



**Forest  
Practices  
Board**

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

---

*BC Timber Sales and Timber Sale Licence Holders  
Kamloops Business Area, Kamloops Field Unit*

**FPB/ARC/184**

February 2016

# Table of Contents

---

**Audit Results..... 1**

    Introduction ..... 1

    Background..... 1

    Audit Approach and Scope..... 2

    Planning and Practices Examined ..... 3

    Findings ..... 4

    Audit Opinion ..... 6

**Appendix 1: Forest Practices Board Compliance Audit Process ..... 7**

# 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* (FRPA) and the *Wildfire Act* (WA).

As part of its 2015 compliance audit program, the Forest Practices Board randomly selected the Kamloops field unit portion of BC Timber Sales' (BCTS) Kamloops Business Area for audit, located in the Thompson Rivers District. A map of the audit area appears on page 2.

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



Timber harvesting west  
of Little Fort.

## Background

BCTS operates in 30 operating areas in the Kamloops field unit. The operating areas are within the Thompson River drainages and near the communities of Kamloops, Cache Creek, Chase, Little Fort and Barriere, and include Kamloops, Bonaparte and Adams lakes.

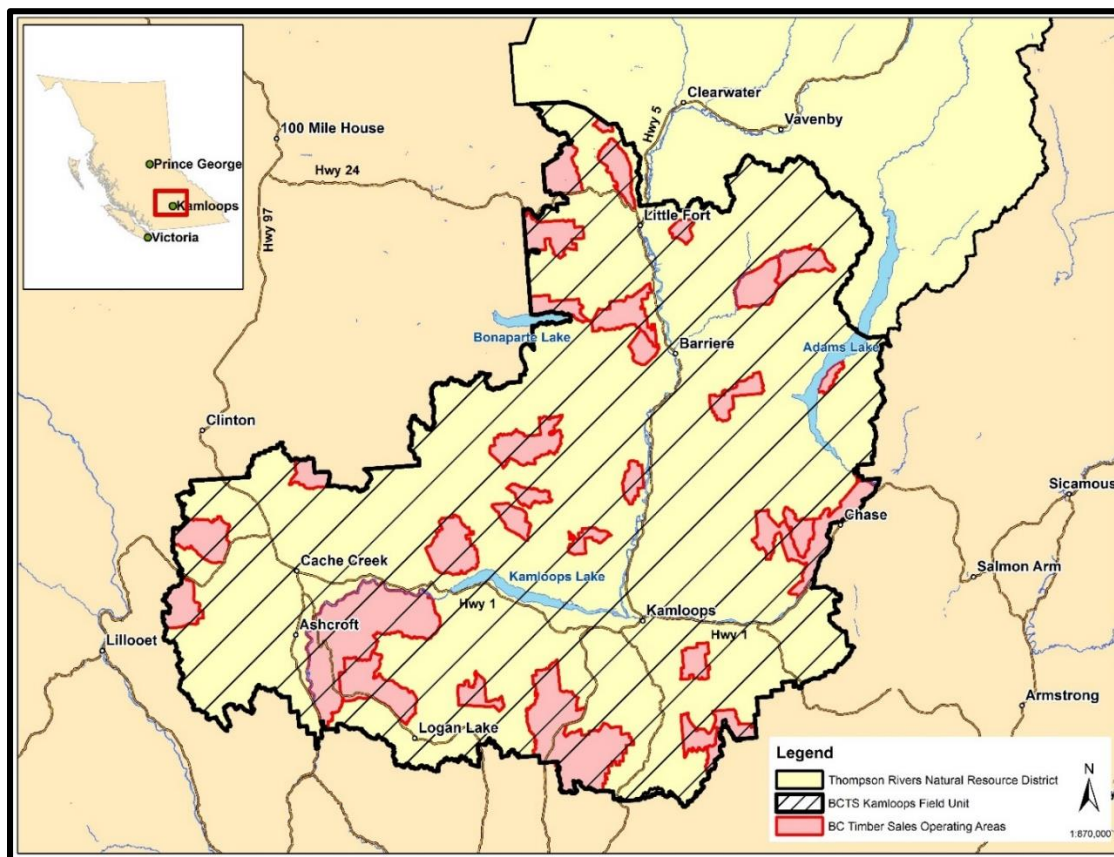
BCTS's volume apportionment in this field unit is 525 000 cubic metres per year and timber sale licence holders harvested about 265 000 cubic metres during the audit period.

The field unit contains extensive grasslands and forests that together provide forest products, forage for livestock, and habitat for various wildlife species. Numerous rivers, lakes and streams support many species of fish and are water sources for ecological, domestic and agricultural needs. Small parks, private resorts, recreation sites and trails provide opportunities for outdoor activities, including Sun Peaks Ski Resort and Stump Lake recreation area.

Forest stands are dominated by Douglas-fir, lodgepole pine, spruce and subalpine fir. BCTS primarily focused on the salvage of mountain beetle infected pine stands during the audit period.

