



**Forest  
Practices  
Board**

## **Audit of Forest Planning and Practices within the Penticton and Mission Creek Community Watersheds**

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*Weyerhaeuser Co. Ltd., Forest Licence A18674*

*Tolko Industries Ltd., Forest Licences A18667,  
A18672, A74912*

*FortisBC, Occupant Licences to Cut L47368, L47449*

**FPB/ARC/109**

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# Audit Results

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## Background

As part of its 2008 compliance audit program, the Forest Practices Board selected the Okanagan Shuswap Forest District as the location for a full scope compliance audit with a focus on water resources in community watersheds.

The Okanagan Shuswap Forest District covers a large geographical area (approximately 2.25 million hectares) and stretches from the US border in the south to Seymour River/Shuswap Lake in the north. Within the district, there are 57 community watersheds that have been designated under the Forest Practices Code since 1995. With such a large number of community watersheds in the district, the Board chose to focus on forestry activities conducted within two of the community watersheds – Penticton Creek and Mission Creek (see map on page 2).

As there is limited industrial activity within the Penticton Creek watershed, the board selected the only active forest licensee; Weyerhaeuser Co. Ltd. Since there is a much greater and diverse level of industrial activity within the Mission Creek watershed, the Board selected two auditees; Tolko Industries Ltd. and FortisBC.

The Board's audit fieldwork took place from July 7 to 11, 2008.

