



**Forest  
Practices  
Board**

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

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*BC Timber Sales and Timber Sale Licence Holders  
Morice Timber Supply Area  
Babine Business Area*

**FPB/ARC/176**

March 2015

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# Audit Results

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## Background

As part of the Forest Practices Board's 2014 compliance audit program, the BC Timber Sales (BCTS) program and timber sale licence (TSL) holders in the Morice Timber Supply Area (TSA) portion of the BCTS Babine Business Area in the Nadina District was randomly selected for audit.

The Morice TSA is situated on the western edge of British Columbia's central interior plateau, extending from the most northerly tip of Babine Lake in the north, to Ootsa and Whitesail Lakes in the south. It is about 1.5 million hectares in size, of which approximately 932 000 hectares is Crown forest land. The TSA has a gentle, rolling landscape in the north and east that becomes more mountainous in the southwest. The TSA is bisected by Highway 97 and the two main population centres are Houston and Granisle.

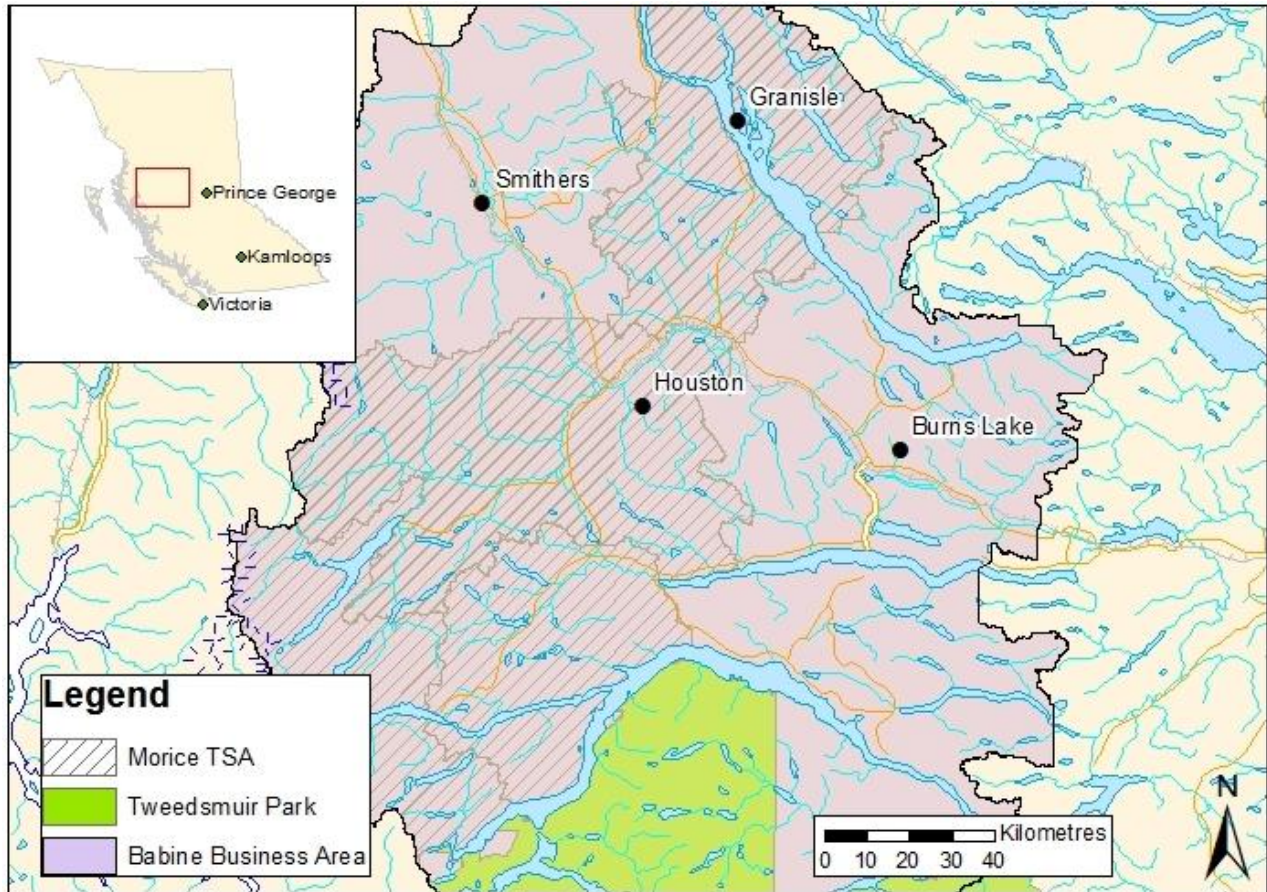
The working forests and the numerous parks within the TSA are used for a wide range of commercial and recreational activities. Commercial activities include forestry, mining and ranching. Outdoor recreation and tourism activities include mountain biking, all terrain-vehicle use, hiking, hunting, fishing, camping, boating, cross-country skiing and snowmobiling. Some of the specific resource values BCTS must address within and adjacent to its operating area are cultural and heritage values of the eight First Nations that have traditional territories within the Morice TSA, range tenures, permitted and non-permitted recreation sites and trails, designated scenic areas and approved visual quality objectives, and wildlife habitat, including mountain goat, caribou and goshawk.

