

Audit of Forest Planning and Practices

Stuwix Resources Ltd.

Replaceable Forest Licence A65006



FPB/ARC/86

December 2006

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Board Commentary

This is the Board's report on a compliance audit of replaceable forest licence A65006, held by Stuwix Resources Ltd. The licence permits harvesting within the Cascades Forest District, mainly to the north, south and east of Merritt, in the Merritt Timber Supply Area. (See map on page 4).

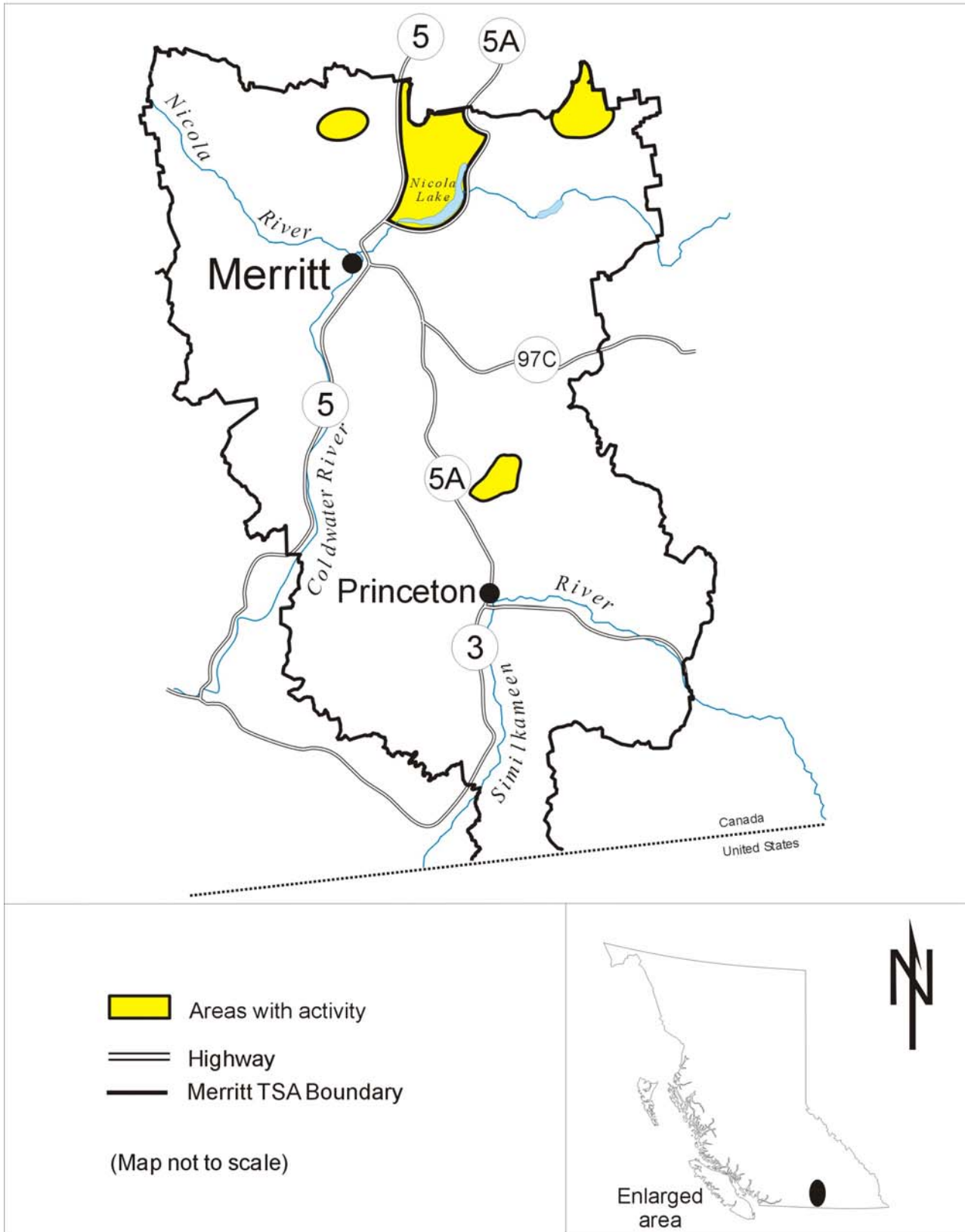
As part of its compliance audit program, the Board randomly selects from the many forest licences, such as replaceable or non-replaceable forest licences, community forest agreements, etc., that are issued by government. These licences are audited for compliance with forest practices legislation – the *Forest Practices Code of British Columbia Act*, the *Forest and Range Practices Act*, the *Wildfire Act*, including related regulations.

