



BC Timber Sales – 2013/14 SFI Re-certification Audit

Between August 2013 and July 2014 an audit team from KPMG Performance Registrar Inc. (KPMG PRI) carried out a multi-site re-certification audit of BC Timber Sales' operations within selected Business Areas against the requirements of the Sustainable Forestry Initiative® (SFI) 2010-2014 standard. To provide for a more efficient audit, an ISO 14001 surveillance audit was conducted at the same time. This Certification Summary Report provides an overview of the process and KPMG's findings.

Description of the BC Timber Sales Organization

BC Timber Sales is an autonomous organization within the Ministry of Forests, Lands and Natural Resource Operations (MFLNRO), with financial and operational independence from Regional and District operations. The organization is comprised of 12 Business Areas with an operational presence in 33 locations across the province, and supports the Ministry's goal of providing British Columbians with sustainable benefits from the commercial use of public forests. BC Timber Sales provides these benefits by planning, developing and selling through auction a substantial and representative portion of the province's annual available timber volume. The bid prices received from auctioned timber drive the Market Pricing System for setting stumpage in coastal and interior operating areas of the province. The organization manages about 20% (16 million m³) of the provincial allowable annual cut (AAC).



BC Timber Sales Certifications

All 12 BC Timber Sales Business Areas are covered under a multi-site ISO 14001 certificate, which is valid until March 11, 2016. The organization also holds several single-site CSA Z809 certificates covering portions of 4 Business Areas. BC Timber Sales also holds a multi-site SFI 2010-2014 certificate covering all or portions of its 12 Business Areas that is valid until September 10, 2017.



Scope of the BC Timber Sales SFI Certification

The BC Timber Sales multi-site SFI certificate applies to sustainable forest management planning and practices (roads, harvesting and silviculture) conducted by BC Timber Sales Corporate staff, Business Area staff, licensees/permittees and contractors (LPCs) in all or portions of the following Business Areas:

- Babine Business Area
- Cariboo-Chilcotin Business Area
- Chinook Business Area
- Kamloops Business Area
- Kootenay Business Area
- Okanagan-Columbia Business Area
- Peace-Liard Business Area
- Prince George Business Area
- Seaward-tlasta Business Area
- Skeena Business Area
- Strait of Georgia Business Area
- Stuart-Nechako Business Area



A detailed listing of applicable forest management units is included as Appendix B of the BC Timber Sales Provincial Sustainable Forest Management plan at:

www.for.gov.bc.ca/bcts/forestcertification/BCTS_Provincial_SusForestMangtPlan.pdf.



Findings – BC Timber Sales – 2013/14 SFI Re-certification Audit Page 2

At the time of the 2013/14 audit BC Timber Sales had a combined AAC apportionment of 12,211,681 m³ per year within the forest management units covered under its multi-site SFI certificate, which equates to a prorated area under management of 10,294,460 hectares.

Audit Scope

The ISO 14001 portion of the audit included a limited scope assessment of the BC Timber Sales environmental management system (EMS) against selected requirements of the ISO 14001:2004 standard. The SFI portion of the audit was conducted against all of the applicable requirements of the 2010-2014 edition of the SFI standard, and incorporated a full scope assessment against the following SFI program objectives:

1. Forest management planning;
2. Forest productivity;
3. Protection and maintenance of water resources;
4. Conservation of biological diversity;
5. Management of visual quality and recreation benefits;
6. Protection of special sites;
7. Efficient use of forest resources;
14. Legal and regulatory compliance;
15. Forestry research, science and technology;
16. Training and education;
17. Community involvement in the practice of sustainable forestry;
18. Public land management responsibilities;
19. Communications and public reporting, and;
20. Management review and continual improvement.

