

Audit of the Small Scale Salvage Program in the Kamloops Forest District



FPB/ARC/101

July 2008

Table of Contents

Executive Summary 1

Board Commentary..... 2

Audit Results..... 4

 Background..... 4

 Audit Approach and Scope 5

 Forest Practices..... 6

 Planning and Practices Examined 6

 Overall Forest Practices Findings 6

 Detailed Forest Practices Findings 6

 Enforcement 11

 Planning and Practices Examined 11

 Overall Enforcement Findings 11

 Detailed Enforcement Findings..... 12

 Meeting strategic plans..... 14

 Planning and Practices Examined 14

 Overall Strategic Planning Findings..... 14

 Detailed Strategic Planning Findings..... 14

Audit Opinion – Forest Practices 17

Audit Conclusion - Enforcement 18

Appendix 1: Forest Practices Board Audit Process..... 20

Executive Summary

As part of the Forest Practices Board's 2007 compliance audit program, the Board randomly selected the Kamloops Forest District and decided to audit the district's small scale salvage program (SSSP) because of its large sales volume in comparison to most districts. The district has been experiencing a large scale infestation of mountain pine beetle during the last several years. A key purpose of the Ministry of Forests and Range's (MFR) small scale salvage program is to recover timber that would otherwise be lost as a result of factors such as fire, wind, insects and diseases.

This is the Board's first audit focused exclusively on small scale salvage. The audit encompassed the following aspects of the district's SSSP:

- compliance with forest practices legislation;
- appropriateness of government's enforcement; and
- consistency with forest practice objectives in strategic plans.

Overall, auditors found generally good performance for small scale salvage activities in the district, noting that forest practices complied with the legislation in all significant respects. Nonetheless, the auditors identified several instances of excessive soil disturbance which, in the Board's view, were avoidable. Also, in a few cases, reforestation practices were found to not be fully effective, although they complied with legislated requirements.

The ministry's enforcement of small scale salvage practices was found to be appropriate. However, two areas of potentially serious weakness were identified—the district only assessed risk on about 23 percent of licences audited and enforcement staff only conducted inspections on about 10 percent of licences that were active during the audit period. The district's performance in these aspects did not meet its own compliance monitoring objectives. Fortunately, these weaknesses were significantly compensated by strong program control, whereby a high percentage of operations were inspected by district stewardship staff who referred identified problems to enforcement staff. While this is not a typical business model for districts, the auditors found it worked well enough to conclude that overall enforcement was appropriate.

The auditors' assessment of SSSP activities relating to the program's objectives noted inconsistencies with the MFR's overall intent for the program. The program is intended to focus on salvaging small patches of timber not normally addressed through large or medium scale operations. Patches larger than one hectare were to be an exception. The audit found that harvesting often occurred on larger patches of mountain pine beetle damaged timber, and almost two thirds of the areas audited had clearcuts of one hectare or more. While this scale and pattern of harvesting is not consistent with the program's intent, the audit did not detect adverse forest stewardship consequences. The observed salvage practices appeared to contribute positively to the overall district effort to address the large scale infestation.

