



**Forest
Practices
Board**

Audit of Forest Planning and Practices

*Northern Engineered Wood Products
Non-Replaceable Forest Licence A85566*

FPB/ARC/232

November 2019

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Audit Results

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 forest industry practices to ensure compliance with the *Forest and Range Practices Act* (FRPA) and the *Wildfire Act*.

As part of its 2019 compliance audit program, the Board randomly selected the Nadina Natural Resource District as the location for a full scope compliance audit. Within the district, the Board selected non-replaceable forest licence (NRFL) A85566, held by Northern Engineered Wood Products (NEWP), for audit.

This report explains what the Board audited and the results. Detailed information about the Board's compliance audit process is provided in Appendix 1.



Typical topography in Northern Engineered Wood Products' operating area.

Background

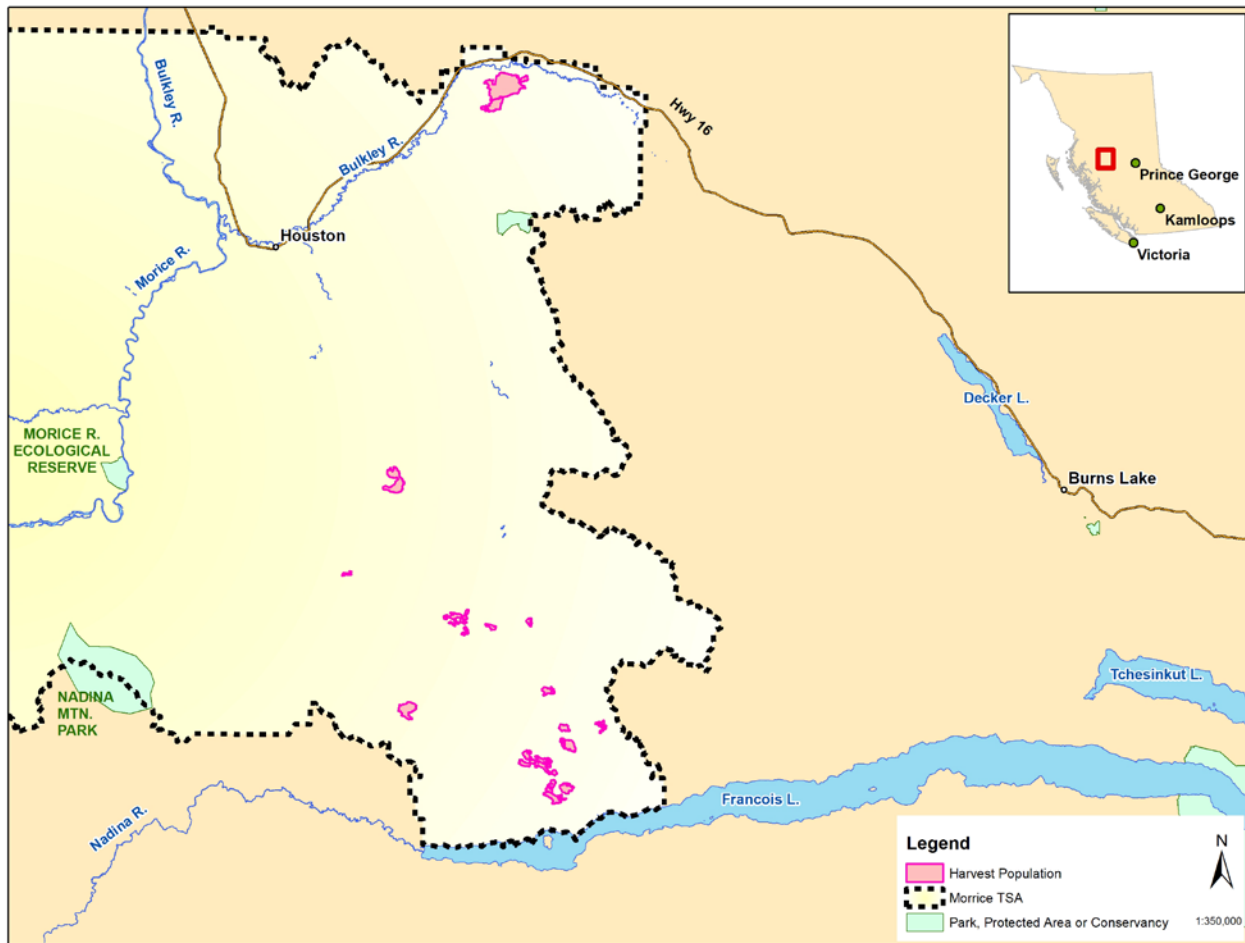
NRFL A85566 has an allowable annual cut of 50 000 cubic metres per year. During the two-year audit period, NEWP harvested about 200 000 cubic metres.¹ The licence requires NEWP to harvest only in stands with greater than 70 percent lodgepole pine, with an average stand diameter not exceeding 25 centimetres. The licence expired on July 14, 2019, just prior to the audit field work.

