% |
| | Milk | 1002.5 | 912.7 | 56.4 | 82.1 | 6.2 | 9 | 68.7% |
| | Northern Trench | 3439.2 | 1218.2 | 63.7 | 109.6 | 5.2 | 9 | 58.1% |
| | Upper Morkill | 2179.5 | 2008.2 | 1275.9 | 180.7 | 63.5 | 9 | 705.9% |
| SBSwk1 | Cariboo | 3466.0 | 2654.7 | 1635.3 | 238.9 | 61.6 | 9 | 684.4% |

* Old-Growth Forest % of Target = the non-spatial amount of old-growth forest on the CFLB in relation to legal order targets

# Appendix 6 – Status of Mature-plus-Old Policy Targets across the Robson Valley Themed by Distance from Target

The following table provides the current condition reporting of mature-plus-old forest compared to policy targets by BEC to support ecosystem-based contemplation of the results. These results are presented by indicator condition (percent of target met categories) in Table 10.

***Table 35.*** *AUs with Insufficient Mature-plus-Old Forest as compared to the Biodiversity Guidebook by BEC. The percent of target currently mature-plus-old across the Robson Valley TSA is ordered by BEC subzone and variant and LU.*

| BEC Variant | Landscape Unit | Total Area (ha) | CE-CFLB Area (ha) | Current Amount of Mature-plus-Old Forest (ha) | Policy Target Amount of Mature-plus-Old Forest (ha) | Current Mature-plus-Old Forest % | Mature-plus-Old Forest Policy Target % | Mature-plus-Old Forest % of Policy Target** |
|---|---|---|---|---|---|---|---|---|
| ESSFmm1 | Canoe | 13521.8 | 9207.0 | 6596.1 | 1289.0 | 71.6 | 14 | **511.7%** |
| | Cariboo | 107.7 | 3.4 | 3.4 | 0.5 | 100.0 | 14 | **714.3%** |
| | Castle | 13673.3 | 6912.2 | 5742.8 | 967.7 | 83.1 | 14 | **593.4%** |
| | Crescent Spur | 956.7 | 845.0 | 844.2 | 354.9 | 99.9 | 42 | **237.9%** |
| | Dawson | 639.7 | 396.2 | 389.7 | 55.5 | 98.4 | 14 | **702.6%** |
| | Dore | 10762.6 | 6216.0 | 4376.4 | 870.2 | 70.4 | 14 | **502.9%** |
| | East Kinbasket | 23065.6 | 14639.0 | 12058.2 | 2049.5 | 82.4 | 14 | **588.4%** |
| | EastTwin-McKale | 14767.7 | 9678.4 | 8203.7 | 1355.0 | 84.8 | 14 | **605.5%** |
| | Forgetmenot | 16997.2 | 15548.5 | 11217.9 | 4353.6 | 72.1 | 28 | **257.7%** |
| | Foster | 1406.0 | 1302.8 | 1106.0 | 182.4 | 84.9 | 14 | **606.4%** |
| | Holmes | 29650.7 | 17918.5 | 11577.5 | 5017.2 | 64.6 | 28 | **230.8%** |
| | Horsey-Small | 16113.1 | 9970.3 | 8651.7 | 1395.8 | 86.8 | 14 | **619.8%** |
| | Hugh Allan | 17745.1 | 13062.9 | 11480.7 | 3657.6 | 87.9 | 28 | **313.9%** |
| | Kiwa-Tete | 8754.2 | 5292.6 | 4218.8 | 741.0 | 79.7 | 14 | **569.4%** |
| | Lower Morkill/Cushing | 12822.0 | 10080.9 | 8657.4 | 2822.7 | 85.9 | 28 | **306.7%** |
| | McBride-Dunster | 10663.6 | 8433.7 | 4295.2 | 1180.7 | 50.9 | 14 | **363.8%** |
| | Northern Trench | 1995.6 | 1826.2 | 1363.4 | 511.3 | 74.7 | 28 | **266.6%** |
| | Raush | 21141.1 | 10845.0 | 8660.6 | 3036.6 | 79.9 | 28 | **285.2%** |
| | South Trench | 17864.2 | 13646.4 | 8286.1 | 3821.0 | 60.7 | 28 | **216.9%** |
| | Upper Morkill | 21068.0 | 18115.0 | 15141.6 | 5072.2 | 83.6 | 28 | **298.5%** |
| | West Kinbasket | 4476.9 | 3632.6 | 3019.6 | 508.6 | 83.1 | 14 | **593.7%** |

| BEC Variant | Landscape Unit | Total Area (ha) | CE-CFLB Area (ha) | Current Amount of Mature-plus-Old Forest (ha) | Policy Target Amount of Mature-plus-Old Forest (ha) | Current Mature-plus-Old Forest % | Mature-plus-Old Forest Policy Target % | Mature-plus-Old Forest % of Policy Target** |
|---|---|---|---|---|---|---|---|---|
| ESSFwc2 | Dawson | 6006.8 | 3515.3 | 2917.3 | 667.9 | 83.0 | 19 | **436.8%** |
| | Foster | 16681.2 | 10374.2 | 7956.8 | 1971.1 | 76.7 | 19 | **403.7%** |
| ESSFwc3 | Cariboo | 8505.6 | 4529.8 | 4458.7 | 860.7 | 98.4 | 19 | **518.1%** |
| | Crescent Spur | 698.2 | 623.2 | 568.6 | 336.5 | 91.2 | 54 | **169.0%** |
| | Goat | 8941.4 | 4719.0 | 4670.5 | 1698.8 | 99.0 | 36 | **274.9%** |
| | Lower Morkill/Cushing | 2080.7 | 1606.1 | 1474.8 | 578.2 | 91.8 | 36 | **255.1%** |
| | Milk | 6324.8 | 4380.9 | 3697.4 | 832.4 | 84.4 | 19 | **444.2%** |
| | Northern Trench | 5596.6 | 4469.5 | 3750.8 | 1609.0 | 83.9 | 36 | **233.1%** |
| ESSFwk1 | Cariboo | 8350.5 | 5740.5 | 5621.4 | 1090.7 | 97.9 | 19 | **515.4%** |
| | Crescent Spur | 1238.3 | 1195.3 | 670.5 | 645.5 | 56.1 | 54 | **103.9%** |
| | Goat | 8607.2 | 6475.7 | 6437.7 | 2331.3 | 99.4 | 36 | **276.1%** |
| | Milk | 5978.0 | 5206.5 | 3797.1 | 989.2 | 72.9 | 19 | **383.8%** |
| | Northern Trench | 4228.6 | 3971.6 | 2638.0 | 1429.8 | 66.4 | 36 | **184.5%** |
| ESSFwk2 | Lower Morkill/Cushing | 1795.5 | 1617.7 | 1594.8 | 582.4 | 98.6 | 36 | **273.8%** |

| BEC Variant | Landscape Unit | Total Area (ha) | CE-CFLB Area (ha) | Current Amount of Mature-plus-Old Forest (ha) | Policy Target Amount of Mature-plus-Old Forest (ha) | Current Mature-plus-Old Forest % | Mature-plus-Old Forest Policy Target % | Mature-plus-Old Forest % of Policy Target** |
|---|---|---|---|---|---|---|---|---|
| ICHmm | Canoe | 5979.8 | 4915.7 | 3940.9 | 737.4 | 80.2 | 15 | **534.5%** |
| | Castle | 7747.9 | 6441.6 | 2850.5 | 966.2 | 44.3 | 15 | **295.0%** |
| | Dawson | 1290.3 | 1129.7 | 881.2 | 169.5 | 78.0 | 15 | **520.0%** |
| | Dore | 2428.2 | 2113.8 | 861.7 | 317.1 | 40.8 | 15 | **271.8%** |
| | East Kinbasket | 15382.5 | 13996.8 | 7600.4 | 2099.5 | 54.3 | 15 | **362.0%** |
| | EastTwin-McKale | 3266.7 | 2934.9 | 2594.3 | 440.2 | 88.4 | 15 | **589.3%** |
| | Foster | 3301.8 | 3208.8 | 1821.7 | 481.3 | 56.8 | 15 | **378.5%** |
| | Holmes | 11214.3 | 9448.9 | 2255.7 | 2929.1 | 23.9 | 31 | **77.0%** |
| | Horsey-Small | 9481.7 | 7388.4 | 6154.0 | 1108.3 | 83.3 | 15 | **555.3%** |
| | Hugh Allan | 10522.1 | 9613.7 | 7466.2 | 2980.3 | 77.7 | 31 | **250.5%** |
| | Kiwa-Tete | 5064.0 | 4188.9 | 2535.6 | 628.3 | 60.5 | 15 | **403.5%** |
| | McBride-Dunster | 21316.9 | 17418.2 | 9270.9 | 2612.7 | 53.2 | 15 | **354.8%** |
| | Northern Trench | 445.7 | 429.8 | 207.4 | 133.2 | 48.3 | 31 | **155.7%** |
| | Raush | 15423.1 | 12739.9 | 10729.0 | 3949.4 | 84.2 | 31 | **271.7%** |
| | South Trench | 19990.9 | 17970.3 | 8986.3 | 5570.8 | 50.0 | 31 | **161.3%** |
| | West Kinbasket | 7138.6 | 6532.9 | 4426.9 | 979.9 | 67.8 | 15 | **451.8%** |
| ICHwk1 | Dawson | 4463.2 | 3579.3 | 2713.0 | 608.5 | 75.8 | 17 | **445.9%** |
| | Foster | 9319.7 | 8079.1 | 7197.5 | 1373.4 | 89.1 | 17 | **524.0%** |
| | Hugh Allan | 106.8 | 104.7 | 74.5 | 35.6 | 71.1 | 34 | **209.2%** |

