



**Forest  
Practices  
Board**

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

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*International Forest Products Limited  
Grand Forks Woods Division*

*Forest Licence A18969*

**FPB/ARC/130**

May 2011

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## **Board Commentary**

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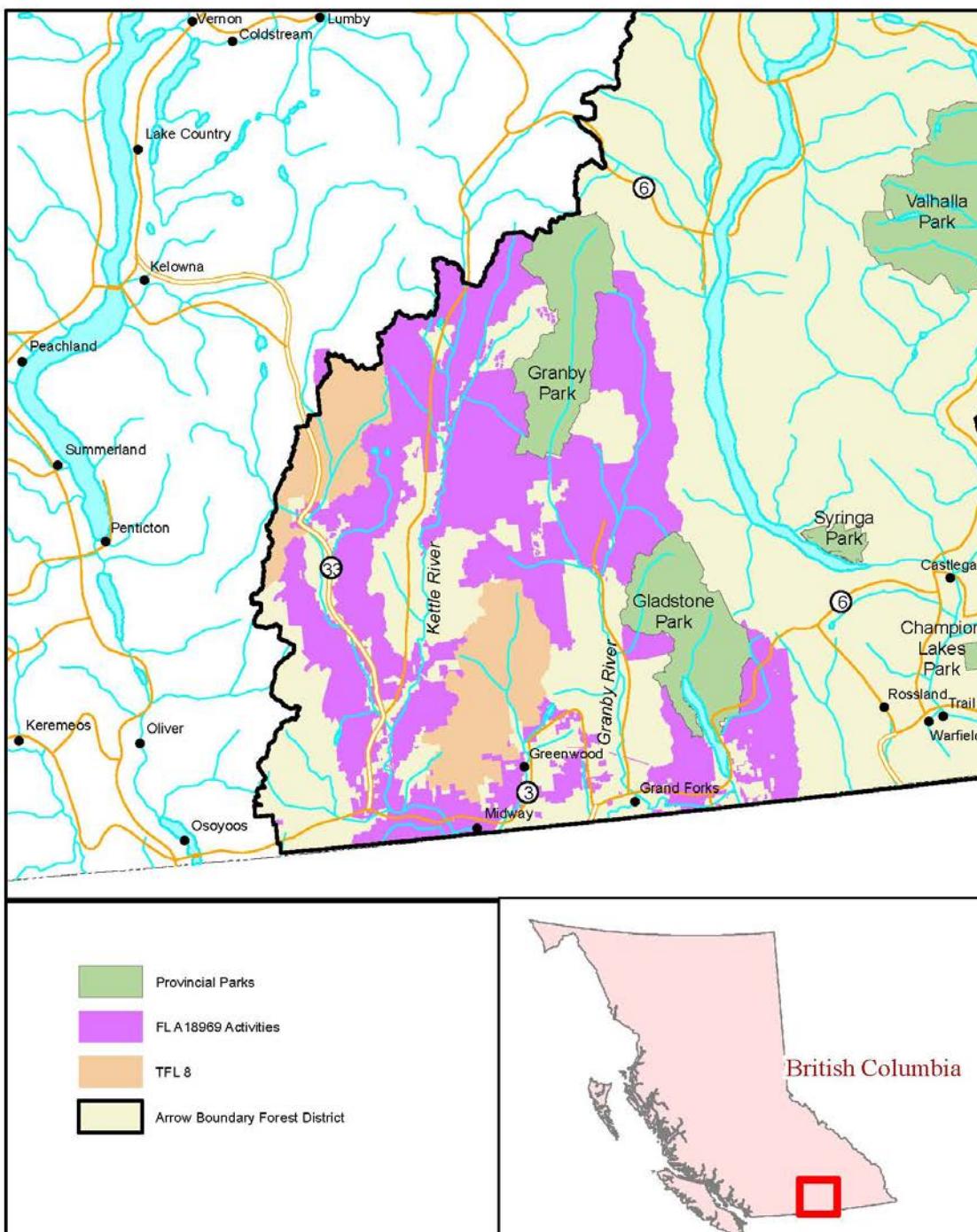
In June 2010, the Board conducted a full-scope compliance audit of forest planning and practices of International Forest Products Limited's (Interfor) Forest Licence (FL) A18969. FL A18969 is managed by Interfor's Grand Forks Woods Division in the town of Grand Forks (see map on page 2).

