



**Forest
Practices
Board**

Audit of Forest Planning and Practices

*Pacheedaht Andersen Timber Holdings LP
Tree Farm Licence 61
South Island Natural Resource District*

FPB/ARC/230

July 2019

Table of Contents

Audit Results 1

 Introduction..... 1

 Background 1

 Audit Approach and Scope 3

 Planning and Practices Examined 3

 Findings..... 4

Audit Opinion 7

Appendix 1: Forest Practices Board Compliance Audit Process 8

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 forest industry practices to ensure compliance with the *Forest and Range Practices Act* (FRPA) and the *Wildfire Act*.

For its first compliance audit of 2019, the Board randomly selected the South Island Natural Resource District as the location for a full scope compliance audit. Within the district, the Board selected Pacheedaht Andersen Timber Holdings Limited Partnership's (PATH) tree farm licence (TFL) 61 for audit.

This report describes what the Board audited and the results. Detailed information about the Board's compliance audit process is provided in Appendix 1.



Figure 1. A second growth forest near Loss Creek in TFL 61.

Background

On May 1, 2010, TFL 61 was created from parts of TFL 25. On March 16, 2011, PATH purchased TFL 61 from Western Forest Products Ltd. PATH is a partnership between Pacheedaht First Nation and Andersen Timber.

TFL 61 is made up of 20 240 hectares of Crown land on southwestern Vancouver Island between Port Renfrew and Jordan River. Highway 14 traverses the south side of the TFL.

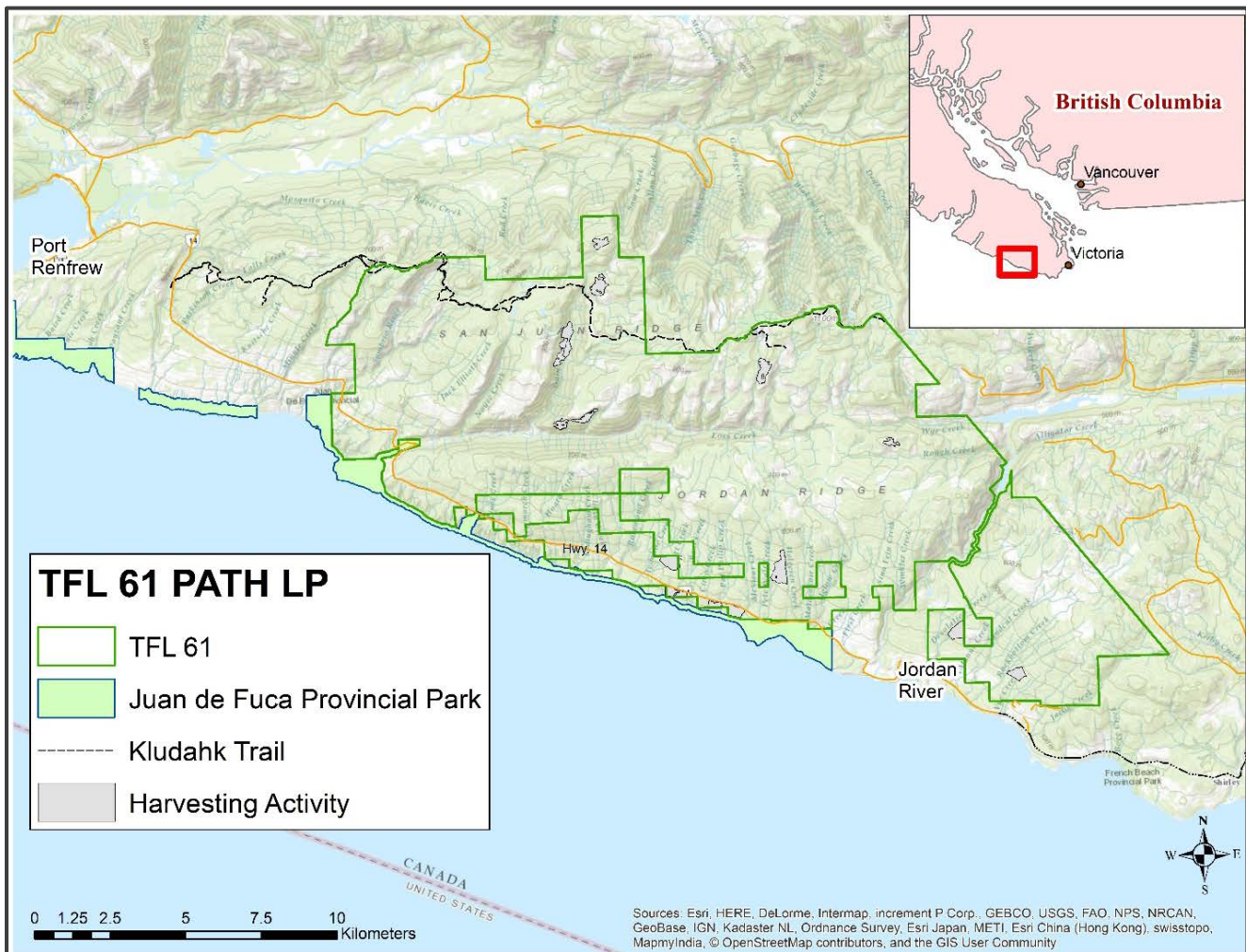
The forests of the area were first logged in the 1800s and have been managed as a TFL since 1958. There is a well-established road network. The TFL contains some of the closest Crown land to Victoria and surrounding communities, and the area attracts a significant amount of recreational and tourism activity. Two significant trails draw many visitors to the area. The 40-kilometre long Kludahk trail