The Morice TSA has an allowable annual timber harvest of 2 137 000 cubic metres, of which 339 410 cubic metres is allocated to BCTS. During the two-year audit period, BCTS harvested about 667 000 cubic metres, of which 67 percent (about 445 000 cubic metres) was lodgepole pine. BCTS conducts operations in 10 geographically separate operating areas over 12 landscape units.

The audit team consisted of a professional forester, a professional forester/agrologist, a professional engineer and a chartered accountant. Field work was initially planned for July 2014, but, due to wildfires in the area at the time, was carried out from September 22 to 25, 2014.

Additional information about the Board's compliance audit process is provided in Appendix 1.

## MAP OF BCTS BABINE BUSINESS AREA AND THE MORICE TSA



*Harvesting near Chisholm Lake south of Houston*

## Audit Approach and Scope

Auditors examined both BCTS's and TSL holders' obligations and activities, using a combination of detailed field reviews and aerial overviews.

BCTS is responsible for operational planning, including preparing forest stewardship plans<sup>1</sup> (FSP) and site plans; silviculture activities; bridge<sup>2</sup> construction, maintenance and removal; and, most 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.

These activities were assessed for compliance with the *Forest and Range Practices Act* (FRPA), the *Wildfire Act* (WA) and related regulations, and the Morice Land and Resource Management Plan<sup>3</sup>. All activities, planning and obligations for the period July 1, 2012, to September 25, 2014, were included in the scope of the audit.

The Board's audit reference manual, *Compliance Audit Reference Manual, Version 7.0, September 2012* set out the standards and procedures that were used to carry out this audit.

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<sup>1</sup> A map-based, landscape-level view of potential forest development activities that are intended to take place on the area described in the plan, over a period of up to five or, if extended, up to 10 years. Under British Columbia law, persons (i.e., industry and the Crown agency, BC Timber Sales) must have authorization from the province before they are permitted to harvest Crown timber or build roads. To obtain that authorization, they must first submit an FSP for review and approval. A forest stewardship plan must address objectives set by government to preserve the integrity of the environment and to enable sustainable commercial forest and rangeland practices. Tenure holders address these objectives by crafting results or strategies, which are required to be measurable and enforceable, contributing to effective compliance and enforcement by government.

<sup>2</sup> Bridges include 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)

<sup>3</sup> The Morice LRMP is a sub-regional plan that provides strategic direction for the management and use of all provincially administered lands and resources in the Morice TSA. This direction is also intended to guide operational plans such as Forest Stewardship Plans and management plans developed by commercial recreation tenures.



## Planning and Practices Examined

### BCTS Responsibilities

#### Operational Planning

BCTS planned its activities under an approved FSP, *BCTS Babine Business Area Forest Stewardship Plan for the Nadina Forest District*.

The FSP and stand-level plans were examined to ensure they were consistent with legislative requirements. Stand-level plans were evaluated during harvesting, road and silviculture field sampling to ensure that they accurately identified site conditions.



*BCTS retained vegetation adjacent to streams and wetlands and retained deciduous stems where possible.*

#### Road Construction, Maintenance, and Deactivation

During the audit period, BCTS constructed 7 kilometres, maintained 813 kilometres and deactivated 21 kilometres of road. It also installed 1, upgraded 2, and removed 1 bridge, and maintained 61 bridges and 8 major culverts.

Auditors examined all of the road construction, 295 kilometres of maintained roads, all deactivated road, the installed bridge, the removed bridge and the maintenance of 31 bridges and 2 major culverts.

#### Silviculture Activities and Obligations

BCTS planted 64 cutblocks and did not conduct any other silviculture activities during the audit period. Regeneration obligations were due on 82 cutblocks and free-growing obligations were due on 100 cutblocks.

Auditors examined 7 planted cutblocks, 24 cutblocks with regeneration obligations due, and 18 cutblocks with free-growing obligations due.

### Timber Sale Licence Holders' Responsibilities

#### Timber Harvesting

Timber sale licensees fully or partially harvested 27 cutblocks during the audit period. All harvesting was done using ground-based systems.

Auditors examined harvest activities on 13 cutblocks.

#### Road Construction, Maintenance and Deactivation

Timber sale licensees constructed 64 kilometres of road and had maintenance obligations on all of the constructed roads. TSL holders did not deactivate any roads.

Auditors examined 48 kilometres of road construction and maintenance.

## Fire Protection

Auditors examined fire hazard and abatement activities and obligations on all of the harvested cutblocks in the harvest sample population.

## Findings

The audit found that the planning and field activities undertaken by BCTS and the TSL holders complied in all significant respects with the requirements of FRPA, WA and related regulations, as of September 2014.

