



**Forest
Practices
Board**

Audit of Forest Planning and Practices

*Gwa'Nak Resources Ltd.
Forest Licences A93095 & A93096, and
Non-Replaceable Forest Licence A75918*

FPB/ARC/213

May 2018

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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* and the *Wildfire Act*.

As part of its 2017 compliance audit program, the Board randomly selected the North Island Central Coast Natural Resource District as a location for a full scope compliance audit. The Board selected forest licences (FL) A93095 and A93096 and non-replaceable forest licence (NRFL) A75918, held by Gwa'Nak Resources Ltd. (Gwa'Nak), 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.



Rugged topography typical of the operating area.

Background

The audit includes three small forest licences with a combined allowable annual cut of approximately 52 600 cubic metres per year, with Gwa'Nak harvesting 161 000 cubic metres during the two-year audit period.¹ The licences are located within the Great Bear Rainforest South Timber Supply Area (TSA), which replaced the Kingcome TSA in January 2017. The activities audited are located approximately 46 kilometres north of Port Hardy, along Belize Inlet (as shown on the map of the

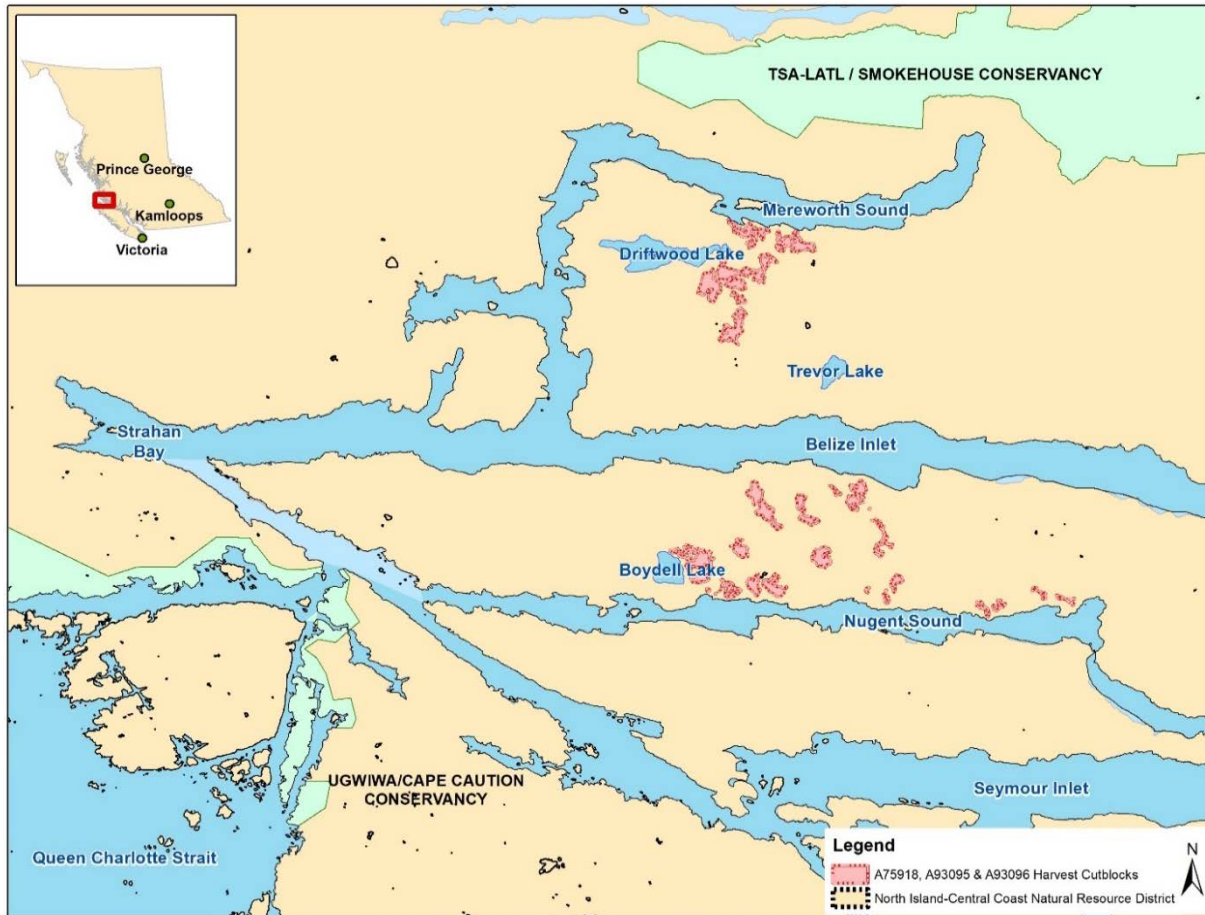
¹ A licensee may harvest up to 110 percent of their five-year cut control cycle, or over 285,000 cubic metres in this case, in just one or two years, while still meeting cut control requirements.

