



**Forest  
Practices  
Board**

## **Audit of Forest Planning and Practices**

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*Norbord Inc.  
Non-Replaceable Forest Licences A81942 and A84592*

**FPB/ARC/201**

March 2017

# Table of Contents

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<b>Audit Results .....</b>	<b>1</b>
Introduction.....	1
Background .....	1
Audit Approach and Scope .....	2
Planning and Practices Examined and Findings .....	3
Audit Opinion .....	5
<b>Appendix 1: Forest Practices Board Compliance Audit Process .....</b>	<b>6</b>

# Audit Results

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

As part of the Board's 2016 compliance audit program, the 100 Mile House Natural Resource District was randomly selected as a location for a full scope compliance audit. The Board selected non-replaceable forest licences (NRFL) A81942 and A84952, held by Norbord Inc. (Norbord), for audit. The audit results for both licences are included in this report.

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



*Overview of typical terrain in the western portion of the 100 Mile House Natural Resource District.*

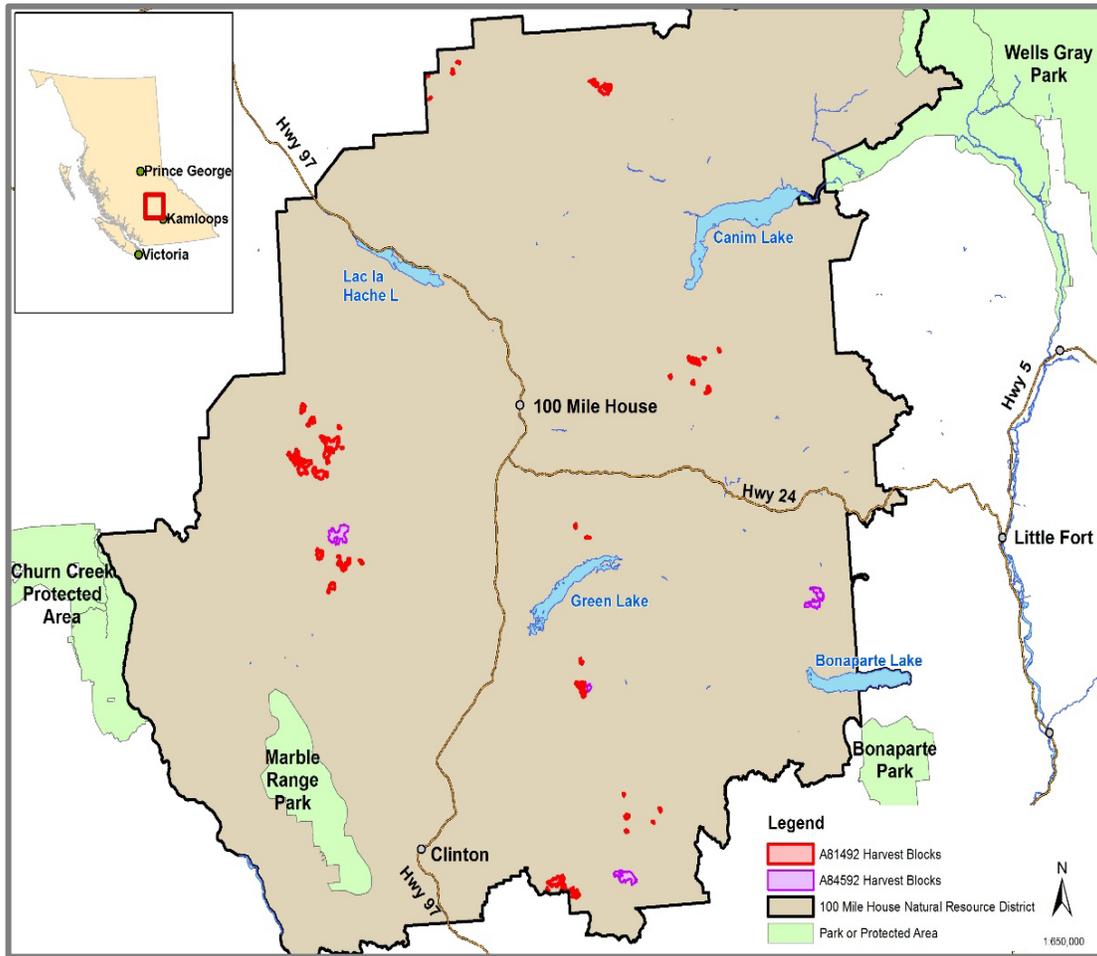
## Background

The 100 Mile House Natural Resource District is located in south-central BC and includes the communities of 100 Mile House and Clinton (see map on page two).