The audit found that planning and practices undertaken by Stuwix Resources Ltd. complied with legislative requirements in all significant respects while harvesting beetle infested stands. However, the audit identified six instances on four cutblocks where overall water management during road construction should be improved.

Subsequent to the audit, Stuwix has identified several goals to aid them in their road construction practices. These goals include providing training, risk rating for new and long term roads to determine inspection frequency, as well as ensuring that drainage structures are functional on all temporary roads.

The Board recognizes the effort that Stuwix is making to improve its overall road construction practices and encourages Stuwix to fully implement these measures.

Audit of Stuwix Resources Ltd.
FL A65006



Audit Results

Background

As part of the Forest Practices Board's 2006 compliance audit program, the Board selected replaceable forest licence A65006 for audit from the population of major forest licences within the Southern Interior Forest Region. The licence, held by Stuwix Resources Ltd. (Stuwix), was selected randomly and not on the basis of location or level of performance.

Stuwix Resources Ltd. is a First Nations forestry company in operation for about five years in the Cascades forest district and Merritt Timber Supply Area (TSA). Stuwix is owned and operated by eight local First Nation Bands and is administered from offices located in Merritt. Stuwix is also a member of the Nicola-Similkameen Innovative Forestry Society (NSIFS). All NSIFS members are committed to the Merritt TSA – Sustainable Forest Management (SFM) Plan and the Merritt Innovative Forest Practices Agreement (IFPA) process.

Replaceable forest licence A65006 was transferred to Stuwix from another licensee in 2001. Subsequently, the allowable annual cut (AAC) for the licence increased from 950 cubic meters in 2001 to over 454,000 cubic meters in July 2005. The current AAC uplift, which is focused on salvaging mountain pine beetle attacked stands, will remain in effect until December 31, 2007.

Terrain in most of the audit area consists of flat or rolling land with stable soils. Site elevations of operations range between 1,250 to 1,500 metres. The area receives low annual precipitation.

The Board's audit fieldwork took place from June 26-28, 2006.

Audit Approach and Scope

The audit examined Stuwix Resources Ltd.'s planning, field activities and obligations in the areas of:

- operational planning (including forest development plansⁱ (FDP) and site plansⁱⁱ);
- timber harvesting;
- road construction, maintenance and deactivation;
- silviculture; and
- fire protection.

These activities were assessed for compliance with the *Forest Practices Code of British Columbia Act* (the Code), the *Forest and Range Practices Act* (FRPAⁱⁱⁱ) and the *Wildfire Act* (WA) and related regulations. All activities, planning and obligations for the period June 1, 2005, to June 28, 2006, were included in the scope of the audit.

The Board's audit reference manual, *Compliance Audit Reference Manual, Version 6.0, May 2003*, and the addendum to the manual for the 2006 audit season, set out the standards and procedures that were used to carry out this audit.

Planning and Practices Examined

Stuwix operations under license A65006 are approved under their 2001 FDP dated September 21, 2001. Most of Stuwix activities in the audit period were approved under forest development plans of other licensees with operations in the TSA and transferred to replaceable forest license A65006.

Twenty-nine cutblocks with a combined area of 1,530 hectares were harvested during the period. Logging occurred north, south and east of Merritt. The Board audited 14 of the 29 cutblocks.

The licensee accessed beetle-damaged timber using existing roads under road use agreements and road permits. Inside the harvest blocks, Stuwix built new road or re-established existing road structures.

