



**Forest
Practices
Board**

Forestry Audit: British Columbia Timber Sales

Kamloops Business Area

Merritt Field Unit

FPB/ARC/124

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Audit Results

Background

As part of the Forest Practices Board's 2010 compliance audit program, the British Columbia Timber Sales' (BCTS) program and timber sale licence (TSL) holders in the Kamloops Business Area's Merritt Field Unit, located in the Cascades Forest District, were selected for audit. Forestry activities were administered by the BCTS Kamloops Business Area office located in Merritt (see map on page 2).

BCTS develops Crown timber for auction, offers timber for sale to registrants in the BCTS program, prepares operational plans and issues timber sale licences and road permits. Successful bidders are awarded timber sale licences and must fulfill licence, permit and operational plan obligations, including timber harvesting and roadwork within cutblocks.

BCTS has been allocated an annual timber harvest volume of 595,236 cubic metres in the Merritt and Lillooet Timber Supply Areas (TSAs). During the one-year period of this audit, TSL holders harvested 380,075 cubic metres under the BCTS program.

The Lillooet TSA includes the communities of Lillooet and Lytton, several provincial parks and protected areas, and 19 community watersheds. The Merritt TSA includes the

communities of Merritt and Princeton, is bounded to the south by E.C. Manning and Cathedral Provincial Parks, as well as the Canada-US border, and is popular with recreation enthusiasts. The forests in both TSAs consist predominantly of lodgepole pine and are prone to mountain pine beetle infestations.

BCTS has more than 50 operating areas dispersed throughout the Cascades Forest District, which surround the communities of Merritt, Princeton and Lillooet.

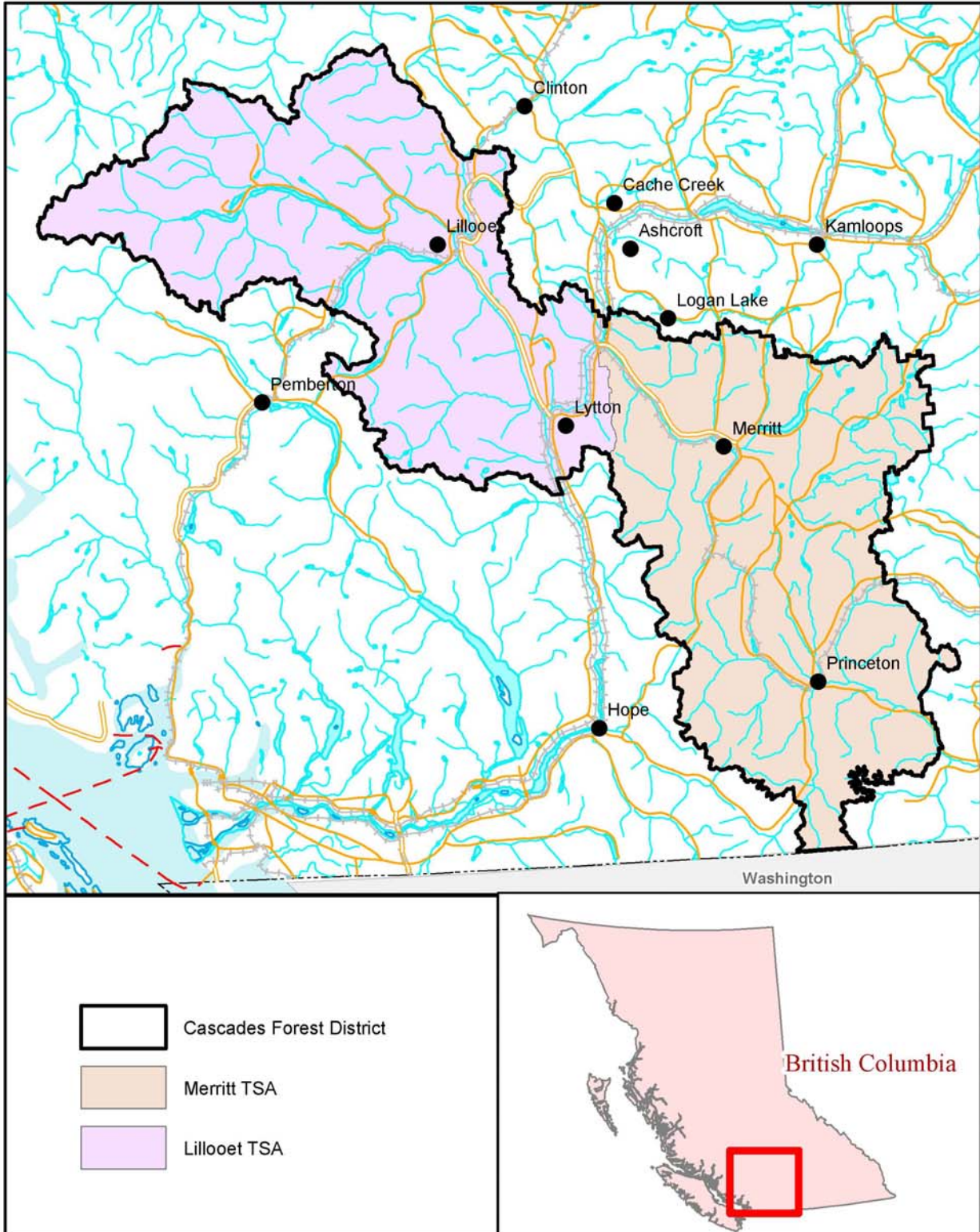
The Board's audit fieldwork took place from September 27 to 30, 2010.