NRFL A81492 was transferred to Norbord on December 11, 2015, and all prior silviculture obligations remained with the previous licensee. NRFL A84592 was issued on January 1, 2015. Both licences are intended for salvage of trees damaged by mountain pine beetle. NRFL A81492 is restricted to stands with at least 80 percent lodgepole pine and 30 percent mountain pine beetle damage. NRFL A84592 is restricted to stands with at least 80 percent bark beetle damage and a maximum piece size of 0.22 cubic metres.

During the two-year audit period, Norbord harvested approximately 186 000 cubic metres from NRFL A81492 and approximately 110 000 cubic metres from NRFL A84592.

## Map of the Audit Area



## Audit Approach and Scope

This was a full scope compliance audit with a two-year timeframe. All activities carried out between October 1, 2014, and October 21, 2016, were subject to audit, including harvesting, roads, silviculture, wildfire protection and associated planning.

Auditors assessed these activities for compliance with FRPA, the *Wildfire Act*, and applicable regulations. Auditors' work involved interviewing staff, reviewing forest stewardship plans (FSPs)<sup>i</sup> and site plans, assessing silviculture records, and field visits. Sites were accessed by truck and helicopter.

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*.

Three forest professionals, one professional geoscientist, and a chartered professional accountant made up the audit team. The team was in the field from October 17 to 21, 2016.

## Planning and Practices Examined and Findings

### Operational Planning

Auditors examined FSPs and stand-level site plans to ensure that they met legislative requirements and government orders. Auditors also considered site plans during harvesting, road and silviculture field sampling to ensure that they accurately identified site conditions.

The district is covered by the Cariboo-Chilcotin Land Use Plan (CCLUP). The CCLUP was originally established in 1994, and a land use order that legalizes aspects of the CCLUP was declared in 2011. The order contains objectives for a number of important resources, including high value wetlands for moose.

Norbord planned its activities in two separate FSPs; the one for NRFL A81492 remains in effect until May 2018 and, for NRFL A84592, until April 2019.

Auditors had no concerns with operational planning. The FSP and site plans were consistent with FRPA and CCLUP requirements.

### Timber Harvesting

Harvesting was dispersed throughout the district.

During the audit period, Norbord harvested 48 cutblocks, under NRFL A81492, and 4 cutblocks under NRFL A84592.

Auditors examined 23 cutblocks under NRFL A81492 and 4 cutblocks under NRFL A84592.

Salvage harvesting can limit the opportunities for stand level retention. Auditors sampled several cutblocks adjacent to key moose wetlands and found that Norbord protected the wetlands with riparian reserves and wildlife tree retention areas. Norbord also provided structural diversity by retaining deciduous, Douglas-fir and immature trees within cutblocks.

Auditors had no concerns with harvesting and all activities complied with the requirements of FRPA.

### Road Construction, Maintenance and Deactivation

The majority of Norbord's roads are in-block trails and spur roads. The few out-of-block roads were older roads that had been reactivated.

For NRFL A81492, there was a total of 106 kilometres of road—5 kilometres of new road construction, 46 kilometres of road deactivation and 55 kilometres of road maintenance. Auditors examined 4 kilometres of new construction, 32 kilometres of deactivation and 35 kilometres of maintenance.

For NRFL A84592, there was a total of 28 kilometres of road—no new road construction, 22 kilometres of road deactivation and 6 kilometres of road maintenance. Auditors examined 22 kilometres of deactivation and 6 kilometres of maintenance.

The roads were mostly low risk with respect to terrain issues and fisheries' values.

There are no bridges or major structures associated with either of the licences. Auditors had no concerns with road construction, maintenance or deactivation.

### **Silviculture Activities and Obligations**

Norbord started harvesting on these licences less than two years ago and has not yet completed any planting, nor were any silviculture obligations due during the audit period.

Norbord site prepared 18 cutblocks on NRFL A81492 and 2 cutblocks on NRFL A84592. Auditors sampled 12 and 2 on each licence, respectively.

Site preparation was a combination of mechanical raking to promote natural regeneration and removal of mistletoe infected trees to reduce infection in the regenerating stand.

Auditors had no concerns with silviculture activities.

### **Wildfire Protection**

The *Wildfire Act* requires licensees to be adequately prepared for a wildfire, and also sets out requirements for fire hazard assessment and abatement.

#### **Fire Preparedness**

Auditors encountered two active sites and both sites had adequate fire tools and hand tanks. Due to freezing temperatures, neither contractor had water tanks on site; however, with the low danger class (1) and wet conditions, the water delivery system was adequate for the fire risk.

#### **Fire Hazard Assessment**

The *Wildfire Act* requires licensees to assess the fire hazard at specified intervals, including an assessment of the fuel hazard and its associated risk of a fire starting or spreading.

