

COMPLAINT INVESTIGATION

Harvesting in Mule Deer Winter Range at Alkali Lake



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BOARD COMMENTARY

Many First Nation and non-Indigenous communities face threats from wildfire in BC every year. After two years of high wildfire risks, including evacuation uncertainty during the 2017 and 2018 fire seasons, Esk'etemc (the licensee) prioritized wildfire risk reduction (WRR) harvesting on the landscapes surrounding their community at Esk'et, near Alkali Lake.

In implementing the WRR priority of the Esk'etemc at Esk'et, the licensee found itself in conflict with the competing priority of habitat requirements for mule deer winter range. This is not an uncommon situation since WRR has become an elevated priority for First Nations, local governments and the provincial government.

In this case, the licensee made an administrative error when planning one of its cutblocks as it did not follow the legal process for requesting an exemption from following the general wildlife measures in the *Government Action Regulation* (GAR) order for ungulate winter range on one cutblock. The outcome on the ground was beneficial for WRR and wildlife habitat, and was consistent with old-growth management requirements.

At this time, there are no legal objectives to guide WRR activities. These activities are often implemented in areas where objectives for other values establish legal—and sometimes conflicting—requirements for results on the ground. With an appropriate prescription, WRR treatments can also benefit mule deer winter range.

The Forest Practices Board (the Board) identified the limitations of GAR orders in its special investigation [*Management of Habitat for Species at Risk under the Forest and Range Practices Act*](#), noting that static reserves may not be resilient nor adaptive to natural disturbance. The Board sees opportunity for an integrated and adaptive approach to address current and emerging wildlife needs as well as resilience to natural and climate change-induced disturbances, including wildfire.

INTRODUCTION

The Complaint

On July 2, 2024, the Forest Practices Board (the Board) received a complaint from Stswecem'c Xget'tem First Nation (SXFN).

SXFN believes that Esk'etemc harvested timber within mule deer winter range (MDWR) and old growth management areas (OGMAs) contrary to section 21(1) of the *Forest and Range Practices Act* (FRPA) and section 69 of the *Forest Planning and Practices Regulation* (FPPR). The complainant does not know the extent of these alleged infractions but believes they are widespread and have occurred under Esk'etemc's Community Forest Agreement (CFA) K1C and non-replaceable forest licence (NRFL) A83985, near Alkali Lake.

The complaint relates to compliance with legal requirements for harvesting in designated habitat areas and does not challenge the objective of wildfire risk reduction harvesting.

Background

The community of Esk'et is on the northeast shore of Alkali Lake, along Dog Creek Road, about 52 kilometres south of Williams Lake, shown in Figure 1. SXFN is about 35 kilometres further south along Dog Creek Road. Both communities are within the Cariboo-Chilcotin Natural Resource District.

The Board recognizes that the work examined in this report took place within the traditional territories of Secwépemc communities, including Esk'etemc, Stswecem'c Xget'tem First Nation, Williams Lake First Nation, Whispering Pines/Clinton Indian Band, and Neskonlith Indian Band. The Board acknowledges their deep connection to and longstanding stewardship of these lands.

The licensee has held CFA K1C since 2001. It also held NRFL A83985 from 2012 to 2021. Alkali Resource Management Ltd. manages the NRFL and CFA K1C on behalf of the licensee. The five cutblocks examined by the Board in this investigation are within CFA K1C (see Figure 1).

In 2017, wildfires came very close to both First Nation communities, with an evacuation order issued for Esk'etemc. The following year, Esk'etemc was under an evacuation alert.

Since 2019, the licensee has prioritized wildfire risk reduction (WRR) prescriptions and treatments, guided by a landscape-level wildfire risk management plan¹ to mitigate fire risk in communities and the surrounding landscape. This plan is not a legal document, but a strategy for implementing WRR harvest treatments.