All of NEWP's operations are in the Morice timber supply area (TSA) portion of the Nadina Natural Resource District and are located south and northeast of Houston and north of Francois Lake (see map on page 2).

The Morice TSA covers about 1.5 million hectares and is situated on the western edge of British Columbia's central interior plateau. It extends from the most northerly tip of Babine Lake in the north to Ootsa and Whitesail Lakes in the south. The TSA has a gentle, rolling landscape in the north and east that becomes more mountainous in the southwest. The forests are dominated by lodgepole pine, hybrid spruce and subalpine fir (balsam). Minor amounts of trembling aspen, amabilis fir, western hemlock and mountain hemlock also occur in the TSA.

¹ The maximum volume the licence could harvest over 5 years from 2014 to 2019 was 250 000 cubic metres.

Map of the Audit Area



Audit Approach and Scope

This was a full scope compliance audit and all activities carried out between July 1, 2017, and July 24, 2019, were eligible for audit. The activities included harvesting, roads and major structure² construction, maintenance and deactivation, silviculture, wildfire protection and associated planning.

Auditors assessed these activities for compliance with FRPA, the *Wildfire Act*, and related regulations. Auditors' work involved interviewing NEWP staff, reviewing the forest stewardship planⁱ (FSP) and site plans, assessing silviculture records, and visiting sites to review field practices. Sites were accessed by truck and helicopter. Two forest professionals and a chartered professional accountant made up the audit team. The audit team was in the field with NEWP staff on July 23 and 24, 2019.

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*.

² Major structure includes bridges and major culverts, where:

- Bridge means a temporary or permanent crossing structure with a span length equal to or greater than 6 metres or an abutment height of 4 metres or greater.
- A major culvert has a pipe diameter of 2 metres or greater or is a pipe or open bottom arch with a span greater than 2.13 metres.

Planning and Practices Examined

Operational Planning

NEWP planned its activities under a FSP, which expires in 2021.

Auditors examined the FSP for consistency with legal requirements, including government objectives for old growth, mountain goat ungulate winter range, visual quality objectives and wildlife habitat areas. Auditors also reviewed site plans during harvesting, road and silviculture field sampling to ensure that they accurately identified site conditions.

Timber Harvesting

NEWP conducted harvesting activities on 16 cutblocks during the audit period. Auditors examined 8 of these cutblocks.

Road and Major Structure Construction, Maintenance and Deactivation

During the audit period, NEWP constructed 35 kilometres and maintained 12 kilometres of road. It did not deactivate any road. NEWP deactivated one bridge but did not install or maintain any bridges.

Auditors examined 15 kilometres of constructed roads, 12 kilometres of maintained roads, and the crossing where the bridge was deactivated.

Silviculture Activities and Obligations

NEWP planted 15 cutblocks during the audit period. Regeneration delay was not due on any of the planted cutblocks. Free growing was not due or declared on any cutblocks and NEWP did not conduct any other silviculture activities within the audit period.

Auditors examined 8 of the planted cutblocks.

Wildfire Protection

There were no active sites during the field review, since all harvesting had been completed prior to the audit field work. Fire hazard assessments were required on 15 cutblocks in the audit harvest population and fire hazard abatement was not required on any of the cutblocks.

Auditors examined fire hazard assessments on 8 cutblocks.

Findings

Operational Planning

NEWP addressed site-specific resources in the site plans by accurately identifying and prescribing practices for resource features.

NEWP referred proposed development to First Nations and other tenured resource users on an annual basis. It kept an itemized record of the referrals and any comments received.

The FSP and site plans were consistent with FRPA requirements and legal objectives.

There were no issues or concerns observed with operational planning.

Timber Harvesting

Auditors risk rated the harvest population and visited eight cutblocks in the field. There were no active sites during the audit field work, as the licence had expired. Topography in the operating area was extremely gentle with little rock or steep slopes, or streams. Harvesting used ground-based systems only.

Natural drainage patterns were maintained, and streams and wetlands were well managed. NEWP demonstrated sound riparian management by keeping most streams and wetlands outside of the block boundary, and protected them with mature timber buffers, machine free zones and understory retention.