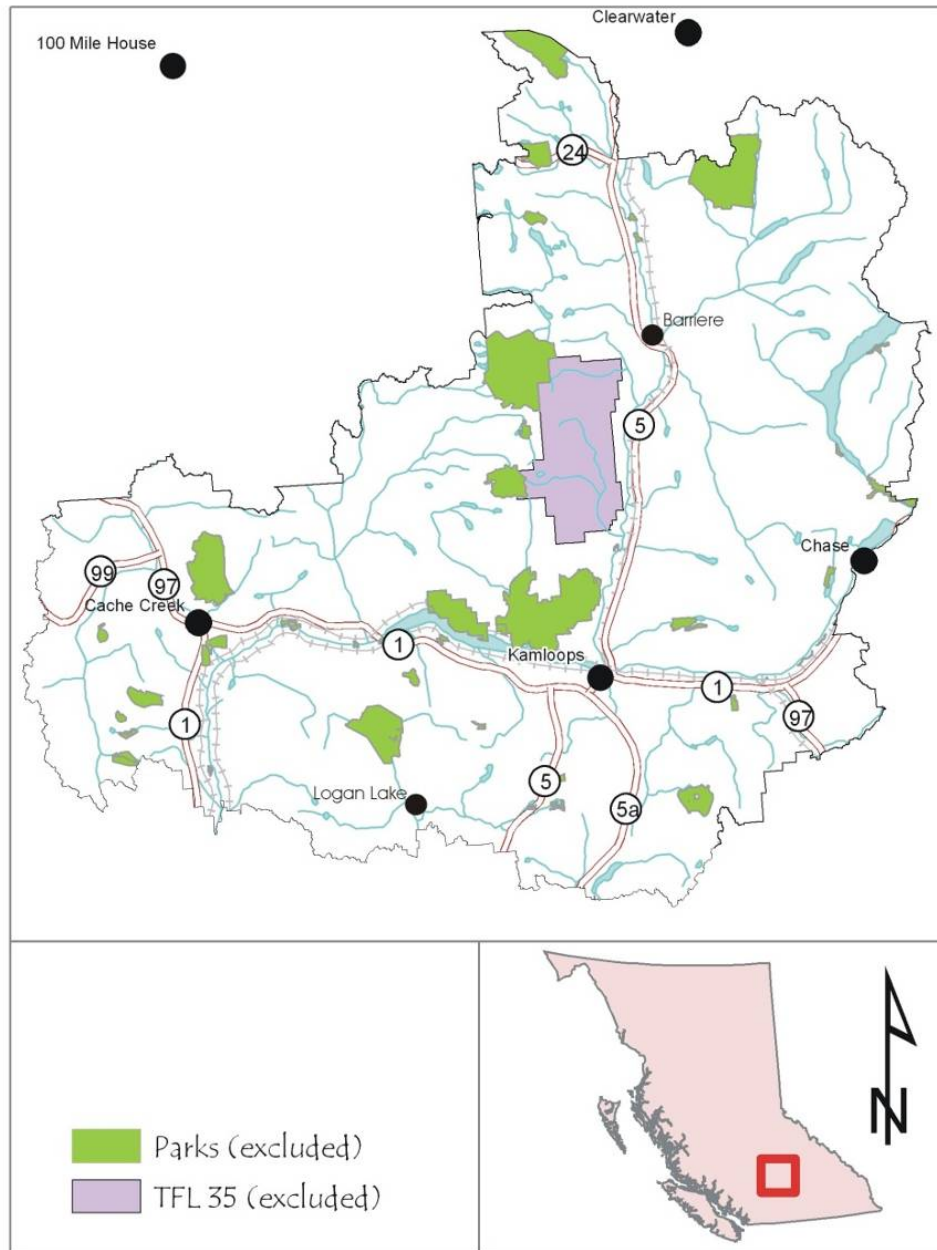
Board Commentary

As the small scale salvage program continues to evolve, the Board is encouraged to see the emergence of elements that should help improve management of the small scale salvage program, particularly in districts experiencing large scale insect infestations:

- Stronger silviculture (reforestation) policy – policy has strengthened steadily in the last three years. Now all salvage sites must be reforested. This should minimize further risk of inadequate reforestation.
- Intermediate salvage licences – the larger volume limit of 5,000 cubic metres, as compared with the 2,000 cubic metre limit for forestry licences to cut, should better suit districts with large scale salvage problems like Kamloops.

The Board congratulates the Kamloops Forest District on its overall management of the small scale salvage program and encourages it to strengthen its enforcement practices related to risk assessment and inspection coverage and to maintain the effective program control observed in the audit.

Audit of the Small Scale Salvage Program in the Kamloops Forest District



Audit Results

Background

As part of the Forest Practices Board's 2007 compliance audit program, the Board randomly selected the Kamloops Forest District and decided to audit the small scale salvage program (SSSP). The district's SSSP was selected because of its large sales volume in comparison to most districts, and because the Board has not directly audited the SSSP in the past. It was not selected on the basis of location or past performance. Information about the Board's audit process is provided in Appendix 1.

The Kamloops Forest District is located in the south central portion of the province (see map on page 3). Principal communities within or near the district include Kamloops, Cache Creek, Logan Lake, Barriere and Chase. Small scale salvage activities are scattered on Crown land throughout the district except in parks, woodlot licence areas and tree farm licence areas.

The primary purpose of the SSSP is to harvest and utilize small volumes of timber that are dead or are in imminent danger of losing significant value, and that would otherwise not be harvested. Other major objectives of the program include reducing the spread of insects and disease and providing business opportunities for small independent forest operators.

A key purpose of the small scale salvage program is to recover timber that would otherwise be lost to fire, wind, insects and diseases.

Small scale forest operations rely on existing roads to provide access to harvesting areas. New road construction is not permitted in the program. Salvage harvesting is conducted under several types of licences:

- Forestry licence to cut (FLTC) – this is a small licence granting rights to harvest up to 2,000 cubic metres. No forest stewardship plans (FSPs) are required. This licence type is the principle means of delivering salvage timber in the district. A total of 415 FLTCs had harvesting activities in the district between April 1, 2005, and September 24, 2007.
- Salvage non-replaceable forest licence (SNRFL) – this is a licence granting rights to harvest salvage timber within a portion of a timber supply area. It is competitively awarded and requires an operational plan, either a forest development plan (FDP) or FSP. There is one SNRFL in the district (A75426), awarded to Woodco Management Ltd. in 2005 for a five-year period, with an annual allowable cut of 10,000 cubic metres.ⁱ
- Community salvage licence – MFR has discontinued this licence type and there are no community salvage licences in the district.
- Intermediate salvage licence – this is a new licence type being tested by MFR. It is competitively awarded and grants rights to harvest up to 5,000 cubic metres without requiring a FSP. Two licences were awarded in the district in 2007; however, since

neither licence had any forest practice activity during the audit period, they were not audited.