¹ Maxwell, J. (2019, April 30). Esk'etemc Wildfire Risk Management Plan: Final Report (Forsite Project No. 1125-4). Forsite Consultants Ltd. Prepared for Alkali Resource Management Ltd. on behalf of Esk'etemc Community Forest.

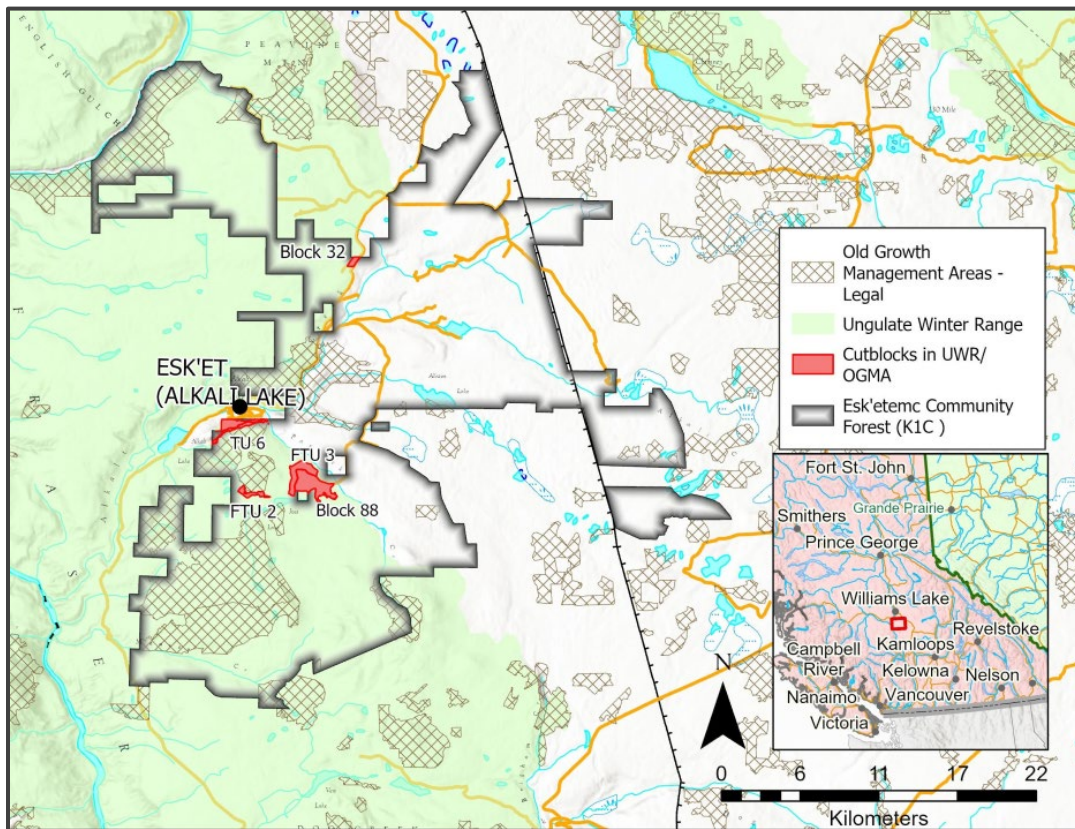


Figure 1. Location of the five cutblocks harvested within ungulate winter range since 2020 that were examined in this investigation.

Mule Deer Winter Range

Mule deer winter range surrounds the Esk'etemc community. Much of the WRR work has been done within the designated Ungulate Winter Range (UWR). Government's intent for MDWR is set out in the General Wildlife Measures (GWMs) specified in the UWR Order U-5-002² (UWR order), issued under the GAR in 2004. The goal of the UWR order is to guide forest practices toward achieving a clumpy stand structure of large-diameter Douglas-fir trees with a mosaic of small openings and clumps of trees.

The UWR order supports the *Cariboo-Chilcotin Land Use Plan (CCLUP)* by setting out management requirements for mule deer winter habitat across three snowpack zones—shallow, moderate, and transition/deep. These zones reflect differences in forest ecosystems and the amount of snowfall that they receive. The UWR order also classifies habitat based on stand structure that is important for overwintering mule deer survival.

