



**Forest
Practices
Board**

Audit of Forest Planning and Practices

*Peace Natural Resource District
Woodlot Licence W2101*

FPB/ARC/229

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Introduction

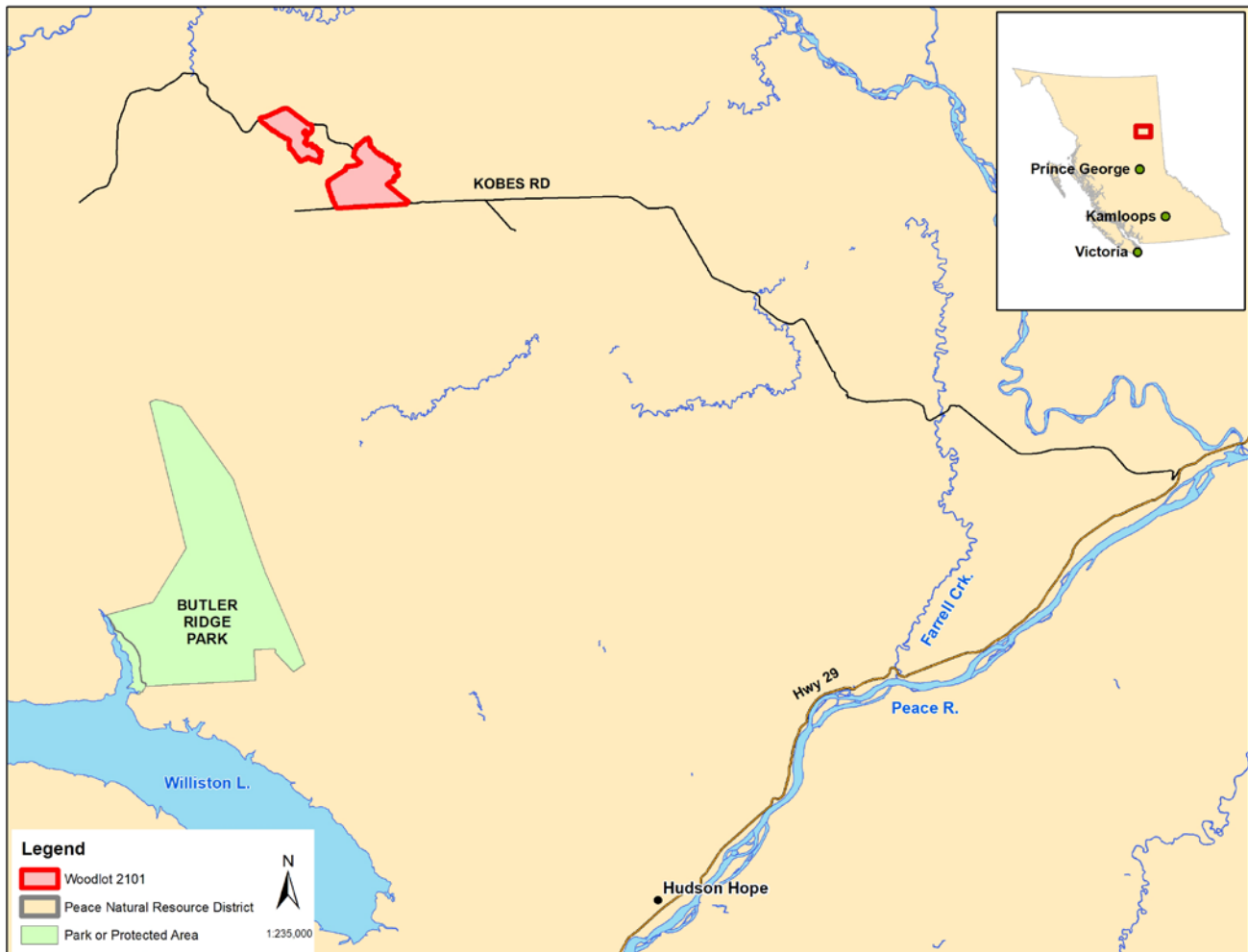
The Forest Practices Board is the public's watchdog for sound forest practices in British Columbia. One of the Board's roles is to audit the practices of the forest industry to ensure compliance with the *Forest and Range Practices Act* and the *Wildfire Act*.

As part of the Forest Practices Board's 2018 compliance audit program, the Board randomly selected the Peace Natural Resource District as the location for a full scope compliance audit. Within the district, the Board selected five woodlot licences for audit: W0604, W1780, W1781, W1950 and W2101.