audit area below). Gwa’Nak’s planning and practices are managed by Lions Gate Forest Products Ltd. out of Lions Gate’s office in Port McNeill.

The audit area is remote and can only be accessed by water or air. Rugged mountains, lakes and numerous inlets, which create operational challenges, characterize the area. It is ecologically complex, supporting a rich and diverse array of wildlife, and contains a mixture of hemlock, balsam and western red cedar tree species.

The licences fall within the area covered by the South-Central Coast Higher Level Plan Order (SCCO), which was replaced by the Great Bear Rainforest Order (GBR) in January 2017. Gwa’Nak has not conducted any activities in the audit area since the GBR came into effect.

Map of the Audit Area



Audit Approach and Scope

This was a full scope compliance audit with a two-year timeframe. All activities carried out by Gwa’Nak in the North Island Central Coast Natural Resource District between August 1, 2015, and August 15, 2017, were subject to audit. The activities included operational planning (involving the preparation of forest stewardship plans (FSP)ⁱ and site plans) harvesting, roads, major structureⁱⁱ construction and maintenance, silviculture, wildfire protection and associated planning.

Auditors assessed these activities for compliance with the *Forest and Range Practices Act* (FRPA), the *Wildfire Act* (WA), and applicable regulations. Auditors' work involved interviewing Gwa’Nak staff,

conducting an office review of operational plans and silviculture records, and conducting field visits using a helicopter.

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

One forest professional, a professional engineer and a chartered professional accountant made up the audit team. The audit team was in the field on August 15, 2017.

Planning and Practices Examined

Operational Planning

Gwa'Nak planned its activities under an approved FSP that was in effect until May 2017. It was then replaced by a new FSP, but none of the audited activities were conducted under the new FSP. However, auditors examined both FSPs for consistency with legal requirements, including SCCO, (which established objectives for First Nations values, aquatic habitats and biodiversity) and government orders for karst, old growth areas and visual quality objectives. Auditors also reviewed site plans during harvesting, road and silviculture field sampling to ensure that they accurately identified site conditions.

Timber Harvesting

Gwa'Nak conducted harvesting activities on 16 cutblocks during the audit period. Auditors examined all of these cutblocks.

Road Construction and Maintenance

During the audit period, Gwa'Nak constructed 25 kilometres and maintained 25 kilometres of road. Gwa'Nak constructed and maintained six bridges. Gwa'Nak did not deactivate any roads.

Auditors examined all of the constructed and maintained roads, and 5 of the 6 bridges.

Silviculture Activities and Obligations

Gwa'Nak planted 15 cutblocks. Gwa'Nak did not conduct any other silviculture activities nor did it have any silviculture obligations due or declared within the audit period.

Auditors examined six of the planted cutblocks in the field and all 15 for compliance with the chief forester's seed transfer guidelines and the annual reporting requirements.

Wildfire Protection

Gwa'Nak did not conduct any active operations during the field audit and auditors did not examine licensee compliance with *Wildfire Act* requirements for fire preparedness.