| BEC Variant | Landscape Unit | Total Area (ha) | CE-CFLB Area (ha) | Current Amount of Mature-plus-Old Forest (ha) | Policy Target Amount of Mature-plus-Old Forest (ha) | Current Mature-plus-Old Forest % | Mature-plus-Old Forest Policy Target % | Mature-plus-Old Forest % of Policy Target** |
|---|---|---|---|---|---|---|---|---|
| ICHwk3 | Crescent Spur | 21611.4 | 18661.3 | 12623.8 | 9517.3 | 67.6 | 51 | **132.6%** |
| | EastTwin-McKale | 3133.7 | 2525.7 | 2208.7 | 429.4 | 87.4 | 17 | **514.4%** |
| | Forgetmenot | 901.5 | 861.3 | 666.0 | 292.8 | 77.3 | 34 | **227.4%** |
| | Goat | 312.7 | 230.8 | 223.0 | 78.5 | 96.6 | 34 | **284.2%** |
| | Lower Morkill/Cushing | 7071.0 | 6776.2 | 5765.4 | 2303.9 | 85.1 | 34 | **250.2%** |
| | McBride-Dunster | 755.4 | 689.1 | 502.6 | 117.2 | 72.9 | 17 | **429.0%** |
| | Milk | 5312.4 | 4902.1 | 3491.0 | 833.4 | 71.2 | 17 | **418.9%** |
| | Northern Trench | 24804.6 | 22650.7 | 14076.0 | 7701.2 | 62.1 | 34 | **182.8%** |
| | Upper Morkill | 285.2 | 273.3 | 136.7 | 92.9 | 50.0 | 34 | **147.1%** |
| ICHwk4 | Cariboo | 3830.0 | 2933.9 | 2887.7 | 498.8 | 98.4 | 17 | **579.0%** |
| SBSdh1 | Canoe | 1000.2 | 491.0 | 456.0 | 54.0 | 92.9 | 11 | **844.4%** |
| | Castle | 110.2 | 83.8 | 46.1 | 9.2 | 55.1 | 11 | **500.8%** |
| | East Kinbasket | 418.4 | 413.4 | 119.0 | 45.5 | 28.8 | 11 | **261.7%** |
| | Holmes | 225.0 | 196.2 | 9.4 | 45.1 | 4.8 | 23 | **20.8%** |
| | Horsey-Small | 157.7 | 45.2 | 34.1 | 5.0 | 75.4 | 11 | **685.6%** |
| | Kiwa-Tete | 1.1 | 1.1 | 0.0 | 0.1 | 0.9 | 11 | **8.6%** |
| | McBride-Dunster | 26186.6 | 4058.5 | 1934.8 | 446.4 | 47.7 | 11 | **433.4%** |
| | Raush | 2789.2 | 1476.2 | 1260.1 | 339.5 | 85.4 | 23 | **371.1%** |
| | South Trench | 35706.0 | 21481.6 | 8813.5 | 4940.8 | 41.0 | 23 | **178.4%** |
| | West Kinbasket | 2.8 | 0.0 | 0.0 | 0.0 | 100.0 | 11 | **909.1%** |

| BEC Variant | Landscape Unit | Total Area (ha) | CE-CFLB Area (ha) | Current Amount of Mature-plus-Old Forest (ha) | Policy Target Amount of Mature-plus-Old Forest (ha) | Current Mature-plus-Old Forest % | Mature-plus-Old Forest Policy Target % | Mature-plus-Old Forest % of Policy Target** |
|---|---|---|---|---|---|---|---|---|
| SBSvk | Crescent Spur | 6679.7 | 3402.5 | 2253.6 | 1565.2 | 66.2 | 46 | **144.0%** |
| | Dore | 1930.8 | 1335.6 | 692.2 | 200.3 | 51.8 | 15 | **345.5%** |
| | Forgetmenot | 530.4 | 511.1 | 277.7 | 158.4 | 54.3 | 31 | **175.3%** |
| | Goat | 5610.3 | 4752.6 | 4710.5 | 1473.3 | 99.1 | 31 | **319.7%** |
| | Holmes | 6914.0 | 5870.4 | 1558.8 | 1819.8 | 26.6 | 31 | **85.7%** |
| | Lower Morkill/Cushing | 2219.5 | 2032.8 | 1433.8 | 630.2 | 70.5 | 31 | **227.5%** |
| | McBride-Dunster | 1512.0 | 553.1 | 164.9 | 83.0 | 29.8 | 15 | **198.8%** |
| | Milk | 1002.5 | 912.7 | 459.5 | 136.9 | 50.3 | 15 | **335.6%** |
| | Northern Trench | 3439.2 | 1218.2 | 903.0 | 377.7 | 74.1 | 31 | **239.1%** |
| | Upper Morkill | 2179.5 | 2008.2 | 1540.3 | 622.5 | 76.7 | 31 | **247.4%** |
| SBSwk1 | Cariboo | 3466.0 | 2654.7 | 2650.1 | 398.2 | 99.8 | 15 | **665.5%** |

** Mat+Old Forest % of Policy Target = the non-spatial amount of mature-plus-old on the CFLB in relation to Biodiversity Guidebook policy target

# Appendix 7 – Additional Old Growth Management Area (OGMA) Indicator Table

The following is provided as additional detail for the OGMA indicator. Total area of mature-plus-old forest and mature-plus-old forest within OGMAs (legal and non-legal) are described relative to the policy target amount by assessment unit.

***Table 36.*** *Total Mature-plus-Old Forest Area and Area of Mature-plus-Old Forest in Legal and Non-Legal OGMAs Compared to Biodiversity Guidebook Policy Targets.*

| Column Calculations | | A | B | A*B=C | D | E | F | G | E/C | G/C |
|---|---|---|---|---|---|---|---|---|---|---|
| BEC | BEO | CE-CFLB (ha) | BDG Policy Target Mature-plus-Old Forest (%) | Policy Target: Mature-plus-Old Forest (ha) | Total Area of Old Forest in LU/BEC in the CE- CFLB (ha) | Current Area Mature-plus-Old Forest in LU/ BEC in CE-CFLB (ha) | Current Area of Old in OGMA (ha) | Current Area of Mature-plus-Old Forest in OGMA (ha) | Total Area of Mature-plus-Old Forest in CE-CFLB (% of Policy Target) | Area of Mature-plus-Old Forest in OGMA (% of Policy Target) in CE-CFLB |
| **Legal OGMAs** | | | | | | | | | | |
| **Canoe** | | | | | | | | | | |
| ESSFmm1 | Low | 9,207.04 | 14% | 1288.99 | 2836.30 | 6,596.08 | 482.31 | 574.04 | **512%** | **45%** |
| ICHmm | Low | 4,915.71 | 15% | 737.36 | 2211.52 | 3,940.87 | 467.15 | 521.38 | **534%** | **71%** |
| SBSdh1 | Low | 491.01 | 11% | 54.01 | 372.45 | 456.04 | 10.34 | 10.35 | **844%** | **19%** |
| **Crescent Spur** | | | | | | | | | | |
| ESSFmm1 | High | 845.04 | 42% | 354.91 | 332.25 | 844.23 | 152.15 | 297.98 | **238%** | **84%** |
| ESSFwc3 | High | 623.23 | 54% | 336.54 | 247.20 | 568.63 | 44.69 | 122.71 | **169%** | **36%** |
| ESSFwk1 | High | 1,195.31 | 54% | 645.47 | 392.72 | 670.53 | 235.96 | 329.72 | **104%** | **51%** |
| ICHwk3 | High | 18,661.29 | 51% | 9517.26 | 7,260.70 | 12,623.81 | 2,772.79 | 3,530.42 | **133%** | **37%** |
| SBSvk | High | 3,402.55 | 46% | 1565.17 | 452.30 | 2,253.64 | 173.50 | 243.69 | **144%** | **16%** |
| **Dawson** | | | | | | | | | | |
| ESSFmm1 | Low | 396.20 | 14% | 55.47 | 149.68 | 389.72 | 6.98 | 6.98 | **703%** | **13%** |
| ESSFwc2 | Low | 3,515.33 | 19% | 667.91 | 1,741.23 | 2,917.28 | 155.27 | 185.45 | **437%** | **28%** |
| ICHmm | Low | 1,129.69 | 15% | 169.45 | 341.46 | 881.20 | 22.84 | 40.32 | **520%** | **24%** |
| ICHwk1 | Low | 3,579.28 | 17% | 608.48 | 1,896.56 | 2,713.03 | 89.40 | 91.99 | **446%** | **15%** |

| Column Calculations | | A | B | A*B=C | D | E | F | G | E/C | G/C |
|---|---|---|---|---|---|---|---|---|---|---|
| BEC | BEO | CE-CFLB (ha) | BDG Policy Target Mature-plus-Old Forest (%) | Policy Target: Mature-plus-Old Forest (ha) | Total Area of Old Forest in LU/BEC in the CE- CFLB (ha) | Current Area Mature-plus-Old Forest in LU/ BEC in CE-CFLB (ha) | Current Area of Old in OGMA (ha) | Current Area of Mature-plus-Old Forest in OGMA (ha) | Total Area of Mature-plus-Old Forest in CE-CFLB (% of Policy Target) | Area of Mature-plus-Old Forest in OGMA (% of Policy Target) in CE-CFLB |
| **East Kinbasket** | | | | | | | | | | |
| ESSFmm1 | Low | 14,638.99 | 14% | 2049.46 | 4,681.33 | 12,058.24 | 856.24 | 925.51 | **588%** | **45%** |
| ICHmm | Low | 13,996.80 | 15% | 2099.52 | 2,732.16 | 7,600.42 | 878.14 | 1,083.89 | **362%** | **52%** |
| SBSdh1 | Low | 413.38 | 11% | 45.47 | 36.19 | 118.99 | 26.92 | 34.90 | **262%** | **77%** |
| **Forgetmenot** | | | | | | | | | | |
| ESSFmm1 | Intermediate | 15,548.45 | 28% | 4353.57 | 1,202.93 | 11,217.87 | 235.77 | 947.12 | **258%** | **22%** |
| ICHwk3 | Intermediate | 861.31 | 34% | 292.85 | 339.45 | 665.97 | 41.59 | 46.34 | **227%** | **16%** |
| SBSvk | Intermediate | 511.08 | 31% | 158.44 | 4.28 | 277.68 | 0.00 | 0.00 | **175%** | **0%** |
| **Foster** | | | | | | | | | | |
| ESSFmm1 | Low | 1,302.75 | 14% | 182.39 | 305.34 | 1,105.95 | 36.80 | 118.64 | **606%** | **65%** |
| ESSFwc2 | Low | 10,374.20 | 19% | 1971.10 | 4,723.98 | 7,956.82 | 1,321.99 | 1,352.28 | **404%** | **69%** |
| ICHmm | Low | 3,208.80 | 15% | 481.32 | 1,082.09 | 1,821.69 | 228.63 | 236.13 | **378%** | **49%** |
| ICHwk1 | Low | 8,079.10 | 17% | 1373.45 | 5,894.70 | 7,197.46 | 572.94 | 601.50 | **524%** | **44%** |
| **Goat** | | | | | | | | | | |
| ESSFwc3 | Intermediate | 4,718.95 | 36% | 1698.82 | 1,001.02 | 4,670.49 | 473.62 | 693.48 | **275%** | **41%** |
| ESSFwk1 | Intermediate | 6,475.70 | 36% | 2331.25 | 2,171.70 | 6,437.69 | 1,109.98 | 1,341.06 | **276%** | **58%** |
| ICHwk3 | Intermediate | 230.79 | 34% | 78.47 | 18.58 | 222.99 | 0.00 | 7.62 | **284%** | **10%** |
| SBSvk | Intermediate | 4,752.64 | 31% | 1473.32 | 1,832.45 | 4,710.52 | 882.73 | 1,010.44 | **320%** | **69%** |
| **Hugh Allan** | | | | | | | | | | |
| ESSFmm1 | Intermediate | 13,062.93 | 28% | 3,657.62 | 3,738.09 | 11,480.74 | 578.10 | 831.88 | **314%** | **23%** |
| ICHmm | Intermediate | 9,613.73 | 31% | 2,980.26 | 1,158.27 | 7,466.16 | 266.10 | 501.75 | **251%** | **17%** |
| ICHwk1 | Intermediate | 104.73 | 34% | 35.61 | 33.08 | 74.49 | 0.00 | 0.00 | **209%** | **0%** |

