



**Forest
Practices
Board**

Audit of Forest Planning and Practices – Canadian Forest Products Ltd.

Tree Farm Licence 14

FPB/ARC/194

October 2016

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

For its fourth compliance audit of 2016, the Board randomly selected the Rocky Mountain Natural Resource District for the location of a full scope compliance audit. Within the district, the Board selected Tree Farm Licence (TFL) 14, held by Canadian Forest Products Limited (Canfor).

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



The Bobbie Burns River Valley in TFL 14.

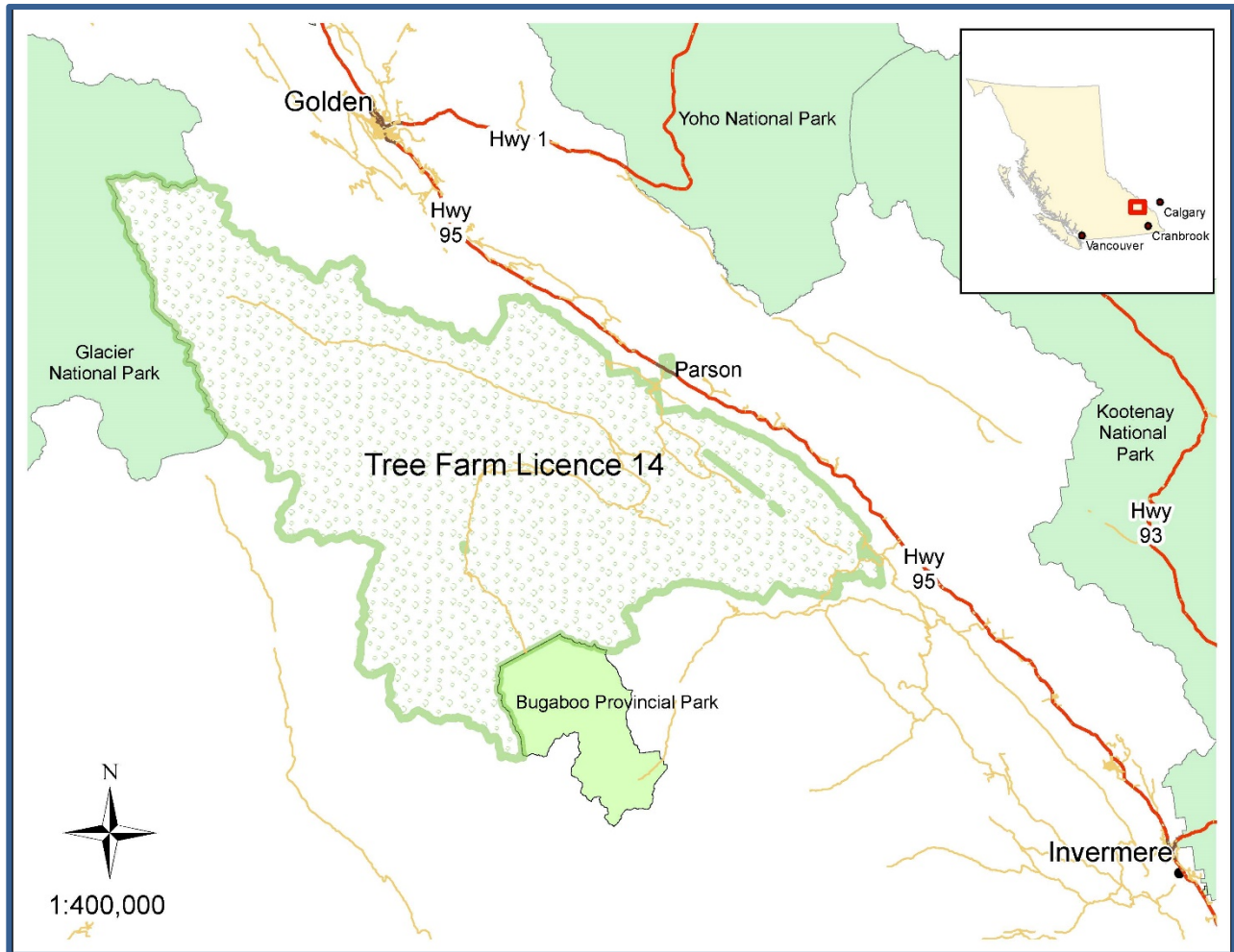
Background

TFL 14 is located south of Golden and northwest of Invermere in the East Kootenays. It is bounded to the northwest by Glacier National Park and to the south by Bugaboo Provincial Park. The Spillimacheen River, Bobbie Burns Creek and Vowell Creek are the main watersheds of the TFL. A map of the audit area appears on page 2.