The annual sales volume target for the district's SSSP is 175,000 cubic metres, although in the 2005/06 fiscal year more than 400,000 cubic metres was harvested. Nearly all of the timber harvested under the program during the last two years was dead or dying pine that had been attacked by mountain pine beetle.

The Board's audit fieldwork took place from September 24 to 28, 2007.

Higher Level Planⁱⁱ

In January 2006, a government order clarified which provisions of the previous Kamloops Land and Resource Management Plan higher level plan apply to operational plans in the Kamloops Timber Supply Area (TSA). The order lists objectives related to protection of key forest values, including water and riparian, old growth and biodiversity, range, wildlife, visual and cultural values. Forest operations in the district, including those related to small scale salvage, must be consistent with these objectives.

Audit Approach and Scope

The Board audited three aspects of the SSSP in the Kamloops Forest District:

1. Small scale salvage forest practices, including harvesting, forest fuel hazard management, silviculture and associated planning. These activities were assessed for compliance with the *Forest and Range Practices Act* (FRPA), the *Wildfire Act* (WA) and related regulations, as well as certain transitional elements of the *Forest Practices Code of British Columbia Act* (the Code). Harvesting activities that took place between April 1, 2005, and September 24, 2007, were included in 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 2007 audit season, set out the standards and procedures that were used to carry out this aspect of the audit.
2. The appropriateness of the district's enforcement of small scale salvage forest practices. Compliance and enforcement (C&E) activities conducted by district staff between April 1, 2005, and September 24, 2007, were included in the audit. Because the focus was limited to the SSSP, the potential role of other government agencies in enforcement was excluded from the audit. The Board's audit reference



Figure 1 - A typical SSSP cutblock in the district.

manual, *Enforcement Audit Reference Manual, Version 1.0, May 2002*, sets out the standards and procedures that were used to carry out this aspect of the audit.

3. The district’s achievement of forest practice objectives in its small scale salvage strategic plan between April 1, 2005, and September 24, 2007.

Forest Practices

Planning and Practices Examined

The operational plan and population of cutblocks with harvesting during the audit period, which were subject to audit, are described in Table 1. Field sampling was conducted using both ground based procedures and by helicopter.

Table 1: Audit population and sample audited

Location of Operations	Population	Sample	Coverage
FLTCs	415 licences*	99 licences**	24%
SNRFL A75426	One FDP	One FDP	100%
	8 cut blocks	8 cut blocks	100%

*many of the FLTC licences contain more than one cut block

** FLTC samples were chosen in accordance with the audit reference manual. The audit team selected a larger proportion of higher risk sites (containing more or higher resource values), while ensuring that all risk categories were adequately sampled.

Overall Forest Practices Findings

The auditors found that harvesting, forest fuel hazard management, silviculture and associated planning undertaken by small scale salvage licensees complied in all significant respects with the requirements of FRPA, WA and related regulations, and certain transitional elements of the Code. Several aspects of these activities warrant more detailed discussion.

Detailed Forest Practices Findings

Operational Planning

Operations in SNRFL A75426 are guided by the FDP and site plans for each cut block. In the case of FLTCs, operations are guided by site plans or by professional applications, depending on whether reforestation obligations will be triggered by the harvesting (see *Silviculture* on page 9).

Forest practices complied with legislative requirements in all significant respects.

The audit found that operational plans were consistent with the higher level plan and met forest legislation content requirements.

Harvesting and Access

Road construction is not permitted in the FLTC portion of the program. This principle is reinforced in the district's SSSP strategic plan. All access structures to and within sites are to be temporary and rehabilitated. These temporary access structuresⁱⁱⁱ are intended to be used to skid logs to existing roads. However, auditors observed that about 25 percent of the sampled licences consisted of larger cut blocks of several hectares, which usually contained landings and temporary haul roads. These access structures were used for transportation of logs by trucks and would normally be classified as low-grade haul roads. Nonetheless, auditors observed no adverse effects from these access structures and they, along with any associated landings, were appropriately rehabilitated after use.

