

AUDIT OF FOREST PLANNING AND PRACTICES

Canadian Forest Products Ltd.

Forest Licence A15384

DECEMBER 2022
FPB/ARC/254



**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 4

Appendix 1: Forest Practices Board Compliance Audit Process 7

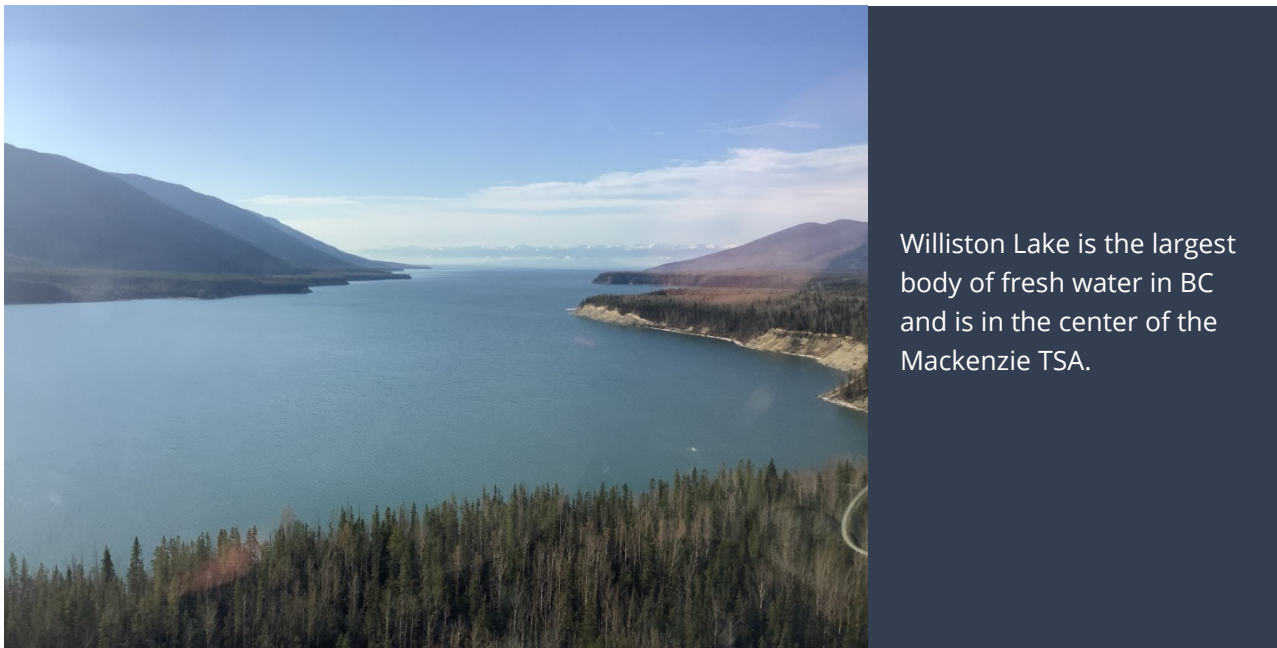
Audit Results

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*.

As part of its 2021 compliance audit program, the Board randomly selected the Mackenzie timber supply area (TSA) in the Mackenzie Natural Resource District as the location for a full scope compliance audit. Within the TSA, the Board selected forest licence (FL) A15384, held by Canadian Forest Products Ltd. (Canfor), 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.