The main tree species found in the TFL are lodgepole pine, Douglas-fir, Engelmann spruce, and subalpine fir. Canfor's allowable annual cut from the TFL is 180 000 cubic metres.

Canfor purchased TFL 14 from Tembec Inc. in 2012. Canfor manages the TFL from Radium Hot Springs, where it has a sawmill.

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 July 1, 2014, and July 15, 2016, were subject to audit, including harvesting, roads, silviculture, wildfire protection and associated planning.

Auditors assessed these activities for compliance with the *Forest and Range Practices Act* (FRPA), the *Wildfire Act* (WA) and applicable regulations. Auditors' work involved interviewing Canfor staff and contractors, reviewing the forest stewardship plan and site plans, assessing silviculture records, and field visits. Field 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 engineer, and a chartered professional accountant made up the audit team. The team was in the field from July 11 to 15, 2016.

Planning and Practices Examined and Findings

Operational Planning

Canfor's 2006 forest stewardship planⁱ (FSP) for TFL 14 guides its activities. The FSP was originally prepared by Tembec Inc., the previous tenure holder. To date, the FSP has been amended 21 times.

Government has established land use objectives for the operating area through the Kootenay Boundary Higher Level Plan (KBLUP) Order. The order gives legal status to landscape units, biodiversity emphasis options (with specific old and mature forest retention targets), connectivity corridors, caribou management areas, scenic corridors, and enhanced resource development zones. All aspects of the KBLUP pertinent to forest management are embodied in the FSP.

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

There were no concerns with operational planning. The FSP and site plans were consistent with FRPA requirements. The FSP clearly specified measurable and verifiable targets.

Timber Harvesting

Canfor harvested 50 cutblocks during the audit period and auditors examined 49 of them.

Harvesting conformed with operational plans. The site plans accurately identified resource features and specified how those features would be protected. Streams requiring reserves were either excluded from blocks or protected with appropriate reserves consistent with FRPA requirements. Natural surface drainage patterns were maintained.

Soil disturbance was well managed and was well within the limits set in FRPA. Wildlife tree patches were retained as prescribed in all cases. Additional retention, made up of either individual trees or small groups, was prescribed in 19 cutblocks and was retained.

Eight cutblocks were located near Highway 95 in areas with established visual quality objectives (VQOs). VQOs were addressed effectively through a combination of careful orientation of block boundaries, strategic location of wildlife tree patches, and aggregate and individual tree retention.

In summary, there were no concerns with harvesting and all activities complied with the requirements of FRPA.

Road Construction and Maintenance

Table 1 shows the roads maintained and constructed by Canfor during the audit period and the amount sampled by the auditors.

Table 1. Road activities – population and sample.

	Population (kilometres)	Sample (kilometres)
Road permit road construction	60	48
Road permit road maintenance	1039	321
Forest service road maintenance	152	110

Road Construction

Construction difficulty ranged from low risk, flatter terrain to a few areas of steeper but stable terrain. Natural surface drainage was well maintained with adequate culvert sizing and placement. Some culverts were over-sized as a precautionary measure. In-block roads constructed during the winter months showed minimal disturbance. There were no concerns with road construction practices.

Road Maintenance

Safety is a priority for Canfor and all road systems were identified with road name, kilometre signs and radio frequencies. Contractors and staff conduct regular road inspections and record the results in an electronic road maintenance system. Any required maintenance is identified as an action item and responsibility is assigned to an individual. No issues were identified with road maintenance during the audit.