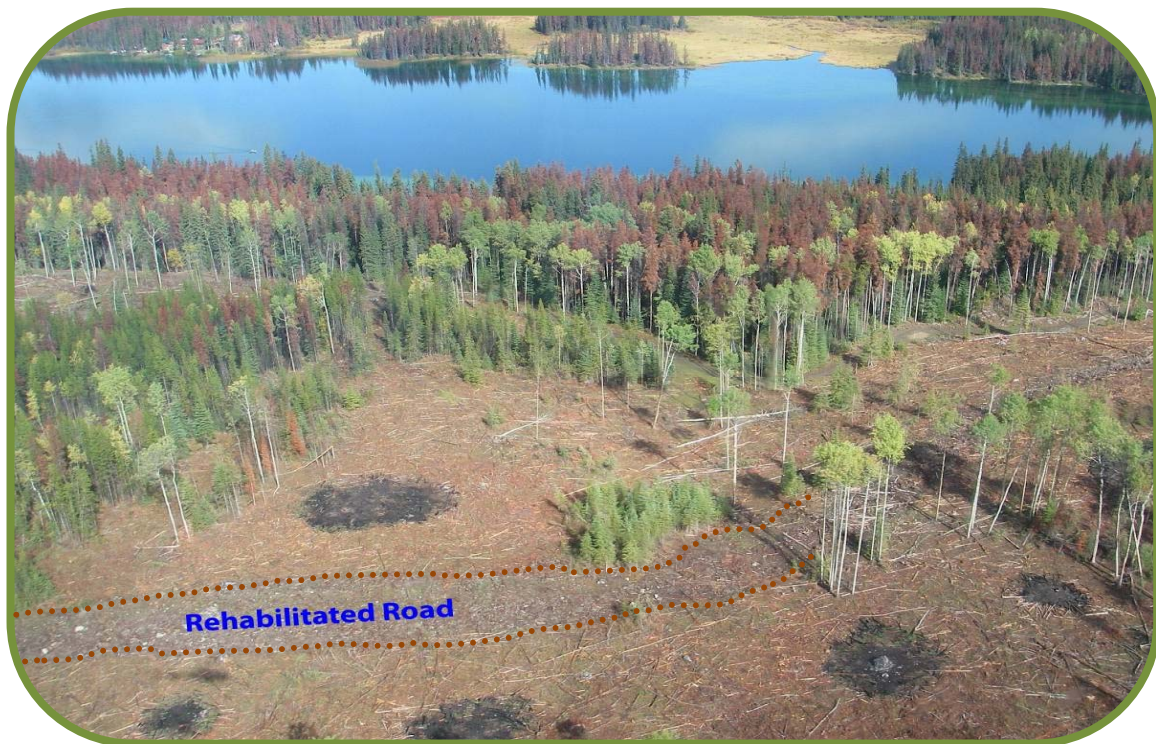


Figure 2 - Rehabilitated road in SNRFL.

Road construction is permitted for SNRFLs. Auditors observed that roads in SNRFL A75426 were constructed and rehabilitated appropriately.

Harvesting practices followed site level plans with riparian features protected and retention of wildlife tree patches retained as mapped. The auditors observed several partial cutblocks where significant windthrow of intermediate trees occurred after harvest, resulting in reduced stocking levels in some blocks. Windthrow was also observed along cutblock edges in several licence areas.



Figure 3 - Windthrow in FLTC cutblock.

The auditors observed noticeable levels of soil disturbance in 19 of the 99 sampled FLTCs. The observed disturbance was within allowable limits in nearly all cases, although two instances were under investigation by C&E staff at the time of the field audit. It is likely that most of the disturbance was created by harvesting during wet soil conditions. This practice is avoidable.



Figure 4 - Avoidable soil disturbance in FLTC cutblock.

Forest Fuel Hazard Management

Both FLTC and SNRFL licence holders must abate fire hazards within six months or one year, depending on when logging is completed. In most cases, this involves burning logging debris piles in cutblocks and at landings. Auditors observed that licence holders are substantially meeting legal requirements for hazard abatement by burning debris in a timely fashion.

Silviculture

During the audit period silviculture policy changed for the SSSP. The SSSP was first implemented on the assumption that the small openings created would reforest naturally. Salvage that triggered a free growing obligation, such as a clearcut greater than one hectare, was to be harvested under the BC Timber Sales Program (BCTS) or other tenure. In late 2004, MFR revised its policy to allow a silviculture levy to be applied to SSSP areas where a free-growing obligation was triggered, enabling MFR to pay for reforestation on blocks greater than one hectare. Effective April 2007, MFR further strengthened silviculture policy by requiring all new FLTCs to be reforested, even if less than one hectare. The FLTCs subject to audit were awarded and harvested at various times during this evolving silviculture policy.