The audit assessed operational planning 30 harvest blocks, over 300 kilometres of roads and 14 bridges, more than 100 silviculture blocks, and over 30 blocks for fire protection activities. The audit identified a significant concern with the construction of one bridge, as well as concerns with winter road construction and a lack of formal road and bridge maintenance inspections.

Following the audit, Interfor removed the bridge and has informed the Board that plans are currently underway for the Grand Forks Woods Division to become third-party certified. FL A18969 was previously certified under Sustainable Forestry Initiative (SFI) when held by a different licensee; however, since May 2008, the certification and corresponding road and bridge management systems have not been maintained.

Interfor has informed the Board that internal environmental policies and procedures are currently being modified with the aim of establishing third-party certification on FL A18969 by the fall of 2011. The Board believes that the types of problems found in this audit are often avoided by maintaining a functioning environmental management system. Therefore, the Board expects that the areas of concern noted in the audit will be addressed through the application and maintenance of an environmental management system.

## Forest Licence A18969 Compliance Audit



# Audit Results

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## Background

As part of the Forest Practices Board's 2010 compliance audit program, the Board randomly selected the Arrow Boundary Forest District as the location for a full scope compliance audit. Within the district, the Board selected Forest Licence (FL) A18969 for audit. This licence has been held by International Forest Products Ltd., Grand Forks Woods Division (Interfor) since May 2008. Before May 2008, this forest licence was held by a different licensee.

FL A18969 permits Interfor to harvest 327 621 cubic metres of timber annually from the Boundary Timber Supply Area (TSA). During the two-year period of this audit, Interfor harvested 172 000 cubic metres under FL A18969. The primary operating areas are scattered throughout the Boundary TSA (see map on page 2).

Harvesting priorities in Interfor's operating area are predominantly guided by the salvage of mountain pine beetle-killed timber. Other challenges in the operating area include silviculture difficulties in establishing new stands due to cattle grazing and trampling of tree seedlings, and seasonal drought conditions.



Harvesting conducted by Interfor to address mountain pine beetle.

The Board's audit fieldwork took place from June 14 to 17, 2010, with a subsequent follow-up visit on June 30, 2010.

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

## Land Use Planning

In addition to objectives set by government in the *Forest and Range Practices Act* (FRPA) and related regulations, objectives for forest stewardship in FL A18969 are also guided by the *Kootenay-Boundary Higher Level Plan Order* (KBHLPO). Cabinet endorsed parts of the KBHLPO as a higher level plan in 1997.

The KBHLPO guides management of public lands and resources within the plan area. The KBHLPO commitments are extensive, and most relate to achieving an objective over a broad landbase, and have limited application for specific harvesting blocks or roads within the audit area.

An appendix to the KBHLPO contains supplementary resource management objectives and strategies specific to the Boundary TSA, covering various land use considerations, including forest and grassland ecological elements and processes; community watersheds; regional connectivity corridors; ungulates; grizzly bears; wild fish stocks; and historic trails, such as the Dewdney Trail.

The Boundary TSA falls mostly within integrated resource management zones, with some enhanced and protected management zones occurring in the northern and southeastern portions of the TSA.

## Audit Approach and Scope

The Board conducted a full scope compliance audit which includes all harvesting, roads, silviculture, protection activities, and associated planning, carried out between June 1, 2008, and June 17, 2010. The audit period includes all activities and obligations undertaken by Interfor on FL A18969 since they acquired the licence in May 2008. These activities were assessed for compliance with the *Forest and Range Practices Act*, the *Wildfire Act* (WA), applicable transitional elements of the *Forest Practices Code of British Columbia Act* (the Code), and related regulations.

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.



Water licence point of diversion for human consumption located adjacent to harvest block.

## **Planning and Practices Examined**

### **Operational Planning**

Interfor conducted its activities under its 2006-2011 forest stewardship plan<sup>i</sup> (FSP), approved in October 2006, and five subsequent amendments. The 2006-2011 FSP applies to 37 of the 46 cutblocks harvested during the audit period. Harvesting activities for the other 9 cutblocks were conducted under the January 2002 to December 2006 forest development plan (FDP). Only the FSP was examined for compliance with the planning requirements of FRPA.