The Board audited:

- 29.9 kilometres of the 48.6 kilometers of new road construction, and
- 30.0 kilometres of the 61.2 kilometers of maintained road

Road maintenance consisted of grading road surfaces and cleaning ditches and culverts. There was no road deactivation. As a result, the Board was unable to audit road deactivation practices.

The majority of harvesting was either ongoing or had only been recently completed, thus no silvicultural activities such as site preparation or tree planting had taken place. As a result, the Board was unable to audit silvicultural activities and obligations.

Fire preparedness and practices were also audited. A fire tool inspection was completed on one active cutblock. Under the *Wildfire Regulation*, licensees are also responsible for submitting contact names and numbers to the Cariboo fire centre, and this was audited.

Findings

The audit found that the planning and field activities undertaken by Stuwix on replaceable forest licence A65006 complied in all significant respects with the requirements of the Code, FRPA, WA and related regulations.

Water Management

When constructing a new logging road, it is important that the licensee ensures it is actively managing water appropriately through ditches, cross drain culverts and ensuring the right materials are being utilized.

The audit identified six instances on four of the fourteen cutblocks audited where road construction practices resulted in minor sediment transport or erosion of in-block roads. Those road construction practices included:

- a fifty-metre section of recently constructed road where a small amount of sediment has been transported into a fish stream;
- a one-kilometre section of road on a sustained grade that lacked cross drain culverts;
- two instances of plugged culverts causing some erosion of the road surface, and;
- two instances where the culverts installed were too short for the steepened fill slope.

Although none of these practices were individually or cumulatively considered significant, they indicate a pattern of practices that, if continued, could put forest resources at risk. Road building practices therefore require improvement.

Audit Opinion

In my opinion, the operational planning; timber harvesting; road construction, maintenance and fire protection planning carried out by the Stuwix Resources Ltd. on replaceable forest licence A65005 from June 1, 2005, to June 28, 2006, complied in all significant respects with the requirements of the *Forest Practices Code of British Columbia Act*, the *Forest and Range Practices Act* and the *Wildfire Act* and related regulations as of June 2006. No opinion is provided regarding road deactivation or silviculture activities.

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.

Without qualifying my opinion, I draw attention to the water management section of this report, which describes road building practices requiring improvement.

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 the Code, FRPA and WA.



Christopher R. Mosher CA, CEA(SFM)
Director, Audits
December 1, 2006

ⁱ 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.

ⁱⁱ A site plan is a site-specific plan that is required in place of a silviculture prescription as of December 17, 2002, except where there is already an existing silviculture prescription. The site plan contains many of the same elements as a silviculture prescription and is designed to identify resource values and define what a free-growing stand will be on that site. However, it is not an operational plan under the Code and does not require review or approval by government to be implemented.

ⁱⁱⁱ 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.

Appendix 1: Forest Practices Board Compliance Audit Process

Background

The Forest Practices Board conducts audits of government and agreement-holders for compliance with the *Forest Practices and Range Practices Act* (FRPA) and the *Wildfire Act* (WA). The Board has the authority to conduct these periodic independent audits under section 122(1) of FRPA and section 68(1) of WA. Compliance audits examine forest planning and practices to determine whether or not they meet FRPA and WA requirements.

Most of the *Forest Practices Code of British Columbia Act* (the Code) was repealed on January 31, 2004, and replaced with FRPA. 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 stewardship plan, at which point the requirements of FRPA apply.

The Board audits agreement holders who have forest licences or other tenures under the *Forest Act* or the *Range Act*. The Board also audits government's British Columbia Timber Sales (BCTS) program. Selection for audit, of both areas and licensees or agreement-holders to be audited, is made randomly to ensure a fair, unbiased selection.

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 audits determine compliance with the Code, FRPA and WA, based on criteria derived from those Acts and related regulations. The criteria reflect judgments about the level of performance that constitutes compliance with each requirement.

The standards and procedures for compliance audits are described in the Board's *Compliance Audit Reference Manual*.

Audit Process

Conducting the Audit

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

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

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

Evaluating the Results

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

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

Auditors categorize their findings into the following levels of compliance:

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

Not significant non-compliance – where the auditor, upon reaching a non-compliance conclusion, determines that one or more non-compliance event(s) is not significant and not 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 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.