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



A typical cutblock near Merritt.

Audit of Forest Planning and Practices Kamloops Business Area Merritt Field Unit



Land Use Planning

There are no strategic land use plans approved for the Cascades Forest District. Government objectives set out in the *Forest and Range Practices Act (FRPA)* and the *Forest Planning and Practices Regulation (FPPR)* provide strategic guidance to BCTS operations.

BCTS's 2007- 2012 forest stewardship plans (FSPs)ⁱ link forestry operations to FRPA objectives by establishing results and strategies consistent with them.

Audit Approach and Scope

The audit examined both BCTS's and TSL holders' obligations and activities.

BCTS is responsible for operational planning, including preparing FSPs and site plans, silviculture activities, bridge maintenance and construction, and most road construction, maintenance and deactivation outside of cutblocks.

TSL holders are responsible for timber harvesting, fire protection, and most road construction, maintenance and deactivation within cutblocks.

These activities were assessed for compliance with FRPA, the *Wildfire Act (WA)* and related regulations. All activities, planning and obligations for the period July 1, 2009, to August 20, 2010, were included in the scope of the audit.

The Board's audit reference manual, *Compliance Audit Reference Manual, Version 6.0, May 2003*, and the addendum to the manual for the 2010 audit season, set out the standards and procedures that were used to carry out this audit.

Planning and Practices Examined

Activities under BCTS Responsibility

Operational Planning

BCTS conducts its operational planning under two FSPs, entitled *Merritt TSA 2006 FSP* and *Lillooet TSA 2006 FSP*, both approved in March 2007 and amended in April 2009.

The FSPs were examined to ensure that they were consistent with legislated requirements. Planning at the landscape and stand level, and site plans, were evaluated to ensure consistency with the FSP and legislated requirements.

Compliance with site level plans was examined for harvesting, road and silviculture activities.

Road Construction, Maintenance and Deactivation

BCTS built 23 kilometres, maintained 1,254 kilometres and deactivated 34 kilometres of road during the audit period. BCTS constructed 5 new bridges and maintained 75 major drainage structures. No bridges were deactivated during the audit period.

The Board audited 6.5 kilometres of the new road construction, 197 kilometres of road maintenance, 8 kilometres of road deactivation, all 5 new bridges and 23 of the maintained structures.

Silviculture Obligations and Activities

Within the audit period, BCTS brushed 8 cutblocks, site-prepared 7 cutblocks and planted 54 cutblocks. Free-growing obligations were due or declared on 152 cutblocks, and regeneration obligations were due on 69 cutblocks during the audit period.

The board audited 3 brushed cutblocks, 3 site-prepared cutblocks, 15 planted cutblocks, 9 cutblocks with regeneration obligations due and 29 cutblocks with free-growing obligations due, as well as planting surveys on an additional 12 cutblocks.

Activities under Timber Sale Licence Holders' Responsibility

Timber Harvesting

During the audit period, TSL holders harvested 52 cutblocks with a gross area totaling 3,031 hectares. The audit examined 22 of those cutblocks, all of which were harvested with ground-based systems.

Road Construction and Deactivation

The Board audited 6.3 of the 12.5 kilometres of new road construction. No road deactivation was completed by TSL holders during the audit period.

Fire Protection

TSL holders were active on six harvest operations during the field audit, of which three were audited for compliance with the *Wildfire Act*.

Hazard assessments and/or abatement activities were required on 57 cutblocks, of which 38 had been completed by the end of the field audit. The remaining 19 cutblocks are scheduled for the fall, when burning conditions are suitable. The audit examined 18 of the completed cutblocks and 6 of the uncompleted cutblocks.