| Column Calculations | | A | B | A*B=C | D | E | F | G | E/C | G/C |
|---|---|---|---|---|---|---|---|---|---|---|
| BEC | BEO | CE-CFLB (ha) | BDG Policy Target Mature-plus-Old Forest (%) | Policy Target: Mature-plus-Old Forest (ha) | Total Area of Old Forest in LU/BEC in the CE- CFLB (ha) | Current Area Mature-plus-Old Forest in LU/ BEC in CE-CFLB (ha) | Current Area of Old in OGMA (ha) | Current Area of Mature-plus-Old Forest in OGMA (ha) | Total Area of Mature-plus-Old Forest in CE-CFLB (% of Policy Target) | Area of Mature-plus-Old Forest in OGMA (% of Policy Target) in CE-CFLB |
| **Kiwa-Tete** | | | | | | | | | | |
| ESSFmm1 | Low | 5,292.63 | 14% | 740.97 | 1,378.84 | 4,218.79 | 176.78 | 395.04 | **569%** | **53%** |
| ICHmm | Low | 4,188.88 | 15% | 628.33 | 875.16 | 2,535.58 | 197.72 | 259.54 | **404%** | **41%** |
| SBSdh1 | Low | 1.08 | 11% | 0.12 | 0.00 | 0.01 | 0.00 | 0.00 | **9%** | **0%** |
| **Lower Morkill/ Cushing** | | | | | | | | | | |
| ESSFmm1 | Intermediate | 10,080.89 | 28% | 2,822.65 | 3,399.49 | 8,657.40 | 567.90 | 756.80 | **307%** | **27%** |
| ESSFwc3 | Intermediate | 1,606.14 | 36% | 578.21 | 114.85 | 1,474.82 | 46.94 | 243.76 | **255%** | **42%** |
| ESSFwk2 | Intermediate | 1,617.70 | 36% | 582.37 | 140.58 | 1,594.76 | 55.84 | 273.33 | **274%** | **47%** |
| ICHwk3 | Intermediate | 6,776.16 | 34% | 2,303.90 | 3,281.70 | 5,765.39 | 728.93 | 930.54 | **250%** | **40%** |
| SBSvk | Intermediate | 2,032.79 | 31% | 630.16 | 1,042.69 | 1,433.79 | 276.85 | 304.99 | **228%** | **48%** |
| **Northern Trench** | | | | | | | | | | |
| ESSFmm1 | Intermediate | 1,826.20 | 28% | 511.34 | 398.02 | 1,363.41 | 135.66 | 209.22 | **267%** | **41%** |
| ESSFwc3 | Intermediate | 4,469.51 | 36% | 1,609.02 | 967.61 | 3,750.85 | 239.36 | 291.04 | **233%** | **18%** |
| ESSFwk1 | Intermediate | 3,971.60 | 36% | 1,429.77 | 866.94 | 2,637.99 | 300.12 | 310.14 | **185%** | **22%** |
| ICHmm | Intermediate | 429.78 | 31% | 133.23 | 98.91 | 207.39 | 0.00 | 0.00 | **156%** | **0%** |
| ICHwk3 | Intermediate | 22,650.73 | 34% | 7,701.25 | 7,725.37 | 14,076.03 | 1,545.83 | 1,865.11 | **183%** | **24%** |
| SBSvk | Intermediate | 1,218.23 | 31% | 377.65 | 63.72 | 903.05 | 0.00 | 0.00 | **239%** | **0%** |
| **Upper Morkill** | | | | | | | | | | |
| ESSFmm1 | Intermediate | 18,114.98 | 28% | 5,072.19 | 8,465.56 | 15,141.63 | 2,108.43 | 2,139.71 | **299%** | **42%** |
| ICHwk3 | Intermediate | 273.32 | 34% | 92.93 | 63.90 | 136.65 | 0.00 | 0.00 | **147%** | **0%** |
| SBSvk | Intermediate | 2,008.18 | 31% | 622.54 | 1,275.90 | 1,540.30 | 7.85 | 7.85 | **247%** | **1%** |

| Column Calculations | | A | B | A*B=C | D | E | F | G | E/C | G/C |
|---|---|---|---|---|---|---|---|---|---|---|
| BEC | BEO | CE-CFLB (ha) | BDG Policy Target Mature-plus-Old Forest (%) | Policy Target: Mature-plus-Old Forest (ha) | Total Area of Old Forest in LU/BEC in the CE- CFLB (ha) | Current Area Mature-plus-Old Forest in LU/ BEC in CE-CFLB (ha) | Current Area of Old in OGMA (ha) | Current Area of Mature-plus-Old Forest in OGMA (ha) | Total Area of Mature-plus-Old Forest in CE-CFLB (% of Policy Target) | Area of Mature-plus-Old Forest in OGMA (% of Policy Target) in CE-CFLB |
| **West Kinbasket** | | | | | | | | | | |
| ESSFmm1 | Low | 3,632.62 | 14% | 508.57 | 827.18 | 3,019.59 | 92.41 | 255.30 | **594%** | **50%** |
| ICHmm | Low | 6,532.87 | 15% | 979.93 | 2,321.76 | 4,426.89 | 355.03 | 459.98 | **452%** | **47%** |
| SBSdh1 | Low | 0.04 | 11% | 0.004 | 0.04 | 0.04 | 0.00 | 0.00 | **909%** | **0%** |
| **Non-Legal OGMAs** | | | | | | | | | | |
| **Holmes** | | | | | | | | | | |
| ESSFmm1 | Intermediate | 17,918.49 | 28% | 5,017.18 | 2,184.59 | 11,577.49 | 1,082.85 | 3,775.62 | **231%** | **75%** |
| ICHmm | Intermediate | 9,448.86 | 31% | 2,929.15 | 497.08 | 2,255.72 | 343.10 | 788.03 | **77%** | **27%** |
| SBSdh1 | Intermediate | 196.16 | 23% | 45.12 | 1.47 | 9.40 | 1.47 | 1.46 | **21%** | **3%** |
| SBSvk | Intermediate | 5,870.39 | 31% | 1,819.82 | 340.85 | 1,558.76 | 110.01 | 538.62 | **86%** | **30%** |
| **South Trench** | | | | | | | | | | |
| ESSFmm1 | Intermediate | 13,646.36 | 28% | 3,820.98 | 2,156.00 | 8,268.06 | 745.09 | 1,160.68 | **217%** | **30%** |
| ICHmm | Intermediate | 17,970.27 | 31% | 5,570.78 | 2,359.28 | 8,986.31 | 610.12 | 890.66 | **161%** | **16%** |
| SBSdh1 | Intermediate | 21,481.57 | 23% | 4,940.76 | 3,210.88 | 8,813.46 | 1,018.95 | 1,668.39 | **178%** | **34%** |
| **Total** | | **339,112.44** | **27%** | **92,732.86** | **93,248.38** | **234,292.79** | **22,870.16** | **33,213.38** | **316%** | **33%** |

# Appendix 8 – Robson Valley Old Growth Forest and Mature-plus-Old Forest Targets by Assessment Unit (LU/BEO/BEC)

***Table 37.*** *Robson Valley TSA Old Growth Forest and Mature-plus-Old Forest Targets by Assessment Unit (LU/BEO/BEC).*

| Landscape Unit | Biodiversity Emphasis Option (BEO) | BEC | PNOGO Old Growth Forest Target (%) | Mature-plus-Old Forest Policy Target (%) |
|---|---|---|---|---|
| Canoe | Low | ESSFmm1 | 9 | 14 |
| Canoe | Low | ESSFmmp | 0 | 0 |
| Canoe | Low | ICHmm | 9 | 15 |
| Canoe | Low | IMAun | 0 | 0 |
| Canoe | Low | SBSdh1 | 11 | 11 |
| Cariboo | Low | ESSFmm1 | 9 | 14 |
| Cariboo | Low | ESSFwc3 | 19 | 19 |
| Cariboo | Low | ESSFwcp | 0 | 0 |
| Cariboo | Low | ESSFwk1 | 19 | 19 |
| Cariboo | Low | ICHwk4 | 13 | 17 |
| Cariboo | Low | IMAun | 0 | 0 |
| Cariboo | Low | SBSwk1 | 9 | 15 |
| Castle | Low | ESSFmm1 | 9 | 14 |
| Castle | Low | ESSFmmp | 0 | 0 |
| Castle | Low | ICHmm | 9 | 15 |
| Castle | Low | SBSdh1 | 11 | 11 |
| Crescent Spur | High | ESSFmm1 | 13 | 42 |
| Crescent Spur | High | ESSFmmp | 0 | 0 |
| Crescent Spur | High | ESSFwc3 | 28 | 54 |
| Crescent Spur | High | ESSFwcp | 0 | 0 |
| Crescent Spur | High | ESSFwk1 | 28 | 54 |
| Crescent Spur | High | ICHwk3 | 19 | 51 |
| Crescent Spur | High | SBSvk | 13 | 46 |
| Dawson | Low | ESSFmm1 | 9 | 14 |
| Dawson | Low | ESSFmmp | 0 | 0 |
| Dawson | Low | ESSFwc2 | 19 | 19 |
| Dawson | Low | ESSFwcp | 0 | 0 |
| Dawson | Low | ICHmm | 9 | 15 |
| Dawson | Low | ICHwk1 | 13 | 17 |
| Dawson | Low | IMAun | 0 | 0 |
| Dore | Low | ESSFmm1 | 9 | 14 |
| Dore | Low | ESSFmmp | 0 | 0 |
| Dore | Low | ICHmm | 9 | 15 |
| Dore | Low | SBSvk | 9 | 15 |
| East Kinbasket | Low | ESSFmm1 | 9 | 14 |
| East Kinbasket | Low | ESSFmmp | 0 | 0 |
| East Kinbasket | Low | ICHmm | 9 | 15 |