The Audit

- *Audit Team* – The audit was conducted by Dave Bebb, RPF, EP(EMSLA), Mike Alexander, RPF, EP(EMSLA), Del Ferguson, P.Geo., Dip.ForEng., Sylvi Holmsen, RPF, CA, EP(EMSLA), Dennis Lozinsky, RPF, James Lucas, RPF, EMS(LA), Yurgen Menninga, RPF, EP(EMSLA), Craig Roessler, RPF, EP(EMSLA), Adrienne Hegedus, EMS(LA) and Bodo von Schilling, RPF, EP(EMSLA). All of the members of the audit team have conducted numerous forest management audits under a variety of standards including SFI, ISO 14001, CSA Z809 and FSC.
- *Combined SFI Re-certification and ISO 14001 Surveillance Audit* – The audit included an on-site assessment of the BC Timber Sales EMS and SFI program. Site visits were made to all 12 Business Areas. In addition, the audit included an assessment of the BC Timber Sales Corporate Office’s implementation of the SFI program requirements that are applicable at the corporate level. The audit involved a review of selected EMS and SFI records, interviews with a sample of staff, LPCs and local stakeholders, and visits to several field sites (87 roads, 69 cutblocks and 64 silviculture sites) to assess conformance with the requirements of the SFI standard.

BC Timber Sales 2013/14 SFI Surveillance Audit Findings

Open non-conformities from previous audits	0
New major non-conformities	0
New minor non-conformities	8
New systemic opportunities for improvement	4

Types of audit findings
Major non-conformities:
 Are pervasive or critical to the achievement of the SFM Objectives.

Minor non-conformities:
 Are isolated incidents that are non-critical to the achievement of SFM Objectives.

All non-conformities require the development of a corrective action plan within 30 days of the audit, which must be fully implemented by the operation within 3 months.

Major non-conformities must be addressed immediately or certification cannot be achieved / maintained.

Opportunities for Improvement:
 Are not non-conformities but are comments on specific areas of the SFM System where improvements can be made.

- *BC Timber Sales' SFI Program Representative* – Rein Kahlke, RPF, BC Timber Sales Certification Officer served as the organization's corporate level SFI program representative during the audit. In addition, the various Certification Standards Officers located at each of the BC Timber Sales Business Area offices included in the audit sample acted as the SFI program representatives at the Business Area level.

Audit Objectives

The objective(s) of the audit were to evaluate the environmental and sustainable forest management system at BC Timber Sales to:

- Determine its conformance with the requirements of ISO 14001:2004 and SFI 2010-2014;
- Evaluate the ability of the system to ensure that BC Timber Sales operations meet applicable regulatory requirements, and;
- Evaluate the effectiveness of the system in ensuring that BC Timber Sales meets its specified SFM objectives.

Use of Substitute SFI Indicators

The SFI portion of the audit involved an assessment of conformance against the applicable objectives, performance measures and indicators included in the 2010-2014 version of the SFI standard. None of the indicators included in the SFI standard were modified or substituted for the purpose of this audit.

Audit Conclusions

BC Timber Sales' EMS and SFI program were found to be effectively implemented by the participating Business Areas included in the audit sample, and continue to meet the requirements of ISO 14001:2004 and SFI 2010-2014 except where noted otherwise in the balance of this report. As a result, BC Timber Sales will continue to be certified to the ISO 14001 and SFI standards.

Evidence of Conformity with SFI 2010-2014

Primary sources of evidence assessed to determine conformity with the SFI 2010-2014 standard are presented in Table 1 below.

SFI Objective #	Key Evidence of Conformity
1. Forest Management Planning	Sustainable forest management (SFM) plan, forest stewardship plans (FSPs), Timber Supply Review (TSR) results and Allowable Annual Cut (AAC) rationales, AAC apportionments, harvest records, interviews with a sample of BC Timber Sales staff.
2. Forest Productivity	SFM plan, FSPs, EMS operational controls, site plans & logging plans (SPs & LPs), staff and LPC interviews, field site inspections.
3. Protection and Maintenance of Water Resources	SFM plan, FSPs, EMS operational controls, SPs & LPs, staff and LPC interviews, field site inspections.



