



**Forest
Practices
Board**

Audit of Forest Planning and Practices

*International Forest Products Limited
Forest Licences A16850 and A82001*

FPB/ARC/151
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Board Commentary

In June 2012, the Board conducted a full scope audit of forest planning and practices on International Forest Products Ltd. (Interfor) Forest Licences A16850 and A82001 in the North Island-Central Coast District.

This area, often referred to as the Great Bear Rainforest is rugged, remote, and characterized by a wet, windy climate, making forest operations challenging. The area has received international attention due to concerns about resource use in one of the largest temperate rainforests in the world. This attention has led to the collaboration of land users, First Nations and government agencies in the creation of land use orders designed in part to implement ecosystem-based management (EBM), integrating social, economic and ecological needs in the area. This is the first Board audit in the Mid-Coast Timber Supply Area where EBM has been incorporated into planning and practices.

The auditors found that Interfor met the legislative requirements of forest management throughout all aspects of their operations on these two forest licences. In particular the auditors noted that visual quality objectives were well managed.

The transition to this ecosystem-based management approach is still underway and its effectiveness will have to be judged over time. However the Board would like to acknowledge Interfor's diligence in applying the planning and operational requirements of EBM in this challenging operating area.

Audit Results

Background

As part of its 2012 compliance audit program, the Forest Practices Board selected International Forest Products Limited's (Interfor) forest licences A16850 and A82001 for audit. Interfor administers these licences from its office in Campbell River and operates from several camps on BC's central coast.

The licences have a combined annual allowable cut of 239 919 cubic metres and lie within the Mid Coast Timber Supply Area (mid-coast TSA), which includes the communities of Bella Coola and Bella Bella. The mid-coast TSA is remote and is characterized by rugged terrain and a wet climate, making operations challenging. It is sometimes referred to as the Great Bear Rainforest, and includes rare plant species and wildlife, such as the Kermode bear, as well as an abundance of other natural resources.

Interfor harvested approximately 253 000 cubic metres of timber during the two-year audit period, harvesting a mix of species. A map of the audit area appears on page 4.

Although the TSA is remote, it has received international attention due to concerns about resource management, as it is in one of the largest temperate rainforests in the world. In 2000, these concerns led to a partnership between environmental groups, the forest industry (in collaboration with First Nations), local communities and the BC Government to develop an ecosystem-based management (EBM)ⁱ approach to resource management, designed to integrate social, economic and ecological needs. EBM in the mid-coast TSA was formalized through one of BC's land use planning processes in the *Central Coast Land and Resource Management Plan* which led to the 2007 *Central and North Coast and South Central Coast Orders* (Orders).ⁱⁱ The Orders define land use objectives for the area and include direction for protected areas, lighter touch logging based on EBM and human well-being initiatives for First Nations communities.

EBM is unique in BC, applicable only to certain coastal parts of the province and includes specific environmental requirements.

Two professional foresters, a chartered accountant and a professional engineer made up the audit team. Field work was carried out from June 25 to 29, 2012.

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



Typical variable terrain and fjords in the Mid-Coast TSA, recent timber harvest and log hauling near Sandell Lake.

Objectives set by government

Interfor's activities must be consistent with the *Central and North Coast* and *South Central Coast Orders* (the Orders). The Orders establish legal objectives for First Nations values, aquatic habitats and biodiversity, for the purpose of directing forest practices implemented under the *Forest and Range Practices Act* (FRPA). The objectives apply to a broad landscape and have limited application for specific cutblocks or roads within the audit area. Some key requirements of the Orders include:

- consultation with First Nations to address site-specific resource features, which may include traditional heritage features, culturally modified trees, monumental cedar, and stand-level retention of western red and yellow cedar
- forest cover removal limitations in important fisheries watersheds and visually sensitive areas
- reserve zones and forest cover retention adjacent to aquatic features
- retention targets for old and mature timber
- grizzly and Kermode bear habitat retention zones

The Order requirements also support the implementation of EBM as a way to maintain ecosystem integrity and improve human well being.

Government objectives set out in FRPA and the *Forest Planning and Practices Regulation* (FPPR) also provide strategic and operational guidance to Interfor's operations.

Interfor conducts its forest operations under the *North Island – Central Coast Natural Resource District Mid Coast Multi-Licence Forest Stewardship Plan* (FSP),ⁱⁱⁱ approved on February 14, 2007, for a five-year period and extended for an additional five years. The FSP provides the link between on-the-ground forestry operations, FRPA objectives and the Orders by establishing measurable and verifiable results and strategies that are consistent between them.

