

# AUDIT OF FOREST PLANNING AND PRACTICES

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Interfor Corporation

Tree Farm Licence 18

Thompson Rivers Natural Resource District

MAY 2023

FPB/ARC/258



**Forest  
Practices  
Board**

BC'S INDEPENDENT  
WATCHDOG FOR  
SOUND FOREST &  
RANGE PRACTICES

# Table of Contents

- Audit Results**..... 1
  - Introduction ..... 1
  - Background..... 1
  - Audit Approach and Scope..... 2
  - Planning and Practices Examined..... 3
  - Findings ..... 4
- Audit Opinion** ..... 5
- 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 forest practices to ensure compliance with the *Forest and Range Practices Act* (FRPA) and the *Wildfire Act*.

As part of its 2022 compliance audit program, the Board randomly selected the Thompson Rivers Natural Resource District as the location for a full scope compliance audit. Within the district, the Board selected Interfor Corporation's (Interfor) tree farm licence (TFL) 18. While both Interfor and BC Timber Sales operate in the TFL, the audit only examined Interfor's activities.

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



A free-growing cutblock south of Maury Lake in TFL 18, regenerated with spruce and balsam.

## Background

TFL 18 is located in the southern interior of British Columbia, within the Thompson Rivers Natural Resource District. It covers about 75 000 hectares, extending from Taweel Provincial Park in the south to Mahood Lake and Wells Gray Provincial Park in the North. Operations audited were dispersed throughout the TFL (see map on page 2). The community of Clearwater is located to the east of the TFL.

The area audited is within the territory of the Simpcw First Nation and the Adams Lake, Canim Lake, and Neskonlith Indian Bands. The Forest Practices Board acknowledges the importance of their historical relationship with the land that continues to this day.

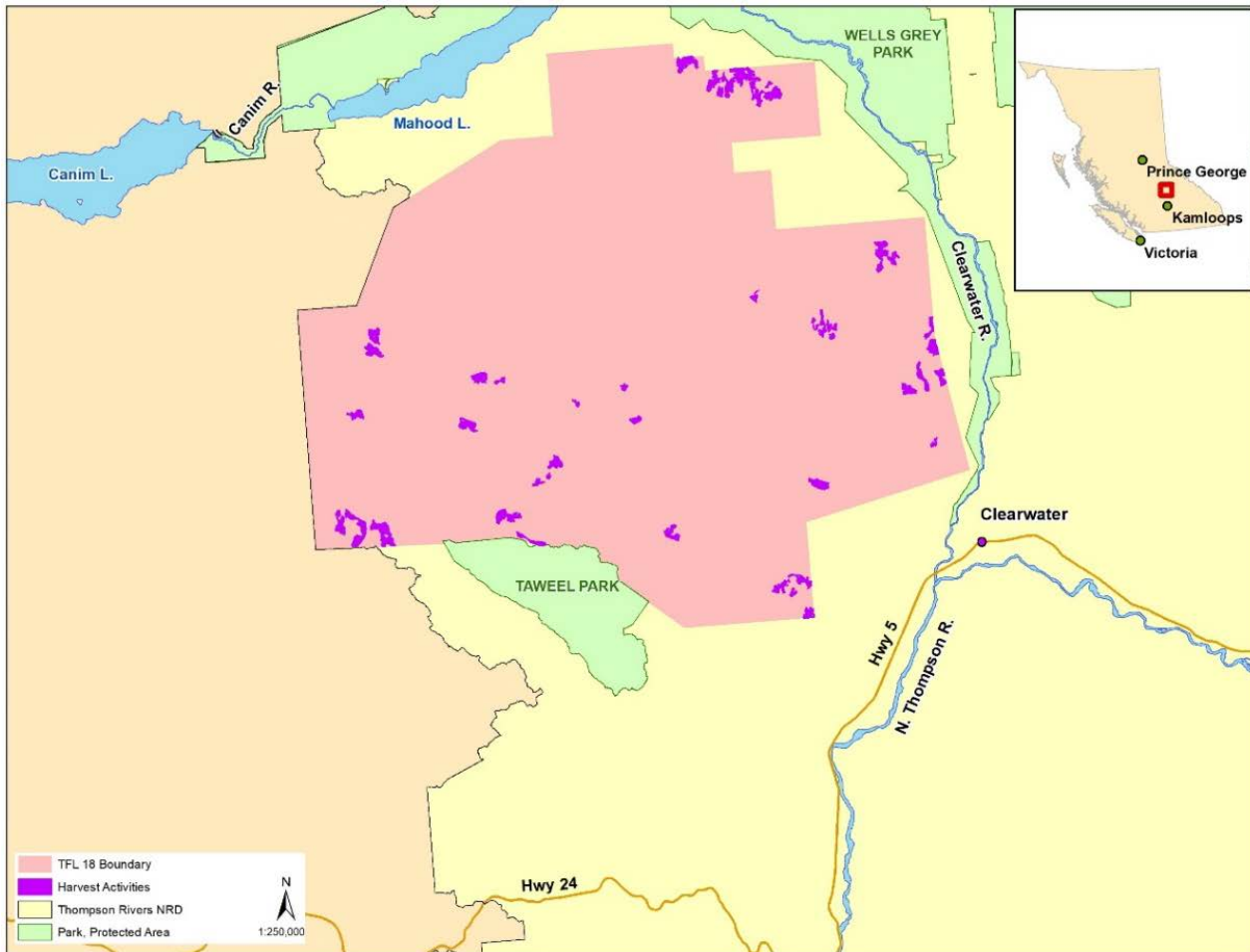
The terrain in the TFL is undulating, with an elevation range of 516 to 1989 metres. The TFL contains numerous small lakes and swamp complexes, which serve as popular recreation areas for fishing, hunting, and camping. The majority of the TFL is easily accessible to the public.