Each "Stand Structure Habitat Class" (Low, Moderate, High) sets GWMs for the desired forest structure. In the deeper snow zones, these classes differ mainly by the mix of forest age classes and the amount of Douglas-fir as part of the species composition in managed cutblocks. Government's intent for the stand structure design is to promote Douglas-fir dominance in the overstory and a multi-layered canopy with mature trees, which supports habitat by providing food and shelter.

² ORDER #U5-001, U5-002 and U5-003 - Ungulate Winter Ranges. Cariboo Chilcotin Land Use Plan, Shallow and Moderate Snowpack. https://www.env.gov.bc.ca/wld/frpa/uwr/approved_uwr.html

As Douglas-fir matures, it provides more snow interception than other species because of its broad-branching and large coverage of the ground. This snow interception can be essential for deer survival because deer will starve if the energy required to move through deep snow to find food or shelter exceeds what nutrition they can get from winter forage.³

As well, needles shed by Douglas-fir trees are used as forage by mule deer when shrubs and other ground vegetation are not available.⁴ Therefore, all habitat classes designated in the UWR order are intended to maintain or develop multi-storied, uneven-aged stands dominated by Douglas-fir.

To achieve these stand conditions, the UWR order prescribes GWMs that maintain or recruit suitable Douglas-fir structure for winter habitat. These measures focus on minimizing road construction, selectively harvesting dense ingrowth and encouraging a clumpy distribution of large Douglas-fir trees within uneven-aged stands.

Where proposed activities cannot meet these requirements, licensees must obtain a ministerial exemption before harvesting.

Under section 21(1)⁵ of FRPA, licensees are required to achieve the intended results and carry out the strategies set out in their forest stewardship plan (FSP). Section 69 of the FPPR imposes a legal obligation, commonly referred to as a practice requirement, on forest licensees to comply with any applicable GWMs, regardless of whether they are explicitly referenced in the FSP. In practice, most FSPs—including the licensee's⁶—state that GWMs will be followed as the strategy for meeting certain government objectives.

FRPA Section 21(1) – Compliance with plans
The holder of a forest stewardship plan or a woodlot licence plan must ensure that the intended results specified in the plan are achieved and the strategies described in the plan are carried out.

FPPR Section 69 – General wildlife measures and general ecological community measures
An authorized person who carries out primary forest activities on an area must comply with each general wildlife measure and general ecological community measure that applies to the area.

Old Growth Forests

Government's objectives for OGMA in the relevant area are set out in the *Land Use Objectives for the Cariboo-Chilcotin Land Use Plan Area* order (CCLUP order).⁷ The CCLUP order sets a legal objective to maintain old forests and support natural succession by designating permanent OGMA-static, permanent OGMA-rotating, and transition OGMA as no-harvest areas. OGMA identified in the CCLUP order became legal reserves in May 2011.

³ Armleder, H.M. and R.J. Dawson. 1992. Logging on mule deer winter range: An integrated management approach. *The Forestry Chronicle*, 68:1 (132-137)

⁴ Waterhouse, M.J. and R. Walton. 2021. Long-term effects of pre-commercial thinning on winter wildlife in Interior Douglas-fir forests in central British Columbia. *Prov. B.C., Victoria, B.C. Tech. Rep.* 133.

⁵ This section was repealed in July 2024, but is applicable to the timing of events relevant to the complaint.

⁶ Tolko Industries Ltd. Cariboo Region Forest Stewardship Plan, FSP ID#780, Term: 5 years 2019-2024, commencing Aug 23, 2019.

⁷ https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/natural-resource-use/land-water-use/crown-land/land-use-plans-and-objectives/cariboo-region/cariboochilcotin-rlup/cariboo_chilcotin_order_amending_riparian_obj_lupa.pdf

The CCLUP order and the licensee's FSP permit conditional harvesting in OGMA, and some road construction, to mitigate threats from natural disturbances to old-growth reserves. For example, measures to control insect outbreaks in designated beetle management units and to reduce wildfire risk are permitted if they do not compromise old-growth characteristics.