MFR's SSSP includes province-wide professional application guidelines. The intent is to streamline processes by having salvage applicants enlist qualified forest professionals to help prepare applications and certify that results will be consistent with forest management objectives for the area. Ministry staff rely on forest professionals to properly assess planning requirements, including anticipated reforestation requirements. If the area is expected to remain stocked after harvest, or if the clearcut is less than one hectare and not legally required to be reforested, the professional application attests to this. If a reforestation obligation is anticipated, a site plan is prepared and signed by the professional. The framework also requires a post-harvesting report, in which the forest professional examines results in the field and attests whether the results required by the licence have been achieved.

The audit examined reforestation plans and practices for each of the 99 sampled FLTCs and found that 89 had been appropriately managed for reforestation requirements. In some cases, this meant that no reforestation was needed because the salvage treatment had left the areas fully stocked. In other cases, blocks requiring reforestation had been site prepared, planted or had plans in place to do so.

For 10 of the 99 sampled FLTCs, the audit found that reforestation management was not fully effective, although compliant with the legislation:

- Two of the licences involved salvage of trees killed by mountain pine beetle along a road right of way. The two sales consisted of a total of 14 hectares harvested in a swath about 50 metres wide and several kilometres long. The district stated that the areas are expected to reforest naturally and that reforestation is not legally required because the trees were removed to eliminate a safety hazard. That exemption provision in the legislation was probably not intended to be applied in this way over a large area. Leaving a large area such as this to reforest naturally without active management is unlikely to be effective. The district has stated that they no longer take this approach on right of way salvage.



Figure 5 – Right-of-way danger tree removal.

- Three of the licences involved clearcut areas greater than half a hectare. The professional applications did not include site plans and did not prescribe reforestation. Neither was legally required because the clearcut areas were planned to be less than one hectare. Auditors observed that these areas were very close to the one-hectare legal limit. These areas are logical silviculture treatment units and should have been planned for reforestation. The district has scheduled these areas to be assessed for reforestation in 2008.
- Five of the licences had professional applications without site plans where no reforestation was prescribed because a stocked stand was anticipated to be left after the salvage harvesting was completed. Auditors observed that, after harvesting, these areas contained understocked portions greater than one hectare that required reforestation. In most cases, the areas were understocked because of damage to understory trees during harvesting and, in some cases, windthrow of residual trees. These sales have become silviculture liabilities to the district because no silviculture levy was charged at the outset. The district has scheduled these areas to be assessed for reforestation in 2008.

All 10 of the licences described above complied with legal requirements for reforestation but none of them had effective reforestation. All 10 had professional applications and none had a site plan.

Ministry reforestation policy for SSSP has recently been strengthened to help prevent poor reforestation practices in SSSP areas. Further, the district has shown that it is actively managing SSSP sites that lack effective reforestation. It has also undertaken a review of reforestation requirements for older FLTCs. For these reasons, the auditors considered that overall silviculture management of FLTC areas in the district is good.

For SNRFL A75426, cutblocks have site plans and the licensee is responsible for silviculture obligations. The audit found that harvesting activity commenced in late 2006 and, when the

field audit took place, no silviculture practices had yet been undertaken. The audit identified no concerns with silviculture obligations for A75426.

Enforcement

Planning and Practices Examined

The audit examined the district's compliance monitoring and enforcement practices relating to small scale salvage activities to assess the appropriateness of enforcement. Because the focus was limited to the SSSP, the potential role of other government agencies in enforcement was excluded. The following key criteria were used in the audit:

- The district obtains, uses, and maintains adequate information on the forest activities subject to enforcement.
- The district has an effective way of identifying risks associated with forest activities and utilizing risk in inspection planning.
- The district conducts a sufficient number of inspections in a fair, objective and effective way, and accurately record and report results.
- Investigations are conducted in all applicable situations and only when warranted. They are performed in a fair, objective and consistent way, and are accurately recorded and reported.
- Determinations are made in all applicable situations and only when required. They are performed in a fair, objective and consistent way, and are accurately recorded and reported.

Overall Enforcement Findings

Auditors observed that most district SSSP compliance monitoring and enforcement practices were appropriate during the audit period:

- The district maintained a sufficient awareness of forest practice activities in the SSSP through notifications by licensees, as required by legislation and licence conditions. Program staff also demonstrated a thorough knowledge of SSSP activities during the audit.
- Investigations were appropriately initiated as a result of reported concerns and inspections. Those investigations that were concluded during the audit period were appropriately handled with reasonable and fair outcomes. Investigations which were still underway during the audit were not assessed.

Overall, enforcement of forest practice legislation was appropriate.

There was an insufficient number of determinations made within the audit period to assess this aspect of district enforcement practices.

However, auditors observed two key compliance monitoring practices to be deficient—risk assessments and inspections—although these deficiencies were found to be significantly ameliorated by other aspects of the small scale salvage framework. The following section describes these two important weaknesses in compliance monitoring practices.