The ecology in the TFL includes sub-boreal and sub-alpine ecosystems in middle-to-high elevations and cedar-hemlock ecosystems in the lower, southern extremities. The main commercial tree species are spruce, lodgepole pine, subalpine fir, Douglas-fir, western hemlock, and western red cedar.

On March 9, 2020, Canadian Forest Products Ltd transferred the TFL to Interfor, including harvesting rights, road maintenance and silviculture obligations and commitments to First Nations and stakeholders.

The allowable annual cut for TFL 18 is 175 000 cubic metres, of which 164 500 cubic meters are apportioned to Interfor and 10 500 cubic metres to BC Timber Sales. During the two-year audit period, Interfor harvested about 144 400 cubic metres from the TFL.

### Map of the Audit Area



## Audit Approach and Scope

This was a full scope compliance audit; all activities and associated planning carried out between July 1, 2020, and July 14, 2022, were eligible for audit. These activities included timber harvesting, wildfire protection, silviculture, construction and deactivation of roads, and maintenance of roads and major structures.<sup>1</sup>

Auditors assessed these activities for compliance with FRPA, the *Wildfire Act*, and applicable regulations. This included interviewing Interfor staff, reviewing plans and internal policies, examining records, and visiting sites to

<sup>1</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 6 metres or an abutment height of 4 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.

review field practices. Two forest professionals and one forest professional/geoscientist made up the audit team. The audit team was in the field with Interfor representatives from July 11 to 14, 2022.

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

TFL 18 was subject to the requirements in the *Canadian Forest Products Limited Vavenby Division Forest Stewardship Plan* (FSP 117 – in effect 2006 to 2020) and the *Interfor Corporation Thompson Rivers Forest District Kamloops Timber Supply Area Forest Stewardship Plan* (FSP 743 – in effect 2020 to present). FSPs 117 and 743 covered forest development in TFL 18 during the audit period.