The *Wildfire Act* requires licensees to assess the fire hazard at specified intervals, including an assessment of the fuel hazard and its associated risk of a fire starting or spreading. If a licensee identifies a fire hazard, they must abate it. Auditors examined fire hazard assessment and abatement obligations on all 16 of the sampled harvesting cutblocks.

Findings

The auditors found that the bridge construction practices carried out by Gwa’Nak did not comply with the requirements of FRPA. This is an adverse opinionⁱⁱⁱ for these activities and is discussed below.

Auditors found that Gwa’Nak’s operational planning, harvesting, road construction and maintenance, silviculture and protection activities complied with FRPA and the *Wildfire Act*.

Bridge Construction

Gwa’Nak constructed several kilometres of road to access cutblocks under FL A93095 and NRFL A75918. The road construction included the installation of six bridges and auditors assessed five of these bridges. The *Forest Planning and Practices Regulation* requires a person to build a bridge to applicable standards (section 73),^{iv} prepare and retain as-built drawings and other records (section 77)^v and, most importantly, ensure the bridge is structurally sound and safe for use by industrial users (section 72)^{vi}.

In assessing bridge construction, auditors noted that Gwa’Nak did not have as-built drawings or other records, including any form of bridge design, for any of the five bridges constructed. Therefore, as there was no design for these structures, the licensee did not ensure these bridges are structurally sound and safe for use by industrial users. These combined significant non-compliances are of sufficient magnitude to warrant an overall negative conclusion.

Subsequent to the audit, Gwa’Nak stated it hired a professional engineer to survey, load rate and record every bridge associated with all licences held by Gwa’Nak and it plans to correct any deficiencies identified during the inspections. Gwa’Nak also stated it has revised its bridge procedures to ensure compliance in the future.

Operational Planning

The FSP and site plans were consistent with FRPA requirements. The FSP incorporated requirements of the SCCO and the government orders. Gwa’Nak addressed site-specific resources in the site plans by accurately identifying and prescribing practices for resource features.

Gwa’Nak met stand level retention requirements in the SCCO by correctly determining requirements that apply to the site, calculating whether the proportion and distribution of retention areas conformed to SCCO criteria, and prescribing the calculated retention levels and distribution in its site plans. The FSP commits Gwa’Nak to maintaining at least 15 percent of the total area of a clearcut cutblock as timbered leave areas. If the cutblock is larger than 15 hectares, then at least 50 percent of the leave areas must be distributed within the cutblock. All 16 cutblocks sampled were clearcut and greater than 15 hectares. At the time of the audit, Gwa’Nak had retained greater than 15 percent of each cutblock as timbered leave areas and had distributed retention areas within the cutblocks.

Gwa’Nak operates in an area with inherent terrain instability. Gwa’Nak minimized the risk of causing a landslide by engaging a geomorphologist to conduct detailed terrain stability assessments prior to harvest and by incorporating his recommendations into road and harvest plans and practices. The auditors observed several landslides within the audit area and two small slides were located within the harvested areas sampled. For the two slides, Gwa’Nak completed a slide incident report and implemented a strategy to minimize the risk of subsequent instability.

Gwa’Nak refers proposed development to First Nations on an annual basis. It keeps an itemized record of the referral and any comments received.

Auditors had no concerns with operational planning.

Timber Harvesting

Topography in the operating area varies from steep mountainous terrain to gentle ground in the valley bottoms.

Gwa’Nak maintained natural drainage patterns. Streams were well managed and in-block temporary access structures that crossed streams were rehabilitated and natural drainage was maintained. Reserve zones were established along some streams and harvesting did not infringe on the reserve zones.

Dispersed soil disturbance was well managed, using cable and helicopter harvest systems to minimize disturbance. Gwa’Nak rehabilitated and planted temporary access trails.

Harvesting practices conformed to site plans and auditors had no issues with timber harvesting.