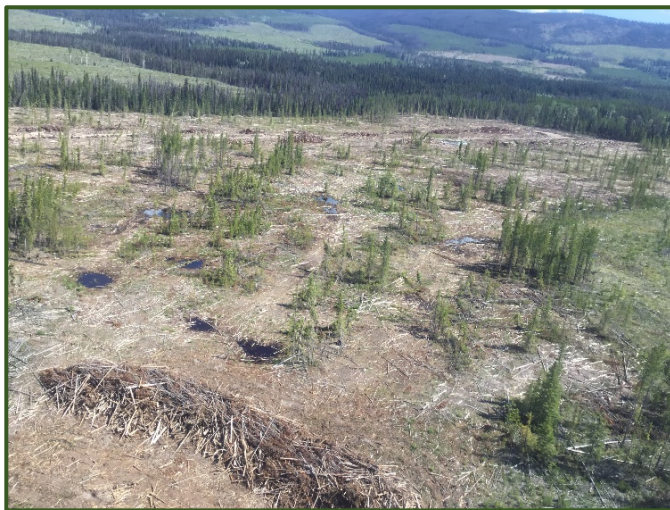
The FSP requires that at least 7 percent of the total area of the cutblock be retained as wildlife trees. NEWP exceeded the 7 percent minimum and maintained an average of 16.65 percent of the gross block area in wildlife trees. Most of the wildlife tree retention was in patches around riparian areas adjacent to the harvested area. The retained individual stems and advanced regeneration helped to supplement the wildlife tree patches. This level of retention meets the intent of the *Chief Forester's Guidance on Landscape- and Stand-level Structural Retention in Large-Scale Mountain Pine Beetle Salvage Operations* (December 2005). NEWP also retained understory and healthy advanced regeneration within blocks, subject to operational constraints.

Overall, site disturbance was generally well managed, however, auditors did note an isolated incident where soil disturbance limits approached the allowable limit on one cutblock. This was caused, in part, by summer harvesting being suspended due to wildfires, and then continued in the wetter fall months. This block has now been planted and grass seeded.

In summary, harvesting was conducted in accordance with the requirements of legislation and site plans.



Timbered buffer maintained against riparian features.



Advanced regeneration retained in a cutblock.

Road and Major Structure Construction, Maintenance and Deactivation

Construction

Road construction utilized conventional construction techniques and there were no rock or steep slope sections to contend with. Natural drainage patterns were maintained over the road segments auditors reviewed in the field and there was no evidence of erosion or slope failures associated with the roads.

Maintenance

The terrain was low risk with respect to stability. Natural drainage patterns were maintained over the road segments reviewed and the ditches were functioning.

NEWP was diligent in ensuring the roads remained stable. A number of in-block roads were seasonally deactivated after harvesting, even though there was little water and a low risk of erosion and sedimentation. In addition, NEWP removed most stream culverts and grass seeded soon after harvesting and planting activities. Streams were running unimpeded.

Auditors did not identify any road segments with stability issues.



Roads in NEWP's operating are typically on flat terrain with few streams.

Bridge Deactivation

NEWP removed one bridge. It completed the removal with no disturbance to the stream channel. The stream banks were armoured with coarse woody debris and the channel was not impacted by the removal. NEWP also provided a copy of relevant plans and documents from when the bridge was installed.

Auditors had no concerns with the road construction, maintenance or the bridge removal.

Silviculture Activities and Obligations

NEWP planted a mix of acceptable tree species on all blocks within the required timeframes. Species planted included spruce, lodgepole pine, Douglas-fir and larch. The intention was to create diverse and resilient stands to address the uncertainties around future climate. The seedlings were healthy and well-spaced. NEWP also met its annual reporting requirements.

Auditors had no issues or concerns with silviculture planning or practices.

Wildfire Protection

Hazard Assessment

Auditors examined eight cutblocks that required a hazard assessment for compliance with the *Wildfire Act*. NEWP had completed hazard assessments for all eight cutblocks.

Hazard Abatement

Fire hazard was not yet required to have been abated on any of the audited cutblocks. However, fire hazard was abated on four of the cutblocks in the harvest sample by burning the slash piles. On the remaining four cutblocks, the slash was piled in a manner that will facilitate disposal by burning. Auditors had no issues or concerns with wildfire protection activities.



It is NEWP's standard practice to pile slash and burn it when it is safe to do.

Audit Opinion

In my opinion, the operational planning, timber harvesting, road construction, maintenance, and deactivation, silviculture and fire protection activities carried out by Northern Engineered Wood Products on non-replaceable forest licence A85566 between July 1, 2017, and July 24, 2019, complied in all significant respects with the requirements of the *Forest and Range Practices Act*, the *Wildfire Act* and related regulations, as of July 2019.

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.

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 FRPA, and the *Wildfire Act*.



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

Victoria, British Columbia
November 13, 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 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 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.

ENDNOTE

ⁱ A forest stewardship plan (FSP) is a key planning element in the FRPA framework and the only plan subject to public review and comment and government approval. In FSPs, licensees are required to identify results and/or strategies consistent with government objectives for values such as water, wildlife and soils. These results and strategies must be measurable and once approved are subject to government enforcement. FSPs identify areas within which road construction and harvesting will occur but are not required to show the specific locations of future roads and cut blocks. FSPs can have a term of up to five years.



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