Interfor's operations fall within the area covered by the *Kamloops LRMP Higher Level Plan Order* and the *Ministerial Order for Old Growth Management Objectives for the Kamloops Land and Resources Management Plan Area*. These orders set objectives for critical deer and moose winter range and old growth. Other legal orders include motorized vehicle restrictions associated with certain lakes (section 58 of FRPA) and objectives for mountain goat winter range (section 7 notice of the *Forest Planning and Practices Regulation* [FPPR]). FSPs 117 and 743 serve to link all aspects of the legal orders pertinent to forest management in TFL 18 with operations.

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.

Harvest and road activities during the audit period required management of riparian, fish, soil, visual, wildlife, and cultural resources to meet the corresponding results or strategies in the FSPs.

### Timber Harvesting

Interfor harvested 23 cutblocks during the audit period and auditors examined 10 of them. Auditors considered the management strategies for resource values associated with each cutblock to risk-rate the cutblocks. They chose samples that represented each risk class (low, moderate, or high), resource value, and geographic area within the audit area.

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

Interfor constructed and maintained roads and bridges during the audit period. It also deactivated a small number of roads. No bridges were removed during the audit period. Auditors examined a sample of these activities on the ground.

**TABLE 1.** Population and Sample for Road and Major Structures

ACTIVITY	POPULATION	SAMPLE
	(Kilometres)	(Kilometres)
Road Construction	19.2	12.0
Road Maintenance	1097.5	233.0
Road Deactivation	0.9	0.6
	(Structures)	(Structures)
Major Structure Construction	1 bridge	1 bridge
Major Structure Maintenance	28 bridges 17 culverts	11 bridges 8 culverts

## Silviculture Obligations and Activities

Interfor conducted planting and brushing activities, and had regeneration and free-growing obligations during the audit period. Samples were chosen to represent different geographic areas and biogeoclimatic zones within the audit area.

**TABLE 2.** Population and Sample for Silviculture Activities and Obligations

ACTIVITIES AND OBLIGATIONS	POPULATION (Cutblocks)	SAMPLE (Cutblocks)
Site Preparation	2	1
Brushing	11	4
Planting	38	6
Seed Transfer	46	46
Regeneration Obligations (due or declared)	110	26
Free-growing Obligations (due or declared)	67	34

## Wildfire Protection

Fire hazard assessments were due on 14 cutblocks, and no hazard abatement was due or conducted during the audit period. Auditors examined all 14 cutblocks for fire hazard assessments. There were 7 active sites during the field portion of the audit and 5 of them were field sampled for fire preparedness.

## Findings

The audit found that Interfor's planning and practices generally complied with FRPA and the *Wildfire Act* as of July 2022. However, the audit identified three significant non-compliances related to road construction, road maintenance, and bridge maintenance, as described below.

### Findings of Non-Compliance

#### Road Construction in a Riparian Area

Section 50 (3)<sup>i</sup> of the FPPR prohibits removing fill material from within a riparian management area (RMA) while constructing a road unless the material is within the road prism, at a stream crossing, or there is no other practicable option. Auditors found Interfor excavated material within an RMA to use for road surfacing when installing a wood box culvert on a fish stream. The excavation was not within the road prism, nor at the stream crossing, and other potential sources of material were nearby. This is considered a significant non-compliance with the FPPR.

Subsequent to the audit, Interfor conducted a site review with the road construction contractor and provided education and awareness training concerning stream crossing requirements and Interfor's environmental management system. Interfor stated that it is also working on further training and educational material to share with the wider contractor community to improve general understanding of riparian management requirements within the contractor workforce.

#### Culvert Maintenance

Section 79(6)(b) of the FPPR requires Interfor to ensure the drainage systems of a road it is required to maintain are functional.

Prior to logging a cutblock, Interfor identified a buried culvert on one of the existing access roads to the cutblock in its road site plan. At this location, auditors found two undersized culverts that did not adequately meet flow requirements. Although Interfor identified the potential drainage structure issues in their road site plan, the repairs were not made in a timely manner, causing the road surface to scour and sediment to be deposited into an

adjacent fish stream during the next spring freshet. This shortcoming may affect both fish habitat and the stability of the road prism and is considered a significant non-compliance.