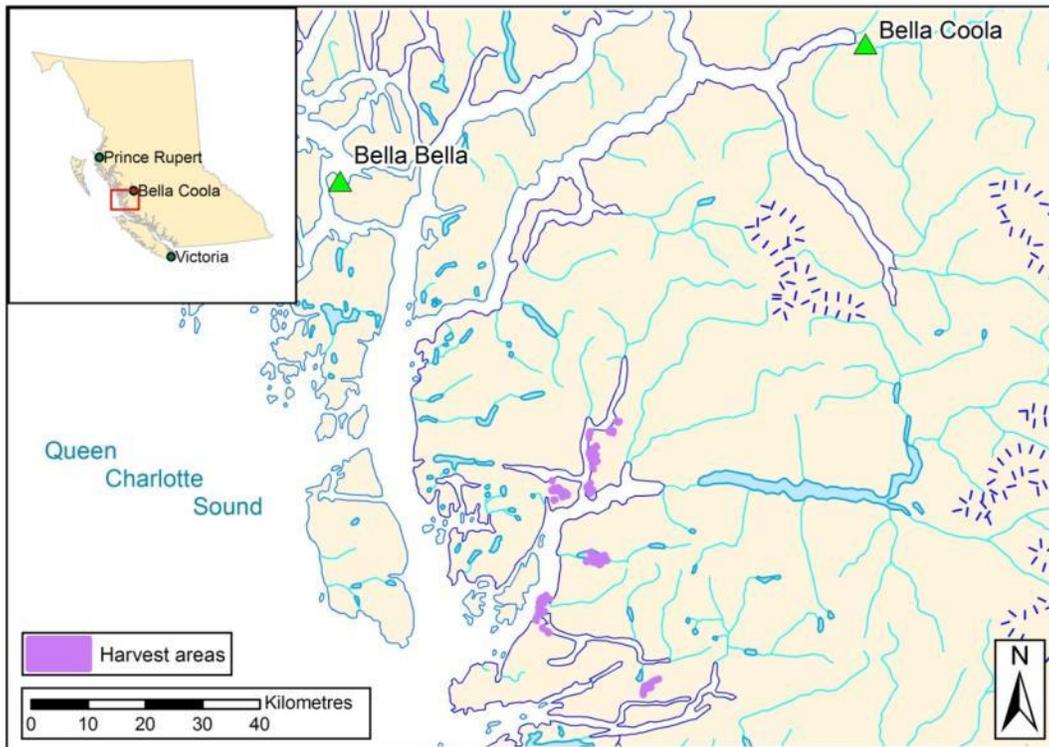
Audit Approach and Scope

The Board conducted a full scope compliance audit, in which all harvesting, roads, silviculture, protection activities and associated planning done between June 1, 2010, and June 29, 2012, were included. These items were assessed for compliance with the Orders, FRPA, the *Wildfire Act* (WA), and related regulations.

This is the first audit the Board has conducted in the mid-coast TSA where EBM has been incorporated into planning and practices, and so auditors looked at how Interfor met current legal requirements of EBM.

The Board's Compliance Audit Reference Manual, Version 6.0, May 2003, and the addendum to the manual for the 2012 audit season set out the standards and procedures that were used to carry out this audit.

Map of the Audit Area



Planning and Practices Examined

Operational Planning

The audit area is subject to EBM and therefore provided an opportunity to test the implementation of EBM as it applies to a forestry operation. While full transition to EBM is not scheduled until March 2014, Interfor has been working towards its implementation since 2004. Auditors looked at how Interfor applied EBM to its site plans; how objectives were met for old growth, streams, habitat and cultural heritage features; how information was shared with First Nations; and, how Interfor is progressing towards EBM implementation.

Interfor planned its forestry activities in its 2007-2017 forest stewardship plan (FSP). Most (85 percent) of the harvesting and all of the new road construction included in the audit was approved or permitted after the Orders were established and was subject to requirements of the Orders. The FSP, 39 site plans and Interfor's First Nations referral activities were examined for compliance with the Orders and other legal requirements, including Interfor's commitment to implement EBM.

Site plans were also evaluated to ensure that they accurately identified site conditions through harvesting, road and silviculture field sampling.

Timber Harvesting

All of the 35 cutblocks harvested during the audit period, covering 469 hectares, were sampled as part of the audit.

Road Construction, Maintenance, Deactivation

Interfor is responsible for maintaining approximately 425 kilometres of road permit roads, of which auditors examined 390 kilometres. Interfor also built 40 kilometres of road and deactivated 2.6 kilometres, all of which were examined by the auditors.