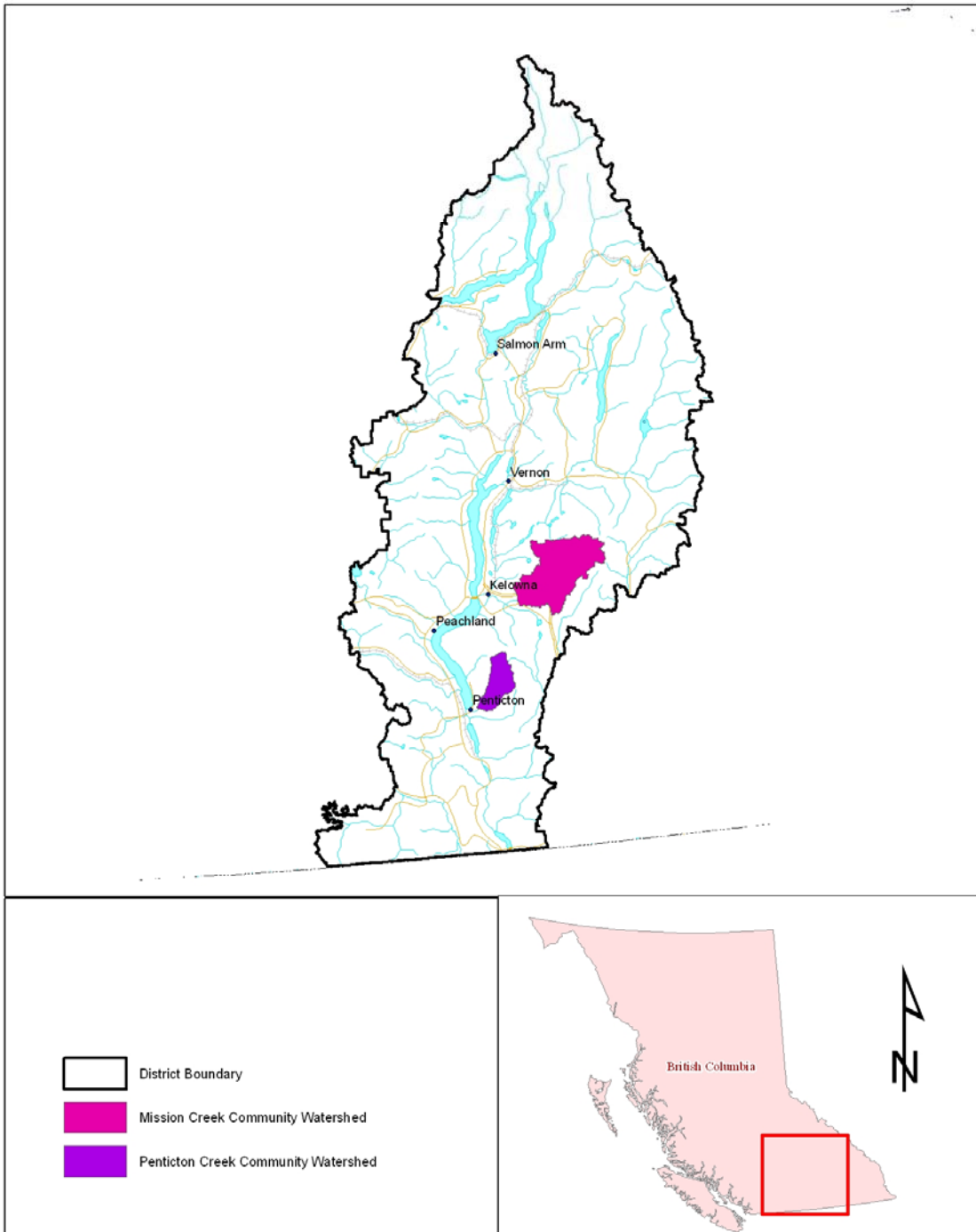
## Audit Scope and Approach

The Board conducted a full scope audit, which means harvesting, roads, silviculture, protection, and associated planning were examined. All activities, associated planning and obligations for the period July 1, 2005, to July 11, 2008, were included in the scope of the audit.

These activities were assessed for compliance with the *Forest and Range Practices Act* (FRPA<sup>i</sup>), the *Wildfire Act* (WA) and related regulations, as well as applicable transitional elements of the *Forest Practices Code of British Columbia Act* (the Code).

The Board's audit reference manual, *Compliance Audit Reference Manual, Version 6.0, May 2003*, and the addendum to the manual for the 2008 audit season, set out the standards and procedures that were used to carry out the audit.

# Audit of Forest Planning and Practices in the Okanagan Shuswap Forest District



## Audit Findings

### Penticton Creek Community Watershed

The Penticton Creek community watershed is located above the city of Penticton, on the east side of Okanagan Lake (see map below) and is approximately 15,292 hectares in size. The watershed consists of Penticton Creek, which originates at Greyback Mountain Dam, and four major tributary streams (Corporation, James, Reed, and Boulder), which join Penticton Creek below the dam site. Penticton Creek provides drinking water for the city of Penticton and irrigation water for agricultural use. The drinking water supply goes through a water treatment plant and irrigation water is diverted directly from Penticton Creek and is untreated.

Some main access roads within the Penticton Creek community watershed have been gated, which restricts public access, while other roads have been deactivated, which eliminates access altogether. With reduced access, recreation activity is limited within the watershed. At the time of the audit, the main activities in the watershed were forestry and range.

The Board selected Weyerhaeuser Co. Ltd., forest licence A18674, as the auditee within this watershed. Forest licence A18674 was selected for audit because it is the only active forest licence within the watershed and not on the basis of past performance.