| Landscape Unit | Biodiversity Emphasis Option (BEO) | BEC | PNOGO Old Growth Forest Target (%) | Mature-plus-Old Forest Policy Target (%) |
|---|---|---|---|---|
| East Kinbasket | Low | IMAun | 0 | 0 |
| East Kinbasket | Low | SBSdh1 | 11 | 11 |
| EastTwin-McKale | Low | ESSFmm1 | 9 | 14 |
| EastTwin-McKale | Low | ESSFmmp | 0 | 0 |
| EastTwin-McKale | Low | ICHmm | 9 | 15 |
| EastTwin-McKale | Low | ICHwk3 | 13 | 17 |
| Forgetmenot | Intermediate | ESSFmm1 | 9 | 28 |
| Forgetmenot | Intermediate | ESSFmmp | 0 | 0 |
| Forgetmenot | Intermediate | ESSFwcp | 0 | 0 |
| Forgetmenot | Intermediate | ICHwk3 | 13 | 34 |
| Forgetmenot | Intermediate | IMAun | 0 | 0 |
| Forgetmenot | Intermediate | SBSvk | 9 | 31 |
| Foster | Low | ESSFmm1 | 9 | 14 |
| Foster | Low | ESSFmmp | 0 | 0 |
| Foster | Low | ESSFwc2 | 19 | 19 |
| Foster | Low | ESSFwcp | 0 | 0 |
| Foster | Low | ICHmm | 9 | 15 |
| Foster | Low | ICHwk1 | 13 | 17 |
| Foster | Low | IMAun | 0 | 0 |
| Goat | Intermediate | ESSFwc3 | 19 | 36 |
| Goat | Intermediate | ESSFwcp | 0 | 0 |
| Goat | Intermediate | ESSFwk1 | 19 | 36 |
| Goat | Intermediate | ICHwk3 | 13 | 34 |
| Goat | Intermediate | IMAun | 0 | 0 |
| Goat | Intermediate | SBSvk | 9 | 31 |
| Holmes | Intermediate | ESSFmm1 | 9 | 28 |
| Holmes | Intermediate | ESSFmmp | 0 | 0 |
| Holmes | Intermediate | ICHmm | 9 | 31 |
| Holmes | Intermediate | SBSdh1 | 11 | 23 |
| Holmes | Intermediate | SBSvk | 9 | 31 |
| Horsey-Small | Low | ESSFmm1 | 9 | 14 |
| Horsey-Small | Low | ESSFmmp | 0 | 0 |
| Horsey-Small | Low | ICHmm | 9 | 15 |
| Horsey-Small | Low | SBSdh1 | 11 | 11 |
| Hugh Allan | Intermediate | ESSFmm1 | 9 | 28 |
| Hugh Allan | Intermediate | ESSFmmp | 0 | 0 |
| Hugh Allan | Intermediate | ICHmm | 9 | 31 |
| Hugh Allan | Intermediate | ICHwk1 | 13 | 34 |
| Hugh Allan | Intermediate | IMAun | 0 | 0 |
| Kiwa-Tete | Low | ESSFmm1 | 9 | 14 |
| Kiwa-Tete | Low | ESSFmmp | 0 | 0 |
| Kiwa-Tete | Low | ICHmm | 9 | 15 |

| Landscape Unit | Biodiversity Emphasis Option (BEO) | BEC | PNOGO Old Growth Forest Target (%) | Mature-plus-Old Forest Policy Target (%) |
|---|---|---|---|---|
| Kiwa-Tete | Low | IMAun | 0 | 0 |
| Kiwa-Tete | Low | SBSdh1 | 11 | 11 |
| Lower Morkill/ Cushing | Intermediate | BAFAun | 0 | 0 |
| Lower Morkill/ Cushing | Intermediate | ESSFmm1 | 9 | 28 |
| Lower Morkill/ Cushing | Intermediate | ESSFmmp | 0 | 0 |
| Lower Morkill/ Cushing | Intermediate | ESSFwc3 | 19 | 36 |
| Lower Morkill/ Cushing | Intermediate | ESSFwcp | 0 | 0 |
| Lower Morkill/ Cushing | Intermediate | ESSFwk2 | 19 | 36 |
| Lower Morkill/ Cushing | Intermediate | ICHwk3 | 13 | 34 |
| Lower Morkill/ Cushing | Intermediate | IMAun | 0 | 0 |
| Lower Morkill/ Cushing | Intermediate | SBSvk | 9 | 31 |
| McBride-Dunster | Low | ESSFmm1 | 9 | 14 |
| McBride-Dunster | Low | ESSFmmp | 0 | 0 |
| McBride-Dunster | Low | ICHmm | 9 | 15 |
| McBride-Dunster | Low | ICHwk3 | 13 | 17 |
| McBride-Dunster | Low | SBSdh1 | 11 | 11 |
| McBride-Dunster | Low | SBSvk | 9 | 15 |
| Milk | Low | ESSFwc3 | 19 | 19 |
| Milk | Low | ESSFwcp | 0 | 0 |
| Milk | Low | ESSFwk1 | 19 | 19 |
| Milk | Low | ICHwk3 | 13 | 17 |
| Milk | Low | IMAun | 0 | 0 |
| Milk | Low | SBSvk | 9 | 15 |
| Mount Robson | NA | ESSFmm1 | 0 | 0 |
| Mount Robson | NA | ESSFmm2 | 0 | 0 |
| Mount Robson | NA | ESSFmmp | 0 | 0 |
| Mount Robson | NA | ICHmm | 0 | 0 |
| Mount Robson | NA | SBSdh1 | 0 | 0 |
| Mount Robson | NA | SBSdh2 | 0 | 0 |
| Northern Trench | Intermediate | ESSFmm1 | 9 | 28 |
| Northern Trench | Intermediate | ESSFmmp | 0 | 0 |
| Northern Trench | Intermediate | ESSFwc3 | 19 | 36 |
| Northern Trench | Intermediate | ESSFwcp | 0 | 0 |
| Northern Trench | Intermediate | ESSFwk1 | 19 | 36 |
| Northern Trench | Intermediate | ICHmm | 9 | 31 |
| Northern Trench | Intermediate | ICHwk3 | 13 | 34 |

| Landscape Unit | Biodiversity Emphasis Option (BEO) | BEC | PNOGO Old Growth Forest Target (%) | Mature-plus-Old Forest Policy Target (%) |
|---|---|---|---|---|
| Northern Trench | Intermediate | IMAun | 0 | 0 |
| Northern Trench | Intermediate | SBSvk | 9 | 31 |
| Raush | Intermediate | ESSFmm1 | 9 | 28 |
| Raush | Intermediate | ESSFmmp | 0 | 0 |
| Raush | Intermediate | ICHmm | 9 | 31 |
| Raush | Intermediate | IMAun | 0 | 0 |
| Raush | Intermediate | SBSdh1 | 11 | 23 |
| South Trench | Intermediate | ESSFmm1 | 9 | 28 |
| South Trench | Intermediate | ESSFmmp | 0 | 0 |
| South Trench | Intermediate | ICHmm | 9 | 31 |
| South Trench | Intermediate | IMAun | 0 | 0 |
| South Trench | Intermediate | SBSdh1 | 11 | 23 |
| Upper Morkill | Intermediate | ESSFmm1 | 9 | 28 |
| Upper Morkill | Intermediate | ESSFmmp | 0 | 0 |
| Upper Morkill | Intermediate | ICHwk3 | 13 | 34 |
| Upper Morkill | Intermediate | SBSvk | 9 | 31 |
| West Kinbasket | Low | ESSFmm1 | 9 | 14 |
| West Kinbasket | Low | ESSFmmp | 0 | 0 |
| West Kinbasket | Low | ICHmm | 9 | 15 |
| West Kinbasket | Low | IMAun | 0 | 0 |
| West Kinbasket | Low | SBSdh1 | 11 | 11 |

# Appendix 9 – Foundational Information for Seral Stage Assessment Unit Current Condition

***Table 38.*** *Foundational Information for Seral Stage Assessment Unit Current Condition.*

| Landscape Unit Name | BEO | NDT | BEC | Old Forest Target (%) | Age of Old Forest | Old Forest Target Area (ha) | Age of Mature Forest | Mature-plus-Old Forest Target (%) | Mature-plus-Old Forest Target (ha) | Total Area (ha) | CE-CFLB Area (ha) | Existing Old Forest (ha) | Existing Mature-plus-Old Forest (ha) | Existing Old Forest (%) | Existing Mature-plus-Old Forest (%) | Old Forest Status | Mature-plus-Old Forest Status |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Canoe | Low | NDT2 | ESS-Fmm1 | 9 | 250 | 829 | 120 | 14 | 1289 | 13521.8 | 9207 | 2836.3 | 6596.1 | 30.8 | 71.6 | 125+% of target met | 125+% of target met |
| Canoe | Low | NDT2 | ICHmm | 9 | 250 | 442 | 100 | 15 | 737.4 | 5979.8 | 4915.7 | 2211.5 | 3940.9 | 45 | 80.2 | 125+% of target met | 125+% of target met |
| Canoe | Low | NDT3 | SBSdh1 | 11 | 140 | 54 | 100 | 11 | 54 | 1000.2 | 491 | 372.5 | 456 | 75.9 | 92.9 | 125+% of target met | 125+% of target met |
| Canoe | Low | NDT5 | ESS-Fmmp | 0 | N/A | 0 | N/A | 0 | 0 | 15765.1 | 3779.5 | 0 | 0 | 0 | 0 | N/A | N/A |
| Canoe | Low | NDT5 | IMAun | 0 | N/A | 0 | N/A | 0 | 0 | 16544.6 | 20.2 | 0 | 0 | 0 | 0 | N/A | N/A |
| Cariboo | Low | NDT1 | ESS-Fwc3 | 19 | 250 | 861 | 120 | 19 | 861 | 860.7 | 8505.6 | 4529.8 | 1987.6 | 4458.7 | 43.9 | 125+% of target met | 125+% of target met |
| Cariboo | Low | NDT1 | ESS-Fwk1 | 19 | 250 | 1091 | 120 | 19 | 1091 | 1090.7 | 8350.5 | 5740.5 | 3523.6 | 5621.4 | 61.4 | 125+% of target met | 125+% of target met |
| Cariboo | Low | NDT1 | ICHwk4 | 13 | 250 | 381 | 100 | 17 | 499 | 498.8 | 3830 | 2933.9 | 2090.4 | 2887.7 | 71.3 | 125+% of target met | 125+% of target met |
| Cariboo | Low | NDT2 | ESS-Fmm1 | 9 | 250 | 0 | 120 | 14 | 1 | 0.5 | 107.7 | 3.4 | 3.4 | 3.4 | 100 | 125+% of target met | 125+% of target met |
| Cariboo | Low | NDT2 | SBSwk1 | 9 | 250 | 239 | 100 | 15 | 398 | 398.2 | 3466 | 2654.7 | 1635.3 | 2650.1 | 61.6 | 125+% of target met | 125+% of target met |
| Cariboo | Low | NDT5 | ESS-Fwcp | 0 | N/A | 0 | N/A | 0 | 0 | 11995.2 | 1484.5 | 0 | 0 | 0 | 0 | N/A | N/A |
| Cariboo | Low | NDT5 | ESS-Fmmp | 0 | N/A | 0 | N/A | 0 | 0 | 345.1 | 0 | 0 | 0 | 0 | 0 | N/A | N/A |
| Cariboo | Low | NDT5 | IMAun | 0 | N/A | 0 | N/A | 0 | 0 | 0 | 18304.9 | 2.2 | 0 | 0 | 0 | N/A | N/A |
| Castle | Low | NDT2 | ESS-Fmm1 | 9 | 250 | 622 | 120 | 14 | 968 | 13673.3 | 6912.2 | 3124.4 | 5742.8 | 45.2 | 83.1 | 125+% of target met | 125+% of target met |
| Castle | Low | NDT2 | ICHmm | 9 | 250 | 580 | 100 | 15 | 966 | 7747.9 | 6441.6 | 1508.7 | 2850.5 | 23.4 | 44.3 | 125+% of target met | 125+% of target met |
| Castle | Low | NDT3 | SBSdh1 | 11 | 140 | 9 | 100 | 11 | 9 | 110.2 | 83.8 | 35.8 | 46.1 | 42.7 | 55.1 | 125+% of target met | 125+% of target met |
| Castle | Low | NDT5 | ESS-Fmmp | 0 | N/A | 0 | N/A | 0 | 0 | 15754.8 | 1187.8 | 0 | 0 | 0 | 0 | N/A | N/A |
| Castle | Low | NDT5 | IMAun | 0 | N/A | 0 | N/A | 0 | 0 | 13515.8 | 0 | 0 | 0 | 0 | 0 | N/A | N/A |
| Crescent Spur | High | NDT1 | ESS-Fwc3 | 28 | 250 | 175 | 120 | 54 | 337 | 698.2 | 623.2 | 247.2 | 568.6 | 39.7 | 91.2 | 125+% of target met | 125+% of target met |
| Crescent Spur | High | NDT1 | ESS-Fwk1 | 28 | 250 | 335 | 120 | 54 | 646 | 1238.3 | 1195.3 | 392.7 | 670.5 | 32.9 | 56.1 | 110 - 125% of target met | 100 - 110% of target met |
| Crescent Spur | High | NDT1 | ICHwk3 | 19 | 250 | 3546 | 100 | 51 | 9517 | 21611.4 | 18661.3 | 7212.5 | 12623.8 | 38.6 | 67.6 | 125+% of target met | 125+% of target met |
| Crescent Spur | High | NDT2 | ESS-Fmm1 | 13 | 250 | 110 | 120 | 42 | 355 | 956.7 | 845 | 332.2 | 844.2 | 39.3 | 99.9 | 125+% of target met | 125+% of target met |
| Crescent Spur | High | NDT2 | SBSvk | 13 | 250 | 442 | 100 | 46 | 1565 | 6679.7 | 3402.5 | 450.9 | 2253.6 | 13.3 | 66.2 | 100 - 110% of target met | 125+% of target met |
| Crescent Spur | High | NDT5 | ESS-Fmmp | 0 | N/A | 0 | N/A | 0 | 0 | 235 | 33.9 | 0 | 0 | 0 | 0 | N/A | N/A |
| Crescent Spur | High | NDT5 | ESS-Fwcp | 0 | N/A | 0 | N/A | 0 | 0 | 624.3 | 153.4 | 0 | 0 | 0 | 0 | N/A | N/A |
| Crescent Spur | High | NDT5 | IMAun | 0 | N/A | 0 | N/A | 0 | 0 | 148.4 | 0 | 0 | 0 | 0 | 0 | N/A | N/A |
| Dawson | Low | NDT1 | ESS-Fwc2 | 19 | 250 | 668 | 120 | 19 | 668 | 6006.8 | 3515.3 | 1741.2 | 2917.3 | 49.5 | 83 | 125+% of target met | 125+% of target met |
| Dawson | Low | NDT1 | ICHwk1 | 13 | 250 | 465 | 100 | 17 | 609 | 4463.2 | 3579.3 | 1896.6 | 2713 | 53 | 75.8 | 125+% of target met | 125+% of target met |
| Dawson | Low | NDT2 | ESS-Fmm1 | 9 | 250 | 36 | 120 | 14 | 56 | 639.7 | 396.2 | 149.7 | 389.7 | 37.8 | 98.4 | 125+% of target met | 125+% of target met |
| Dawson | Low | NDT2 | ICHmm | 9 | 250 | 102 | 100 | 15 | 170 | 1290.3 | 1129.7 | 341.5 | 881.2 | 30.2 | 78 | 125+% of target met | 125+% of target met |
| Dawson | Low | NDT5 | ESS-Fmmp | 0 | N/A | 0 | N/A | 0 | 0 | 497.2 | 57.8 | 0 | 0 | 0 | 0 | N/A | N/A |
| Dawson | Low | NDT5 | ESS-Fwcp | 0 | N/A | 0 | N/A | 0 | 0 | 4875.2 | 458.4 | 0 | 0 | 0 | 0 | N/A | N/A |
| Dawson | Low | NDT5 | IMAun | 0 | N/A | 0 | N/A | 0 | 0 | 6960.8 | 1432.8 | 0 | 0 | 0 | 0 | N/A | N/A |
| Dore | Low | NDT2 | ESS-Fmm1 | 9 | 250 | 559 | 120 | 14 | 870 | 10762.6 | 6216 | 1216.6 | 4376.4 | 19.6 | 70.4 | 125+% of target met | 125+% of target met |