Background

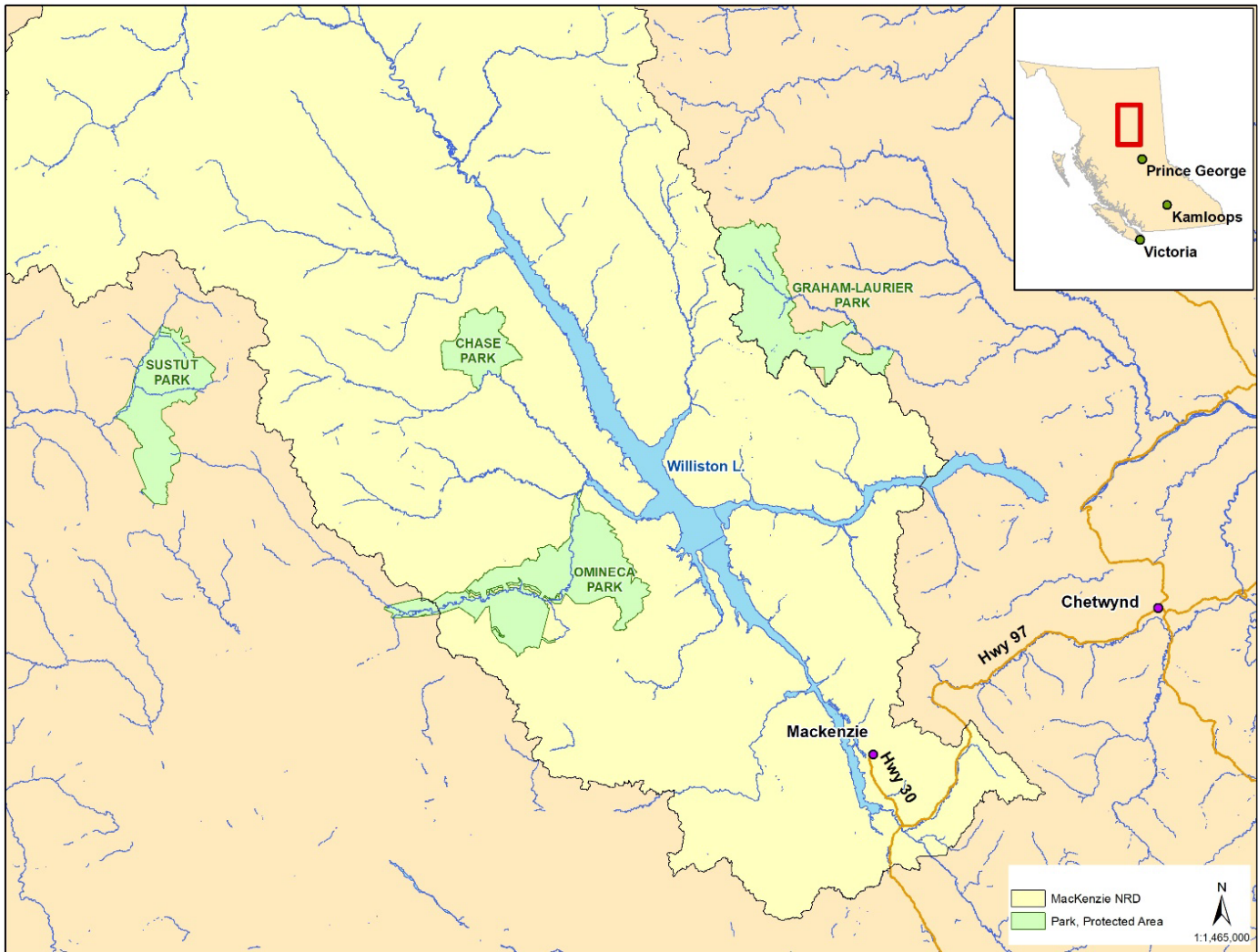
The Mackenzie TSA is in the north-central interior of British Columbia and covers approximately 6.4 million hectares of land. Due to the large size of Williston Lake and the mountainous terrain, almost half of the TSA is covered by water, rock, ice and other non-forested areas.

The town of Mackenzie is the largest settlement in the TSA and is located approximately 200 kilometres north of Prince George.

The audit took place within the territories of the Tsay Keh Dene, Kwadacha Nation, McLeod Lake Indian Band, Takla Nation, Nak'azdli Whut'en, Tahltan, Gitksan, and Yekooche First Nation, and within Treaty 8 territory. The Board recognizes the existence of the Treaty rights and the importance of these communities' historical relationship with the land that continues to this day.

The allowable annual cut for FL A15384 is 1 082 904 cubic metres. During the 15-month audit period, Canfor harvested about 858 825 cubic metres.