### **Harvesting**

During the audit period, Interfor harvested 46 cutblocks with a gross area totalling 1010 hectares. The audit examined 30 of those cutblocks totalling 799 hectares. Harvesting was conducted with ground-based systems only.

### **Road and Bridge Construction, Maintenance and Deactivation**

Interfor built 27.6 kilometres, maintained 2005 kilometres and deactivated 20.8 kilometres of road during the audit period. Interfor constructed 1 new bridge and maintained 33 structures. No bridges were deactivated during the audit period.

The Board audited 13.2 kilometres of the new road construction, 300 kilometres of road maintenance, 3.6 kilometres of road deactivation, the 1 new bridge, and 13 of the maintained bridges.

### **Silviculture Obligations and Activities**

Within the audit period, Interfor brushed 34 blocks, site prepared 52 blocks, and planted 328 blocks. One hundred and seventy-six blocks had regeneration obligations due and/or met during the audit period. Two hundred and thirty-nine blocks had free-growing obligations due and/or met during the audit period.

The Board audited 8 brushed blocks, 14 site-prepared blocks, 43 planted blocks, 24 blocks with regeneration obligations due and/or met, and 34 blocks with free-growing obligations due and/or met.



Cutblock managed as an open range ecosystem restoration.

## **Fire Protection Activities**

During the audit, two active harvesting sites were encountered and the fire preparedness requirements of the *Wildfire Act* were audited on both sites. Fifty-three fire hazard abatement

assessments and 43 fire hazard abatement activities were completed by Interfor within the audit period. The Board audited the appropriateness of 9 of these assessments and the abatement of the fire hazard on 22 cutblocks.



Debris piles burnt for fire hazard abatement in recently harvested cutblock.

## **Findings**

The audit found that, with one exception, the planning and field activities undertaken by Interfor on FL A18969 complied in all significant respects with the requirements of FRPA, WA, and related regulations, and applicable transitional elements of the Code, as of June 2010.

The audit identified a situation of significant non-compliance relating to bridge construction. The non-compliance involved a poorly constructed bridge, as discussed in the *Bridge Construction* section below.

Although the audit found Interfor's road and bridge maintenance and winter road construction practices complied in all significant respects, these are two areas in which improvement is required.

### **Bridge Construction**

Installation of the only new bridge was inconsistent with the engineered design, which included a lock block abutment two blocks high, a log ballast wall and rip rap scour protection. The steel structure of the bridge was also designed for bearing on a timber sill.

Section 72 of the *Forest Planning and Practices Regulation* requires that a person who constructs or maintains a road must ensure that the bridge is structurally sound and safe for use by industrial users.

This bridge was not considered to be sound and safe, as installed, due to the lack of:

- proper abutment construction;
- ballast walls;
- timber load-bearing sills; and
- overall poor installation practices.

Given the potential for harm to people and the environment, the poor construction practices on this bridge are considered a significant non-compliance. The bridge was removed by Interfor in late June 2010.

## Road Construction

The majority of Interfor's roads were constructed during the drier months. No concerns were identified by the auditors regarding roads constructed during these months.

However, roads constructed during the winter months were generally constructed to a low standard. Contrary to the site plans on four cutblocks, the roads were constructed without any drainage structures. In these four cutblocks, the contractor left the block without natural surface drainage patterns being maintained during or after construction—nor in time for the next freshet—as required by section 39 of the *Forest Planning and Practices Regulation*.

In three of these cutblocks, in lieu of drainage structures, non-merchantable timber had been laid in the stream to act as a crossing, and in some cases, some or all of this material had not been removed prior to the freshet.

Therefore, Interfor's winter road construction practices are considered an area requiring improvement.

## Road and Bridge Maintenance

There were no issues identified on the ground with road and bridge maintenance. The vast majority of the roads and bridges for which Interfor had maintenance obligations were constructed by the previous licensee. These structures, built predominantly in the mid-1990s, were well designed and well constructed, and were made primarily of steel and concrete decks with post and pad construction. During the audit, no structures were identified as in need of major repairs, nor did the bridges or roads audited pose a risk to the environment.

However, the auditors did note the following:

- there were no formal road or bridge maintenance inspections completed during the two-year audit period; and
- at the time of the audit, there was no maintenance program or tracking system in place for road or bridge maintenance.

This is considered an area requiring improvement.