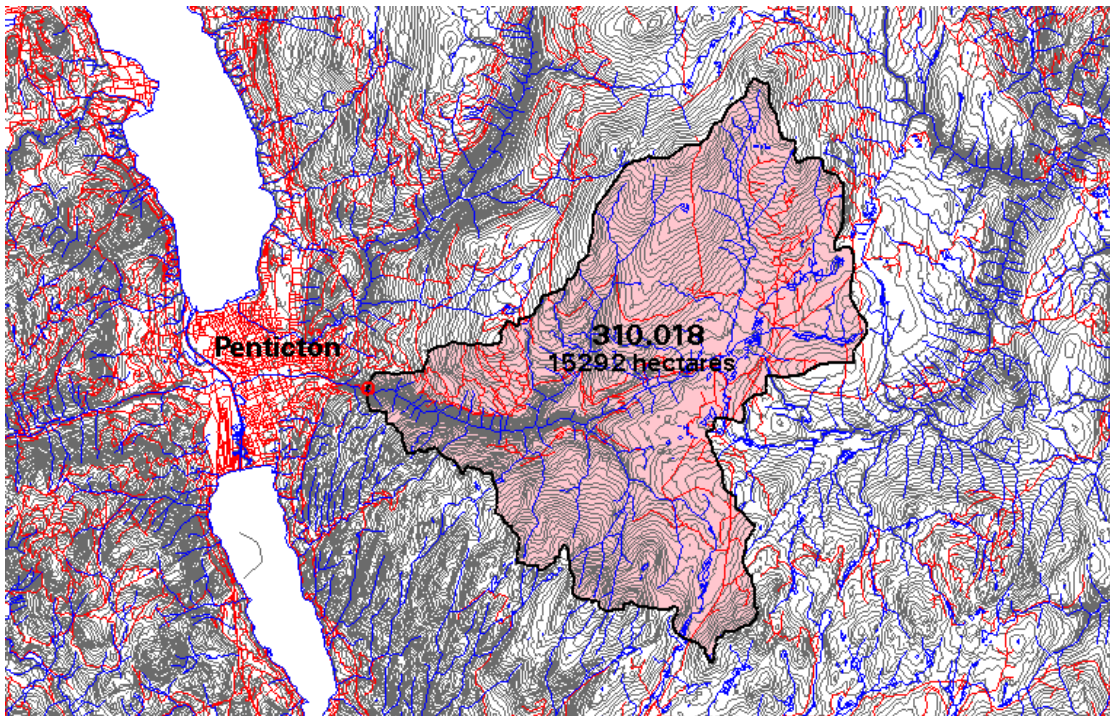


Figure 1: Map showing Penticton Creek community watershed boundary.



**Figure 2: Penticton Creek community watershed: looking at Greyback Mountain reservoir.**

## **Weyerhaeuser Co. Ltd.**

Weyerhaeuser Co. Ltd. holds forest licence A18674 and conducted forest activities within the watershed during the audit period.

### ***Planning***

Weyerhaeuser's planned activities were set out in *Forest Development Plan<sup>ii</sup> 2002-2006 FL A18674*, effective as of July 2002. There were two amendments to the plan, one in July 2005 pertaining to block PEN006, and the other in May 2006 for block PEN008. Protection activities were guided by the *2008 Fire Preparedness Plan Weyerhaeuser Princeton Division*.

All Weyerhaeuser's activities were subject to the transitional provisions of FRPA.

### ***Practices***

The audit looked at Weyerhaeuser's practices on the ground such as harvesting, roads and silviculture activities. During the audit period, a total of five cutblocks were harvested and all five cutblocks were audited. Four were in the upper part of the watershed above the dam and one was situated below the dam in the middle of the watershed. The four upper cutblocks are part of an on-going research project, intended to improve the understanding of hydrologic processes on the Okanagan Plateau and to develop effective forest practices guidelines that help sustain both timber and water resource values.

Road construction consisted of 1.9 kilometres of road to access the cutblocks and 1.2 kilometres of in-block roads, and all newly constructed roads were audited. The remaining road

construction consisted of temporary access structures within the cutblocks that had been rehabilitated. Weyerhaeuser also installed two bridges, which were examined as well.

Weyerhaeuser has maintenance obligations for 76 kilometres of road within the watershed and the auditors assessed several road segments, totalling 23.9 kilometres. Auditors also assessed all 4.1 kilometres of deactivated road.

Weyerhaeuser’s silviculture activities during the audit period consisted of mechanical site preparation, planting, regeneration obligations and free-growing obligations on a total of 37 cutblocks. The following table outlines the activities assessed by the auditors.