| Landscape Unit Name | BEO | NDT | BEC | Old Forest Target (%) | Age of Old Forest | Old Forest Target Area (ha) | Age of Mature Forest | Mature-plus-Old Forest Target (%) | Mature-plus-Old Forest Target (ha) | Total Area (ha) | CE-CFLB Area (ha) | Existing Old Forest (ha) | Existing Mature-plus-Old Forest (ha) | Existing Old Forest (%) | Existing Mature-plus-Old Forest (%) | Old Forest Status | Mature-plus-Old Forest Status |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Dore | Low | NDT2 | ICHmm | 9 | 250 | 190 | 100 | 15 | 317 | 2428.2 | 2113.8 | 648.2 | 861.7 | 30.7 | 40.8 | 125+% of target met | 125+% of target met |
| Dore | Low | NDT2 | SBSvk | 9 | 250 | 120 | 100 | 15 | 200 | 1930.8 | 1335.6 | 322.4 | 692.2 | 24.1 | 51.8 | 125+% of target met | 125+% of target met |
| Dore | Low | NDT5 | ESS-Fmmp | 0 | N/A | 0 | N/A | 0 | 0 | 13488.9 | 823.3 | 0 | 0 | 0 | 0 | N/A | N/A |
| Dore | Low | NDT5 | ESS-Fwcp | 0 | N/A | 0 | N/A | 0 | 0 | 9.2 | 0 | 0 | 0 | 0 | 0 | N/A | N/A |
| Dore | Low | NDT5 | IMAun | 0 | N/A | 0 | N/A | 0 | 0 | 10805.4 | 0 | 0 | 0 | 0 | 0 | N/A | N/A |
| East Kinbasket | Low | NDT2 | ESS-Fmm1 | 9 | 250 | 1318 | 120 | 14 | 2050 | 23065.6 | 14639 | 4681.3 | 12058.2 | 32 | 82.4 | 125+% of target met | 125+% of target met |
| East Kinbasket | Low | NDT2 | ICHmm | 9 | 250 | 1260 | 100 | 15 | 2100 | 15382.5 | 13996.8 | 2732.2 | 7600.4 | 19.5 | 54.3 | 125+% of target met | 125+% of target met |
| East Kinbasket | Low | NDT3 | SBSdh1 | 11 | 140 | 46 | 100 | 11 | 46 | 418.4 | 413.4 | 36.2 | 119 | 8.8 | 28.8 | 75 - 100% of target met | 125+% of target met |
| East Kinbasket | Low | NDT5 | ESS-Fmmp | 0 | N/A | 0 | N/A | 0 | 0 | 22647 | 2250.5 | 0 | 0 | 0 | 0 | N/A | N/A |
| East Kinbasket | Low | NDT5 | IMAun | 0 | N/A | 0 | N/A | 0 | 0 | 15722.1 | 0.1 | 0 | 0 | 0 | 0 | N/A | N/A |
| EastTwin-McKale | Low | NDT1 | ICHwk3 | 13 | 250 | 328 | 100 | 17 | 429 | 3133.7 | 2525.7 | 909.1 | 2208.7 | 36 | 87.4 | 125+% of target met | 125+% of target met |
| EastTwin-McKale | Low | NDT2 | ESS-Fmm1 | 9 | 250 | 871 | 120 | 14 | 1355 | 14767.7 | 9678.4 | 2094.9 | 8203.7 | 21.6 | 84.8 | 125+% of target met | 125+% of target met |
| EastTwin-McKale | Low | NDT2 | ICHmm | 9 | 250 | 264 | 100 | 15 | 440 | 3266.7 | 2934.9 | 1020.6 | 2594.3 | 34.8 | 88.4 | 125+% of target met | 125+% of target met |
| EastTwin-McKale | Low | NDT5 | ESS-Fmmp | 0 | N/A | 0 | N/A | 0 | 0 | 18173.1 | 1369 | 0 | 0 | 0 | 0 | N/A | N/A |
| EastTwin-McKale | Low | NDT5 | IMAun | 0 | N/A | 0 | N/A | 0 | 0 | 5515.1 | 0 | 0 | 0 | 0 | 0 | N/A | N/A |
| Forgetmenot | Intermediate | NDT1 | ICHwk3 | 13 | 250 | 112 | 100 | 34 | 293 | 901.5 | 861.3 | 339.4 | 666 | 39.4 | 77.3 | 125+% of target met | 125+% of target met |
| Forgetmenot | Intermediate | NDT2 | ESS-Fmm1 | 9 | 250 | 1399 | 120 | 28 | 4354 | 16997.2 | 15548.5 | 1202.9 | 11217.9 | 7.7 | 72.1 | 75 - 100% of target met | 125+% of target met |
| Forgetmenot | Intermediate | NDT2 | SBSvk | 9 | 250 | 46 | 100 | 31 | 158 | 530.4 | 511.1 | 4.3 | 277.7 | 0.8 | 54.3 | 0 - 30% of target met | 125+% of target met |
| Forgetmenot | Intermediate | NDT5 | BAFAun | 0 | N/A | 0 | N/A | 0 | 0 | 255.3 | 11.5 | 0 | 0 | 0 | 0 | N/A | N/A |
| Forgetmenot | Intermediate | NDT5 | ESS-Fmmp | 0 | N/A | 0 | N/A | 0 | 0 | 12133.8 | 4846.3 | 0 | 0 | 0 | 0 | N/A | N/A |
| Forgetmenot | Intermediate | NDT5 | IMAun | 0 | N/A | 0 | N/A | 0 | 0 | 4003.9 | 266 | 0 | 0 | 0 | 0 | N/A | N/A |
| Foster | Low | NDT1 | ESS-Fwc2 | 19 | 250 | 1971 | 120 | 19 | 1971 | 16681.2 | 10374.2 | 4724 | 7956.8 | 45.5 | 76.7 | 125+% of target met | 125+% of target met |
| Foster | Low | NDT1 | ICHwk1 | 13 | 250 | 1050 | 100 | 17 | 1373 | 9319.7 | 8079.1 | 5894.7 | 7197.5 | 73 | 89.1 | 125+% of target met | 125+% of target met |
| Foster | Low | NDT2 | ESS-Fmm1 | 9 | 250 | 117 | 120 | 14 | 182 | 1406 | 1302.8 | 305.3 | 1106 | 23.4 | 84.9 | 125+% of target met | 125+% of target met |
| Foster | Low | NDT2 | ICHmm | 9 | 250 | 289 | 100 | 15 | 481 | 3301.8 | 3208.8 | 1082.1 | 1821.7 | 33.7 | 56.8 | 125+% of target met | 125+% of target met |
| Foster | Low | NDT5 | ESS-Fmmp | 0 | N/A | 0 | N/A | 0 | 0 | 1259.3 | 931.7 | 0 | 0 | 0 | 0 | N/A | N/A |
| Foster | Low | NDT5 | ESS-Fwcp | 0 | N/A | 0 | N/A | 0 | 0 | 14651.9 | 3004.5 | 0 | 0 | 0 | 0 | N/A | N/A |
| Foster | Low | NDT5 | IMAun | 0 | N/A | 0 | N/A | 0 | 0 | 12083.6 | 162.2 | 0 | 0 | 0 | 0 | N/A | N/A |
| Goat | Intermediate | NDT1 | ESS-Fwc3 | 19 | 250 | 897 | 120 | 36 | 1699 | 8941.4 | 4719 | 1001 | 4670.5 | 21.2 | 99 | 110 - 125% of target met | 125+% of target met |
| Goat | Intermediate | NDT1 | ESS-Fwk1 | 19 | 250 | 1230 | 120 | 36 | 2331 | 8607.2 | 6475.7 | 2171.7 | 6437.7 | 33.5 | 99.4 | 125+% of target met | 125+% of target met |
| Goat | Intermediate | NDT1 | ICHwk3 | 13 | 250 | 30 | 100 | 34 | 79 | 312.7 | 230.8 | 18.6 | 223 | 8.1 | 96.6 | 50 - 75% of target met | 125+% of target met |
| Goat | Intermediate | NDT2 | SBSvk | 9 | 250 | 428 | 100 | 31 | 1473 | 5610.3 | 4752.6 | 1832.5 | 4710.5 | 38.6 | 99.1 | 125+% of target met | 125+% of target met |
| Goat | Intermediate | NDT5 | ESS-Fwcp | 0 | N/A | 0 | N/A | 0 | 0 | 8558.3 | 681.4 | 0 | 0 | 0 | 0 | N/A | N/A |
| Goat | Intermediate | NDT5 | IMAun | 0 | N/A | 0 | N/A | 0 | 0 | 2580.9 | 0 | 0 | 0 | 0 | 0 | N/A | N/A |
| Holmes | Intermediate | NDT2 | ESS-Fmm1 | 9 | 250 | 1613 | 120 | 28 | 5017.2 | 29650.7 | 17918.5 | 2184.6 | 11577.5 | 12.2 | 64.6 | 125+% of target met | 125+% of target met |
| Holmes | Intermediate | NDT2 | ICHmm | 9 | 250 | 850 | 100 | 31 | 2929.1 | 11214.3 | 9448.9 | 497.1 | 2255.7 | 5.3 | 23.9 | 50 - 75% of target met | 75 - 100% of target met |
| Holmes | Intermediate | NDT2 | SBSvk | 9 | 250 | 528 | 100 | 31 | 1819.8 | 6914 | 5870.4 | 340.8 | 1558.8 | 5.8 | 26.6 | 50 - 75% of target met | 75 - 100% of target met |
| Holmes | Intermediate | NDT3 | SBSdh1 | 11 | 140 | 22 | 100 | 23 | 45.1 | 225 | 196.2 | 1.5 | 9.4 | 0.7 | 4.8 | 0 - 30% of target met | 0 - 30% of target met |
| Holmes | Intermediate | NDT5 | ESS-Fmmp | 0 | N/A | 0 | N/A | 0 | 0 | 36103.4 | 2994.1 | 0 | 0 | 0 | 0 | N/A | N/A |