Investigation Scope

In determining the scope of this investigation, the Board decided not to consider openings that were part of investigations conducted by the Ministry of Forests' Compliance and Enforcement Branch.⁸ Those investigations addressed alleged unauthorized harvesting under a blanket salvage permit issued under NRFL A83985 between 2017 and 2020, as well as harvesting within MDWR and OGMA under the NRFL and CFA K1C. In their investigations, the Compliance and Enforcement Branch identified some unauthorized harvesting and took compliance and enforcement actions where warranted.

As a result, the Board focused its investigation on harvesting carried out under the CFA and NRFL after 2020 that overlapped with MDWR and OGMA.

INVESTIGATION RESULTS

The investigation considered whether the licensee's cutblocks were located within legally designated OGMA or MDWR. If so, the Board considered whether they complied with applicable legal requirements, including regulations, results and strategies in their FSP, relevant GAR orders and the higher-level plans supporting the orders.

The Board considered all primary forest activities carried out since January 1, 2020. Board investigators reviewed licence documents, including the licensee's FSP, permit authorizations, exemption letters, site plans and post-harvest assessments. Investigators also completed a field review and interviewed representatives for the licensee and government staff.

The licensee harvested 34 cutblocks under NRFL A83985 since 2020. None of these cutblocks overlapped with the UWR or OGMA. The NRFL expired in December 2021.

The Board examined five cutblocks that were planned under CFA K1C to reduce wildfire risk (see [Figure 1](#)). The licensee used a WRR prescription intended to remove fuels by thinning or removing crowded smaller-diameter stems in lower canopies and retaining the larger diameter Douglas-fir trees in the upper canopies. In the UWR order, this partial harvest treatment is referred to as 'thinning from below'. Of the five blocks examined, Treatment Unit 6 (TU6) was the only one that also overlapped part of an OGMA.

The investigation considered two questions regarding the five remaining cutblocks:

1. Did the licensee comply with section 21(1) of FRPA when it planned and logged the five cutblocks?
2. Did the licensee comply with section 69 of the FPPR for mule deer winter range?

⁸ Now called the Natural Resource Officer Service.

The investigation considered government objectives for MDWR and OGMA, and the corresponding results or strategies specified in the FSP. Licensees must specify results or strategies in their FSPs that are consistent with government objectives, and the FSP must be approved by the minister. Section 21(1) of FRPA requires licensees to ensure that those results are achieved, and the strategies are carried out.

Mule Deer Winter Range

Government's objectives for MDWR (Objectives 23 and 24, *Williams Lake Sustainable Resource Management Plan*) are set out in the CCLUP⁹ and are given effect through detailed management requirements in the UWR order. The licensee's FSP¹⁰ states their commitment to apply the GWMs when operating within an approved UWR. This is consistent with section 69 of the FPPR.

In its FSP, the licensee stated, "The FSP holder adopts as a result or strategy the general wildlife measures specified in the applicable GAR order for Ungulate Winter Ranges U-5-001, U-5-002, U-5-003, as that order was on the date the FSP was submitted for approval."¹¹ This means the licensee's strategy for meeting government objectives within UWR is to follow the required GWMs.



Figure 2. Cutblock FTU3 after harvesting in 2023.

The GWMs permit harvesting within designated MDWR under certain ecological and climate conditions. The UWR order identifies conditions where harvesting may occur if the GWMs for prescribed forest activities, including harvest, road construction, and post-harvest treatments, are followed.¹² For example, cutblock Fuel Treatment Unit (FTU) 3 is within the shallow-moderate snowpack MDWR, allowing conditional harvest¹³ if the GWMs are followed (see Figure 2).

If the GWMs cannot be met, prescribed harvesting may still be permitted if a licensee obtains an exemption from the minister responsible for the *Wildlife Act* under section 92(1) of the FPPR.