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SFI Objective #	Key Evidence of Conformity
4. Conservation of Biological Diversity	SFM plan, FSPs, staff and LPC interviews, biodiversity information contained in Geographic Information Systems (GIS), SPs & LPs, field site inspections.
5. Management of Visual Quality and Recreational Benefits	SFM plan, FSPs, SPs & LPs, staff and LPC interviews, field site inspections.
6. Protection of Special Sites	SFM plan, FSPs, SPs & LPs, staff and LPC interviews, field site inspections.
7. Efficient Use of Forest Resources	SFM plan, FSPs, staff and LPC interviews, field site inspections.
8. Landowner Outreach	SFI Objectives 8-13 are not applicable as BC Timber Sales does not procure wood fibre.
9. Use of Qualified Resource and Logging Professionals	NA.
10. Adherence to Best Management Practices	NA.
11. Promote Conservation of Biological Diversity, Biodiversity Hotspots and Major Tropical Wilderness Areas	NA.
12. Avoidance of Controversial Sources including Illegal Logging	NA.
13. Avoidance of Controversial Sources including Sources without Effective Social Laws	NA.
14. Legal and Regulatory Compliance	SFM plan and related monitoring results, EMS non-compliance records, field site inspections.
15. Forestry Research & Technology	Records of recent research projects, BC Timber Sales staff interviews.
16. Training and Education	EMS, staff and LPC training records, internal audit results, staff and LPC interviews, field site inspections.
17. Community Involvement in the Practice of Sustainable Forestry	Western Canada SFI Implementation Committee (WCSIC) minutes, records of community outreach, staff interviews.
18. Public Land Management Responsibilities	Agency, stakeholder and First Nations referral correspondence, SPs, field inspections.
19. Communication and Public Reporting	Previous external audit reports.
20. Management Review and Continual Improvement	SFM plan, corporate and Business Area management reviews internal audit reports and associated action plans, staff interviews.



The audit involved a review of selected EMS and SFI records, interviews with a sample of staff, LPCs and local stakeholders, and visits to several field sites (87 roads, 69 cutblocks and 64 silviculture sites) to assess conformance with the requirements of the SFI standard.

Good Practices

A number of good practices were identified during the course of the 2013/14 BC Timber Sales ISO 14001/SFI audit. Examples included:

- SFI Objective 1 (forest management planning): An innovative joint LIDAR pilot project between Seaward-tlasta, Western Forest Products and GeoBC is expected lead to some significant efficiencies for operational activities and potentially inventory quality in the area. (Seaward-tlasta Business Area)
- SFI Objective 2 (forest productivity): The “Free Growing Declaration Risk Assessment” program developed and used by the Babine Business Area provides an excellent mechanism to evaluate the risks associated with marginally free-growing stands and document the reasons for free-growing declarations of such stands. (Babine Business Area)
- SFI Objective 3 (riparian management): The Kootenay Business Area has implemented a number of risk reduction initiatives in the Kootenay Lake area to help manage water and slope stability, including implementing a review of roads located upslope of domestic values where industrial activity is suspend for >5 years. (Kootenay Business Area)
- SFI Objective 3 (riparian management): An innovative approach was observed on the Meridian North road construction project (100 Mile TSA) where ditch water was directed through culverts placed on both sides of a new bridge to a vegetated settling area to prevent silt-laden ditch water from directly entering an S3 stream in an area of fine textured soils. (Kamloops Business Area)
- SFI Objective 4 (conservation of biological diversity): The audit noted a number of examples of good on-block retention. In larger pine salvage blocks retention levels often approached 20% of the gross block area, which is in keeping with the BC Chief Forester’s guidance on this subject. (Stuart-Nechako Business Area)
- SFI Objective 14 (legal and regulatory compliance): A pilot project testing the use of GPS-enabled iPads for road inspections is helping to ensure that any issues noted during the inspections are properly located on maps. This in turn helps to improve communication with the contractor or licensee crews who are required to address the issues noted. (Strait of Georgia)
- SFI Objective 15 (forestry research, science and technology): The Stuart-Nechako Business Area is experimenting with the use of a drone (un-manned aerial vehicle) as a means to obtain information on active and recently completed operations (some with poor road access) that might otherwise require a significant investment of staff time to obtain. (Stuart-Nechako Business Area)
- SFI Objective 18 (public land management responsibilities): In collaboration with local stakeholders, the TCC planning team has developed landscape level management strategies to address the following concerns in the South Chilcotin: (1) establishing corridors for high value moose habitat, (2) protecting moose from hunting pressures by coordinating efforts to deactivate in block and duplicate road systems, and (3) addressing the BC Chief Forester’s guidance for stand-level structural retention in large-scale mountain pine beetle salvage operations. (Cariboo-Chilcotin Business Area)

