

AUDIT OF RANGE PLANNING AND PRACTICES

Range Agreements – RAN077302
(grazing) and RAN077303 (hay
cutting)

Quesnel Natural Resource District

JUNE 2022
FPB/ARC/251



**Forest
Practices
Board**

BC'S INDEPENDENT
WATCHDOG FOR
SOUND FOREST &
RANGE PRACTICES

Table of Contents

Board Commentary..... i

Introduction..... 1

Audit Results – RAN 077302 and RAN077303..... 2

 Background..... 2

 Audit Approach and Scope..... 2

 Planning and Practices Examined and Findings – RAN077302 3

 Planning and Practices Examined and Findings – RAN077303 4

Audit Opinion 5

Appendix 1: Forest Practices Board’s Compliance Audit Process..... 6

Board Commentary

As part of its annual audit program, the Board conducted a full scope compliance audit of range agreement RAN077302 for grazing, and range agreement RAN077303 for hay cutting, held by range tenure holders John and Laurie Wilson in the Quesnel Natural Resource District.

The audit results are described in detail later in this report.

This commentary provides the Board's views on an important issue identified in the audit regarding lack of protection for riparian area and fish habitat.

If not properly managed, grazing cattle near streams and riparian areas can negatively impact water quality and fish habitat. This audit found a significant non-compliance with respect to managing grazing near a fish stream. Repeated heavy grazing in the vicinity of Newa Creek has had an adverse impact on the soils adjacent to the stream, the stability of the stream channel banks, and the vegetation along the stream bank and in the riparian area. These impacts include soil compaction, channel banks eroding and collapsing, and the movement of bedload material downstream. In addition, heavy grazing along Newa Creek has adversely impacted the stream's ability to withstand normal peak flows and filter runoff. This can cause significant negative impacts to fish habitat.

The Board is concerned about the significant environmental impact on water and riparian values and the Ministry of Forests is not enforcing the Forest and Range Practices Act's (FRPA) requirements. Based on monitoring reports and letters sent to the tenure holders, it is apparent the ministry has been aware that streamside grazing was damaging Newa Creek since 2002, yet no actions have been taken. It appears that the ministry is not holding these tenure holders accountable for meeting legal requirements in FRPA and commitments in government-approved range use plans.

As a result of these findings, and in accordance with section 131(2) of FRPA, the Board is making the following recommendations:

1. The range tenure holders prevent further damage this grazing season (2022) to the stream and riparian area of Newa Creek by implementing measures/practices to limit grazing in this sensitive area.
2. The range tenure holders work with the Ministry of Forests to develop a long-term plan to restore Newa Creek to a properly functioning condition.
3. The Ministry of Forests ensure this range tenure holder meets the legal requirements of FRPA in a timely manner.

In accordance with section 132 of FRPA, the Board requests that John and Laurie Wilson respond to recommendations 1 and 2 by August 31, 2022, indicating:

- a) they accept the recommendations and describe how they will address or have addressed them; or
- b) they partially accept the recommendations and provide reasons why, and describe how they will address or have addressed them; or
- c) they are not accepting the recommendations, and provide reasons why.

Also in accordance with section 132 of FRPA, the Board requests that the Ministry of Forests respond to recommendation 3 by August 31, 2022, indicating:

- a) they accept the recommendations and describe how they will address or have addressed them; or
- b) they partially accept the recommendations and provide reasons why, and describe how they will address or have addressed them; or
- c) they are not accepting the recommendations, and provide reasons why.

Introduction

The Forest Practices Board is the public's watchdog for sound forest and range practices in British Columbia. One of the Board's roles is to audit the planning and practices of range agreement holders to ensure compliance with the Forest and Range Practices Act (FRPA).

As part of the Forest Practices Board's 2021 compliance audit program, the Board randomly selected the Quesnel Natural Resource District as the location for a full-scope compliance audit. Within the district, the Board randomly selected three range agreements for grazing (RAN076466, RAN077302, and RAN077219) and one range agreement for hay cutting (RAN077303) for audit.

This report explains what the Board audited and the findings for RAN077302 and RAN077303. The range agreement areas are located northwest of Quesnel, as shown on the map below. Results for the other range tenures are reported separately. Detailed information about the Board's compliance audit process is provided in Appendix 1.