Subsequent to the audit, Interfor employed an environmental consultant to conduct a riparian assessment of the area to confirm the fish-bearing status of the stream and had an engineer review the site and design an open-bottom structure to replace the culverts when conditions are suitable.

### **Bridge Guardrail Maintenance**

Section 75<sup>ii</sup> of the FPPR requires Interfor to address any known structural bridge defects to protect industrial users by repairing, closing, removing, or replacing the bridge or restricting traffic loads to a safe level.

Auditors found that the guardrail components of a bridge used by industrial traffic during the audit period were rotten, the guardrails were not firmly attached to the bridge deck, and Interfor did not comply with section 75. The Board views guardrails as an important structural safety component of bridges. While guardrails are not a load-bearing component of a bridge, they provide drivers with a physical warning that they are approaching the edge of a bridge and act as a visual guide. It is important that they are substantial and well-secured. Interfor did not inspect or repair the guardrail and continued to use the bridge for industrial purposes. The guardrails were not well secured, and Interfor did not ensure the safety of industrial traffic: this is considered a significant non-compliance.

Subsequent to the audit, Interfor inspected the bridge and replaced the guardrails.

## **General Findings**

### **Operational Planning**

The FSPs and site plans were consistent with FRPA requirements and relevant legal objectives. Interfor addressed site-specific resources in the site plans by accurately identifying and prescribing practices for resource features, including riparian areas, visual quality objectives, fish and wildlife habitat, and cultural features.

Auditors had no concerns with operational planning.

### **Timber Harvesting**

The auditors sampled 448 hectares of harvesting in 10 cutblocks, which provided a wide range of key resource values to evaluate.

One sampled cutblock contained potentially unstable terrain. Interfor completed a terrain-stability assessment and followed the assessment recommendations by excluding potentially unstable terrain from the harvest area and following the recommended precautionary measures for the remainder of the cutblock.

Three sampled cutblocks contained fish streams. Interfor surveyed the streams to confirm their fish-bearing status. They protected the stream channels by establishing machine-free zones adjacent to them and retaining forest cover in the riparian areas.

Three sampled cutblocks were within scenic areas. Interfor completed visual impact assessments and met visual quality objectives for these cutblocks.

One sampled cutblock was located in an area with low archaeological potential. Interfor carried out a detailed field assessment, referred the harvest plan to affected First Nation communities to identify and confirm whether cultural features were present, and modified the site plan to include measures to protect them.

In summary, auditors found that harvesting was conducted in accordance with the legislation and consistent with FSP requirements and the prescribed measures in the site plans.

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

Aside from the findings described in the *Findings of Non-compliance* section of this report, the general observations for the roads audit section are described below.

### Road Construction

All documentation was complete, including road permits and road designs. Qualified professionals were used when necessary, such as when constructing roads near riparian areas or on potentially unstable soil, and their recommendations were followed.

### Road Maintenance

Roads were mostly located on gentle and rolling terrain, with minor sections located on potentially unstable terrain. Interfor regularly monitored roads and addressed maintenance items in a timely manner. Culverts were functional and drainage was maintained. Active road sections were stable and safe for industrial use.

### Road Deactivation

Interfor deactivated roads by removing drainage structures, installing cross ditches to maintain natural drainage patterns, and revegetating exposed soils with grass to minimize road surface erosion.

### Bridge Construction

Interfor completed all professional design and documentation for the one bridge they constructed. The bridge installation followed the plan and was well done.

### Bridge and Major Structure Maintenance

Interfor regularly inspected and maintained major structures and kept a detailed maintenance ledger indicating they proactively managed their crossing infrastructure. All structures inspected were in good condition.

Other than the findings described in the *Findings of Non-Compliance* section of this report, auditors had no concerns with the road or major structure work carried out by Interfor.

## Silviculture

### Silviculture Reporting

Interfor completed annual reporting in a complete and timely manner. Auditors had no concerns with annual reporting.