NB: The above list of good practices is not intended to be a comprehensive list of all of the noteworthy or progressive forest practices that are taking place at the operations included in the 2013/14 audit sample. Rather, they are simply observations made by the audit team that were deemed worthy of inclusion in this public summary report as a means to highlight some of the positive aspects of the organization’s forest management practices.



The Kootenay Business Area has implemented a number of risk reduction initiatives in the Kootenay Lake area to help manage water and slope stability, including implementing a review of roads located upslope of domestic values where industrial activity is suspend for >5 years. (Kootenay Business Area)

Follow-up on Findings from Previous Audits

At the time of this assessment there were a total of 6 open non-conformities from previous ISO 14001/SFI audits that were applicable at the corporate level. The audit team reviewed the implementation of the action plans developed by BC Timber Sales to address these issues, and found that they had been effectively implemented in all instances. As a result, all of the previously identified non-conformities have now been closed.

New Areas of Nonconformity

The 2013/14 BC Timber Sales ISO 14001/SFI audit identified a total of 8 new minor non-conformities in relation to the requirements of the SFI standard, as follows:

- SFI Performance Measure 2.3 requires the organization to implement forest management practices to protect and maintain forest and soil productivity, including minimizing rutting. The audit found that the above requirements had been met on the majority of sites visited. However, weaknesses in the implementation of processes to minimize soil disturbance were observed at the following 2 Business Areas: (1) Stuart-Nechako Business Area—areas of soil compaction and deep rutting noted on 2 harvest blocks, and (2) Kamloops Business Area—areas of dispersed soil disturbance as well as disturbance associated with inadequately rehabilitated trails and stub spurs on a number of blocks in the Lillooet area that had been engineered for a different harvesting system than that used by the licensee.
- SFI Performance Measure 14.1 requires Program Participants to comply with applicable laws and regulations, including those related to fuel storage and transportation. However, the audit identified the following 2 weaknesses in the implementation of fuel handling procedures by BCTS licensees: (1) Prince George Business Area—large stationary tank with no ULC tag or inspection records on-site, (2) Seaward-tlasta Business Area—large non-specification tank being used to store fuel that did not have any inspection records associated with it.
- SFI Performance Measure 14.1 requires Program Participants to comply with applicable laws and regulations. This requirement is addressed in various BCTS documents and procedures, including Chapter 13 of the BCTS EMS Manual, various EOPs and EFPs, BCTS and LPC self-inspection checklists and related documents. The audit found that these procedures had been implemented as required in the majority of instances. However, the following exceptions were noted at the Babine Business Area: (1) there is no formal process at the Babine Business Area to track and follow through on maintenance requirements identified during road crossing structure inspections, and (2) there were no access inspection forms completed as required under the BCTS EMS for road maintenance completed in the year ending March 2013.
- SFI Performance Measure 3.2 requires program participants to implement plans to protect rivers, streams, lakes and other waterbodies. Further, BCTS EFP 04 requires licensees to: (1) utilize sediment control measures as required including silt fences, hay bales, rock armouring, swales, water bars, or siltation detention ponds as appropriate, and (2) follow project plans and when deactivating crossings, including cleaning introduced debris from the stream. However, the audit identified weaknesses (i.e., structures not built according to plan, failure to remove introduced debris, lack of adequate sediment control measures) in the construction of stream crossings associated with the on-block roads on 2 Timber Sales located in the Stuart-Nechako Business Area.



A significant proportion of the volume of wood harvested by BCTS continues to come from stands that have been killed by the mountain pine beetle. The low quality of these stands (a significant proportion of which have been dead for several years) makes many of them uneconomical to harvest, which is putting downward pressure on the AAC in a number of the Timber Supply Areas in which BCTS operates.