Silviculture Activity	Site Preparation	Planting	Regeneration Obligations	Free-growing Obligations
Population	4	8	23	2
Sites Audited	2	2	8	1

Protection obligations were assessed for the harvesting, road and silviculture activities included in the sample.

### **Mission Creek Community Watershed**

The Mission Creek community watershed is also located on the east side of Okanagan Lake, about 40 kilometres east of Kelowna (see map on p. 6) and is approximately 60,153 hectares in size. It is the largest tributary watershed within the Okanagan Basin, contributing approximately 40 percent of the total water input into Okanagan Lake. The watershed consists of Mission Creek, which originates in a large wetland along the Greyback Mountain Range, and four major tributary streams (Daves, Beligo, Pearson, and Joe Rich).

The lower part of Mission Creek has a main highway following its path and there are several access routes into the watershed via forest service roads, which provide unlimited access to most of the watershed. There are a number of development activities including forestry, range, recreation (Big White Ski Resort), transmission line right-of-way, private land and gravel pits within the watershed.

Various Crown land tenure holders have operations within the Mission Creek community watershed boundaries, either under a tree farm licence, forest licence, woodlot, forestry licence to cut, occupant licence to cut, or timber sale, the latter being administered by the BC Timber Sales Program.

The Board selected two auditees operating within the watershed, Tolko Industries Ltd. and FortisBC. Tolko operates under three forest licences and FortisBC constructed a new transmission line right-of-way under two occupant licences to cut. They were not selected on the basis of past performance.

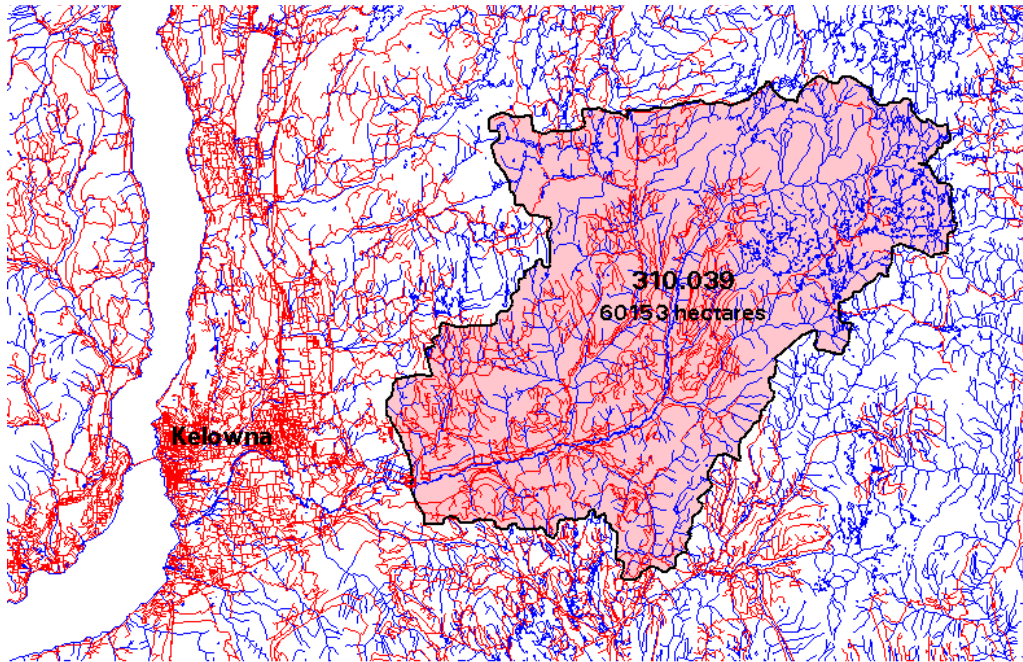


Figure 3: Map showing Mission Creek community watershed boundary.



Figure 4: Looking at Ideal Lake reservoir and earthen dams at outlet.