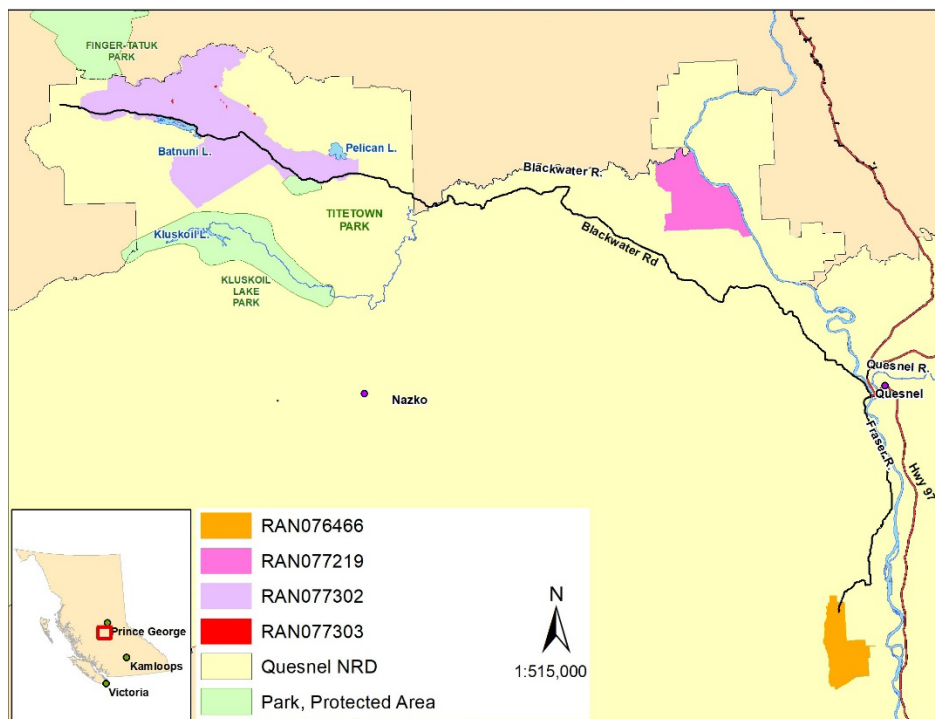


Figure 1. Map of the audited range agreement areas.

Common Terms

Below are definitions of some common terms used in the audit report.

Animal unit month (AUM) – The quantity of forage consumed by a 450 kilogram cow (with or without calf) in a 30-day period. Because bulls consume more forage than cows, they account for 1.5 AUMs for each 30-day period of grazing.

Riparian areas – Areas adjacent to classified streams, lakes and wetlands. FRPA requires tenure holders to ensure range practices protect riparian areas. Riparian vegetation adjacent to other non-classified waterbodies, like a seepage, are not included in FRPA's definition of riparian area.

Range readiness criteria – These criteria in the range use plan (RUP) are used to determine when Crown range is ready for grazing to begin. These criteria were not assessed because the audit took place towards the end of the grazing season.

Audit Results – RAN 077302 and RAN077303

Background

Description of the Grazing Tenure

RAN077302 is held by John and Laurie Wilson. The 34 913 hectare agreement area is located approximately 84 kilometres northwest of Quesnel (Figure 1). RAN077302 authorizes 1316 AUMs for grazing between May 15 and October 31. It is managed as one pasture (i.e., one area with no livestock movement patterns required within the grazing schedule) and is surrounded by public land.

Description of the Hay Cutting Tenure

RAN077303 is also held by John and Laurie Wilson. The 53-hectare hay cutting agreement area is located 105 kilometres northwest of Quesnel (Figure 1). The range agreement authorizes the cutting of 45 tonnes of hay between July 15 and September 15. It includes six parcels and is surrounded by Crown land.

The range agreement areas are within the territories of the Tsilhqot'in National Government, Lhoosk'uz Dene Nation, Lhtako Dene Nation, Skin Tyee Nation, and the Nazko and Saik'uz First Nations, and the Forest Practices Board recognizes their deep connection with the land that continues to this day.

Audit Approach and Scope

The audit examined range planning and practices for compliance with FRPA and the Range Planning and Practices Regulation (RPPR). This included an examination of:

- Compliance with range use plans (RUPs) and any amendments (including maps and the grazing schedule, which identifies the period of use, number of livestock and AUMs authorized for grazing).
- Records maintained by range users (if applicable) and the Ministry of Forests (MOF).
- Compliance with range practice requirements on the range tenures, with a focus on requirements to protect riparian areas, upland areas, drinking water quality, licensed waterworks, fish habitat and maintenance of range developments. (Note: auditors did not assess compliance with range readiness criteria as the auditors were not onsite at the start of the grazing season, when range readiness could be measured).