BCTS manages its activities from Kamloops, where staff prepares operational plans, auctions timber sales and issues timber sale licences and road permits. Successful bidders are awarded a timber sale licence and must fulfill licence, permit and operational plan obligations, including timber harvesting and road work, within cutblocks.

## Map of the Audit Area



## Audit Approach and Scope

This was a full scope compliance audit that included all activities carried out between May 1, 2014, and May 29, 2015, by BCTS and timber sale licence holders.

BCTS is responsible for operational planning, including preparing forest stewardship plans<sup>i</sup> (FSP) and site plans, silviculture activities, major structure<sup>ii</sup> maintenance and construction, and some road construction, maintenance and deactivation outside of cutblocks.

Timber sale licensees are responsible for timber harvesting, fire protection, and most road construction, maintenance and deactivation within cutblocks.

Auditors assessed these activities for compliance with FRPA, the WA and applicable regulations. The standards and procedures used to carry out this audit are set out in the Board's *Compliance Audit Reference Manual, Version 7.0*, September 2012.

Three forest professionals, one professional engineer, and a chartered professional accountant made up the audit team. The team was in the field with BCTS staff from May 25 to 29, 2015. Sites were accessed by truck and by helicopter.

## **Planning and Practices Examined**

### **BCTS Responsibilities**

#### **Operational Planning**

BCTS planned activities in its 2011 FSP, which remains in effect until 2016. The FSP and stand-level site plans were examined to ensure that they met legislative requirements. Auditors also examined site plans during harvesting, road and silviculture field sampling to ensure that they accurately identified site conditions.

The Kamloops Land and Resource Management Plan (KLRMP) covers the field unit area. BCTS included objectives specified in the KLRMP and relevant to the field unit in the FSP. Relevant government orders (e.g., the Opax-Isobel Research Order), were either referenced in, or form part of, the FSP.

#### **Road & Major Structure Construction, Maintenance and Deactivation**

During the audit period, BCTS constructed 7.5 kilometres of road and 1 bridge and had maintenance obligations on 1152 kilometres of forest service road and 37 bridges and major structures. BCTS did not deactivate any roads during the audit period.

Auditors examined all 7.5 kilometres of constructed road, 483 kilometres of maintained road, the installed bridge and 28 of the maintained bridges and structures.

#### **Silviculture Activities and Obligations**

BCTS planted 70 cutblocks and brushed 4 cutblocks during the audit period. Site preparation for planting was done on 31 cutblocks. Regeneration obligations were either declared or due on 71 cutblocks and free-growing obligations were either declared or due on 82 cutblocks.

Auditors examined 15 planted cutblocks, 3 brushed cutblocks, 15 site prepared cutblocks, 15 cutblocks with regeneration obligations and 25 cutblocks with free-growing obligations. Auditors assessed conformance with the Chief Forester's Seed Transfer Guidelines for all 15 planted cutblocks.

Auditors also checked whether BCTS had met its annual reporting requirements for all of the examined cutblocks.

### **Timber Sale Licensee Responsibilities**

#### **Timber Harvesting**

Nineteen timber sale licensees harvested 52 cutblocks, covering 1729 hectares. Auditors examined 21 of the cutblocks, harvested by 17 licensees, totaling 1006 hectares.

#### **Road Construction, Maintenance, Deactivation**

Timber sale licensees constructed 63 kilometres of road and maintained 225 kilometres of road.

Auditors examined 23 kilometres of constructed road and 140 kilometres of maintained road.

Licensees deactivated 34 kilometres of road, of which auditors examined 12 kilometres. There were no new bridges or major structures built by licensees during the audit period.

## **Fire Protection**

Four work sites were active during the field audit. Auditors examined all four sites for compliance with the WA fire preparedness requirements. Hazard assessments were due or completed on 72 cutblocks during the audit period, and auditors sampled 20 of these cutblocks. Hazard abatement was due or completed on 52 cutblocks and auditors sampled 10 of these cutblocks. They also sampled another 44 cutblocks where abatement was conducted but not due during the audit period.

## **Findings**

The auditors found that BCTS's planning and activities fully complied with FRPA and the WA as of May 2015. Timber sale licence holders generally complied with FRPA and the WA, but auditors identified an area requiring improvement related to the maintenance of natural surface drainage patterns.

## **BCTS Responsibilities**

### **Operational Planning**

Planning was consistent with the FSP and legislative requirements. The FSP met the legal content requirements and addressed the legal orders that apply to forest practices in the audit area.

BCTS addressed site specific resources by accurately identifying and prescribing practices for various resource features in the site plans. Resource features common in this area include water licences, range barriers, scenic areas, fish streams, invasive plants and sensitive soils. For example, government requires licensees to take specific measures to protect water quality. Such measures include contacting potentially affected water licensees to solicit their input regarding practices to protect water quality and including the practices in site plans, and notifying licensees when road construction or timber harvesting is to occur within a 100-metre radius of their water intake. BCTS's site plans and referral records show that they carried out these measures.