- SFI Performance Measure 4.1 requires Program Participants to develop and implement a program to manage threatened and endangered species. This is met in part through the Okanagan-Columbia Business Area's document listing red & blue listed plants, animals, and communities present in the Business Area, which explains which species are potentially affected by forest operations and outlines the specific strategy is for addressing each species. For one of the blocks assessed during the audit wolverine is listed as a species at risk and the Planning Route Card (which includes items for consideration at the site plan stage) states that wolverine are impacted by harvesting and includes direction to "maintain habitat refugia at landscape planning scale, high likelihood of existing in this BEC zone". However, neither the site plan nor staff interviews could provide information on how or if wolverine refugia needs were addressed.
- SFI Performance Measure 14.1 requires program participants to take appropriate steps to comply with applicable federal, provincial, state and local forestry and related social and environmental laws and regulation. Requirements for the deactivation of in-block roads and designated access roads are addressed in part under the TSL agreement. In addition, FPPR Section 82 requires clearly visible barricades at the head of deactivated roads to prevent access by motor vehicles, other than all-terrain vehicles. Further, if roads are not deactivated WSBC Regulation Section 26.79 requires roads to be maintained to permit safe transport. However the following exceptions to these requirements were observed at the Stuart-Nechako Business Area: (1) streams crossings had been removed from on-block roads in 2 harvest blocks in the absence of adequate barriers to prevent access, and (2) a deactivated bridge on 1 site lacked barriers and signage to warn the public that it had been deactivated.
- SFI Performance Measure 14.1 requires Program Participants to comply with applicable laws and regulations, while BCTS Environmental Field Procedures prescribe operational controls for the inspection and maintenance of roads. These requirements were found to have been met in the majority of instances. However, field review of a road in the Cariboo-Chilcotin Business Area identified road surface erosion over a 100 metre distance and two plugged culverts. Interviews with BCTS staff indicated the erosion was a result of 2013 spring freshet. At the time of the site visit the road was not in conformance to EMS operational controls and legal requirements under FPPR section 79 Road Maintenance.
- SFI Performance Measure 14.1 requires Program Participants to comply with applicable laws and regulations. These requirements are addressed through the EMS policy and various operational controls, including EFP 05. The audit found that the BCTS EMS procedures were being implemented as required in the majority of instances. However, the audit observed prohibited materials (tires) that had been deliberately placed in or near slash piles on 1 Timber Sale located in the Skeena Business Area with the likely intent of using the tires as an accelerant during slash abatement. Note: The Open Burning Smoke Control Regulation prohibits the burning of tires.



Browsing damage to planted seedlings by deer and elk poses a challenge to reforestation efforts in a number of areas in which BCTS operates. One solution (as depicted above) is the installation of plastic tubes to protect planted trees. These are left on-site for a few years until the trees are tall enough, after which the tubes are removed.

New Opportunities for Improvement

Several opportunities for improvement, many of which were restricted to a single Business Area, were identified during the 2013/14 BC Timber Sales SFI surveillance re-certification/ISO 14001 scope expansion audit. These have already been reported to BC Timber Sales through the Business Area level ISO 14001/CSA Z809 and ISO 14001/SFI reports that were provided to the organization either on-site or soon after the applicable Business Area site visits took place.

In the interest of brevity, this corporate level Certification Summary Report only includes systemic (i.e., corporate level and/or multi-Business Area) opportunities for improvement as the isolated, non-systemic Business Area level opportunities for improvement are not considered to carry sufficient weight to be included in this report. However, all of the opportunities for improvement identified during the 2013-14 audit—whether systemic or not—will be followed-up by KPMG PRI during next year's audit.