Map of the Audit Area



Audit Approach and Scope

This was a full scope compliance audit with a 15-month timeframe. All activities carried out between July 1, 2020, and October 22, 2021, were eligible for audit. These activities included operational planning, harvesting, road and major structureⁱ construction, maintenance and deactivation, silviculture and wildfire protection and associated planning.

Auditors assessed these activities for compliance with FRPA, the *Wildfire Act*, and related regulations. Auditors' work involved interviewing Canfor staff, conducting an office review of operational plans and silviculture records, and visiting sites to review field practices. Sites were accessed by truck and by helicopter. Three forest professionals, one professional engineer/forester and a chartered professional accountant made up the audit team. The audit team was in the field from October 18 to 22, 2021.

The standards and procedures used to carry out this audit are set in the Board's *Compliance Audit Reference Manual, Version 7.1, July 2016*.

Planning and Practices Examined

Operational Planning

Forest stewardship plansⁱⁱ (FSP) provide the link between on-the-ground forestry operations, government policy and government objectives. Canfor operates under an approved FSP and must ensure its planning and practices are consistent with the results and strategies in the FSP.

Auditors reviewed the FSP content for consistency with legal requirements and objectives set by government.

Auditors also assessed whether site plans and other prescriptions accurately identified site conditions during harvesting, road and silviculture field sampling.

Timber Harvesting

Canfor harvested 68 cutblocks during the audit period. Auditors examined 27 of these cutblocks.

Road and Crossing Structure Construction, Maintenance and Deactivation

Canfor constructed and maintained roads and bridges and deactivated some bridges during the audit period. No roads were deactivated during the audit period. The population and sample audited for roads and bridges are described in Table 1.

TABLE 1. Population and Sample for Road and Bridge Activities

ACTIVITY	POPULATION	SAMPLE
	(Kilometres)	(Kilometres)
Road Construction	144.5	55
Road Maintenance	7000	2250
	(Structures)	(Structures)
Bridge & Major Culvert Construction	8	7
Bridge & Major Culvert Maintenance	219	76
Bridge & Major Culvert Deactivation	21	4

Silviculture Obligations and Activities

Canfor conducted planting activities and had regeneration and free-growing obligations during the audit period. The population and sample audited for silviculture activities and obligations are described in Table 2.

TABLE 2. Population and Sample for Silviculture Activities and Obligations

OBLIGATIONS AND ACTIVITIES	POPULATION	SAMPLE
	(Cutblocks)	(Cutblocks)
Planting	138	21
Regeneration Obligations (due or declared)	245	37
Free-growing Obligations (due or declared)	141	50

Wildfire Protection

Auditors examined fire preparedness, fire hazard assessment and fire hazard abatement activities. The population and sample audited for wildfire protection activities are described in Table 3.

TABLE 3. Population and Sample of Wildfire Protection Activities

ACTIVITY	POPULATION (Cutblocks)	SAMPLE (Cutblocks)
Fire Preparedness of Active Work Sites	1	1
Fire Hazard Assessment	50	30
Fire Hazard Abatement	58	35

Findings

The auditors found that Canfor's planning and practices generally complied with FRPA and the *Wildfire Act* as of October 2021. However, the auditors identified two significant non-compliances related to bridge construction and bridge maintenance.

Bridge Construction

Section 55ⁱⁱⁱ of the *Forest Planning and Practices Regulation* (FPPR) states that when constructing a stream crossing, a licensee must protect the stream channel and stream bank immediately above and below the stream crossing and section 72^{iv} requires crossings to be structurally sound and safe for industrial users.

For one of the constructed crossings, a professional engineer prepared a general arrangement drawing for a 9.14-metre bridge on sills/cribs on a steady two percent grade across the stream, but the installation did not follow the design. Instead, a 6.1-metre span steel portable structure was constructed, installed on geotextile fabric on top of fine-textured soils on the stream bank, and the road gradient sloped into the crossing in both directions. Sediment generated from the road prism flowed toward the fish bearing stream and there were no sediment control structures or measures in place. There was considerable sediment washing into the channel from both bridge approaches. In addition, auditors measured less than 0.5 metres of clearance between the bottom of the girders and the water level.