Interfor constructed 5 bridges and maintained 15 more during the audit period. Auditors examined all of these bridges.

Silviculture Activities and Obligations

Interfor planted 30 cutblocks during the audit period. Auditors examined nine of those blocks for planting practices and all of them for compliance with seed transfer guidelines. Interfor brushed 15 cutblocks during the audit period, 4 were audited.

Auditors examined 27 of 202 cutblocks where regeneration delay was due or declared, and 42 of 109 cutblocks where free growing was due or declared.

Fire Protection

Due to the wet conditions that normally prevail in the audit area, Interfor was granted an exemption, under certain conditions, from the requirement to document and provide a fire hazard assessment to an official upon request under section 72(3) of the WA. The auditors assessed whether Interfor's activities met the conditions of the exemption.

Abatement activities were examined on 35 cutblocks in conjunction with harvest auditing. The one active operation was examined during the audit.

Findings

The audit found the planning and forest activities undertaken by Interfor complied with the requirements of the Orders, FRPA, WA and related regulations.

Operational Planning

Interfor's 2007-2017 FSP and site plans were consistent with the Orders, and met legal content requirements.

Ecosystem-Based Management Implementation

Auditors reviewed Interfor's performance against current legal requirements of EBM and found that Interfor is addressing EBM implementation by:

- amending the FSP to include objectives and results and strategies that are consistent with the Order objectives.
- describing how the results and strategies apply to the site in site plans.

- accurately identifying and prescribing practices consistent with objectives for on-site resource features, including streams and wetlands, wildlife habitat, cultural heritage features and scenic areas.
- employing landscape level practices consistent with the Orders to ensure old growth targets are met (including maps delineating strategic level old growth forest soft reserves, and co-locating, where practicable, with habitat for focal wildlife species).
- regularly sharing planning information and/or consulting with First Nations, including providing the locations of proposed cutblocks and roads.
- analysing activities to verify whether results and strategies are being achieved.
- reporting activities to government to assist with their analysis of EBM implementation.
- collaborating with other members of the Coast Forest Conservation Initiatives^{iv} towards achieving full EBM implementation by 2014.

Timber Harvesting

Harvesting was conducted in accordance with legislation and site plans.

The majority of logging targeted mature cedar and hemlock and most harvesting was conducted using cable or helicopter systems.

Interfor often included specific practices in site and harvest plans for logging contractors to follow, including to:

- rehabilitate excavated trails, deactivate permanent access structures and use cable or aerial harvest systems to limit soil disturbance.
- use wildlife tree patches, yarding techniques and vegetation retention to protect lakes, wetlands or streams.
- retain standing timber, use topography and shape cutblocks to screen cutblocks from viewpoints.
- exclude cultural sites from harvest areas to protect them.
- retain cedar suitable for First Nation's cultural use.
- minimize soil disturbance, grass seed and maintain natural drainage patterns to help ensure that landslides don't occur on potentially unstable terrain.
- retain wildlife trees in groups and as individual stems to provide wildlife habitat.

The auditors found strong communication between Interfor staff and contractors, with Interfor providing clear guidance about environmental procedures. Interfor used effective communication tools, including pre-work maps, harvest plans and risk matrices to support contractors' understanding of requirements.

Harvesting practices were consistent with site level plans. Soil disturbance was well managed and within FRPA limits, natural drainage patterns were maintained and fall away/yard away stream prescriptions were well-executed in the field.

Wildlife tree patches were retained as planned and were situated to protect resources such as streams and cultural features.

Forest management for viewsapes is an important consideration in this area, especially for tourism operators. Interfor used visual design practices in scenic areas, including a combination of small patch cuts, careful orientation of cutblock boundaries, and tree retention, to well manage visual quality objectives.



An example where harvesting small patches, retaining trees and using topographic screening reduced visual impacts in a scenic area.

Road Construction, Maintenance and Deactivation

No concerns were identified with road construction, maintenance or deactivation. Roads were stable and stream crossings were well maintained and in good condition. Roads were deactivated soon after harvesting, before equipment had left the area.



Deactivated bridge site on Naysash Creek.

The bridges built during the audit period were constructed in accordance with the plans and no concerns were identified.

At the time of the audit, Interfor kept a road ledger and had a process in place to ensure that it was fulfilling its road maintenance obligations. The risk of environmental damage to the high-value resource features in the area was minimized for these licences. For example, Interfor managed fish passage by:

- installing drainage structures such as wood culverts or bridges to protect fish streams;
- including provisions to avoid damage to fish habitat in their standard operating procedures for road construction, maintenance and deactivation; and,
- periodically inspecting and maintaining drainage structures.