The standards and procedures used to carry out this audit are set out in the Board's Compliance Audit Reference Manual, Version 7.1, July 2016. Auditor's work involved interviewing the range agreement holder and MOF staff, reviewing the RUP and maps from within the two-year audit period of September 1, 2019, to September 28, 2021, and field activities that occurred in 2021.

A professional agrologist/forester, a professional biologist and a chartered professional accountant made up the audit team. Fieldwork took place on September 27 and 28, 2021.

Planning and Practices Examined and Findings – RAN077302

Required Content of the Range Use Plan

The licensees' approved January 1, 2017, to December 31, 2021, RUP included all required content.

Compliance with the Range Use Plan and Practice Requirements for Grazing

Auditors found that the range agreement holder generally met the requirements of the RUP, with regards to the grazing schedule. In addition, the range agreement holder met FRPA's requirements to protect upland areas.

The range agreement holder failed to meet the riparian management requirements of the approved RUP, which stipulates that livestock will be managed to not cause damage to riparian areas and, where damage occurs, to restore the riparian area to proper functioning condition. Auditors found two streams where the range agreement holder contravened this requirement. The commitment to "not cause damage" holds the range agreement holder to a higher standard than outlined in section 30 of the RPPR.ⁱ In addition, in one situation where damage occurred, auditors determined the stream to be non-functional and the range agreement holder had failed to restore the riparian area to proper functioning condition,¹ as required by the RUP. This failure to meet the requirements of the RUP, which is required under section 45 of FRPA, is considered a significant non-compliance.

Riparian Areas and Fish Habitat

Section 30 of the RPPR requires a range agreement holder to protect a riparian area by ensuring range practices do not result in a material adverse effect on the ability of the riparian area to:

- withstand normal peak flow events without accelerated soil loss, channel movement or bank movement,
- filter runoff,
- store and safely release water, and
- conserve wildlife habitat values in the area.

In addition, section 32ⁱⁱ of the RPPR requires a range agreement holder to protect fish habitat by ensuring range practices are conducted at a time and in a manner that is unlikely to harm fish, have a material adverse effect on fish passage, or destroy, damage, or harmfully alter fish habitat.

Auditors found that repeated heavy grazing for over one kilometre along Newa Creek had reduced the ability of the riparian area to withstand peak flow events, maintain proper functioning condition and maintain stream bank stability (Figure 2). The range agreement holder was aware of the damage to this riparian area and the fact that it was a fish-bearing stream. MOF directed the range agreement holder, through written warnings, to move the livestock on numerous occasions between 2002 and 2010. As the stream is no longer in a proper functioning condition, there has been a material adverse effect, and the channel bank erosion and sediment deposits have likely damaged or harmfully altered fish habitat. This non-compliance with sections 30 and 32 of the RPPR is considered significant.

¹ Proper functioning condition is a measure of the health of a stream and its associated riparian area. It considers the ability of a stream or river and its riparian area to withstand peak flood events without having accelerated soil loss, channel movement or bank movement, filter runoff, store and safely release water, maintain fish habitat connectivity, maintain adequate riparian root network or large wood debris supply, and reduce bank microclimate change. (FREP Website, 2021).



Figure 2. Streambank erosion from excessive cattle activity within and adjacent to a fish-bearing stream (Newa Creek).

Upland Areas

Section 31 of the RPPRⁱⁱⁱ requires a range agreement holder to not carry out range practices that would result in a material adverse effect on an upland area by substantially increasing the rate of soil loss, reducing water infiltration, reducing moisture storage or decreasing stability. Auditors assessed approximately 27 hectares of upland area and found that repeated heavy grazing along a few streams has impacted the rate of soil loss and bank stability on areas immediately adjacent to riparian areas. Aside from Newa Creek, these areas with heavy grazing were limited to a few hundred metres or less in length. As the heavy grazing is limited to a small portion of the range agreement area, the impact from this heavy grazing is considered an area for improvement.

Planning and Practices Examined and Findings – RAN077303

Required Content of the Range Use Plan

The approved range use plan was in effect for the period from January 1, 2017, to December 31, 2021, and included all required content.

Compliance with the Range Use Plan and Practice Requirements for Hay Cutting

The range agreement holder met the requirements in the RUP, including maintaining average stubble heights and soil objectives.

In addition, the range agreement holder complied with all applicable range practice requirements. Protection of water quality, riparian areas and fish habitat was achieved as required.