## BCTS Responsibilities

### Operational Planning

Planning activities were consistent with the FSP and legislative requirements. BCTS accurately identified resource values in its site plans and prescribed management practices for them.

### Road Construction, Maintenance and Deactivation

#### *Road Construction*

All road construction was field reviewed and no issues were observed. Roads were in approximately the same location as mapped and were well constructed. Natural drainage patterns were maintained, there were no instances of cut or fill slope failures, and subgrades were stable.

Auditors reviewed the single bridge that was installed during the audit period. Documentation was complete and prepared by the regional engineer with the Ministry of Forests, Lands and Natural Resource Operations (FLNR). The bridge was constructed according to plan and no issues were identified.



*Road and bridge maintained by BCTS.*

#### *Road Maintenance*

BCTS has a well-documented tracking system in place for all roads it is responsible for maintaining. No issues were identified with respect to road maintenance. Many of these road corridors were reviewed from helicopter and appeared to be stable with drainage systems functioning and natural drainage patterns maintained. No evidence of excessive surface or ditch line erosion was noted.

Auditors determined that all bridges reviewed were well maintained. BCTS conducts inspections of the structures and all inspections are maintained within the FLNR Corporate Bridge Registry and accessed by the BCTS engineering staff when required.

### **Road Deactivation**

Auditors did not identify any concerns with road deactivation activities. All deactivated roads appeared stable and natural drainage patterns were re-established.

No issues were identified for the bridge that was removed. BCTS left a quad trail crossing upstream of the site for access, and has blocked and signed the main approach.

### **Silviculture Activities and Obligations**

BCTS actively managed silviculture activities and obligations and carried out silviculture treatments where needed in a timely fashion. The silviculture activities audited included planting, regeneration delay and free-growing obligations.

The auditors did not identify any issues with the 7 planted cutblock, the 18 cutblocks with free-growing obligations due or 23 of the 24 cutblocks with regeneration obligations due. BCTS did not meet regeneration delay on 1 cutblock but this cutblock was surveyed in 2014 and will be declared fully stocked prior to spring 2015.



*Free-growing stand near McBride Lake.*

### **Timber Sale Licence Holders' Responsibilities**

#### **Harvesting**

The audit found that harvesting was conducted in accordance with legislative requirements and site plan obligations. The site plan maps accurately identified wildlife tree patches, road locations, streams and their classifications, and ecological units. Most harvesting focused on pine leading stands. In one instance, the timber sale licence holder surrendered the TSL, leaving some of the timber in the cutblock standing. In other areas the timber had been felled and bunched, but not skidded. BCTS has retendered this TSL.



*Buffers were maintained adjacent to wetlands and, where possible, BCTS reserved understory.*



## Road Construction, Maintenance and Deactivation

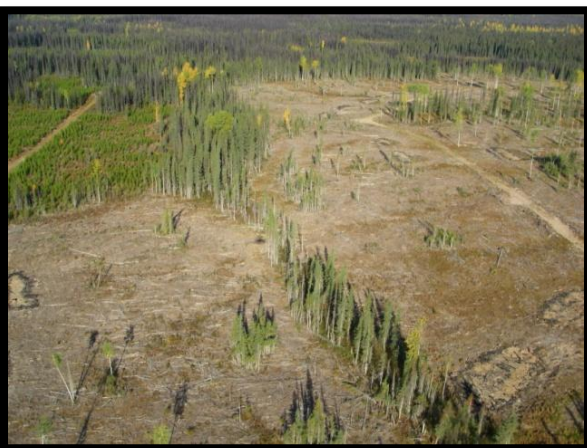
In-block roads were assessed at the time of harvesting evaluations. Auditors did not identify any concerns with road construction or maintenance. Roads were in approximately the same location as mapped, there were no instances of cut or fill slope failures, subgrades were stable, drainage systems were functioning and natural drainage patterns were maintained.

### Fire Protection Activities

Auditors did not encounter any active operations during the field audit, so fire preparedness was not assessed. The auditors observed that logging debris was piled in a manner to facilitate burning and slash abatement was completed within the required time periods.



*An in-block road with the culvert pulled and crossing grass seeded. Logging debris piled to facilitate abatement activities.*



*Logging slash was piled to facilitate burning and where burning had occurred it was considered to be effective.*

## Audit Opinion

In my opinion, the operational planning, timber harvesting, road construction, maintenance and deactivation, silviculture and fire protection activities carried out by BC Timber Sales and its timber sale licence holders in the Morice TSA portion of the Babine Business Area between July 1, 2012, and September 25, 2014, complied in all significant respects with the requirements of the *Forest and Range Practices Act*, the *Wildfire Act* and related regulations, as of September 2014. No opinion is provided regarding fire tools.

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

A handwritten signature in black ink, reading "C R Mosher". The signature is fluid and cursive, with the first letters of each name being capitalized and prominent.

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

Victoria, British Columbia  
February 27, 2015

# 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 8 or 9 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 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.

**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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