The investigation considered whether harvesting followed the GWMs and, if it did not, whether the licensee obtained an exemption and followed the conditions.

⁹ https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/natural-resource-use/land-water-use/crown-land/land-use-plans-and-objectives/cariboo-region/williamslake-srmp/williamslake_plan.pdf

¹⁰ Tolko Industries Ltd. Cariboo Region Forest Stewardship Plan, FSP ID#780, Term: 5 years 2019-2024, commencing Aug 23, 2019.

¹¹ Tolko Industries Ltd. Cariboo Region Forest Stewardship Plan, FSP ID#780, Term: 5 years 2019-2024, commencing Aug 23, 2019. Page 25.

¹² https://www.env.gov.bc.ca/wld/frpa/uwr/approved_uwr.html

¹³ General Wildlife Measure #10, table 3 https://www.env.gov.bc.ca/wld/documents/wha/Amendment_ShallowModerate_Feb07_Ord.pdf

The Board completed an analysis to review authorized harvesting activity within UWR U-5-002 and OGMA within CFA K1C since January 2020. The analysis reviewed forest tenure authorization records for all activities in UWR and OGMA and used satellite imagery to identify any openings not linked to authorized harvest. Investigators verified in the field that harvested cutblocks followed site plan prescriptions and reviewed post-harvest assessment reports where available.

Table 1 summarizes the results of the compliance assessment for each cutblock. For two cutblocks where harvesting was conditionally permitted under the GWMs (Blocks 32 and 88), the site plan prescriptions were consistent with those conditions, so an exemption for section 69 of the FPPR was not required. For two other cutblocks where the planned harvest did not meet the GWMs (FTU2 and FTU3), the minister responsible for the *Wildlife Act*¹⁴ granted exemptions with conditions, which were included in the site plan prescriptions. Cutblock TU6 also required an exemption, but the licensee did not request one.

TABLE 1. Blocks in designated MDWR and the results of their compliance with GWMs in UWR Order U-5-002.

Block	Was an exemption required for section 69 of the FPPR for UWR?	Rationale	Did government grant an exemption?
FTU3	Yes	GWMs permitted harvest in moderate stand structure habitat class, but the WRR treatment required a lower retention level—more thinning—than was permitted by the GWM, so an exemption was required.	Yes
FTU2	Yes	GWMs allowed harvest only in Low stand structure habitat class. FTU2 was a wildfire risk reduction prescription in moderate stand structure habitat class, so an exemption was required.	Yes
32	Not if GWMs followed.	GWMs permitted harvest in low stand structure habitat class, so an exemption was not required because the prescription adopted the stand structure required in the GWMs.	N/A
88 (initial document label 28)	Not if GWMs followed.	GWMs permitted harvest in low and moderate stand structure habitat classes, so an exemption was not required because GWMs for stand structure were followed in Low habitat class structure.	N/A
TU6	Yes	GWMs permitted harvest only in low stand structure habitat class. TU6 is moderate to high stand structure habitat class so an exemption was required.	No

¹⁴ Was the Ministry of Forests, Lands, Natural Resource Operations and Rural Development at the time of issuance (May 2020).

Treatment Unit 6 was in a moderate to high stand structure habitat class, but the GWMs only permitted harvesting in the low stand structure habitat class. The site plan for cutblock TU6 proposed harvesting that exceeded the basal area retention levels set out in the GWMs for low stand structure habitat class.¹⁵

The UWR order includes GWMs for clumpy groups of trees distributed throughout the stand, where crowns remain connected within the clumps for snow interception and needle cast that can provide food for deer in winter. However, the TU6 WRR prescription resulted in increased spacing between large diameter Douglas-fir crowns to reduce crown fire risk, as shown in Figure 3. As a result, the harvesting proposed in the site plan required exemptions from restrictions on timber harvest opportunities in moderate and high stand structure habitat class, as well as requirements for stem density and clumpy distribution of trees.