## **Tolko Industries Ltd.**

Tolko holds forest licences A18667, A18672 and A74912, and conducted forest activities within the watershed under all three licences during the audit period.

### *Planning*

Tolko's planned activities were set out in the following plans and amendments, all of which were audited by the Board:

- The *Forest Stewardship Plan*<sup>iii</sup> FL A18667, FL A18672, FL A74912 (FSP), which details the objectives, results, and strategies for Tolko's activities as of February 28, 2007, and a subsequent amendment effective November 2007;
- *Forest Development Plan 2002-2007 FL A18667 (Riverside-Kelowna)* effective as of August 2002;
- *Forest Development Plan 2002-2007 FL A18667 (Riverside-Lumby)* effective as of June 2002;
- *Forest Development Plan 2002-2007 FL A18686, FL A18672, TSL A18632 (Tolko Lavington)* effective as of November 2002;
- *Minor Amendment to Forest Development Plan 2002-2007 FL A18672 (Tolko Lavington)* effective as of September 2006;
- *Major Amendment #2 to Forest Development Plan 2002-2007 FL A18672 (Tolko Lavington)* effective as of October 2006; and
- *Okanagan Regional Woodlands Fire Organization Plan 2008.*

### *Practices*

The audit looked at Tolko's practices on the ground such as harvesting, roads and silviculture activities. During the audit period, a total of eight cutblocks located throughout the watershed were harvested. Auditors assessed all eight cutblocks.

Road construction within the audit period totalled 6.1 kilometres, of which auditors assessed 4.1 kilometres. The remaining road construction consisted of temporary access structures within the cutblocks that had been rehabilitated. No bridge construction occurred during the audit period.

Tolko has maintenance obligations for 317 kilometres of road and 10 bridges within the watershed, and the auditors assessed several road segments totalling 75.7 kilometres, as well as all bridges. Auditors assessed 3.2 kilometres of the 13.9 kilometres of road deactivated during the audit period.

Tolko's silviculture activities during the audit period consisted of mechanical site preparation, brushing, planting, regeneration obligations and free-growing obligations on a total of 97 cutblocks. The following table outlines the activities assessed by the auditors.

Silviculture Activity	Site Preparation	Brushing	Planting	Regeneration Obligations	Free-growing Obligations
Population	7	7	16	42	25
Sites Audited	2	2	4	12	11

Protection obligations were assessed for the harvesting, road and silviculture activities included in the sample.

## FortisBC

FortisBC holds occupant licences to cut (OLTC) L47368 and L47449, and conducted forest activities within the watershed under both licences during the audit period.

### *Planning*

FortisBC activities were not governed by a forest stewardship plan or forest development plan. Instead the direction was authorized in forestry licences to cut issued under the *Forest Act*<sup>1</sup> (Division 8.2 Licences to Cut, Section 47.3).

All FortisBC's timber harvesting and forest practices conducted under these agreements are subject to the transitional provisions of FRPA.

### *Practices*

The audit looked at FortisBC's practices on the ground such as harvesting, roads, and protection activities. The auditors assessed only the activities within the Mission Creek community watershed and did not assess the entire transmission line right-of-way. During the audit period, a total of two linear blocks were harvested: OLTC L47368, totaling 10.6 hectares and OLTC L47449, totaling 16.5 hectares.

Auditors assessed all 7.9 kilometres of road constructed within the audit period. The remaining road construction consisted of temporary access structures within the right-of-way, to access tower construction sites, that had been rehabilitated. No bridges were constructed during the audit period.

FortisBC had road maintenance obligations on 7.9 kilometres of road and these obligations were assessed by the auditors. There were no bridge maintenance obligations.

There were no silviculture activities during the audit period, as with a transmission line right-of-way, vegetation control is the priority.

Protection obligations included the burying, topping and scattering, or burning of debris generated from harvesting and road-related activities. These obligations were assessed by the auditors.