Detailed Enforcement Findings

Risk Assessment

MFR's compliance monitoring framework appropriately requires that forest operations be risk rated for environmental, economic and social factors, with inspection coverage biased towards higher-risk sites. Assigning risk completely and accurately is important because it aids in focusing limited inspection resources to areas of higher risk.

Auditors observed that, while the risk framework itself is appropriate, the district's risk assessment practices were deficient during the audit period. District records indicate that staff assessed only 97 (23 percent) of the 415 FLTCs in the audit population for risk and did not assess the other 318 FLTCs. As a result of the poor risk rating performance, the district did not know how many high- or very-high risk SSSP sites they had, so lacked information to deploy inspection resources effectively.

The 97 licences were rated as:

- Very high risk - 4
- High risk - 35
- Moderate risk - 37
- Low risk - 21

Although risk assessment performance was poor for the licences in the audit population, there was a noticeable improvement in risk-rating performance for recently issued licences. However, those were not included in the audit population because they had not yet had harvesting activities.

Inspections

It is difficult to overstate the importance of inspections in the enforcement mandate. Inspections must accurately assess the compliance of forest practices with legislated requirements. Without adequate inspection coverage of forest operations, there is an increased risk that non-compliant practices will be missed. Inspections of logging sites are also extremely important as a deterrent to inappropriate forest practices.

The district documents inspection activities and risk levels for various forest practices in its district inspection plan (DIP) for the year. The DIP guides the inspectors on the number of inspections to be made on individual sites for each forest activity, according to relative risk. The district's DIP states that 85 percent of high and very high risk harvesting sites in the SSSP are to be inspected. Moderate and low risk sites are to be inspected randomly.

During the audit period, district C&E staff conducted 58 inspections on 40 different licences in the SSSP, 27 of which were risk rated (13 licences were not risk rated):

- Very high risk - 2
- High risk - 12
- Moderate risk - 12
- Low risk - 1

Auditors observed that C&E inspections were not strongly biased towards the higher risk areas, as called for in the DIP. Further, because more than three quarters of the licences had not been risk rated, the district did not know how many high and very high risk SSSP sites it had, so could not determine whether it was meeting its DIP objectives. It is reasonable to expect that among the 318 FLTCs that were not risk rated there would be additional high and very high risk sites, perhaps in similar proportions to the 97 risk rated sites. The audit concluded, therefore, that for compliance monitoring inspections of SSSP, the district did not meet its objective to inspect 85 percent of high and very high risk sites.

Auditors found two key practices within the district SSSP that help compensate for these inspection deficiencies. Firstly, the professional application guidelines, which apply to most FLTCs in the audit population, call for forest professionals to submit a post-harvesting report after harvest operations are completed. The professional must sign and seal the report, and attest that obligations are complete or identify uncompleted obligations. This report provides some assurance that problems resulting from forest practices are detected and reported to MFR. The auditors reviewed a number of post-harvesting reports in conjunction with the audit field sampling and found that the reports substantially agreed with the audit findings.

Secondly, district SSSP staff usually field check the licence for completion of obligations after harvesting has been completed. Auditors obtained evidence that field checks are done routinely, with up to 90 percent checked for completion of obligations at some point before the sale is deleted. In several instances, these field checks were done jointly with the forest professional and SSSP staff. Evidence also showed that observed problems are referred to C&E staff for follow up investigation.

During the audit period, the district substantially increased harvest levels to address fire and beetle infested timber salvage. District management chose to shift compliance monitoring emphasis away from the SSSP to new large scale salvage tenures, which were considered to be an overall higher risk. However, the DIP was not revised to reflect this shift. The district manager provided auditors with a rationale that referred to the professional application framework and the SSSP staff field checking practices as part of the justification for shifting the monitoring emphasis.

On its own, the level of C&E inspection monitoring is not adequate. However, the audit considered the additional inspection practices to be a critical supplement to compliance monitoring and, consequently, the overall level of inspections of SSSP activities was sufficient. This high level of inspections also serves to lessen the impact of inadequate risk assessment performance.

Meeting Strategic Plans

Planning and Practices Examined

MFR's strategy for the SSSP during the audit period is documented in its *Small Scale Salvage Three Year Strategic Plan* for 04/05 to 06/07 and related appendices and addendum. Following a review of progress under its strategic plan, the ministry prepared and implemented a 2006/07 action plan in June 2006.

The district prepared strategic plans in 2006 and 2007 to guide its SSSP operations. The district plans are modeled on the provincial template and are designed to complement and be consistent with MFR's three-year strategic plan and action plan for small scale salvage. The plans apply to FLTCs and intermediate salvage licences, but do not apply to the NRFL. The audit assessed the district's two strategic plans for consistency with provincial plans and the extent to which the district achieved forest practices objectives in the plans.

