



# Forest Practices Board

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

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*Tolko Industries Ltd.  
Forest Licences A18696, A18697 and A74911  
Cascades Natural Resource District*

**FPB/ARC/233**

January 2020

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

As part of its 2019 compliance audit program, the Board randomly selected the Cascades Natural Resource District as the location for a full scope compliance audit. Within the district, the Board selected Tolko Industries Ltd.'s (Tolko) forest licences (FL) A18696, A18697 and A74911 for audit.

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



*Regenerating stands and powerline right-of-way in the Cascades Natural Resource District.*

## Background

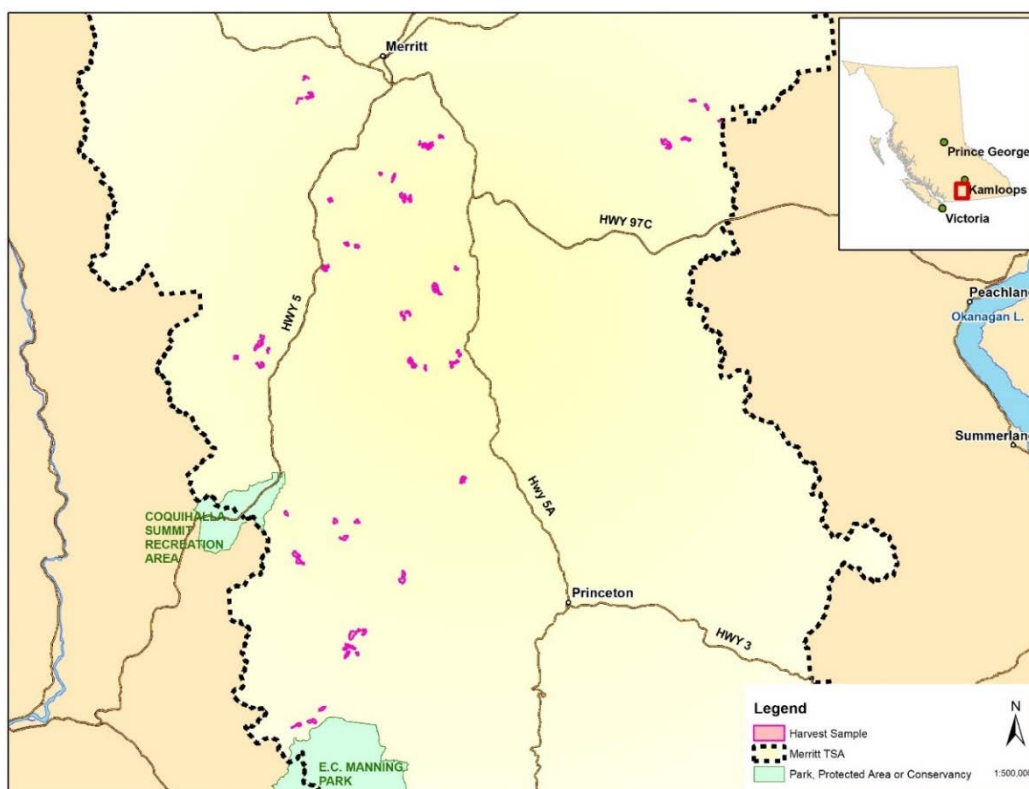
Forest licences A18696, A18697 and A74911 are within the Merritt timber supply area (TSA), which covers about 1.13 million hectares in British Columbia's southwest interior. Merritt and Princeton are the largest communities in the TSA.

The Merritt TSA is administered by the Cascades Natural Resource District and is part of the Thompson-Okanagan Natural Resource Region.

The topography of the TSA varies from the mountainous terrain and steep river valleys of the Cascade Mountains in the west, to the drier, relatively flat Thompson Plateau in the east. Two major river systems transect the TSA: the Similkameen River in the south and the Nicola River in the north. These diverse landscapes provide a variety of wildlife habitats including grasslands, lakes and wetlands, forested slopes, and alpine areas. Over 20 species of wildlife and fish identified in the provincial Identified Wildlife Management Strategy are present in the TSA.

The allowable annual cut (AAC) for each of the licences is as follows: 113 255 cubic metres for A18696, 100 000 cubic metres for A18697 and 125 000 cubic metres for A74911. During the one-year audit period, Tolko harvested about 390 000<sup>1</sup> cubic metres.