<sup>1</sup> <http://www.for.gov.bc.ca/tasb/legsregs/FOREST/foract/part3.htm#section47-4>



Figure 5: Looking back towards Joe Rich Creek along right-of-way within Mission Creek community watershed.

## Audit Opinion

In my opinion, the operational planning; timber harvesting; road construction, deactivation and maintenance; silviculture and protection activities carried out under forest licence A18674 by Weyerhaeuser Co. Ltd. within the Penticton Creek community watershed; forest licence A18667, A18672, and A74912 by Tolko Industries Ltd. within the Mission Creek community watershed; and occupant licences to cut L47368 and L47449 by FortisBC within the Mission Creek community watershed, for the period July 1, 2005, to July 11, 2008, complied in all significant respects with the requirements of the *Forest and Range Practices Act (FRPA)*, *Wildfire Act (WA)* and related regulations, and applicable transitional elements of the *Forest Practices Code of British Columbia Act (the Code)*, as of July 2008.

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, CEA(SFM)  
Director, Audits

Victoria, British Columbia  
September 17, 2009

# 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 from the timber harvesting population and all road sections constructed from the road construction population.

A separate sample is then selected for each population (e.g., the cutblocks selected for auditing timber harvesting). Within each population, more audit effort (i.e., more audit sampling) is allocated to areas where the risk of non-compliance is greater.

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

### Evaluating the Results

The Board recognizes that compliance with the many requirements of the Code, FRPA and WA, is more a matter of degree than absolute adherence. Determining compliance, and assessing the significance of non-compliance, requires the exercise of professional judgment within the direction provided by the Board.

The audit team, composed of professionals and technical experts, first determines whether forest practices comply with legislated requirements. For those practices considered to not be in compliance, the audit team then evaluates the significance of the non-compliance, based on a number of criteria, including the magnitude of the event, the frequency of its occurrence and the severity of the consequences.

Auditors categorize their findings into the following levels of compliance:

***Compliance*** – where the auditor finds that practices meet Code, FRPA and WA requirements.

***Not significant non-compliance*** – where the auditor, upon reaching a non-compliance conclusion, determines that one or more non-compliance event(s) is not significant and not worthy of reporting. Therefore, this category of events will not be included in audit reports.

***Significant non-compliance*** – where the auditor determines a non-compliance event(s) or condition(s) is or has the potential to be significant, and is considered worthy of reporting.

**Significant breach** – where the auditor finds that significant harm has occurred, or is beginning to occur, to persons or the environment as a result of one or many non-compliance events.

If it is determined that a significant breach has occurred, the auditor is required by the *Forest Practices Board Regulation* to immediately advise the Board, the party being audited, and the Minister of Forests and Range.

## Reporting

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

Once the auditor submits the draft report, the Board reviews it and determines if the audit findings may adversely affect any party or person. If so, the party or person must be given an opportunity to make representations before the Board decides the matter and issues a final report. The representations allow parties that may potentially be adversely affected to present their views to the Board.

The Board then reviews the auditor's draft report and the representations from parties that may potentially be adversely affected before preparing its final report. Once the representations have been completed, the report is finalized and released: first to the auditee and then to the public and government.

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<sup>i</sup> Most of the *Forest Practices Code of British Columbia Act* (the Code) was repealed on January 31, 2004, and replaced with the *Forest and Range Practices Act* (FRPA). The transitional provisions of FRPA state that the Code continues to apply to forest practices carried out under a forest development plan. This continues until there is an approved forest stewardship plan, at which point, the requirements of FRPA apply. Therefore, although FRPA came into effect prior to the audit period, the legislated forest practices requirements that applied to the auditee were the requirements of the Code.

<sup>ii</sup> A forest development plan is an operational plan that provides the public and government agencies with information about the location of proposed roads and cutblocks for harvesting timber over a period of at least five years. The plan must specify measures that will be carried out to protect certain forest resources prescribed by regulation. It must also be consistent with any higher level plans. Site-specific plans are required to be consistent with the forest development plan.

<sup>iii</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.