Overall Strategic Planning Findings

The district's SSSP strategic plans follow the provincial template and commit to strategies consistent with MFR's three-year strategic plan and action plan. The district met most, but not all, of the forest practice objectives in its plans. For the most part, the objectives in the plans are longstanding in the SSSP policy framework and certain aspects warrant discussion.

Detailed Strategic Planning Findings

Focus SSSP on small patches

The original intent of the SSSP was to focus harvesting on small volumes of timber that are dead or in danger of being significantly reduced in value or loss and would not otherwise be harvested. Ministry reviews of the program showed a trend towards larger cutblocks and capture of timber that could have been harvested under BCTS or major licences. Districts salvaging mountain pine beetle often faced this situation. The district's SSSP strategic plans commit to refocusing on small patches not normally addressed through large or medium scale operations. Patches larger than one hectare were to be an exception.

Of the 99 sampled FLTCs, 63 (64 percent) had one hectare or larger clearcuts, often much bigger than one hectare. Of the 63 FLTCs, 5 had site plans and 5 had professional applications. For the 38 FLTCs issued after June 2006, (the date of MFR's SSSP action plan that called for the refocusing) 24 (63 percent) had one hectare or larger clearcuts, all of which had site plans. There

is no indication that the district's SSSP changed its focus to small patches during the audit period.

The auditors also considered the size of harvest patches where FLTCs were issued. Auditors observed numerous salvage patches containing groups of more than one FLTC, because of the 2,000 cubic metre volume limit for that type of sale. Of the 99 sampled FLTCs, more than one third were immediately adjacent to one or more contemporary sales. In one instance, five FLTCs were issued in a single group to address a salvage patch that was more than 54 hectares in size, although the areas were expected to still be stocked after salvage harvesting was completed.

Auditors observed sales grouped in large salvage patches consistently through the audit period, including recently issued sales. All of the large patches were mountain pine beetle salvage. The district stated that it received a large number of FLTC applications in 2006, which may have contributed to delays in accomplishing the intended shift in priorities. Nonetheless, over the audit period, the district's SSSP performance was inconsistent with its strategic plan commitment to focus on small patches. Also, as described under the *Harvesting and Access* section of this report on page 7, the larger harvesting patches often contained temporary roads to facilitate timber removal, which is also contrary to the strategic plans.

In spite of these inconsistencies, from a forest stewardship perspective, the auditors did not detect any resulting adverse consequences. All FLTCs audited were vetted through major licensees or BCTS, depending on the location of the proposal, and identified as not of short-term interest. Given the massive mountain pine beetle infestation, much of this timber would have been lost if not salvaged through the SSSP. Primarily because of the large size of the beetle infestation, the SSSP policy limitations on harvest volume and roads did not adequately match the program's business needs during the audit period. It is also apparent that the new intermediate salvage licence, with its volume limit of 5,000 cubic metres, is a potentially useful tenure for this kind of salvage opportunity in the district.

District salvage priorities

The district's 2007 SSSP strategic plan lists its salvage priorities, in order, as:

- control of Douglas-fir and spruce beetle outbreaks
- safety issues such as danger tree removal from recreation sites / ski trails
- right of way danger tree removal
- community interface projects
- burned wood
- windthrow
- endemic Douglas-fir and spruce beetle infestations
- mountain pine beetle in small patches

These priorities are typical of small scale salvage programs in districts with no major insect infestations. Auditors observed, however, that the district's SSSP is focused very heavily on mountain pine beetle salvage with 94 of 99 sampled licences devoted to it, including 35 of the 38 most recent FLTCs sampled. The district may be attending to its salvage priorities as listed, but the main focus for the entire audit period, including the most recent part, has been on mountain pine beetle salvage. Again, the auditors did not find a resulting adverse consequence from a forest stewardship perspective.

Consistency with direction in other plans

The district's SSSP strategic plan commits to be consistent with direction set out in the Kamloops TSA Mountain Pine Beetle Strategy Plan, the Forest Health Strategy and the Kamloops Land and Resource Management Plan. Both the Mountain Pine Beetle Strategy Plan and the Forest Health Strategy are focused at the major licence and BCTS level, with little mention of the role of small scale salvage. Nonetheless, no inconsistencies were found in the SSSP practices examined with the strategies in these documents.

The Kamloops Land and Resource Management Plan guides forest operations in relation to key forest values including water and riparian, old growth and biodiversity, range, wildlife, visual and cultural values. Auditors observed that site plans (61 of 99 samples) attested to being consistent with the LRMP and addressed specific aspects such as visual resources. Nearly all of the FLTCs with clearcuts greater than one hectare had site plans. The professional applications (35 of the 99) did not directly reference the LRMP, but did address key LRMP resource values. The professional applications were partial cut or clearcut areas less than one hectare, so risks to values such as visual resources were generally very low. The three direct licensee applications audited were very small scale activities with no threat to resource values identified. Auditors observed no instances where forest practices adversely affected LRMP objectives.