runs along the San Juan Ridge between Port Renfrew and Jordan River, and the 47-kilometre long Juan de Fuca marine trail runs along the Strait of Juan de Fuca between China Beach and Botanical Beach. These trails are either within or beside the TFL.

The TFL is primarily within the coastal western hemlock biogeoclimatic ecosystem classification zone, with higher elevations in the mountain hemlock zone. The terrain is moderately sloped with steep-sided, incised creeks. Elevations range from 0 to 1100 metres above sea level.

The allowable annual cut for TFL 61 is 101 103 cubic metres of timber, and PATH harvested approximately 150 000 cubic metres during the audit period. Queesto Community Forest, owned by the Pacheedaht First Nation, manages TFL 61 from an office in Jordan River.

Map of the Audit Area



Audit Approach and Scope

This was a full scope compliance audit and all activities carried out between May 1, 2017, and May 13, 2019, were eligible for audit. These activities included operational planning (forest stewardship plan (FSP)ⁱ and site plans), timber harvesting, wildfire protection, silviculture and construction and maintenance of roads and major structures.¹

Auditors assessed these activities for compliance with FRPA, the *Wildfire Act*, and applicable regulations. This work included interviewing PATH staff, reviewing the FSP and site plans, examining records, and visiting sites to review field practices. A forest professional, a professional engineer and a chartered professional accountant made up the audit team. The team was in the field with licensee representatives from May 13-15, 2019.

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*.

Planning and Practices Examined

Operational Planning

PATH planned its activities in its 2014 FSP. The FSP remains in effect until September 2019. The audit examined the FSP and stand-level site plans for consistency with legal requirements and government orders, including old growth and wildlife. The FSP must also be consistent with government objectives set out in the Vancouver Island Land Use Plan Higher Level Plan Order (the order). The order established the San Juan Ridge Special Management Zone around the Kludahk trail and an Enhanced Forestry Zone for other areas of the TFL.

In the Special Management Zone, the order limits clearcut size and sets minimum levels for retention of old and mature forests and wildlife tree patches. In the Enhanced Forestry Zone, the order requires the planting of more than one tree species, and sets conditions for where large and not yet greened-up areas are permitted.

Auditors also confirmed whether site plans accurately identified site conditions during field sampling.

Timber Harvesting

PATH harvested 14 cutblocks, totalling approximately 325 hectares, during the audit period. Auditors examined all 14 cutblocks.

¹Major structures include 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.
- A major culvert has a pipe diameter of 2 metres or greater or is an open bottom arch with a span greater than 2.13 metres.

Road and Bridge Construction, Maintenance and Deactivation

The population and sample of road and bridge activities are summarized in the table below. No roads or bridges were deactivated during the audit period, although many roads are seasonally deactivated.

ACTIVITY	POPULATION	SAMPLE
Road Construction	12.8 km	12.8 km
Road Maintenance	407 km	97 km
Bridge Construction	6	6
Bridge Maintenance	64	26

Silviculture Obligations and Activities

The only silviculture activity undertaken during the audit period was tree planting. Auditors also examined regeneration and free-growing obligations, and checked that seed transfer guidelines were adhered to. A summary of silviculture activities appears in the following table.