### **Road & Major Structure Construction, Maintenance and Deactivation**

#### ***Construction***

BCTS used conventional cut and fill construction techniques on relatively flat ground and auditors found roads were well-built. Natural drainage patterns were maintained both during construction and on completed road sections.

For the constructed bridge, auditors reviewed the new bridge design and certification documentation and found it was complete. Auditors found the bridge was built to the designed standard and it had no structural, safety, environmental or maintenance issues.

#### ***Maintenance***

BCTS has a system for risk rating road sections and assigning an inspection frequency, with higher risk roads inspected more frequently. The forest service roads that BCTS is responsible for have been adequately maintained to retain the structural integrity of the prism. All culverts inspected were functional and natural drainage patterns were maintained.

Major structures on forest service roads are periodically inspected by government engineers and BCTS is responsible for any surface maintenance items identified during the inspections. The 28 bridges sampled were generally well maintained and no structural issues were found by auditors.



### ***Deactivation***

BCTS did not deactivate any roads during the audit period.

### **Silviculture Activities and Obligations**

BCTS site prepared cutblocks, planted them with suitable seedlings and met its current regeneration and free-growing obligations. BCTS also met the annual reporting requirements by submitting the required information on time and to the standard required by the government. There were no concerns with silviculture planning, reporting or practices.

### **Timber Sale Licensee Responsibilities**

#### **Maintenance of Natural Drainage – TSL A91334, held by Gane Enterprises Inc. (Gane)**

Gane constructed a 500-metre long road to access a cutblock, and constructed a forwarding trail above the road to process and load logs for hauling.

Auditors found that Gane did not maintain natural drainage patterns along the length of the road and trail. Instead of flowing across the road, water flowed down the ditch-line and into the forest, where the water and sediment settled on an old trail located 10-metres upslope from a small fish-bearing stream.

FRPA requires a person who builds a road to maintain natural surface drainage patterns on the road, both during and after construction, which was not done in this case and Gane is therefore in non-compliance. However, since the resulting sediment settled above the stream, this non-compliance is not significant and is considered an area requiring improvement.

Subsequent to the audit, Gane deactivated the road and rehabilitated the trail to restore natural drainage.

### **Harvesting**

Timber sale licensees conducted harvesting activities in accordance with the requirements of legislation and site plans. Soil disturbance was well managed and within limits, and riparian features were protected.

### **Road Construction, Maintenance and Deactivation**

Timber sale licensees built short spur roads and in-block roads to access cutblocks. In general, the licensees maintained natural surface drainage and seeded exposed soil. Notably, the licensees rehabilitated most in-block roads after harvest, meaning that the soil was de-compacted, re-contoured and covered with slash. These roads are now ready to be planted.

With the exception of the road discussed above, there were no concerns with road construction, maintenance or deactivation.

### **Fire Protection**

At the four active harvesting operations examined, workers were adequately prepared with the appropriate equipment for fighting a wildfire and the licensees met the fire preparedness requirements of the WA.

The WA requires licensees to assess and document the fuel hazard and the risk of a fire starting or spreading at specified intervals during timber harvesting. All licensees met these requirements for the 20 cutblocks sampled.

If the assessment identifies a hazard, it must be abated within the required time frame. Hazard abatement activities included stump removal, disc trenching, installing fuel breaks and piling and burning slash. All timber sale licensees piled slash in a safe location and burned it within the required time frame, when safe to do so, as part of their standard practices.

Auditors found that all timber sale licensees met their assessment and abatement obligations.

## Audit Opinion

In my opinion, the operational planning, timber harvesting, road construction, deactivation and maintenance, silviculture, and fire protection activities carried out by BC Timber Sales and its timber sale licensees in the Kamloops field unit portion of BC Timber Sales' Kamloops Business Area, between May 1, 2014, and May 29, 2015, complied in all significant respects with the requirements of the *Forest and Range Practices Act*, the *Wildfire Act* and related regulations, as of May 2015.

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 *Timber Sale Licensee Responsibility - Maintenance of Natural Drainage* section of the report, which describes an area requiring improvement related to the maintenance of natural surface drainage.

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. Such an audit includes examining sufficient forest planning and practices to support an overall evaluation of compliance with FRPA, and WA.



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

Victoria, British Columbia  
November 2, 2015

---

<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> Major structure includes bridges and major culverts.

- 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.
- 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.

[http://www.for.gov.bc.ca/hth/engineering/documents/publications\\_guidebooks/manuals\\_standards/Eng-Manual.pdf](http://www.for.gov.bc.ca/hth/engineering/documents/publications_guidebooks/manuals_standards/Eng-Manual.pdf)



# 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. 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.

The Board also audits the government's BC Timber Sales Program (BCTS). 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 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.

***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.

***Unsound Practice*** – where the auditor identifies a significant practice that, although they are found to be in compliance with FRPA or WA, are considered to not be sound management.

***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.



**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](http://www.bcfpb.ca)