The individual woodlot licences were selected based on highest volume of timber harvested between September 2016 and September 2018. Selection also focused on diversity of tenure holders, for example if two licences were held by the same family, only the licence with the highest volume was selected for audit. Selection was not based on past performance.

This report explains what the Board audited and the findings for woodlot W2101. The woodlot location is shown on the map below. Results for the other woodlots are reported separately. Detailed information about the Board's compliance audit process is provided in Appendix 1.

Map of the Audit Area



Audit Results – Woodlot Licence W2101

Background

Woodlot licence W2101, awarded in 2013, is held by Henry Bergen. The woodlot is located approximately 120 kilometres northwest of Fort St. John and about 55 kilometres north of Hudson's Hope. The woodlot contains 1190 hectares of Crown land and has an allowable annual cut of 2741 cubic metres per year. During the two-year audit period, the licensee harvested about 12 300 cubic metres of timber. Although most woodlots have a relatively small allowable annual cut, it is possible for woodlot holders to harvest up to 120 percent of their five-year cut control cycle in just one or two years, creating the appearance of a larger than actual allowable annual cut.

Audit Approach and Scope

This was a full scope compliance audit with a two-year timeframe. All activities carried out on W2101 between September 1, 2016, and September 20, 2018, were subject to audit. This included all harvesting, road, silviculture, protection activities and associated planning.

Auditors assessed these activities for compliance with the *Forest and Range Practices Act*, the *Wildfire Act* and applicable regulations, in particular the *Woodlot Licence Planning and Practices Regulation (WLPPR)*. Auditors' work involved interviewing the woodlot licensee, reviewing the woodlot licence plan, assessing silviculture records and field visits. Sites were accessed by truck.

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*.

Two forest professionals and a chartered professional accountant made up the audit team. The audit team was in the field on September 20, 2018.

Planning and Practices Examined and Findings

The following describes the activities and obligations audited and the findings.

Operational Planning

The approved woodlot licence plan (WLP) covers the period 2013 to 2023 and the licensee must meet the requirements for activities and obligations contained in its WLP. The audit team evaluated the WLP through office reviews and fieldwork to ensure that it accurately identified site conditions.

The licensee adopted the one cutting permit approach,¹ which does not require the licensee to spatially identify road and cutblock configurations.

Auditors found that the WLP was consistent with legal requirements.

¹ The "one cutting permit" concept is that there is only one cutting permit for an entire woodlot licence. This has the added advantage of lower administration and data storage costs because the licensee submits final cutblock boundaries once rather than the more common practice where proposed cutblock boundaries are submitted at the outset and subsequent amendments submitted before a final cutblock boundary is realized.

Timber Harvesting

The licensee harvested timber from 7 cutblocks during the audit period. The total harvested area was 51.9 hectares in size and auditors visited all 7 cutblocks.

When planning for timber harvesting in six of the cutblocks, the licensee located sections of the boundaries along a three- to five-metre wide stream. The licensee classified the stream as non-fish-bearing, however, the *Forest Planning and Practices Regulation* defines a fish streamⁱ as a watercourse that either contains certain fish species or has a gradient of less than 20 percent. Although auditors did not observe fish in the stream, the stream did have a gradient of less than 20 percent and connected to a known fish stream. Based on these observations, auditors found that the licensee did not collect sufficient information to support the classification as a non fish-bearing stream.

The WLPPR section 36ⁱⁱ states a fish stream with a width of 1.5 metres to 5 metres is considered an S3 stream. S3 streams require a 20 metre riparian reserve zone. Auditors determined the stream width varied from 3 to 5 metres, so this stream should have been classified as an S3 stream.

The WLPPR section 39ⁱⁱⁱ states a woodlot licence holder must not cut, modify or remove trees in a riparian reserve zone, except in limited circumstances. Due to the mis-classification of the stream, harvesting occurred in the riparian reserve zones for all six cutblocks. Although machine-free zones protected the stream channel, the harvesting in the riparian-reserve zone is a non-compliance with WLPPR section 39. Due to its pervasive nature, occurring in six cutblocks, and the large amount of reserve area harvested, this non-compliance is considered to be significant.

Road Construction, Maintenance and Deactivation

The licensee constructed 3.5 kilometres and maintained 2.0 kilometres of road during the audit period. Auditors examined 1 kilometre of the constructed road and 1.2 kilometres of maintained road. The licensee did not deactivate any roads or install or maintain any bridges during the audit period.