Deactivation

While Canfor seasonally deactivates in-block roads and road-permit roads where necessary, it did not permanently deactivate any roads within the TFL during the audit period.

Bridges

Canfor installed four bridges during the audit. Auditors examined all four in the field and reviewed all of the required documentation.

The structures were well built and all documentation was accurate and complete. There were no concerns with bridge construction.

Within the TFL, Canfor is responsible for maintaining 30 bridges on road permit roads and 20 bridges on forest service roads. Auditors examined 17 road permit structures and 13 forest service road structures. There were no maintenance issues identified.

Canfor has implemented a bridge registry system that tracks all bridge and larger culvert components over time. This is efficient and necessary in a situation where a portable bridge is removed and reinstalled elsewhere. The system helps to ensure that bridges and engineered culverts are planned, installed, maintained and deactivated consistent with legislated requirements.

In summary, there were no concerns with road and bridge construction and maintenance.

Silviculture Activities and Obligations

Canfor planted 78 cutblocks and brushed 105 sites during the audit period. Auditors examined 20 planted blocks and 24 brushed sites. All planted cutblocks met the chief forester's guidance for seed transfer, meaning that sites were planted with trees grown from an appropriate seed source. Multi-species planting is Canfor's standard practice and most blocks were planted with at least three species—usually Douglas-fir, western larch and lodgepole pine.

Brushing treatments are done manually and no herbicides are used. The brushing program is adequately protecting crop trees and riparian reserves. Records and field observations reflect a well-organized and effective brushing program.

For silviculture obligations, auditors examined 31 of the 80 cutblocks due for free-growing. All blocks clearly met free-growing criteria. Auditors also examined 20 of the 123 blocks due to be regenerated and found no issues. The juvenile tree performance in sampled blocks was good.

In summary, there were no concerns with silviculture activities or obligations. Field observations and a review of relevant records reflect a well-run silviculture program.

Wildfire Protection

Fire Preparedness

Auditors encountered one active site and assessed it for compliance with fire preparedness requirements. All workers were adequately prepared for a wildfire and knowledgeable about danger class. There were two functional water delivery systems on site.

Canfor has a system that emails staff with daily fire weather information. The report provides the danger class rating for each weather station and also the requirements, such as fire watch, that must be implemented based on the rating.

Fire Hazard Assessment

The WA requires licensees to assess the fire hazard, including an assessment of the fuel hazard and its associated risk of a fire starting or spreading. Canfor did not assess fire hazard for the majority of the blocks in the harvest population. Its standard practice is to pile and burn slash. Without documenting the fire hazard assessment, it could be difficult for Canfor to demonstrate that it has been diligent in identifying any fire hazards.

Canfor was aware of this issue—an internal Canfor audit in April 2016 identified the lack of fire hazard assessments as an issue. Canfor is in the process of developing a procedure for fire hazard assessment that can be used across its regions. Although the procedure had not yet been developed and implemented at the time of the audit, Canfor had assessed the fire hazard for seven cutblocks since May 2016.

While Canfor intends to address this issue, auditors find that fire hazard assessment is an area requiring improvement.

Fire Hazard Abatement

Slash was either piled or piled and burned on completed cutblocks. Canfor scans the piles to determine if any are still hot after burning. There were no issues with hazard abatement.

Audit Opinion

In my opinion, the operational planning, timber harvesting, road and bridge construction and maintenance, silviculture, and fire protection activities carried out by Canadian Forest Products Ltd. on TFL 14 between July 1, 2014, and July 15, 2016, complied in all significant respects with the requirements of the *Forest and Range Practices Act*, the *Wildfire Act* and related regulations, as of July 2016. No opinion is expressed with respect to 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.

Without qualifying my opinion, I draw attention to the *Wildfire Protection* section of this report, which describes an area requiring improvement regarding 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 WA.



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Victoria, British Columbia
September 13, 2016

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 (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, the new licence holder was selected for audit.

For BCTS audits, a district within 1 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 from the timber harvesting population and all road sections constructed from 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 features using helicopters and ground procedures, such as measuring specific features like 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.

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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