## *Operational Planning*

The audit found that Interfor incorporated the objectives of the KBHLPO and the objectives set by government into the FSP. Quantitative objectives for retention levels in riparian areas, and stand-level wildlife tree retention, were incorporated directly into the FSP. Qualitative objectives for ecosystem representation and landscape corridors, water in community watersheds, visual quality, fish habitat, and recreation were incorporated into the FSP by describing appropriate strategies to be followed. The audit found that the quantitative objectives were met and the strategies were followed.

The FSP was found to be consistent with legislated requirements and the KBHLPO. Site plans were evaluated and found to be consistent with the FSP.

## *Timber Harvesting*

In general, the blocks audited were harvested according to the site plans. Roads, boundaries, wildlife tree patches and riparian features were all properly located and identified on the maps.

Interfor conducts periodic harvesting inspections as harvesting activities progress. The final harvesting inspection identifies any deficiencies in compliance with the logging and site plan, and instructs the logging contractor to correct these deficiencies in a timely manner.

## Riparian

Auditors note that Interfor recognized the value of riparian areas and demonstrated appropriate riparian management by:

- accurately identifying and classifying riparian features;
- establishing wildlife tree patches around wetlands or creeks;
- locating block boundaries outside of the riparian management zones where logical; and
- maintaining machine-free zones when outlined in the site plan and logging plan map.

## Wildlife Tree Retention (WTR)

WTR targets were established in the objectives set by government and incorporated into the FSP. The objectives are based on Biogeoclimatic Ecosystem Classification (BEC) subzone and landscape unit. The audit found wildlife trees were retained predominantly in patches and sometimes in dispersed groups, focusing on non-pine and deciduous species.



Wildlife tree retention in patches and in dispersed groups.

### Winter harvesting

Auditors noted an area of concern with the blocks selected for late winter harvesting, where, due to spring break-up, the harvesting contractor left the area prior to completing harvesting obligations. In this case, the contractor left logging debris, restricting the natural surface drainage patterns in some areas. Interfor identified the deficiencies on the blocks in question, and the logging contractor was instructed to correct them as soon as weather permitted. At the time of the audit, these deficiencies had not been corrected.

### *Road Deactivation*

Some in-block roads deactivated during the audit period have been deactivated to a semi-permanent level with respect to road prism stability and drainage features. Other in-block roads were fully rehabilitated and planted, and these roads also appeared to be stable. No concerns were identified with road deactivation or rehabilitation completed during the audit period, or with the long-term road deactivation or rehabilitation that had been completed by the previous holder of the licence.

### *Silviculture Obligations and Activities*

There were no concerns noted with site preparation and brushing activities, planting, regeneration obligations, or free-growing obligations during the course of the audit. Auditors noted that Interfor is actively managing the silviculture obligations on FL A18969 with:

- prompt planting;
- periodic surveys;
- assessments of the need for further silviculture treatments; and
- early free-growing declarations.

### *Fire Protection Activities*

Interfor had a current fire-preparedness plan and operators had assessed fire-danger classes appropriately. Both active sites were found to have sufficient fire tools on site for the low fire hazard at the time of the audit. Fire hazard abatement assessments and fire hazard abatement activities (piling and burning slash) were appropriately conducted.

## Audit Opinion

In my opinion, except for bridge construction discussed below, the operational planning; timber harvesting; road construction, maintenance and deactivation; silviculture; and fire protection activities carried out by International Forest Products Limited, Grand Forks Woods Division, on Forest Licence A18969 between June 1, 2008, and June 17, 2010, complied in all significant respects with the requirements of the *Forest and Range Practices Act*, the *Wildfire Act* and related regulations, as well as applicable transitional elements of the *Forest Practices Code of British Columbia Act*, as of June 2010.

As described in the *Bridge Construction* section of this report, the audit identified a significant non-compliance relating to a poorly constructed bridge that was unsafe for industrial use.

Without further qualifying my opinion, I draw attention to the *Road Construction* and *Road and Bridge Maintenance* sections of this report, which describe two areas requiring improvement.

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, WA and the Code.



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

Victoria, British Columbia  
March 2, 2011

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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 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**

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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. (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 and 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 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 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.



**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

For more information on the Board, please visit our website at: [www.fpb.gov.bc.ca](http://www.fpb.gov.bc.ca)