| Landscape Unit Name | BEO | NDT | BEC | Old Forest Target (%) | Age of Old Forest | Old Forest Target Area (ha) | Age of Mature Forest | Mature-plus-Old Forest Target (%) | Mature-plus-Old Forest Target (ha) | Total Area (ha) | CE-CFLB Area (ha) | Existing Old Forest (ha) | Existing Mature-plus-Old Forest (ha) | Existing Old Forest (%) | Existing Mature-plus-Old Forest (%) | Old Forest Status | Mature-plus-Old Forest Status |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Holmes | Intermediate | NDT5 | IMAun | 0 | N/A | 0 | N/A | 0 | 0 | 10434.6 | 0 | 0 | 0 | 0 | 0 | N/A | N/A |
| Horsey-Small | Low | NDT2 | ESS-Fmm1 | 9 | 250 | 897 | 120 | 14 | 1395.8 | 16113.1 | 9970.3 | 2540.1 | 8651.7 | 25.5 | 86.8 | 125+% of target met | 125+% of target met |
| Horsey-Small | Low | NDT2 | ICHmm | 9 | 250 | 665 | 100 | 15 | 1108.3 | 9481.7 | 7388.4 | 1430.8 | 6154 | 19.4 | 83.3 | 125+% of target met | 125+% of target met |
| Horsey-Small | Low | NDT3 | SBSdh1 | 11 | 140 | 5 | 100 | 11 | 5 | 157.7 | 45.2 | 0 | 34.1 | 0 | 75.4 | 0 - 30% of target met | 125+% of target met |
| Horsey-Small | Low | NDT5 | ESS-Fmmp | 0 | N/A | 0 | N/A | 0 | 0 | 21452.5 | 2595 | 0 | 0 | 0 | 0 | N/A | N/A |
| Horsey-Small | Low | NDT5 | IMAun | 0 | N/A | 0 | N/A | 0 | 0 | 14164.4 | 0 | 0 | 0 | 0 | 0 | N/A | N/A |
| Hugh Allan | Intermediate | NDT1 | ICHwk1 | 13 | 250 | 14 | 100 | 34 | 36 | 106.8 | 104.7 | 33.1 | 74.5 | 31.6 | 71.1 | 125+% of target met | 125+% of target met |
| Hugh Allan | Intermediate | NDT2 | ESS-Fmm1 | 9 | 250 | 1176 | 120 | 28 | 3658 | 17745.1 | 13062.9 | 3738.1 | 11480.7 | 28.6 | 87.9 | 125+% of target met | 125+% of target met |
| Hugh Allan | Intermediate | NDT2 | ICHmm | 9 | 250 | 865 | 100 | 31 | 2980 | 10522.1 | 9613.7 | 1158.3 | 7466.2 | 12 | 77.7 | 125+% of target met | 125+% of target met |
| Hugh Allan | Intermediate | NDT5 | ESS-Fmmp | 0 | N/A | 0 | N/A | 0 | 0 | 23207 | 4434.9 | 0 | 0 | 0 | 0 | N/A | N/A |
| Hugh Allan | Intermediate | NDT5 | ESS-Fwcp | 0 | N/A | 0 | N/A | 0 | 0 | 0.5 | 0 | 0 | 0 | 0 | 0 | N/A | N/A |
| Hugh Allan | Intermediate | NDT5 | IMAun | 0 | N/A | 0 | N/A | 0 | 0 | 16912.6 | 0.7 | 0 | 0 | 0 | 0 | N/A | N/A |
| Kiwa-Tete | Low | NDT2 | ESS-Fmm1 | 9 | 250 | 476 | 120 | 14 | 741 | 8754.2 | 5292.6 | 1378.8 | 4218.8 | 26.1 | 79.7 | 125+% of target met | 125+% of target met |
| Kiwa-Tete | Low | NDT2 | ICHmm | 9 | 250 | 377 | 100 | 15 | 628 | 5064 | 4188.9 | 875.2 | 2535.6 | 20.9 | 60.5 | 125+% of target met | 125+% of target met |
| Kiwa-Tete | Low | NDT3 | SBSdh1 | 11 | 140 | 0 | 100 | 11 | 0 | 1.1 | 1.1 | 0 | 0 | 0 | 0.9 | 0 - 30% of target met | 0 - 30% of target met |
| Kiwa-Tete | Low | NDT5 | ESS-Fmmp | 0 | N/A | 0 | N/A | 0 | 0 | 9934.4 | 1590.9 | 0 | 0 | 0 | 0 | N/A | N/A |
| Kiwa-Tete | Low | NDT5 | IMAun | 0 | N/A | 0 | N/A | 0 | 0 | 17145.5 | 0.3 | 0 | 0 | 0 | 0 | N/A | N/A |
| Lower Morkill/Cushing | Intermediate | NDT1 | ESS-Fwc3 | 19 | 250 | 305 | 120 | 36 | 578 | 2080.7 | 1606.1 | 114.9 | 1474.8 | 7.2 | 91.8 | 30 - 50% of target met | 125+% of target met |
| Lower Morkill/Cushing | Intermediate | NDT1 | ESS-Fwk2 | 19 | 250 | 307 | 120 | 36 | 582 | 1795.5 | 1617.7 | 140.6 | 1594.8 | 8.7 | 98.6 | 30 - 50% of target met | 125+% of target met |
| Lower Morkill/Cushing | Intermediate | NDT1 | ICHwk3 | 13 | 250 | 881 | 100 | 34 | 2304 | 7071 | 6776.2 | 3281.7 | 5765.4 | 48.4 | 85.1 | 125+% of target met | 125+% of target met |
| Lower Morkill/Cushing | Intermediate | NDT2 | ESS-Fmm1 | 9 | 250 | 907 | 120 | 28 | 2823 | 12822 | 10080.9 | 3399.5 | 8657.4 | 33.7 | 85.9 | 125+% of target met | 125+% of target met |
| Lower Morkill/Cushing | Intermediate | NDT2 | SBSvk | 9 | 250 | 183 | 100 | 31 | 630 | 2219.5 | 2032.8 | 1042.7 | 1433.8 | 51.3 | 70.5 | 125+% of target met | 125+% of target met |
| Lower Morkill/Cushing | Intermediate | NDT5 | BAFAun | 0 | N/A | 0 | N/A | 0 | 0 | 1703.9 | 82 | 0 | 0 | 0 | 0 | N/A | N/A |
| Lower Morkill/Cushing | Intermediate | NDT5 | ESS-Fmmp | 0 | N/A | 0 | N/A | 0 | 0 | 8017.9 | 1282.9 | 0 | 0 | 0 | 0 | N/A | N/A |
| Lower Morkill/Cushing | Intermediate | NDT5 | ESS-Fwcp | 0 | N/A | 0 | N/A | 0 | 0 | 3944.3 | 1734 | 0 | 0 | 0 | 0 | N/A | N/A |
| Lower Morkill/Cushing | Intermediate | NDT5 | IMAun | 0 | N/A | 0 | N/A | 0 | 0 | 4209.1 | 0 | 0 | 0 | 0 | 0 | N/A | N/A |
| McBride-Dunster | Low | NDT1 | ICHwk3 | 13 | 250 | 90 | 100 | 17 | 117 | 755.4 | 689.1 | 0.2 | 502.6 | 0 | 72.9 | 0 - 30% of target met | 125+% of target met |
| McBride-Dunster | Low | NDT2 | ESS-Fmm1 | 9 | 250 | 759 | 120 | 14 | 1181 | 10663.6 | 8433.7 | 1069.5 | 4295.2 | 12.7 | 50.9 | 125+% of target met | 125+% of target met |
| McBride-Dunster | Low | NDT2 | ICHmm | 9 | 250 | 1568 | 100 | 15 | 2613 | 21316.9 | 17418.2 | 1683.4 | 9270.9 | 9.7 | 53.2 | 100 - 110% of target met | 125+% of target met |
| McBride-Dunster | Low | NDT2 | SBSvk | 9 | 250 | 50 | 100 | 15 | 83 | 1512 | 553.1 | 0 | 164.9 | 0 | 29.8 | 0 - 30% of target met | 125+% of target met |
| McBride-Dunster | Low | NDT3 | SBSdh1 | 11 | 140 | 446 | 100 | 11 | 446 | 26186.6 | 4058.5 | 948.1 | 1934.8 | 23.4 | 47.7 | 125+% of target met | 125+% of target met |
| McBride-Dunster | Low | NDT5 | ESS-Fmmp | 0 | N/A | 0 | N/A | 0 | 0 | 6872.3 | 1216.3 | 0 | 0 | 0 | 0 | N/A | N/A |
| McBride-Dunster | Low | NDT5 | IMAun | 0 | N/A | 0 | N/A | 0 | 0 | 1765.4 | 0 | 0 | 0 | 0 | 0 | N/A | N/A |
| Milk | Low | NDT1 | ESS-Fwc3 | 19 | 250 | 832 | 120 | 19 | 832 | 6324.8 | 4380.9 | 1369.9 | 3697.4 | 31.3 | 84.4 | 125+% of target met | 125+% of target met |
| Milk | Low | NDT1 | ESS-Fwk1 | 19 | 250 | 989 | 120 | 19 | 989 | 5978 | 5206.5 | 1601.9 | 3797.1 | 30.8 | 72.9 | 125+% of target met | 125+% of target met |
| Milk | Low | NDT1 | ICHwk3 | 13 | 250 | 637 | 100 | 17 | 833 | 5312.4 | 4902.1 | 1529.9 | 3491 | 31.2 | 71.2 | 125+% of target met | 125+% of target met |
| Milk | Low | NDT2 | SBSvk | 9 | 250 | 82 | 100 | 15 | 137 | 1002.5 | 912.7 | 56.4 | 459.5 | 6.2 | 50.3 | 50 - 75% of target met | 125+% of target met |
| Milk | Low | NDT5 | ESS-Fmmp | 0 | N/A | 0 | N/A | 0 | 0 | 37.4 | 0 | 0 | 0 | 0 | 0 | N/A | N/A |
| Milk | Low | NDT5 | ESS-Fwcp | 0 | N/A | 0 | N/A | 0 | 0 | 7531.7 | 1430.5 | 0 | 0 | 0 | 0 | N/A | N/A |