The 2013/14 BC Timber Sales ISO 14001/SFI audit identified a total of 4 new systemic opportunities for improvement that related to the requirements of the SFI standard, as follows:

- The following Isolated weaknesses were noted in relation to the implementation road deactivation practices: (1) Seaward-tlasta Business Area—on one TSL a cross drain/water bar was missed in the deactivation of the on-block road and the natural drainage pattern of the S-6 watercourse in the block was not re-established, (2) Kamloops Business Area—lack of adequate deactivation and evidence of erosion was observed on approximately 1 km of on-block road, and (3) Peace-liard Business Area—on 1 block a short spur was deactivated instead of it being fully rehabilitated as prescribed in the site plan.
- The following Isolated weaknesses were noted in relation to the implementation stand level tree and coarse woody debris (CWD) retention practices: (1) Prince George Business Area—while the site plan noted that there was a raptor nest on a harvest block, the location was not identified on the map or on the ground and no management strategies were specified, (2) George Business Area—the audit identified an opportunity for the Prince George Business Area to improve stand level biodiversity by identifying and evaluating opportunities to protect areas with significant understory spruce during operational planning, and (3) Peace-liard Business Area—the CWD prescriptions for 2 blocks were not clear regarding performance expectations.
- The following Isolated weaknesses were noted in relation to the implementation of BCTS document control procedures: (1) Kootenay Business Area—the licensee working on an active harvest block did not have a copy of the pre-work document or site plan, and (2) Prince George Business Area—an outdated field book was noted on one feller-buncher.
- The following Isolated weaknesses were noted in relation to the implementation of BCTS non-conformance and corrective and preventive action procedures: (1) Kootenay Business Area—review of the Incident Tracking System (ITS) noted a number of weaknesses (e.g., open action items dating back to 2010 and 2011, lack of a BCTS investigation of an incident involving an excavator that had walked through a creek, etc.), (2) Seaward-tlasta Business Area—the audit noted that the lack of a time limit for documenting incidents in the ITS increases the risk of delays in implementing required corrective and preventive actions, and (3) Strait of Georgia Business Area—Review of a sample of closed action plans in ITS found that there is not always clear documentation regarding the results of the follow-up inspection which resulted in the closure of the action plan.



The audit noted a number of examples of good on-block retention. In larger pine salvage blocks retention levels often approached 20% of the gross block area, which is in keeping with the BC Chief Forester's guidance on this subject. (Stuart-Nechako Business Area)

Corrective Action Plans

Corrective action plans designed to address the root cause(s) of the findings identified during the 2013/14 audit have been developed by BC Timber Sales and reviewed and approved by KPMG PRI. The next surveillance audit will include a follow-up assessment of these issues to confirm that the corrective action plans developed to address them have been implemented as required.

Focus Areas for the Next Audit Visit

The following issues/potential concerns have been identified as focus areas for the next audit visit:

- Implementation of action plans developed by BC Timber Sales to address all open non-conformities identified during previous external audits.
- Follow-up on the Business Area-specific EMS issues/potential concerns noted in the applicable 2013-2014 Business Area audit reports.
- BCTS staff awareness and timely implementation of the procedures outlined in the document entitled “Best Management Practices for Conformance Administration of TSLs and Road Permits.
- Given that an official Timber Supply Review has not yet been conducted for the Pacific TSA by the BC Chief Forester, it is not clear that the AAC and Strait of Georgia’s apportionment of the AAC (800,000 m³/yr) has been established at a sustainable level based on full consideration of all appropriate resource, inventory and growth and yield data and analysis (and the preliminary results from the Business Area’s patchwork analysis appears to indicate that the AAC is overstated). NB: In relation to Strait of Georgia’s analysis, the Business Area has been deliberately undercutting on the TSA (e.g., 67% of AAC in 2012).
- The Strait of Georgia Business Area has not received an internal audit since 2011 (and that was a limited scope audit without a field component). The next KPMG audit will review the outcome of the next internal audit planned for December 2014 to verify its adequacy and comprehensiveness.
- A number of Business Areas have staff vacancies that they are currently unable to fill due to a hiring freeze imposed by government. Although the 2013/14 BCTS audit did not identify any gaps in EMS implementation as a result, the 2014/15 audit will include a review of the organization’s efforts to ensure that reduced staffing levels do not negatively impact environmental performance.
- Field inspections of operations in the Mackenzie TSA.
- Road construction, maintenance and deactivation practices.



The “Free Growing Declaration Risk Assessment” program developed and used by the Babine Business Area provides an excellent mechanism to evaluate the risks associated with marginally free-growing stands and document the reasons for free-growing declarations of such stands. (Babine Business Area)

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