ACTIVITY OR OBLIGATION	POPULATION	SAMPLE
Planting	26 blocks	All documents reviewed and 7 blocks visited.
Regeneration due and declared	21 blocks	All documents reviewed.
Free-growing due and declared	No blocks due and none overdue and 5 declared during the audit period.	All documents reviewed, and 2 blocks reviewed in the field.

Wildfire Protection

Auditors examined fire hazard assessment and abatement practices and wildfire preparedness as part of the harvest sampling. Three active sites were encountered during field sampling and auditors examined fire preparedness on all three.

Findings

Operational Planning

Planning was consistent with the FSP and legal requirements, including government orders. PATH addressed site-specific resources in the site plans by accurately identifying and prescribing practices for resource features including streams and wetlands, wildlife habitat, visual quality objectives and old growth management areas.

Auditors had no concerns with operational planning.

Timber Harvesting

Harvesting was complete on 10 blocks. Of the remaining 4 blocks, 1 block was being heli-logged, 2 were being felled, and 1 was not active but partially harvested. Grapple yarding, helicopter yarding, and ground based harvest systems were used.

There were no fish streams within or immediately adjacent to any blocks. Riparian features were either S6 streams, S5 streams, or wetlands. Site plans called for trees to be felled and yarded away from streams, and a 5-metre machine free zone to be respected. In some cases, limbing and bucking within 5 metres of the channel was prohibited, and streams had to be cleaned of any introduced debris. Any temporary crossing structures had to be removed following harvest. These requirements were met.

Soil disturbance was well managed and minimized, and natural drainage patterns were maintained. Site plans identified areas where windthrow could be an issue post-harvest and recommended pruning or topping. Auditors did not see significant amounts of windthrow.

Four cutblocks abutted private land, Highway 14 and/or a hydro line. Two blocks were adjacent to the Juan de Fuca trail and park. These boundaries were respected. Four cutblocks were located in areas with established visual quality objectives and the block design appeared to meet the visual quality objectives in all sampled cutblocks.

Auditors found timber harvesting was conducted in accordance with the requirements of legislation and site plans.

Road and Major Structure Construction, Maintenance, and Deactivation

Road Construction

All documentation was complete with comprehensive and professional road construction maps. Construction maps are georeferenced and supplied to the road crews with tablets installed in the machines, reducing the possibilities of error. Qualified professionals were used when required and their recommendations were followed. Construction techniques ranged from conventional balanced cut and fill to small areas requiring specific construction techniques, such as full benching or three-quarter benching. Natural drainage patterns were maintained and additional cross-drains installed where required. New roads were ballasted with shot rock and capped with sand and gravel, and were safe for industrial use. Site plans for roads were incorporated into site plans for blocks.

Road Maintenance

Roads within the TFL were originally constructed with shot rock and capped, and were stable and safe and sound for industrial use. Culverts were functional and drainage was maintained. Active roads were brushed to improve visibility. Any maintenance issues requiring attention were appropriately addressed by the roads supervisor.

Bridge Construction

All structures and documentation were reviewed for adherence to the approved plans. All structures were well constructed and adhered to the designs. Five of the structures were log stringer bridges and one had a steel superstructure bearing on lock blocks.

Bridge Maintenance

Most of the structures within the TFL were log stringer superstructures on log cribbing. A total of 26 structures were on active road headings. Structures reviewed were all safe for industrial use (on active roads) and structures located on wilderness roads were also well maintained. The previous tenure holder constructed and managed the structures to a high level, thereby reducing the risk of maintenance issues.

Auditors had no concerns with road or bridge work carried out by PATH.

Silviculture

PATH planted cutblocks promptly with Douglas-fir, western red cedar, and Sitka spruce where appropriate. The seed used to grow these trees meets the requirements of the chief forester's standards for seed use.

Auditors had no concerns with regeneration or establishment of free-growing stands.

Wildfire Protection

Fire Preparedness

Auditors encountered active falling, heli-yarding and slash piling during harvest inspections. All operations were adequately prepared for a wildfire with appropriate hand tools, water and delivery systems where required. The helicopter logging operation was equipped with bambi buckets. All equipment was in good repair and close to the industrial activity. Every pickup truck was equipped with fire tools and full hand tank pumps.

PATH maintains weather stations at active sites, and subscribes to an email weather service, which ensures that all workers are aware of the fire danger class and fire weather conditions.