**Map of the Audit Area**



## Audit Approach and Scope

This was a full scope compliance audit and all activities carried out between June 1, 2018, and July 11, 2019, were eligible for audit. These activities included operational planning (forest stewardship plan (FSP)<sup>i</sup> and site plans), timber harvesting, wildfire protection, silviculture, and construction, maintenance and deactivation of roads and major structures.<sup>2</sup>

<sup>1</sup> AAC from any and all years in a cut control period (CCP) can be harvested at any time during that CCP, which is why the harvested volume appears larger than the AAC for the one-year audit period.

<sup>2</sup> Major structures include bridges and major culverts.

- Bridge means a temporary or permanent crossing structure with a span length equal to or greater than six metres or an abutment height of four metres or greater.
- A major culvert has a pipe diameter of 2 metres or greater or is an open bottom arch with a span greater than 2.13 metres.

Auditors assessed these activities for compliance with FRPA, the *Wildfire Act*, and applicable regulations. This work included interviewing Tolko staff, reviewing the FSP and site plans, examining records, and visiting sites to review field practices. Two forest professionals, a professional engineer, and a chartered professional accountant made up the audit team. The audit team was in the field with licensee representatives from July 8-11, 2019.

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*.

## Planning and Practices Examined

### Operational Planning

All three licences were covered by FSP #458, which expired on January 31, 2019, and was replaced by FSP #684 on January 30, 2019. FSP #684 covers four TSAs—Kamloops, Merritt, Okanagan and Arrow.

Auditors examined the FSPs and stand-level site plans for consistency with legal requirements. During harvesting, road and silviculture field sampling, auditors also confirmed whether site plans accurately identified conditions on the ground.

The key values associated with activities that took place during the audit period are riparian, visuals, wildlife habitat, range, cultural sites and adjacent private land.

### Timber Harvesting

Tolko harvested 105 cutblocks during the audit period and auditors examined 55 of them.

Cutblocks were risk rated and a sample was chosen that included different forest values and geographic areas within the operating area.

### Road and Bridge Construction, Maintenance and Deactivation

The population and sample of road and bridge activities are shown in the table below. No bridges were removed during the audit period.

ACTIVITY	POPULATION	SAMPLE
Road Construction	65.9 km	42.4 km
Road Maintenance	1912.5 km	1409.8 km
Road Deactivation	35.0 km	7.5 km
Bridge Construction	1 bridge	1 bridge
Bridge Maintenance	23 bridges	15 bridges

### Silviculture Activities and Obligations

The population and sample of silviculture obligations and activities are shown in the table below.

Samples were chosen to represent different geographic areas and biogeoclimatic zones within the audit area.

ACTIVITY OR OBLIGATION	POPULATION	SAMPLE
Site Preparation	15 cutblocks	6 cutblocks
Planting	135 cutblocks	30 cutblocks – field 54 cutblocks – seed transfer
Regeneration Due and Declared	131 cutblocks	24 cutblocks
Free Growing Due and Declared	88 cutblocks	50 cutblocks

## **Wildfire Protection**

Auditors examined 39 cutblocks for fire hazard assessments and 55 cutblocks for abatement practices. There were no active sites during the field portion of the audit.

## **Findings**

### **Operational Planning**

Planning was consistent with the FSP and legal requirements, including government orders. Tolko addressed site specific resources in the site plans by accurately identifying and prescribing practices for resource features including streams and wetlands, wildlife habitat and visual quality objectives.

Auditors had no concerns with operational planning.

### **Timber Harvesting**

Auditors sampled 55 cutblocks, which provided a wide range of key management values to evaluate.

Tolko either excluded areas with potentially unstable terrain from harvest cutblocks, or had a terrain stability assessment completed and followed the recommendations.

The harvest sample included management strategies for seven wildlife species (mountain beaver, Williamson's sapsucker, northern goshawk, coastal-tailed frog, moose winter range, mule deer winter range and migratory song birds) and Tolko followed its FSP strategies and internal policies to determine appropriate measures for each cutblock.

Sixteen sampled cutblocks were within scenic areas and Tolko completed visual impact assessments and implemented good visual design practices for these cutblocks.

In summary, auditors found that harvesting was conducted in accordance with the requirements of legislation, the FSP(s) and site plans.

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

### *Road Construction*

All documentation was complete, including comprehensive and professional road construction maps. The maps are geo-referenced and supplied to the road crews, who have electronic tablets installed in their machines, which reduces the possibility of errors. Qualified professionals were used when necessary and their recommendations were followed. Construction techniques ranged from conventional balanced bench to full benching or three quarter benching in some minor areas. The majority was conventional construction. Tolko maintained natural drainage patterns and installed additional cross-drains where required.