The bridge was impacting the stream bank and at risk of settling due to the lack of abutment support, which is non-compliant with section 55 of the FPPR, and was unsafe for industrial use, which is non-compliant with section 72 of the FPPR. This non-compliance is considered significant.

In addition, the bridge documentation prepared and retained by Canfor did not meet the standards in the relevant version of the EGBC and ABCFP June 2014 *Guidelines For Professional Services In The Forest Sector—Crossings V.2* (the Crossing Guidelines). The Board has previously emphasized the importance of following the Crossing Guideline to protect road user safety and environmental resources and to demonstrate professional accountability. Canfor and any tenure holder is obligated to comply with the FRPA and its regulations, which is in the scope of the forestry profession and therefore necessitates employing forest professionals. Forest professionals are obligated to conform with ABCFP Bylaws. This includes having less reliance on generic general arrangement designs, which are missing critical information, internal checklists and other documentation procedures that do not meet the standards outlined in the Crossing Guidelines.

Subsequent to the field audit, Canfor reported to auditors that it has replaced the six-metre bridge with the original planned nine-metre bridge.

Bridge Maintenance

Section 75^v of the *Forest Planning and Practices Regulation* (FPPR) states that a licensee that maintains a road must take one or more steps specified in the section if a structural defect or deficiency occurs on a bridge on the road. Section 77^{vi} requires a licensee to retain all records for all bridges it maintains.

Auditors reviewed more than 76 bridges during the audit and observed 11 bridges with apparent structural defects or deficiencies. Although these bridges are not currently being used for industrial activities, they are on active roads and are open to public access. In accordance with section 75 of the FPPR, these bridges should have been closed, removed or replaced; traffic loads restricted to a safe level; or a sign placed on each bridge approach stating the maximum load capacity of the bridge. In addition, records, such as as-built drawings, must be retained until the bridge is removed or the licensee is no longer required to maintain the road. Canfor was unable to locate many of these records.

As this is a pervasive issue, this non-compliance is considered significant.

Subsequent to the field audit, Canfor reported to auditors that it has completed 15 bridge inspections, removed 4 bridges, and is working with communities and the Ministry of Forests to review access management and transfer some road permits.

Operational Planning

The results and strategies in Canfor's FSP are consistent with applicable government objectives. Site plans were consistent with the FSP and addressed site-specific resources by accurately identifying and prescribing practices for resource features such as wildlife tree retention, riparian areas, wildlife, and soils. Where required, Canfor completed assessments at the landscape and operational (cutblock) levels. All harvesting and road construction was outside mapped non-legal old growth management areas (OGMAs) and mapped wildlife habitat areas.

Auditors found no issues with operational planning.

Timber Harvesting

Most harvesting was ground-based on rolling terrain with little steep or difficult terrain. Canfor completed terrain stability assessments for four of the sampled cutblocks. Steep areas were either removed from cutblocks or the site plan prescribed maintaining natural surface drainage patterns and avoiding the concentration of water.

In addition to the legal requirements, Canfor is following the best management practices established by the Takla First Nation. These best management practices guide forestry planning, development and operations consistent with the values identified by the Takla First Nation. As part of following these practices, Canfor left slash piles and windrows on several cutblocks to provide wildlife habitat and continuity.

Auditors had no concerns with harvesting.

Road Construction and Maintenance

Road construction was associated with cutblocks and, aside from the crossings noted above, there were no significant concerns with road construction.

Canfor has an extensive road network and stream crossings inventory due to the size of the TSA. Auditors reviewed road maintenance as part of the harvest and silviculture samples, which covered a large geographic area and is estimated to be about 30 percent of the total maintenance population. The majority of the roads are 'wilderness' status roads, which means the maintainer must ensure that the structural integrity of the road prism and clearing width are protected and drainage systems are functional "only to the extent necessary to ensure there is no material adverse effect on a forest resource"(section 81(a) of the FPPR).

Auditors had no significant concerns with road maintenance.