Compliance with Timber Harvesting Authorization

The range agreement holder contravened section 52 of FRPA,^{iv} which prohibits unauthorized timber harvesting. The range agreement holder cleared immature timber from a 0.17 hectare (37x47 metre) area to use as a staging area to forward hay off the agreement area in order to minimize the weight of equipment driving on the hay cutting area. The hay was then loaded onto trailers and hauled to the agreement holder's private land (Figure 3). The clearing of any area of Crown land without MOF district manager approval is not permitted. The range agreement holder should have sought approval under section 51(1)(a) of FRPA^v from the district manager to allow for the clearing of any area to be used as a staging area. Although this is a non-compliance with section 52 of FRPA, the range agreement holder cleared the hay storage area to minimize the potential for soil compaction on the wetland from hauling heavy hay loads out, thus it is considered an area for improvement.



Figure 3. Immature trees cleared without authorization.

Audit Opinion

In my opinion, except for the issues described below, the range planning and practices carried out under range agreements RAN077302 and RAN077303, held by John and Laurie Wilson, between September 1, 2019, and September 28, 2021, complied in all significant respects with the requirements of the Forest and Range Practices Act and the Range Planning and Practices Regulation, as of September 2021. No opinion is provided regarding range readiness criteria.

In reference to compliance, the term "in all significant respects" recognizes that there may be minor instances of non-compliance that either may not be detected by the audit, or that are detected but not considered worthy of inclusion in the audit report.

As described in the Compliance with Range Use Plan and Practices Requirements for Grazing and Riparian Areas and Fish Habitat sections of the report, the audit identified two significant non-compliances.

Without further qualifying my opinion, I draw attention to the Upland Areas and Compliance with Timber Harvesting Authorization sections of the report that describes two areas requiring improvement.

The Audit Approach and Scope and the Planning and Practices Examined and Findings sections of this report describe the basis of the audit work performed in reaching the above conclusion. The audit was conducted in accordance with the auditing standards of the Forest Practices Board including adherence to the auditor independence standards and the ethical requirements, which are founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour. Such an audit includes examining sufficient range planning and practices to support an overall evaluation of compliance with FRPA.

A handwritten signature in black ink, reading "C R Mosher".

Christopher R. Mosher CPA, CA, EP(CEA)
Auditor of Record

Victoria, British Columbia
March 15, 2022

Appendix 1:

Forest Practices Board's Compliance Audit Process

Background

The Forest Practices Board conducts audits of government and agreement-holders under section 122 of the Forest and Range Practices Act (FRPA) and section 68 of the Wildfire Act. Compliance audits examine forest or range planning and practices to determine whether or not they comply with the applicable requirements of FRPA and the Wildfire Act. The Board conducts 6-8 compliance audits annually. Most of these are audits of agreement holders. The Board also audits the government's BC Timber Sales Program (BCTS).

Selection of Auditees

To begin with, auditors randomly select an area of the Province, such as a natural resource district. Then the auditors review the forest resources, geographic features, operating conditions and other factors in the area selected. These are considered in conjunction with the Board's strategic priorities, and the type of audit is determined. At this stage, auditors choose the auditee(s) that best suit(s) the selected risk and priorities.

For example, in 2016, the Board randomly selected the Dawson Creek portion of the Peace Natural Resource District as a location for an audit. After assessing the activities within the area, auditors noted that there were two community forest agreements that had not yet been audited by the Board. As the Board strives to audit an array of licence types and sizes each year, these two community forest agreements were selected for audit.

For BCTS audits, a district or timber supply area within 1 of the 12 BCTS business areas in the province is selected randomly for audit. The audit selections are not based on past performance.

Only those licensees or BCTS operations that have not been audited by the Board in the past five years are eligible for selection.

Audit Standards

The audits are conducted in accordance with auditing standards developed by the Board. These standards include adherence to the auditor independence standards and the ethical requirements, which are founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour and are consistent with Canadian generally accepted auditing standards. The standards for compliance audits are described in the Board's Compliance Audit Reference Manual.

Audit Process

Conducting the Audit

Once the Board randomly selects an area or district and determines the scope of audit to be conducted and the licensee(s) to be audited, all activities carried out during the period subject to audit are identified (such as harvesting, replanting, road construction, road deactivation). Items that make up each forest activity are referred to as a population. For example, all sites harvested form the timber harvesting population and all road sections constructed form the road construction population.

The auditors select a separate sample for each population (e.g., the cutblocks selected for auditing timber

harvesting). Within each population, more audit effort (i.e., more audit sampling) is allocated to areas where the risk of non-compliance is greater. For smaller audits, the sample will include the full population. Auditors also consider factors such as geographic distribution and values potentially affected by activities to ensure an adequate sample.