| Landscape Unit Name | BEO | NDT | BEC | Old Forest Target (%) | Age of Old Forest | Old Forest Target Area (ha) | Age of Mature Forest | Mature-plus-Old Forest Target (%) | Mature-plus-Old Forest Target (ha) | Total Area (ha) | CE-CFLB Area (ha) | Existing Old Forest (ha) | Existing Mature-plus-Old Forest (ha) | Existing Old Forest (%) | Existing Mature-plus-Old Forest (%) | Old Forest Status | Mature-plus-Old Forest Status |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Milk | Low | NDT5 | IMAun | 0 | N/A | 0 | N/A | 0 | 0 | 4618.4 | 0.2 | 0 | 0 | 0 | 0 | N/A | N/A |
| Mount Robson | N/A | NDT2 | ESS-Fmm1 | 0 | 250 | 0 | 120 | 0 | 0 | 32052.8 | 17884.5 | 2234.5 | 13605.1 | 12.5 | 76.1 | N/A | N/A |
| Mount Robson | N/A | NDT2 | ESS-Fmm2 | 0 | 250 | 0 | 120 | 0 | 0 | 21635.7 | 11951.7 | 768.2 | 7119.1 | 6.4 | 59.6 | N/A | N/A |
| Mount Robson | N/A | NDT2 | ICHmm | 0 | 250 | 0 | 100 | 0 | 0 | 2478 | 1298 | 163.2 | 903.7 | 12.6 | 69.6 | N/A | N/A |
| Mount Robson | N/A | NDT3 | SBSdh1 | 0 | 140 | 0 | 100 | 0 | 0 | 402.7 | 369 | 111.6 | 343.4 | 30.2 | 93.1 | N/A | N/A |
| Mount Robson | N/A | NDT3 | SBSdh2 | 0 | 140 | 0 | 100 | 0 | 0 | 20266.3 | 15230.1 | 4175.6 | 11478.4 | 27.4 | 75.4 | N/A | N/A |
| Mount Robson | N/A | NDT5 | ESS-Fmmp | 0 | N/A | 0 | N/A | 0 | 0 | 67309.5 | 6206.1 | 0 | 0 | 0 | 0 | N/A | N/A |
| Mount Robson | N/A | NDT5 | IMAun | 0 | N/A | 0 | N/A | 0 | 0 | 61351.6 | 0 | 0 | 0 | 0 | 0 | N/A | N/A |
| Northern Trench | Intermediate | NDT1 | ESS-Fwc3 | 19 | 250 | 849 | 120 | 36 | 1609 | 5596.6 | 4469.5 | 967.6 | 3750.8 | 21.6 | 83.9 | 110 - 125% of target met | 125+% of target met |
| Northern Trench | Intermediate | NDT1 | ESS-Fwk1 | 19 | 250 | 755 | 120 | 36 | 1430 | 4228.6 | 3971.6 | 866.9 | 2638 | 21.8 | 66.4 | 110 - 125% of target met | 125+% of target met |
| Northern Trench | Intermediate | NDT1 | ICHwk3 | 13 | 250 | 2945 | 100 | 34 | 7701 | 24804.6 | 22650.7 | 7725.4 | 14076 | 34.1 | 62.1 | 125+% of target met | 125+% of target met |
| Northern Trench | Intermediate | NDT2 | ESS-Fmm1 | 9 | 250 | 164 | 120 | 28 | 511 | 1995.6 | 1826.2 | 398 | 1363.4 | 21.8 | 74.7 | 125+% of target met | 125+% of target met |
| Northern Trench | Intermediate | NDT2 | ICHmm | 9 | 250 | 39 | 100 | 31 | 133 | 445.7 | 429.8 | 98.9 | 207.4 | 23 | 48.3 | 125+% of target met | 125+% of target met |
| Northern Trench | Intermediate | NDT2 | SBSvk | 9 | 250 | 110 | 100 | 31 | 378 | 3439.2 | 1218.2 | 63.7 | 903 | 5.2 | 74.1 | 50 - 75% of target met | 125+% of target met |
| Northern Trench | Intermediate | NDT5 | ESS-Fmmp | 0 | N/A | 0 | N/A | 0 | 0 | 1293.9 | 238.2 | 0 | 0 | 0 | 0 | N/A | N/A |
| Northern Trench | Intermediate | NDT5 | ESS-Fwcp | 0 | N/A | 0 | N/A | 0 | 0 | 7257.6 | 2193.4 | 0 | 0 | 0 | 0 | N/A | N/A |
| Northern Trench | Intermediate | NDT5 | IMAun | 0 | N/A | 0 | N/A | 0 | 0 | 6876.4 | 13.3 | 0 | 0 | 0 | 0 | N/A | N/A |
| Raush | Intermediate | NDT2 | ESS-Fmm1 | 9 | 250 | 976 | 120 | 28 | 3037 | 21141.1 | 10845 | 4088.7 | 8660.6 | 37.7 | 79.9 | 125+% of target met | 125+% of target met |
| Raush | Intermediate | NDT2 | ICHmm | 9 | 250 | 1147 | 100 | 31 | 3949 | 15423.1 | 12739.9 | 3540.6 | 10729 | 27.8 | 84.2 | 125+% of target met | 125+% of target met |
| Raush | Intermediate | NDT3 | SBSdh1 | 11 | 140 | 162 | 100 | 23 | 340 | 2789.2 | 1476.2 | 822.7 | 1260.1 | 55.7 | 85.4 | 125+% of target met | 125+% of target met |
| Raush | Intermediate | NDT5 | ESS-Fmmp | 0 | N/A | 0 | N/A | 0 | 0 | 26110.3 | 1722.2 | 0 | 0 | 0 | 0 | N/A | N/A |
| Raush | Intermediate | NDT5 | IMAun | 0 | N/A | 0 | N/A | 0 | 0 | 34893.6 | 0.3 | 0 | 0 | 0 | 0 | N/A | N/A |
| South Trench | Intermediate | NDT2 | ESS-Fmm1 | 9 | 250 | 1228 | 120 | 28 | 3821 | 17864.2 | 13646.4 | 2156 | 8286.1 | 15.8 | 60.7 | 125+% of target met | 125+% of target met |
| South Trench | Intermediate | NDT2 | ICHmm | 9 | 250 | 1617 | 100 | 31 | 5571 | 19990.9 | 17970.3 | 2359.3 | 8986.3 | 13.1 | 50 | 125+% of target met | 125+% of target met |
| South Trench | Intermediate | NDT3 | SBSdh1 | 11 | 140 | 2363 | 100 | 23 | 4941 | 35706 | 21481.6 | 3210.9 | 8813.5 | 14.9 | 41 | 125+% of target met | 125+% of target met |
| South Trench | Intermediate | NDT5 | ESS-Fmmp | 0 | N/A | 0 | N/A | 0 | 0 | 17962 | 4169.3 | 0 | 0 | 0 | 0 | N/A | N/A |
| South Trench | Intermediate | NDT5 | IMAun | 0 | N/A | 0 | N/A | 0 | 0 | 8992.3 | 5 | 0 | 0 | 0 | 0 | N/A | N/A |
| Upper Morkill | Intermediate | NDT1 | ICHwk3 | 13 | 250 | 36 | 100 | 34 | 93 | 285.2 | 273.3 | 63.9 | 136.7 | 23.4 | 50 | 125+% of target met | 125+% of target met |
| Upper Morkill | Intermediate | NDT2 | ESS-Fmm1 | 9 | 250 | 1630 | 120 | 28 | 5072 | 21068 | 18115 | 8465.6 | 15141.6 | 46.7 | 83.6 | 125+% of target met | 125+% of target met |
| Upper Morkill | Intermediate | NDT2 | SBSvk | 9 | 250 | 181 | 100 | 31 | 623 | 2179.5 | 2008.2 | 1275.9 | 1540.3 | 63.5 | 76.7 | 125+% of target met | 125+% of target met |
| Upper Morkill | Intermediate | NDT5 | ESS-Fmmp | 0 | N/A | 0 | N/A | 0 | 0 | 18094.6 | 4330.5 | 0 | 0 | 0 | 0 | N/A | N/A |
| Upper Morkill | Intermediate | NDT5 | IMAun | 0 | N/A | 0 | N/A | 0 | 0 | 10533.5 | 0 | 0 | 0 | 0 | 0 | N/A | N/A |
| West Kinbasket | Low | NDT2 | ESS-Fmm1 | 9 | 250 | 327 | 120 | 14 | 509 | 4476.9 | 3632.6 | 827.2 | 3019.6 | 22.8 | 83.1 | 125+% of target met | 125+% of target met |
| West Kinbasket | Low | NDT2 | ICHmm | 9 | 250 | 588 | 100 | 15 | 980 | 7138.6 | 6532.9 | 2321.8 | 4426.9 | 35.5 | 67.8 | 125+% of target met | 125+% of target met |
| West Kinbasket | Low | NDT3 | SBSdh1 | 11 | 140 | 0 | 100 | 11 | 0 | 2.8 | 0 | 0 | 0 | 100 | 100 | 125+% of target met | 125+% of target met |
| West Kinbasket | Low | NDT5 | ESS-Fmmp | 0 | N/A | 0 | N/A | 0 | 0 | 4724 | 1847.9 | 0 | 0 | 0 | 0 | N/A | N/A |
| West Kinbasket | Low | NDT5 | IMAun | 0 | N/A | 0 | N/A | 0 | 0 | 1308.2 | 27.6 | 0 | 0 | 0 | 0 | N/A | N/A |

# Appendix 10 – Detailed Summary of OGMA Incursions by Disturbance Type Relative to Allowable Thresholds

Legal orders define thresholds for incursions into legal OGMAs as indicated in Table 39. Non-legal OGMAs have zero-tolerance threshold for incursions, and therefore the objective percent is listed as 0% in Table 40.