Fire Hazard Assessment

PATH routinely piles and burns slash on its cutblocks and completes a fire hazard assessment. The assessment form covers the fuel loading factors and the risk of ignition. Assessments were carried out by a forest professional. PATH staff are sensitive to prompt fire hazard assessment and abatement in light of the close proximity of its operations to population centres and the high amount of recreational use in the area.

Fire Hazard Abatement

Field inspections revealed that slash was either piled or piled and burned on all cutblocks other than those that were actively being harvested.

In summary, auditors had no concerns with hazard assessment, abatement or wildfire preparedness.

Audit Opinion

In my opinion, the operational planning, timber harvesting, road and major structure construction and maintenance, and fire protection activities carried out by PATH on TFL 61 between May 1, 2017, and May 13, 2019, complied in all significant aspects with the requirements of the *Forest and Range Practices Act*, the *Wildfire Act* and related regulations, as of May 2019. There is no opinion provided for road deactivation.

In reference to compliance, the term “in all significant aspects” 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 the *Forest and Range Practices Act*, and the *Wildfire Act*.



Christopher R. Mosher CPA, CA, EP(CEA)
Director, Audits

Victoria, British Columbia
July 9, 2019

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 *Wildfire Act* requirements. The Board conducts about 10 compliance audits annually. Most of these are audits of agreement holders. The Board also audits the government's BC Timber Sales Program (BCTS).

Selection of auditees

To begin with, auditors randomly select an area of the Province, such as a natural resource district. Then the auditors review the forest resources, geographic features, operating conditions and other factors in the area selected. These are considered in conjunction with Board strategic priorities (updated annually), and the type of audit is determined. At this stage, auditors choose the auditee(s) that best suits the selected risk and priorities. The audit selections are not based on past performance.

For example, in 2016, the Board randomly selected the Dawson Creek portion of the Peace Natural Resource District as a location for an audit. After assessing the activities within the area, it was noted that there were two community forest agreements that had not yet been audited by the Board. As the Board strives to audit an array of licence types and sizes each year, these two community forest agreements were selected for audit.

For BCTS audits, a district or timber supply area within 2 of the 12 business areas in the province are selected randomly for audit. Only those areas that have not been audited by the Board in the past five years are eligible for selection.

Audit Standards

The audits are conducted in accordance with auditing standards developed by the Board. These standards include adherence to the auditor independence standards and the ethical requirements, which are founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour and are consistent with Canadian generally accepted auditing standards. The standards for compliance audits are described in the Board's *Compliance Audit Reference Manual*.

Audit Process

Conducting the Audit

Once the Board randomly selects an area or district and determines the scope of audit to be conducted and the licensee(s) to be audited, all activities carried out during the period subject to audit are identified (such as harvesting 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. For smaller audits, the sample will include the full population.

Auditors' work includes interviewing licensee staff, reviewing applicable plans, assessing features from helicopters and measuring specific features like riparian reserve zone width using ground procedures. The audit teams generally spend three to five days in the field.

Evaluating the Results

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

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

Auditors categorize their findings into the following levels of compliance:

Compliance – where the auditor finds that practices meet FRPA and *Wildfire Act* requirements.

Unsound Practice – where the auditor identifies a significant practice that, although in compliance with FRPA or the *Wildfire Act*, is not considered to be sound management.

Not significant non-compliance – where the auditor, upon reaching a non-compliance conclusion, determines that one or more non-compliance event(s) is not significant and not generally worthy of reporting. However, in certain circumstances, these events may be reported as an area requiring improvement.

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

Significant breach – where the auditor finds that significant harm has occurred, or is beginning to occur, to persons or the environment as a result of one or more non-compliance event(s).

If a significant breach of the legislation has occurred, the auditor is required by the *Forest Practices Board Regulation* to immediately advise the Board, the party being audited, and the 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 copy of the draft report for review and comment before it is submitted to the Board.

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

The Board reviews representations from parties that may potentially be adversely affected, makes any necessary changes to the report, and decides if recommendations are warranted. The report is then finalized and released: first to the auditee and then to the public and government seven days later.

ENDNOTE

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 its FSP, BCTS is required to identify results and/or strategies consistent with government objectives for values such as water, wildlife and soils. These results and strategies must be measurable and once approved are subject to government enforcement. FSPs identify areas within which road construction and harvesting will occur but are not required to show the specific locations of future roads and cutblocks. FSPs can have a term of up to five years.



**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.bcfpb.ca