### *Road Maintenance*

Roads were mostly located on gentle, rolling terrain. Culverts were functional and drainage was controlled. Road segments used for active hauling were brushed for visibility where needed.

### *Road Deactivation*

A total of 35 kilometres of road was fully deactivated with access blocked and natural drainage patterns maintained.

### ***Bridge Construction***

Tolko constructed one bridge during the audit period and all documentation was complete for the new structure.

### ***Bridge Maintenance***

Most of the structures were steel superstructures on post and pad substructures. All the structures reviewed were found to be safe for industrial use.

Auditors had no concerns with any of the road or structure work carried out by Tolko.

## **Silviculture Activities and Obligations**

Auditors reviewed site preparation and planting activities, as well as regeneration and free-growing milestones. Tolko completed planting within one to two years of harvest and used a mix of species including, pine, larch, spruce and Douglas-fir. Site preparation was mainly disc trenching to create plantable spots and reduce grass competition. Tolko monitors regenerating cutblocks for seedling establishment and survival. Auditors found free-growing cutblocks were generally showing good health and reporting to government was completed as required.

Auditors had no concerns with silviculture.

## **Wildfire Protection**

### ***Hazard Assessment***

Fire hazard assessments were requested for 39 cutblocks. Assessments must be completed within the required timeframes and contain all the required information described in section 11(4) of the *Wildfire Regulation*. Auditors found that all the assessments were missing the risk of a fire starting or spreading and 32 were not completed within the required time period.

### ***Hazard Abatement***

Tolko routinely piles and burns slash after harvest. Field inspections revealed that slash was piled in safe locations and was burned within the required time period.

### ***Preparedness***

There were no active sites during the field portion of the audit so auditors could not assess fire preparedness.

Since fire hazards are being abated in an effective and timely manner, the hazard assessment non-compliance is considered an area for improvement.

Subsequent to the audit, Tolko advised the Board it has now implemented a standard operating procedure providing clear direction to the people carrying out fire hazard assessments, and that Tolko had initiated development of this procedure prior to the audit.

# Audit Opinion

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In my opinion, the operational planning, timber harvesting, road and major structure construction, maintenance and deactivation, and fire protection activities carried out by Tolko Industries Ltd. on forest licences A18696, A18697 and A74911 between June 1, 2018, and July 12, 2019, complied in all significant respects with the requirements of the *Forest and Range Practices Act*, the *Wildfire Act* and related regulations, as of July 2019.

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 assessments.

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 the *Forest and Range Practices Act*, and the *Wildfire Act*.



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

Victoria, British Columbia  
December 19, 2019



# 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*. Compliance audits examine forest or range planning and practices to determine whether or not they meet FRPA and / or *Wildfire Act* requirements. The Board conducts about 10 compliance audits annually. Most of these are audits of agreement holders. The Board also audits the government's BC Timber Sales Program (BCTS).

## Selection of auditees

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

For example, in 2016, the Board randomly selected the Dawson Creek portion of the Peace Natural Resource District as a location for an audit. After assessing the activities within the area, it was noted that there were two community forest agreements that had not yet been audited by the Board. As the Board strives to audit an array of licence types and sizes each year, these two community forest agreements were selected for audit.

For BCTS audits, a district or timber supply area within 2 of the 12 business areas in the province are selected randomly for audit. Only those areas that have not been audited by the Board in the past five years are eligible for selection.

## Audit Standards

The audits are conducted in accordance with auditing standards developed by the Board. These standards include 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 and 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. For smaller audits, the sample will include the full population.

Auditors' work includes interviewing licensee staff, reviewing applicable plans, assessing features from helicopters and measuring specific features like riparian reserve zone width using ground procedures. The audit teams generally spend three to five days in the field.

## **Evaluating the Results**

The Board recognizes that compliance with the requirements of FRPA and the *Wildfire Act* 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 legal 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 *Wildfire Act* requirements.

**Unsound Practice** – where the auditor identifies a significant practice that, although in compliance with FRPA or the *Wildfire Act*, 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, these events 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 more non-compliance events.

If a significant breach of the legislation 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, Natural Resource Operations and Rural Development.

## Reporting

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

The Board reviews the draft report 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 reviews representations from parties that may potentially be adversely affected, makes any necessary changes to the report, and decides if recommendations are warranted. The report is then finalized and released: first to the auditee and then to the public and government seven days later.

## ENDNOTE

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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 its FSP, BCTS is 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.



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