Road Construction and Maintenance

Road construction primarily used conventional road building methods and roads were well-built and natural drainage patterns were maintained. Road maintenance was well done.

Auditors had no concerns with road construction and maintenance.

Silviculture Activities and Obligations

Gwa’Nak operates in an area with difficult access, steep slopes and high post-harvest slash loading, making reforestation very challenging. Gwa’Nak’s silviculture program was well managed and executed. It planted all cutblocks with suitable tree species and stock, and all planted trees met the chief forester’s seed transfer guidelines.

All annual reporting obligations were up to date.

Auditors had no concerns with silviculture activities or obligations.

Wildfire Protection

All cutblocks in the harvesting audit sample were evaluated for compliance with the *Wildfire Act*.

Hazard Assessment

Auditors examined the 16 cutblocks that required a hazard assessment for compliance with *Wildfire Act* requirements. Gwa’Nak had completed hazard assessments for all 16 cutblocks.

Hazard Abatement

It is Gwa’Nak’s standard practice to pile slash and then burn it when it is safe to do. No cutblocks in the audit sample were required to have the fire hazard abated during the audit period.

Gwa’Nak piled slash in a manner that would facilitate hazard abatement on the unabated cutblocks.

Auditors found that Gwa’Nak met its assessment and abatement obligations.

Audit Opinion

In my opinion, the bridge construction activities carried out by Gwa'Nak Resources Ltd. on forest licence A93095 and non-replaceable forest licence A75918 between August 1, 2015, and August 15, 2017, did not comply in all significant respects with the requirements of the *Forest and Range Practices Act* (FRPA) and related regulations, as of August 2017. There were no bridges constructed on forest licence A93096.

As described in the *Bridge Construction* section of this report, the concerns identified regarding bridge construction activities are representative of the activities audited, which are found to not be in compliance with FRPA.

In my opinion, the operational planning, timber harvesting, road construction and maintenance, silviculture, and fire protection activities carried out by Gwa'Nak Resources Ltd. on forest licences A93095 and A93096 and non-replaceable forest licence A75918 between August 1, 2015, and August 15, 2017, complied in all significant respects with the requirements of FRPA, the *Wildfire Act* and related regulations, as of August 2017. 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.

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 FRPA and the *Wildfire Act*.



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Director, Audits

Victoria, British Columbia
April 9, 2018

ENDNOTES

ⁱ 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 can have a term of up to five years.

ⁱⁱ 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.

http://www.for.gov.bc.ca/hth/engineering/documents/publications_guidebooks/manuals_standards/Eng-Manual.pdf

ⁱⁱⁱ An “adverse opinion” is an overall negative conclusion, which is appropriate when significant non-compliance is individually or collectively of sufficient magnitude to warrant an overall negative opinion.

(CARM – version 7.1, July 2016 – page 25)

^{iv} **Section 73 of the Forest Planning and Practices Regulation:**

Design of bridges

73 A person who builds a bridge for the purpose of constructing or maintaining a road must ensure that the design and fabrication of the bridge

- (a) meets or exceeds standards applicable to roads at the time the design or fabrication is done, in respect of
 - (i) bridge design, as established by the Canadian Standards Association, Canadian Highway Bridge Design Code, CAN/CSA-S6, and
 - (ii) soil properties, as they apply to bridge piers and abutments, as established by the Canadian Foundation of Engineering Manual, and
- (b) takes into account the effect of logging trucks with unbalanced loads and off-centre driving.

^v **Section 77 of the Forest Planning and Practices Regulation:**

Retaining information

77 (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.

^{vi} **Section 72 of the Forest Planning and Practices Regulation:**

Roads and associated structures

72 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.

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*. Compliance audits examine forest or range planning and practices to determine whether or not they meet FRPA and / or the *Wildfire Act* 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.

Unsound Practice – where the auditor identifies a significant practice that, although found to be in compliance with FRPA or WA, 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, 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, Natural Resource Operations and Rural Development.

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.



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