Auditors sampled eight hazard assessments from NRFL A81492 and two hazard assessments from NRFL A84592. For both licences, Norbord did not complete the hazard assessments on time, nor did it assess the risk of fire starting or spreading, which is required under the *Wildfire Regulation*.<sup>ii</sup>

While Norbord is abating the fire hazard as a standard practice, it cannot demonstrate that it has been diligent in assessing the hazard. Not properly completing fire hazard assessments is a non-compliance with legislation. However, this non-compliance is not considered significant because fire hazards are being abated in an effective and timely manner. As a result, this is an area requiring improvement.

Subsequent to the audit, Norbord updated its fire hazard assessment forms to include an assessment of the risk of a fire starting or spreading.

## Fire Hazard Abatement

Norbord either piled or piled and burned the slash on all cutblocks. There were no issues with hazard abatement.

## Audit Opinion

In my opinion, the operational planning, timber harvesting, road construction, maintenance and deactivation, silviculture, and fire protection activities carried out by Norbord Inc. on Non-Replaceable Forest Licences A81942 and A84592, between October 1, 2014, and October 21, 2016, complied in all significant respects with the requirements of the *Forest and Range Practices Act*, the *Wildfire Act* and related regulations, as of October 2016.

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.

Without qualifying my opinion, I draw attention to the *Wildfire Protection* section of the report, which describes an area requiring improvement related to fire hazard assessment.

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  
February 21, 2017

# Appendix 1: Forest Practices Board Compliance Audit Process

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## 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* (WA). Compliance audits examine forest or range planning and practices to determine whether or not they meet FRPA and/or WA requirements.

## Selection of auditees

The Board conducts about eight or nine compliance audits annually. Most of these are audits of agreement holders. The Board also audits the government's BC Timber Sales Program (BCTS). This section describes the process for selecting agreement holders to audit.

To begin with, auditors randomly select an area of the province, such as a 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, we choose the auditee(s) that best suits the selected risk and priorities. The audit selections are not based on past performance.

For example, in 2010, the Board randomly selected the Mackenzie District as a location for an audit. After assessing the activities within that area, we discovered that a large licensee had recently closed operations due to financial problems. As the Board has expressed concern in the past about financially strapped companies failing to meet outstanding obligations, such as reforestation and road maintenance, and we knew that some of the licence area is very remote, a new licence holder was selected for audit.

For BCTS audits, a district within one of the 12 business areas within the province is selected randomly for audit.

## Audit Standards

Audits by the Board are conducted in accordance with the auditing standards developed by the Board. These standards 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.

Audit fieldwork includes assessments of specific features using helicopters and ground procedures, such as measuring riparian reserve zone width. The audit teams generally spend one week in the field.

## **Evaluating the Results**

The Board recognizes that compliance with the many requirements of FRPA and WA, 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 legislated 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 WA requirements.

***Unsound Practice*** – where the auditor identifies a significant practice that, although found to be in compliance with FRPA or WA, 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, events that are considered not significant non-compliance 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 many non-compliance events.

If it is determined that a significant breach 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 and Natural Resource Operations.

## Reporting

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

Once the auditor submits the draft report, the Board reviews it 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 then reviews the draft report from the auditor and the representations from parties that may potentially be adversely affected before preparing its final report. Once the representations have been completed, the report is finalized and released: first to the auditee and then to the public and government.

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<sup>i</sup> 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.

<sup>ii</sup> Wildfire Regulation sec11(2) and (3) for timing and (4) for content of hazard assessment.

sec11(2) Subject to subsection (3.1) of this section, the prescribed intervals, at which persons described in section 7 (1) of the Act must conduct fire hazard assessments, are

- (a) 3 month intervals during the period in which the persons are carrying on the industrial activity or the prescribed activity in an area inside, or within 2 km of, the boundaries of
  - (i) a local government under paragraphs (d) to (f) of the definition of "local government" in section 1 of the Act, or
  - (ii) a fire protection district in a regional district, and
- (b) the shorter interval between the most recent 3 month interval and the date on which the activity ceases for an expected period of 3 months or more.

(3) Subject to subsection (3.1) of this section, the prescribed intervals, at which persons described in section 7 (1) of the Act must conduct fire hazard assessments, are

- (a) 6 month intervals during the period during which the persons, in any area other than the area described in subsection (2), are carrying on the industrial activity or the prescribed activity, and
- (b) the shorter interval between the most recent 6 month interval and the date on which the activity ceases for an expected period of 6 months or more.

(3.1) The prescribed intervals, at which a person described in section 7 (1) of the Act who is a qualified holder must conduct fire hazard assessments, are the intervals

- (a) set out in subsection (2) or (3) of this section, as applicable, or
- (b) specified by a professional forester or a registered forest technologist.

(4) A person required to conduct a fire hazard assessment under section 7 (1) of the Act must

- (a) ensure that the fire hazard assessment includes an assessment of the fuel hazard and its associated risk of a fire starting or spreading, and
- (b) provide a copy of the fire hazard assessment when requested to do so by an official.



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