Figure 3. WRR treatment adjacent to TU6.

The Board observed that the resulting stand structure of the WRR treatment in TU6 maintained the mature Douglas-fir canopy as cover for mule deer. The Board also noted that the treatment enhanced understory development of deciduous shrub species that can be important for winter forage, as seen in Figure 3.

Old Growth Management Areas

The results and strategies in the FSP for OGMA do not permit harvesting in an OGMA except for specific circumstances, such as for the “reduction of fine surface debris, ladder fuels and small diameter trees in intermediate and overtopped crown classes within interface fire management plan areas.” The wording in the FSP is the same as that in section 9(e) of the CCLUP order.¹⁶ TU6 was a WRR treatment within a prioritized area intended to protect the community of Esk’et.

¹⁵ https://www.env.gov.bc.ca/wld/documents/wha/Amendment_ShallowModerate_Feb07_Ord.pdf

¹⁶ https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/natural-resource-use/land-water-use/crown-land/land-use-plans-and-objectives/cariboo-region/cariboochilcotin-rlup/legal-direction/cariboochilcotin_rlup_luor_24may2011consolidated.pdf

The licensee provided a rationale for the prescribed modified harvest in the OGMA of TU6, which was consistent with the FSP and the CCLUP order requirements for OGMAs. The rationale also indicated that it was a fuel reduction prescription that was part of Esk'etemc community wildfire protection plan implementation, and that no roads would be constructed in the OGMA.¹⁷

Investigators examined TU6 in the field and verified that the thinning from below treatment was implemented appropriately. Only the smaller-diameter trees were removed, and the largest trees and main canopy stems were retained according to the site plan that followed the strategy for reducing wildfire risk in OGMAs.

Findings

The licensee adopted the GWMs of the UWR order as its results and strategies for mule deer management. This linked the two sections of legal requirements that the Board considered in its investigation:

1. Did the licensee comply with section 21(1) of FRPA when it planned and logged the five cutblocks?

The Board found that the licensee complied with section 21(1) of FRPA when it planned and logged four of the five cutblocks. The licensee followed its FSP result or strategy addressing the UWR and the OGMA overlap in those blocks.

The Board found that the licensee did not comply with section 21(1) of FRPA when it planned and logged TU6 as it did not follow the FSP result or strategy for the UWR.

2. Did the licensee comply with section 69 of the FPPR for mule deer winter range?

The Board found that the licensee complied with section 69 of the FPPR when it planned and logged four of the five cutblocks. The licensee either followed the GWMs or received an exemption from the GWMs and followed the conditions of the exemption.

The Board found that the licensee did not comply with section 69 of the FPPR when it planned and logged TU6 as it did not follow the GWMs and did not receive an exemption.

¹⁷ Note that despite the exemption under section 92(1) of the *Forest Planning and Practices Regulation*, primary forestry activities must not result in the construction of roads within OGMAs; no new roads were built for this block.

CONCLUSIONS

The Board investigated harvesting near Alkali Lake in the Cariboo for compliance with requirements of an ungulate winter range order for mule deer and for harvesting in old growth management areas.

The Board found that the prescriptions used to reduce fuels through partial cutting followed the results and strategies in the licensee's forest stewardship plan for ungulate winter range orders and general wildlife measures for four out of five cutblocks.

In one cutblock, the licensee should have requested and obtained an exemption from the general wildlife measures before implementing the prescription. The Board found that all forest practices complied with results and strategies for reducing fuels in old growth management areas.

The Board noted that wildfire risk reduction practices were at odds with general wildlife measures regarding crown spacing. To reduce wildfire risk on the landscape, the forest canopy should have space between tree crowns. However, the general wildlife measures require more stems to be retained in a 'clumpy distribution' with crowns touching, and with space between clumps. Both results—reduced wildfire risk and suitable mule deer winter range stand structure—can be achieved with integrated forest planning that can include exemptions to some general wildlife measures.



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