Findings

The audit found that the planning and forest activities undertaken by BCTS and TSL holders complied in all significant respects with the requirements of FRPA, WA and related regulations, as of August 2010.

Operational Planning

The audit found that BCTS incorporated FRPA objectives into the FSPs and site plans and that forest practices met the measurable results and strategies set out in the FSP.

Planning at the landscape and stand levels, and site plans, were evaluated to ensure consistency with the FSPs and legislated requirements. The FSP was found to be consistent with legislated requirements.

The audit found that BCTS addressed site-specific resources in the site plans by accurately identifying and prescribing practices for resource features, including streams and wetlands, sensitive or unstable soils, wildlife habitat, old growth management areas (OGMAs) and visually sensitive areas.

Timber Harvesting

The audit found that harvesting conducted by the TSL holders was in accordance with the requirements of legislation and site plans. The majority of the logging was done to address the mountain pine beetle.

Riparian

Good riparian management was demonstrated by:

- positioning wildlife tree patches around wetlands, lakes or creeks;
- excluding harvest areas from riparian management zones where practical;
- using forest cover retention strategies in riparian management areas; and
- establishing machine-free zones around streams and wetlands.

Soil Conservation

Sound soil conservation practices were demonstrated by:

- conducting harvest operations during favourable weather to keep soil disturbance low;
- minimizing the area occupied by permanent access structures by using temporary access structures where practical and by using roadside work areas instead of landings; and
- rehabilitating temporary access structures.

Biodiversity

Stand-level biodiversity was addressed by:

- retaining wildlife trees in patches, groups and as individual stems, focusing on non-pine and deciduous species;
- retaining suitable amounts of coarse woody debris; and
- excluding OGMAs from harvest areas or identifying replacement areas when they were harvested to address mountain pine beetle infestations.

Roads and Bridges

No concerns were identified with road and bridge construction, maintenance or deactivation. BCTS's environmental management system for tracking and documentation of environmental mishaps was thorough and any issues identified were dealt with. The audit found that:

- Road maintenance inspections and activities were based on BCTS's risk rating process, which accurately assigned risk to roads, and inspection frequency reflected the level of risk, resulting in stable roads.
- Crossings were removed on large or fish-bearing streams where winter roads were used and roads adjacent to these crossings had been grass seeded.
- All stream crossings were well maintained and in good condition.
- Newly constructed bridges were installed as designed and endorsed by an engineer.
- Deactivation work was done well, with effective cross-ditching, bridge removal, armouring and grass seeding conducted where practical.

Silviculture Obligations and Activities

There were no issues identified with brushing, planting, site preparation, regeneration obligations or free-to-grow obligations during the audit. BCTS maintained accurate silviculture records and conducted timely silviculture activities. BCTS also met government seed-transfer requirements as well as free-to-grow and regeneration obligations within the required time frames.

Fire Protection Activities

Fire hazard assessment and abatement activities complied with the WA and related regulations.

All TSL holders who were audited maintained protection records, including emergency response plans, slash hazard assessments, emergency contacts and abatement plans. They monitored fire danger classes on a daily basis and conducted operations according to fire danger class restrictions. All were found to have sufficient fire tools and water-delivery systems present.

Fuel management was found to be up-to-date with regard to slash pile disposal, with no older, unburned accumulations observed during the audit.

Audit Opinion

In my opinion, the operational planning; timber harvesting; road construction, maintenance and deactivation; silviculture; and fire protection activities carried out by BCTS and its TSL holders in the Kamloops Business Area, Merritt Field Unit, located in the Cascades Forest District, between July 1, 2009, and August 20, 2010, complied in all significant respects with the requirements of the *Forest and Range Practices Act*, the *Wildfire Act* and related regulations, as of August 2010.

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.



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Director, Audits

Victoria, British Columbia
January 24, 2011

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 cutblocks. FSPs can have a term of up to five years.

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. (The transitional provisions of FRPA state that the Code continues to apply to forest practices carried out under a forest development plan, until there is an approved forest or range stewardship plan, at which point the requirements of FRPA apply.)

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 forest 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 2007, the Board randomly selected the Robson Valley Timber Supply Area as a location for an audit. After assessing the activities within that area, we discovered that two licensees 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, the audit focused on the status of the outstanding obligations of these two licences.

For BCTS audits, a forest 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 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 field work includes assessments of features using helicopters as well as ground procedures, such as measuring specific features like riparian reserve zone width. The audit teams generally spend one to two weeks in the field.

Evaluating the Results

The Board recognizes that compliance with the many requirements of the Code, 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 Code, 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 worthy of reporting. Therefore, this category of events will generally not be included in audit reports.

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, Mines and Lands.

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 auditor's draft report 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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