***Table 39.*** *Detailed Breakdown of Incursions in Legal OGMAs that are Above Allowable Order Thresholds. This table is demonstrating the amount of area disturbed by incursion type.*

| Landscape Unit | OGMA ID | Total OGMA Area (ha) | Total Incurred Area (ha) | Total Incurred % | Allowable Incursion (%)[26] as per Order | Disturbance Type |
|---|---|---|---|---|---|---|
| **Canoe** | PRG_Can_4 | 15.0 | 1.6 | 10.9% | 10% | Roads[27] |
| **Crescent Spur** | PRG_Cres_20 | 78.9 | 4.5 | 5.7% | 5% | Road |
| | PRG_Cres_33B | 89.4 | 6.7 | 7.5% | 5% | Road |
| **Dawson** | PRG_Daw_2 | 55.0 | 3.9 | 7.1% | 5% | Road |
| | | | 29.2 | 53.0% | 5% | Cutblocks[28] |
| | | | 33.1 | 60.1% | | Total Disturbance |
| **East Kinbasket** | PRG_EastK_6B | 14.4 | 1.9 | 13.5% | 10% | Road |
| | PRG_EastK_54A | 3.2 | 0.6 | 17.1 | 10% | Roads |
| | PRG_EastK_54C | 94.0 | 7.1 | 7.5% | 5% | Road |
| **Kiwa-Tete** | PRG_Kiwa_7B | 92.3 | 6.4 | 7.0% | 5% | Road |
| **Lower Morkill/ Cushing** | PRG_MorCus_22 | 14.1 | 1.6 | 11.2% | 10% | Road |
| | PRG_MorCus_24 | 70.7 | 6.2 | 8.8% | 5% | Road |
| **Upper Morkill** | PRG_UpMor_41 | 12.4 | 1.7 | 13.4% | 10% | Road |
| **Total** | **11 Legal OGMAs** | | **71.3** | | | |

[26] Allowable incursion percent is based on OGMA size. OGMAs less than 50 hectares have allowable incursions up to 10% of that OGMA size, while OGMAs greater than 50 hectares have allowable incursions up to 5% of that total OGMA size.

[27] Roads were applied various buffer widths depending on the source data attributes and input from regional staff, existing methodology, and satellite imagery. Road widths ranged from 5 metres to 60 metres depending on the road type.

[28] All incursions caused by cutblocks are considered current harvesting defined as occurring in the past 20 years.

***Table 40.*** *Detailed Breakdown of all Incursions in Non-Legal OGMAs by Disturbance Type. Non-legal OGMAs have zero-tolerance threshold for incursion as no legal order objective to measure against.*

| Landscape Unit | OGMA ID | Total OGMA Area (ha) | Total Incurred Area (ha) | Total Incurred % | Disturbance Type |
|---|---|---|---|---|---|
| Holmes | PRG_Holmes_2 | 332.1 | 8.0 | 2.4% | Cutblock |
| | | | 1.6 | 0.5% | Road |
| | Total | | 9.6 | 2.9% | Total Disturbance |
| | PRG_Holmes_3 | 515.1 | 3.9 | 0.8% | Road |
| | PRG_Holmes_5 | 743.7 | 0.3 | 0.0% | Road |
| | PRG_Holmes_6 | 297.2 | 1.0 | 0.3% | Road |
| | | | 2.0 | 0.7% | Urban |
| | | | 3.0 | 1.0% | Total Disturbance |
| | PRG_Holmes_7 | 1,187.6 | 3.1 | 0.3% | Road |
| | | | 0.3 | 0.0% | Cutblock |
| | | | 0.1 | 0.0% | Urban |
| | | | 3.5 | 0.3% | Total Disturbance |
| | PRG_Holmes_8 | 1,495.7 | 2.7 | 0.2% | Road |
| | PRG_Holmes_10 | 367.1 | 2.2 | 0.6% | Road |
| | PRG_Holmes_12 | 221.4 | 10.3 | 4.6% | Road |
| | | | 1.2 | 0.6% | Cutblocks |
| | | | 11.5 | 5.2% | Total Disturbance |
| South Trench | PRG_SouthT_3 | 27.4 | 0.4 | 1.6% | Road |
| | | | 1.8 | 6.7% | Power |
| | | | 2.3 | 8.3% | Total Disturbance |
| | PRG_SouthT_13 | 204.4 | 4.7 | 2.3% | Road |
| | | | 1.2 | 0.6% | Cutblocks |
| | | | 2.0 | 1.0% | Right-of-Way |
| | | | 1.3 | 0.6% | OGC Infrastructure |
| | | | 4.2 | 2.0% | Rail Infrastructure |
| | | | 13.3 | 6.5% | Total Disturbance |
| | PRG_SouthT_16 | 6.1 | 0.1 | 1.3% | Road |
| | | | 0.9 | 15.0% | Cutblocks |
| | | | 1.0 | 16.4% | Total Disturbance |
| | PRG_SouthT_18 | 6.0 | 0.6 | 9.8% | Cutblocks |
| | | | 0.3 | 4.6% | Road |
| | | | 0.9 | 14.4% | Total Disturbance |
| | PRG_SouthT_19 | 3.2 | 0.2 | 7.1% | Cutblocks |
| | PRG_SouthT_25 | 19.9 | 0.8 | 4.0% | Road |
| | | | 17.0 | 85.4% | Cutblocks |
| | | | 0.4 | 2.1% | Rail Infrastructure |
| | | | 18.2 | 91.5% | Total Disturbance |

| Landscape Unit | OGMA ID | Total OGMA Area (ha) | Total Incurred Area (ha) | Total Incurred % | Disturbance Type |
|---|---|---|---|---|---|
| | PRG_SouthT_26 | 90.9 | 1.9 | 2.1% | Road |
| | | | 0.4 | 0.4% | Cutblocks |
| | | | 0.7 | 0.7% | Power |
| | | | 3.0 | 3.2% | Total Disturbance |
| | PRG_SouthT_29 | 139.5 | 1.2 | 0.9% | Road |
| | PRG_SouthT_33 | 22.2 | 1.6 | 7.4% | Road |
| | | | 16.6 | 74.9% | Cutblocks |
| | | | 18.2 | 82.4% | Total Disturbance |
| | PRG_SouthT_39 | 35.6 | 0.2 | 0.6% | Road |
| | | | 0.7 | 2.0% | Cutblocks |
| | | | 0.9 | 2.6% | Total Disturbance |
| | PRG_SouthT_40 | 2.2 | 2.1 | 98.9% | Cutblock |
| | PRG_SouthT_44 | 69.0 | 3.9 | 5.7% | Road |
| | | | 22.7 | 32.8% | Cutblocks |
| | | | 26.6 | 38.5% | Total Disturbance |
| **South Trench** | PRG_SouthT_45 | 47.3 | 4.3 | 9.2% | Road |
| | | | 21.4 | 45.2% | Cutblocks |
| | | | 0.0 | 0.0% | Right-of-Way |
| | | | 0.0 | 0.1% | Power |
| | | | 25.7 | 54.5% | Total Disturbance |
| | PRG_SouthT_48 | 391.7 | 3.2 | 0.8% | Road |
| | PRG_SouthT_52 | 15.2 | 0.3 | 1.9% | Road |
| | PRG_SouthT_55 | 27.9 | 9.3 | 33.2% | Cutblocks |
| | | | 0.6 | 2.2% | Roads |
| | | | 9.9 | 35.4 | Total Disturbance |
| | PRG_SouthT_56 | 59.1 | 5.1 | 8.6% | Road |
| | | | 0.5 | 0.9% | Right-of-Way |
| | | | 5.6 | 9.4% | Total Disturbance |
| | PRG_SouthT_57 | 20.2 | 0.3 | 1.4% | Road |
| | | | 0.0 | 0.1% | Right-of-Way |
| | | | 0.3 | 1.5% | Total Disturbance |
| | PRG_SouthT_58 | 13.5 | 0.3 | 2.1% | Road |
| | | | 0.1 | 1.0% | Urban |
| | | | 0.4 | 3.1% | Total Disturbance |
| | PRG_SouthT_59 | 422.8 | 1.6 | 0.4% | Road |
| | | | 4.5 | 1.1% | Cutblocks |
| | | | 6.0 | 1.5% | Total Disturbance |
| | PRG_SouthT_65 | 15.6 | 0.2 | 1.2% | Cutblocks |

| Landscape Unit | OGMA ID | Total OGMA Area (ha) | Total Incurred Area (ha) | Total Incurred % | Disturbance Type |
|---|---|---|---|---|---|
| | PRG_SouthT_68 | 666.0 | 22.5 | 3.4% | Road |
| | | | 9.1 | 1.4% | Cutblocks |
| | | | 1.0 | 0.2% | Mining |
| | | | 0.1 | 0.0% | Urban |
| | | | 32.7 | 5.0% | Total Disturbance |
| | PRG_SouthT_70 | 6.0 | 0.6 | 10.7% | Road |
| | | | 0.1 | 1.0% | Cutblocks |
| | | | 0.7 | 11.7% | Total Disturbance |
| | PRG_SouthT_73 | 48.5 | 0.6 | 1.2% | Road |
| | PRG_SouthT_75 | 36.4 | 2.3 | 6.3% | Road |
| | PRG_SouthT_76 | 155.5 | 0.3 | 0.2% | Road |
| | PRG_SouthT_77 | 29.1 | 0.2 | 0.8% | Road |
| | | | 17.7 | 60.7% | Cutblocks |
| | | | 17.9 | 61.5% | Total Disturbance |
| | PRG_SouthT_78 | 43.3 | 1.5 | 3.4% | Right-of-Way |
| | | | 0.8 | 1.8% | OGC Infrastructure |
| | | | 2.3 | 5.1% | Total Disturbance |
| | PRG_SouthT_81 | 60.0 | 2.7 | 4.5% | Road |
| | PRG_SouthT_82 | 167.5 | 26.7 | 15.9% | Road |
| | PRG_SouthT_88 | 27.4 | 0.9 | 3.4% | Road |
| | PRG_SouthT_90 | 69.6 | 2.3 | 3.3% | Road |
| | | | 27.6 | 39.7% | Cutblocks |
| | | | 1.5 | 2.1% | Rail Infrastructure |
| | | | 31.4 | 45.1% | Total Disturbance |
| **Total** | **40 Non-Legal OGMAs** | | **294.9** | | |


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