Silviculture Activities and Obligations

Canfor planted suitable tree species and stock, consistent with the chief forester's seed transfer guidelines. Cutblocks with reforestation obligations appeared stocked and healthy.

Reporting was timely and accurate.

Auditors had no concerns with silviculture obligations or reporting.

Wildfire Protection

Auditors assessed compliance with the *Wildfire Act* including fire hazard assessment, fire hazard abatement and fire preparedness.

Auditors visited one active site and observed that both a water delivery system and adequate fire tools were in place. The fire danger class was low, so there was no requirement for early shutdown or a fire watcher.

Auditors reviewed fire hazard assessments for 30 of the 50 cutblocks where the *Wildfire Act* required an assessment. The assessments met the content requirements for fuel hazard and the risk of a fire starting or spreading. There were no significant concerns with the timeliness of completing the assessments.

Canfor's standard practice is to pile slash both concurrent with, and following harvesting activities. While Canfor retains some slash piles and windrows to provide wildlife habitat and continuity, there were no concerns with the timeliness of burning the other slash piles.

Auditors had no concerns with wildfire protection.

Audit Opinion

In my opinion, except for the issues described below, the operational planning, timber harvesting, road construction, and maintenance, silviculture, and fire protection activities carried out by Canadian Forest Products Ltd. on Forest Licence A15384 between July 1, 2020, and October 22, 2021, complied in all significant respects with the requirements of the *Forest and Range Practices Act*, the *Wildfire Act* and related regulations, as of October 2021. There is no opinion provided for road deactivation.

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 *Bridge Construction* and *Bridge Maintenance* sections of the report, the audit identified two significant non-compliances related to bridges.

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)
Auditor of Record

Victoria, British Columbia
October 14, 2022

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 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 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

ⁱ 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.

ⁱⁱ 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.

ⁱⁱⁱ *Forest Planning and Practices Regulation*

55. Stream crossings

- 1) An authorized person who builds a stream crossing as part of a road, a temporary access structure or permanent access structure must locate, build and use the crossing in a manner that
 - a) Protects the stream channel and stream bank immediately above and below the stream crossing, and
 - b) Mitigates disturbance to the stream channel and stream bank at the crossing.

An authorized person who builds a stream crossing as part of a temporary access structure must remove the crossing when it is no longer required by the person.

^{iv} *Forest Planning and Practices Regulation*

72. Roads and associated structures

A person who constructs or maintains a road must ensure that the road and the bridges, culverts, fords and other structures associated with the road are structurally sound and safe for use by industrial users.

^v *Forest Planning and Practices Regulation*

75. Structural Defects

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;

Place a sign, on each bridge approach, stating the maximum load capacity of the bridge.

^{vi} *Forest Planning and Practices Regulation*

77. Retaining information

- 1) A person who builds a bridge or major culvert for the purpose of constructing or maintaining a road must do all of the following:
 - a. Prepare or obtain:
 - i. Pile driving records,
 - ii. For new materials used to build the bridge or major culvert, mill test certificates, in-plant steel fabrication drawings, and concrete test results,
 - iii. Soil compaction results, and
 - iv. Other relevant field and construction data;
 - b. Prepare as-built drawings of the bridge or major culvert;
 - c. Retain the information referred to in paragraphs (a) and (b) until the earlier of the date that
 - i. The bridge or major culvert is removed, and
 - ii. The person is no longer required to maintain the road.
- 2) Subject to subsection (3), a person responsible for maintaining a road must retain a copy of inspection records for a bridge or major culvert associated with the road for at least one year after the bridge or major culvert is removed from the site.
- 3) Unless the road has been deactivated, a person must submit to the district manager or the timber sales manager, as applicable, the documents, drawings and records described in subsections 1) and 2) in respect of a road if the person is no longer required to maintain the road because the district manager or timber sales manager
 - a) Cancelled the road permit, road use permit or special use permit for the road, and
 - b) does not require the road to be deactivated.



**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

EGBC Permit to Practice #1001000

For more information on the Board, please visit our website at: www.bcfpb.ca