Silviculture Activities and Obligations

There were no issues identified with brushing, planting and regeneration or free-to-grow obligations. Interfor maintained accurate silviculture records and conducted timely silviculture

activities. It met government seed transfer requirements as well as free growing and regeneration obligations and reported them within the required time frames.

Fire Protection Activities

The auditors found that all of the activities subject to audit met the conditions for the exemption to document and provide fire hazard assessments and that Interfor did not operate near important values that may warrant their documentation, such as occupied private property, commercial developments or natural resource features.

No concerns were identified with respect to abatement activities. Logging slash was placed on all cutblocks in a manner that minimized the risk of wildfire.

The single active operation audited was found to have adequate firefighting equipment on site.

Audit Opinion

In my opinion, the operational planning; timber harvesting; road construction, maintenance and deactivation; silviculture; and fire protection activities carried out by International Forest Products Limited on forest licences A16850 and A82001 between June 1, 2010, and June 29, 2012, complied in all significant respects with the requirements of the *Forest and Range Practices Act*, the *Wildfire Act* and related regulations as of June 2012.

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 and WA.



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Victoria, British Columbia
January 29, 2013

Appendix 1: Forest Practices Board Compliance Audit Process

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.

Selection of Auditees

The Board conducts about 8 or 9 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 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 2010, the Board randomly selected the Mackenzie district as a location for an audit. After assessing the activities within that area, we discovered that a large licensee 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, and we knew that some of the licence area is very remote, the new licence holder was selected for audit.

For BCTS audits, a 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 Canadian generally accepted auditing standards. The standards for compliance audits are described in the Board's *Compliance Audit Reference Manual*.

Audit Process

Conducting the Audit

Once the Board randomly selects an area or district and determines the scope of audit to be conducted and the licensee(s) to be audited, all activities carried out during the period subject to audit are identified (such as harvesting or replanting, and road construction or deactivation activities). Items that make up each forest activity are referred to as a population. For example, all sites harvested form the timber harvesting population and all road sections constructed form the road construction population.

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

Audit fieldwork 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 week in the field.

Evaluating the Results

The Board recognizes that compliance with the many requirements of 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 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 draft report from the auditor 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.

Endnotes

- ⁱ Ecosystem Based Management (EBM) is an adaptive approach to managing human activities that seeks to ensure the coexistence of healthy, fully functioning ecosystems and human communities. Commitments for EBM emerged from the Land and Resource Management Planning processes which began in 1997 for the Central Coast and in 2001 for the North Coast. Full implementation of EBM is planned for 2014, once a governance framework, human well-being policies and initiatives, conservation measures, adaptive management systems and flexibility provisions are in place, as defined by the Joint Land and Resource Forum. The guiding principles of EBM implementation are detailed in the *Coast Information Team Ecosystem-Based Management Planning Handbook (March 2004)* at: <http://www.citbc.org/c-ebm-hdbk-fin-22mar04.pdf> . For more information, the latest implementation update report can be found at: http://archive.ilmb.gov.bc.ca/slrp/lrmp/nanaimo/central_north_coast/docs/EBM_Implementation%20Update_report_July%2031_2012.pdf .
- ⁱⁱ *The Central and North Coast and South Central Coast Orders* were initially established in December, 2007 and were subsequently amended in March, 2009. The Orders support the implementation of Ecosystem Based Management (EBM) by establishing land use objectives designed to protect important First Nations cultural values, support ecosystem integrity and provide environmental benefits by maintaining the diversity and abundance of organisms within the plan area. FRPA requires licensees in the Order's defined areas to identify strategies and/or results in their forest stewardship plan that are consistent with the objectives of the Orders, to implement the strategies and achieve the results. The Orders define certain resource interests and identify the areas where the objectives for those interests apply. More information about the Orders can be found at: <http://www.ilmb.gov.bc.ca/slrp/lrmp/nanaimo/cencoast/plan/objectives/index.html>
- ⁱⁱⁱ 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 cut blocks. FSPs normally have a term of five years.
- ^{iv} The Coast Forest Conservation Initiative (CFCI) is a collaborative effort of five British Columbia forest products producers committed to finding new approaches to forest conservation and management in BC's Central and North Coast. Its purpose is to support development of an ecosystem-based conservation and management plan in that region. The initiative is partnered with environmental groups and involves collaboration with First Nations, local communities and the BC Government to develop an ecosystem-based plan that fully integrates social, economic and ecological needs. More information about the CFCI can be found at their website: www.coastforestconservationinitiative.com



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