The licensee constructed winter road on fairly flat terrain and there were no classified stream crossings. The maintained roads were also winter roads used for previous harvesting. Natural drainage patterns were maintained and there were no classified stream crossings.

The auditors did not identify any issues with road construction or maintenance.

Silviculture Activities and Obligations

Within the audit period, the licensee site prepared five cutblocks, and had regeneration obligations due on five cutblocks. Auditors reviewed two site prepped cutblocks and three cutblocks where regeneration was due.

Site preparation was mounding and some of the treatment is within the riparian reserve zone of the S3 stream described above. The machine-free zones were followed and no damage to the creek channel was observed. Surveys had not been completed for the blocks with regeneration obligations due at the time of the field audit. Three of the blocks were walked by auditors and it was estimated that the blocks met the required stocking standards, although one block had a significant component of aspen.

Reporting for the site preparation and regeneration obligations was not due during the audit period.

Auditors did not identify any compliance concerns with the site preparation or regeneration obligations.

Fire Protection Activities

Auditors did not inspect fire tools since there were no active operations during the audit field work.

The licensee completed harvesting in March 2018 and conducted a fire hazard assessment in May 2018 for the woodlot. The licensee piled logging debris for burning and plans to abate the fire hazard by burning the piles in the winter of 2018/2019. The licensee is within the prescribed time period to complete fire hazard abatement activities.

The auditors did not identify any concerns with fire protection activities.

Audit Opinion

In my opinion, except for the issue identified below, the operational planning, timber harvesting, road maintenance and construction, silviculture and fire protection activities carried out under woodlot licence W2101, held by Henry Bergen, between September 1, 2016, and September 20, 2018, complied in all significant respects with the requirements of the *Forest and Range Practices Act*, the *Wildfire Act* and related regulations, as of September 2018. There is no opinion provided for road deactivation.

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 *Timber Harvesting* section of the report, the audit identified a significant non-compliance involving harvesting adjacent to a fish stream.

The *Audit Approach and Scope* and the *Planning and Practices Examined* 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 forest planning and practices to support an overall evaluation of compliance with the *Forest and Range Practices Act* and the *Wildfire Act*.



Christopher R. Mosher CPA, CA, EP(CEA)
Director, Audits

Victoria, British Columbia
May 22, 2019

Appendix 1:

Forest Practices Board Compliance Audit Process

Background

The Forest Practices Board conducts audits of government and agreement-holders under the *Forest and Range Practices Act* (FRPA), section 122, and the *Wildfire Act*. Compliance audits examine forest or range planning and practices to determine whether or not they meet FRPA and / or *Wildfire Act* requirements. The Board conducts about 10 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 Board strategic priorities (updated annually), and the type of audit is determined. At this stage, auditors choose the auditee(s) that best suits the selected risk and priorities. The audit selections are not based on past performance.

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, it was 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 2 of the 12 business areas in the province are selected randomly for audit. Only those areas 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 or replanting and road construction or deactivation activities). 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.

A separate sample is then selected 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' work includes interviewing licensee staff, reviewing applicable plans, assessing features from helicopters and measuring specific features like riparian reserve zone width 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 event(s).

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 Minister of Forests, Lands, Natural Resource Operations and Rural Development.

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 representations allow 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 Forest Planning and Practices Regulation – Definition – “fish stream”:

"fish stream" means a watercourse that

- (a) is frequented by any of the following species of fish:
 - (i) anadromous salmonids;
 - (ii) rainbow trout, cutthroat trout, brown trout, bull trout, Dolly Varden char, lake trout, brook trout, kokanee, largemouth bass, smallmouth bass, mountain whitefish, lake whitefish, arctic grayling, burbot, white sturgeon, black crappie, yellow perch, walleye or northern pike;
 - (iii) a species identified as a species at risk;
 - (iv) a species identified as regionally important wildlife, or
- (b) has a slope gradient of less than 20 percent, unless the watercourse
 - (i) does not contain any of the species of fish referred to in paragraph (a),
 - (ii) is located upstream of a barrier to fish passage and all reaches upstream of the barrier are simultaneously dry at any time during the year, or
 - (iii) is located upstream of a barrier to fish passage and no perennial fish habitat exists upstream of the barrier.