The district's SSSP strategic plan also commits to ensure that program activities do not impact major licensee or BCTS ability to achieve operational plan or certification commitments. SSSP proposals are referred as previously stated and sales are not awarded if concerns are raised. Further, the major licensees and BCTS in the Kamloops TSA are certified under the Canadian Standards Association Sustainable Forest Management (CSA SFM)^v certification scheme. As part of the certification framework, they have prepared and take direction from the Kamloops TSA Sustainable Forest Management Plan. District SSSP operations are not certified. However, the program reports its small scale salvage performance regarding relevant certification monitoring parameters to the TSA certification coordinator. Auditors observed no evidence that SSSP activities adversely affected certification commitments.

Audit Opinion – Forest Practices

In my opinion, the timber harvesting, forest fuel hazard management, silviculture and associated planning, carried out by licensees in the Kamloops Forest District small scale salvage program for the period April 1, 2005, to September 24, 2007, complied in all significant respects with the requirements of the *Forest and Range Practices Act* (FRPA), the *Wildfire Act* (WA) and related regulations, and certain transitional elements of the *Forest Practices Code of British Columbia Act* (the Code), as of September 2007.

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 opinion. 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

June 23, 2008

Audit Conclusion - Enforcement

Most district compliance and enforcement practices were appropriate during the audit period. However, certain important compliance practices were deficient during the audit period, although these deficiencies are ameliorated by other practices within the small scale salvage framework:

- The district's risk assessment practices were deficient because most of the licences in the audit population were not risk rated. This undermined the ability of the district to appropriately deploy its compliance monitoring resources towards higher risk sites. However, the district has improved its performance so that the most recent licences were risk assessed.
- The district's inspection coverage of small scale salvage operations was deficient and did not meet its inspection plan. While this deficiency is potentially serious, the problem was considerably lessened through the extensive use of professional post harvest reports and field checks conducted by small scale salvage program staff.

Notwithstanding the above weaknesses in the district's compliance and enforcement practices, I conclude that overall, the district's enforcement of the *Forest and Range Practices Act*, the *Wildfire Act* and related regulations, and certain transitional elements of the *Forest Practices Code of British Columbia Act*, as of September 2007, in the district small scale salvage program, is appropriate.



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

June 23, 2008

ⁱ Woodco Management Ltd.'s licence was awarded on September 15, 2005. At the time, the licensee exercised its prerogative to submit a forest development plan, which was then approved on February 15, 2006. The licensee subsequently submitted a forest stewardship plan; however, since all harvesting operations subject to audit were conducted under the FDP, only the FDP was audited.

ⁱⁱ A higher level plan is a forest resource management objective that is established as legally binding by a written order. The objective applies to a resource management zone, landscape unit, sensitive area, recreation site, recreation trail, or interpretive forest site. Higher level plans are a provision of the *Forest Practices Code of British Columbia Act* that give direction to operational plans.

ⁱⁱⁱ Temporary access structures include roads, landings, pits or quarries that are identified in the net area to be reforested and are temporary in nature.

^{iv} Section 44(3)(a) of the *Forest Planning and Practices Regulation* exempts a person from the requirement to establish a free growing stand where harvesting timber to eliminate a safety hazard.

^v Participants in the Kamloops TSA apply the Canadian Standards Association's Sustainable Forest Management (CSA SFM) standard to forestry operations. Under the CSA SFM standard, sustainable forest management can be verified by addressing the Canadian Council of Forest Ministers' six criteria for sustainable forest management. Local values, goals and indicators to address the criteria were developed in consultation with a public advisory group.

Appendix 1: Forest Practices Board 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. Enforcement audits examine the appropriateness of government's enforcement of FRPA and WA including the consistency and fairness of enforcement, and the equitable application of the relevant legislation. (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 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.

The Board may also audit the appropriateness of government's enforcement in conjunction with a compliance audit or as a distinct 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*. The standards for enforcement audits are described in the Board's *Enforcement 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 field work includes assessments of features using helicopters as well as ground procedures, such as measuring specific features like riparian reserve zone width. Enforcement audits also include interviews with appropriate staff. The audit teams generally spend one to two weeks in the field.

Evaluating the Results

The Board recognizes that compliance and the appropriateness of government's enforcement 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, as well as the assessment of enforcement, 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.

With respect to auditing the appropriateness of enforcement, auditors address various criteria in determining if enforcement actions and effort is appropriate.

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.