### Silviculture Activities and Obligations

Auditors reviewed site preparation, brushing, and planting activities, as well as regeneration and free-growing obligations. Interfor completed planting within two years of harvest, used a mix of tree species consistent with the stocking standards for the sites, and met seed transfer requirements. Interfor conducted silviculture surveys to monitor regenerating cutblocks for seedling establishment and survival, and treated plantations where stocking and health issues were identified. Auditors found free-growing cutblocks contained trees with good health, form and vigor.

Auditors had no concerns with silviculture.

## Wildfire Protection

### Fire Hazard Assessments

All sampled fire hazard assessments were completed on time, contained the required content, and met the requirements of the *Wildfire Act*.

### Fire Hazard Abatement

No hazard abatement was due or completed during the audit period; however, slash was piled in locations where it was safe to burn when site conditions are suitable.



## Fire Preparedness

Auditors found adequate fire tools and suppression systems on the five active operations sampled. Logging contractors monitored fire weather stations for fire danger ratings, restricted hours of operation accordingly, and used fire watchers, when required, to minimize the risk of a fire starting or spreading.

Auditors had no concerns with wildfire protection activities.

# Audit Opinion

In my opinion, the operational planning, timber harvesting, road and major structure construction, maintenance and deactivation, and fire protection activities carried out by Interfor Corporation on tree farm licence 18 between July 1, 2020, and July 14, 2022, complied in all significant respects with the requirements of the *Forest and Range Practices Act*, the *Wildfire Act* and related regulations, as of July 2022.

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.

As described in the *Road Construction in a Riparian Area* section of the report, the audit identified a significant non-compliance related to excavation in a riparian management area.

As described in the *Culvert Maintenance* section of the report, the audit identified a significant non-compliance related to the function of drainage systems.

As described in the *Bridge Guardrail Maintenance* section of the report, the audit identified a significant non-compliance related to bridge safety.

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*.



Daryl Spencer, RPF  
Auditor of Record

Victoria, BC  
May 5, 2023

# Appendix 1: Forest Practices Board's Compliance Audit Process

## Background

The Forest Practices Board conducts audits of government and agreement-holders under section 122 of the *Forest and Range Practices Act* (FRPA) and section 68 of the *Wildfire Act*. Compliance audits examine forest or range planning and practices to determine whether or not they comply with the applicable requirements of FRPA and the *Wildfire Act*. The Board conducts 6-8 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 start, 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 the Board's strategic priorities, and the type of audit is determined. At this stage, auditors choose the auditee(s) that best suit(s) the selected risk and priorities.

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, auditors 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 1 of the 12 BCTS business areas in the province is selected randomly for audit. The audit selections are not based on past performance.

Only those licensees or BCTS operations 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, replanting, road construction, road deactivation). 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.

The auditors select a separate sample 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 also consider factors such as geographic distribution and values potentially affected by activities to ensure an adequate sample.

Auditors' work includes interviewing licensee staff, reviewing the auditee's applicable plans, reviewing applicable government orders, assessing some features from helicopters and measuring specific features like riparian reserve zone widths 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 responsible minister(s).

## 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 opportunity to make representations allows 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.

## ENDNOTES

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<sup>i</sup> FPPR - Restrictions in a riparian management area

50 (3) A person who is authorized in respect of a road must not remove gravel or other fill from within a riparian management area in the process of constructing, maintaining or deactivating a road, unless

- (a) the gravel or fill is within a road prism,
- (b) the gravel or fill is at a stream crossing, or
- (c) there is no other practicable option.

<sup>ii</sup> FPPR - Structural defects

75 A person who maintains a road must do one or more of the following if a structural defect or deficiency occurs on a bridge that is part of that road:

- (a) correct the defect or deficiency to the extent necessary to protect
  - (i) industrial users of the bridge, and
  - (ii) downstream property, improvements or forest resources that could be affected if the bridge fails;
- (b) close, remove or replace the bridge;
- (c) restrict traffic loads to a safe level;
- (d) place a sign, on each bridge approach, stating the maximum load capacity of the bridge.



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