ⁱⁱ Woodlot Licence Planning and Practices Regulation – S.36 – stream riparian classes:

Stream riparian classes

36 (1) In this section, "**active flood plain**" means the level area with alluvial soils, adjacent to streams, that is flooded by stream water on a periodic basis and is at the same elevation as areas showing evidence of

- (a) flood channels free of terrestrial vegetation,
- (b) rafted debris or fluvial sediments, recently deposited on the surface of the forest floor or suspended on trees or vegetation, or
- (c) recent scarring of trees by material moved by flood waters.

(2) A stream that is a fish stream or is located in a community watershed has the following riparian class:

- (a) S1A, if the stream averages, over a one kilometre length, either a stream width or an active flood plain width of 100 metres or greater;
- (b) S1B, if the stream width is greater than 20 metres but the stream does not have a riparian class of S1A;
- (c) S2, if the stream width is not less than 5 metres and not more than 20 metres;
- (d) S3, if the stream width is not less than 1.5 metres but is less than 5 metres;
- (e) S4, if the stream width is less than 1.5 metres.

(3) A stream that is not a fish stream and is located outside of a community watershed has the following riparian class:

- (a) S5, if the stream width is greater than 3 metres;
- (b) S6, if the stream width is 3 metres or less.

(4) Unless subsection (5) or (6) applies, for each riparian class of stream, the minimum riparian management area width, riparian reserve zone width and riparian management zone width, on each side of the stream, are

- (a) as specified in the holder's woodlot licence plan, or
- (b) if widths are not specified in a woodlot licence plan, as follows:

Riparian Class	Riparian Management Area (metres)	Riparian Reserve Zone (metres)	Riparian Management Zone (metres)
S1-A	100	0	100
S1-B	70	50	20
S2	50	30	20
S3	40	20	20
S4	30	0	30
S5	30	0	30
S6	20	0	20

(5) If the width of the active flood plain of a stream exceeds the specified width for the riparian management zone, the width of the riparian management zone extends to the outer edge of the active flood plain.

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- (6) The minister may specify a riparian reserve zone for a stream with a riparian class of S1-A if the minister considers that a riparian reserve zone is required.
- (7) The riparian reserve zone for a stream begins at the edge of the stream channel bank and extends to the width specified in subsection (4) or (6).
- (8) The riparian management zone for a stream begins at
- (a) the outer edge of the riparian reserve zone, or
 - (b) if there is no riparian reserve zone, the edge of the stream channel bank, and extends out to the widths specified in subsection (4) or (5).

iii **Woodlot Licence Planning and Practices Regulation – S.39 – restrictions in a riparian reserve zone:**

Restrictions in a riparian reserve zone

39 (1) A woodlot licence holder must not cut, modify or remove trees in a riparian reserve zone, unless it has been specified in a woodlot licence plan or it is limited to one of the following purposes:

- (a) felling or modifying a tree that is a safety hazard, if there is no other practicable option for addressing the safety hazard;
- (b) topping or pruning a tree that is not wind firm;
- (c) constructing a stream crossing;
- (d) creating a corridor for full suspension yarding;
- (e) creating guyline tiebacks;
- (f) carrying out a sanitation treatment;
- (g) felling or modifying a tree that has been windthrown or has been damaged by fire, insects, disease or other causes, if the felling or modifying will not have a material adverse impact on the riparian reserve zone;
- (h) felling or modifying a tree for the purpose of establishing or maintaining an interpretive forest site, recreation site, recreation facility or recreation trail.

(2) A woodlot licence holder who fells, tops, prunes or modifies a tree under subsection (1) may remove the tree only if the removal will not have a material adverse affect on the riparian reserve zone.

(2.1) A woodlot licence holder must not construct a road in a riparian reserve zone in a cutblock unless the construction has been specified in a woodlot licence plan.

(3) Unless exempted under section 78 (1) [*minister may grant exemptions*], a woodlot licence holder must not carry out the following silviculture treatments in a riparian reserve zone:

- (a) grazing or broadcast herbicide applications for the purpose of brushing;
- (b) mechanized site preparation or broadcast burning for the purpose of site preparation;
- (c) spacing or thinning.



**Forest
Practices
Board**

PO Box 9905 Stn Prov Govt

Victoria, BC V8X 9R1 Canada

Tel. 250.213.4700 | Fax 250.213.4725 | Toll Free 1.800.994.5899

For more information on the Board, please visit our website at: www.bcfpb.ca