Auditors' work includes interviewing licensee staff, reviewing the auditee's applicable plans, reviewing applicable government orders, assessing some features from helicopters and measuring specific features like riparian reserve zone widths using ground procedures. The audit teams generally spend three to five days in the field.

Evaluating the Results

The Board recognizes that compliance with the requirements of FRPA and the Wildfire Act is more a matter of degree than absolute adherence. Determining compliance, and assessing the significance of non-compliance, requires the exercise of professional judgment within the direction provided by the Board.

The audit team, composed of professionals and technical experts, first determines whether forest practices comply with legal requirements. For those practices considered to not be in compliance, the audit team then evaluates the significance of the non-compliance, based on a number of criteria, including the magnitude of the event, the frequency of its occurrence and the severity of the consequences.

Auditors categorize their findings into the following levels of compliance:

Compliance – where the auditor finds that practices meet FRPA and Wildfire Act requirements.

Unsound Practice – where the auditor identifies a significant practice that, although in compliance with FRPA or the Wildfire Act, is not considered to be sound management.

Not significant non-compliance – where the auditor, upon reaching a non-compliance conclusion, determines that one or more non-compliance event(s) is not significant and not generally worthy of reporting. However, in certain circumstances, these events may be reported as an area requiring improvement.

Significant non-compliance – where the auditor determines a non-compliance event(s) or condition(s) is, or has the potential to be, significant and is considered worthy of reporting.

Significant breach – where the auditor finds that significant harm has occurred, or is beginning to occur, to persons or the environment as a result of one or more non-compliance events.

If a significant breach of the legislation has occurred, the auditor is required by the Forest Practices Board Regulation to immediately advise the Board, the party being audited, and the responsible Minister(s).

Reporting

Based on the above evaluation, the auditor then prepares a draft audit report. The party being audited is given a copy of the draft report for review and comment before it is submitted to the Board.

The Board reviews the draft report and determines if the audit findings may adversely affect any party or person. If so, the party or person must be given an opportunity to make representations before the Board decides the matter and issues a final report. The opportunity to make representations allows parties that may potentially be adversely affected to present their views to the Board.

The Board reviews representations from parties that may potentially be adversely affected, makes any necessary changes to the report, and decides if recommendations are warranted. The report is then finalized and released: first to the auditee and then to the public and government seven days later.

ENDNOTES

ⁱ RPPR - Section 30 – Riparian areas

- 30 A range agreement holder must not carry out a range practice if it would result in a material adverse affect on the ability of the riparian area to
- (a) withstand normal peak flow events without accelerated soil loss, channel movement or bank movement,
 - (b) filter runoff,
 - (c) store and safely release water, and
 - (d) conserve wildlife habitat values in the area.

ⁱⁱ RPPR - Section 32 – Protection of fish

- 32 (1) A range agreement holder who carries out a range practice must ensure that the range practice is conducted at a time and in a manner that is unlikely to
- (a) harm fish,
 - (b) have a material adverse effect on fish passage, or
 - (c) destroy, damage or harmfully alter fish habitat.
- (2) If satisfied that it is not practicable, given the circumstances or conditions applicable to a particular area, the minister may exempt a range agreement holder, in relation to that area, from subsection (1).

ⁱⁱⁱ RPPR - Section 31– Upland areas

- 31 A range agreement holder must not carry out a range practice on an upland area if the range practice would result in a material adverse affect on the upland area by substantially
- (a) accelerating the rate of soil loss from the area,
 - (b) diminishing infiltration of water on the area,
 - (c) reducing moisture storage on the area, or
 - (d) decreasing stability of the area.

^{iv} FRPA - Section 52 – Unauthorized timber harvesting

- 52 (1) A person must not cut, damage or destroy Crown timber unless authorized to do so
- (a) under this Act, the [Forest Act](#) or an agreement under the [Forest Act](#),
 - (b) by the minister, for silviculture, stand tending, forest health, abating a fire hazard related to wildfires or another purpose,
 - (b.1) under the [Wildfire Act](#),
 - (c) under a grant of Crown land made under the [Land Act](#),
 - (d) under the [Park Act](#), or
 - (e) under the regulations, in the course of carrying out activities
 - (i) under an authorization referred in section 51 or 57, or
 - (ii) that are incidental to or required to carry out activities authorized or approved under this Act, the [Forest Act](#), the [Range Act](#) or another prescribed enactment.

^v FRPA - Section 51– Range developments

- 51 (1) Unless authorized in writing by the minister, a person must not
- (a) store hay on Crown range, or



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