



Northern Pulp Nova Scotia Corporation – 2015 SFI Surveillance Audit

In October 2015, an audit team from KPMG Performance Registrar Inc. (“KPMG PRI”) carried out a surveillance audit of Northern Pulp Nova Scotia Corporation’s (“Northern Pulp’s”) Nova Scotia woodlands operation against the requirements of the 2010-2014 edition of the Sustainable Forestry Initiative® (“SFI”) Standard. The audit also included a review of the Company’s action plans to address the incremental requirements of the SFI 2015-2019 Forest Management and Fibre Sourcing Standards. 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 audit process and KPMG’s findings.

Northern Pulp Nova Scotia Corporation

Northern Pulp operates a pulp mill in Pictou, Nova Scotia. The Company is one of the largest private forest landowners in Nova Scotia, and also holds a Crown licence which was originally granted by the Province of Nova Scotia to Scott Paper (one of Northern Pulp’s predecessor companies) in 1965.

Northern Resources, the parent company of Northern Pulp, is a wholly-owned subsidiary of Howe Sound Pulp & Paper Corporation (Howe Sound Pulp), which is in turn owned by Paper Excellence Canada Holdings Corporation. Northern Resources (along with Northern Pulp, the Pictou pulpmill and associated private forest lands and Crown Licence) was acquired by Howe Sound Pulp from Atlas Holdings LLC and Blue Wolf Capital Management LLC in May 2011.

Northern Pulp Woodlands

In 2010, Northern Pulp purchased 192,000 hectares of freehold lands from Neenah Nova Scotia which were previously managed by Northern Pulp under a stumpage agreement. Northern Pulp then sold approximately 22,000 hectares of the newly acquired land to the Crown as part of the Provincial Protected Areas Program. The remaining freehold lands held by the Company represent approximately 5% of the total forested land in Nova Scotia, accounting for approximately 7% of the privately owned forest land. These lands currently contribute approximately 25% of the pulp mill’s total chip furnish. The current allowable annual cut (AAC) for the Company’s freehold lands includes 301,635 GMT (green metric tons) of softwood and 137,113 GMT of hardwood.

Northern Pulp holds a Crown licence covering approximately 80,000 hectares that accounts for 7.6% of the Provincial Crown forest land in Nova Scotia and is situated in the Halifax Regional Municipality. This is a volume-based tenure with a fixed managed land base. The Company’s Crown licence currently provides an allowable annual cut (AAC) of 100,000 GMT of softwood and 15,000 GMT of hardwood.

The Company has also recently acquired a 10 year allocation of 125,000 GMT from the western Crown lands area, which over the longer term will be managed as part of a multi-Company consortium (WestFor). However, the exact structure and management obligations of the consortium have yet to be agreed upon with government.

The 2015 audit found that Northern Pulp continues to conform to the AACs applicable to its woodlands operations.

Northern Pulp has developed an ecological landscape plan for its freehold and Crown licence lands that is based on the Nova Scotia Department of Natural Resources (NSDNR) ecological classification system. In addition, an SFM plan is also in place that applies to both freehold and Crown licence lands. The Company maintains a GIS (Arc Info) that includes various layers (roads, stand boundaries, inventory labels, soils information, special sites, species at risk (SAR) sightings, archaeological sites, wilderness areas, etc.). The non-timber information included in the GIS is used during the development of strategic and operational (block) plans as a means to address non-timber values.



The freehold and Crown lands managed by the Company fall largely within the following Ecodistricts: (1) Cobequid Hills, (2) Central Uplands, (3) Governor Lake, (4) Eastern Interior, (5) Central Lowlands, (6) Eastern Drumlins, and (7) Raw don/Wittenburg Hills.

The forest management approach employed by the Company is based largely on even-aged management, ground-based harvesting systems, clearcut harvesting with the retention of clumps of standing trees within harvest areas, replanting of harvest areas within a few years with a mix of ecologically suited tree species and control of competing vegetation through the use of government-approved chemical herbicides and/or mechanical means. Tolerant hardwood stands are managed using either the selection system or two-aged management such as extended shelterwood.

Northern Pulp Fibre Sourcing Program

The balance of the mill's chip furnish comes from small and large private stumpage purchases. Purchased stumpage is managed under Northern Pulp's forest management system (FMS) which includes various controls including pre-works, written work orders, Operations Inspections by Northern Pulp staff, etc.

Northern Pulp has developed its own wood procurement policy and provided it to the Company's large chip suppliers. In addition, the Company requires its large chip suppliers to develop their own wood procurement policies and wood supplier audit procedures, and has provided them with electronic templates of a draft wood procurement policy and wood supplier audit checklist to facilitate this process. Each chip supplier is required to conduct quarterly audits of their round-wood suppliers and provide the results to Northern Pulp. In addition, WMD (an independent Company that procures wood from private landowners on behalf of Northern Pulp) also conducts purchase wood audits on 1/25 purchases and provides the audit report to the Company. Any deficiencies noted are entered into the SFI/EMS Reporting Database. The results of these audits are reviewed both internally within the Company and at the Maritime SFI Implementation Committee level.

History of Northern Pulp Nova Scotia Corporation's ISO 14001 and SFI Certifications

Northern Pulp's Nova Scotia woodlands operation is certified to both the ISO 14001 and SFI Standards. Certification to the SFI standard was obtained on April 29, 2005. The Company's SFI certification was renewed on December 2, 2014 and remains valid until December 1, 2017. Certification to the ISO 14001 standard was obtained on March 15, 2005. The Company's ISO 14001 certification was subsequently renewed on October 8, 2013. The certification is valid until October 7, 2016.

The Audit

- **Audit Team** – The audit was conducted by Dave Bebb, RPF(BC), EP(EMSLA), Bodo von Schilling, RPF(BC), EP(EMSLA) and Clark Brander, RPF(NS). Dave is an employee of KPMG PRI and has conducted numerous forest management audits under a variety of Standards including SFI, ISO 14001, CSA Z809 and FSC. Bodo is a contract auditor with considerable experience conducting audits to a variety of certification standards. Clark is a Nova Scotia forester who served as the local expert on the audit team.
- **Combined SFI Re-certification/ISO 14001 Surveillance Audit** – The 2015 audit involved an on-site assessment of selected elements of the Company's Sustainable Forest Management (SFM) and Forest Management System (FMS) programs, and included visits to a sample of field sites (12 roads, 11 harvesting blocks, 7 silviculture sites and 6 purchase wood sites) to evaluate the extent to which the Company's forest management plans and practices continue to conform to the requirements of

Northern Pulp 2015 SFI Surveillance Audit Findings	
Open Non-conformities from previous audits	0
New Major Non-conformities	0
New SFI 2010-2014 Minor Non-conformities	0
New SFI 2010-2014 Opportunities for Improvement	6
New SFI 2015-2019 Minor Non-conformities	4
New SFI 2015-2019 Opportunities for Improvement	3

<p>Types of audit findings Major non-conformities:</p> <p>Are pervasive or critical to the achievement of the SFM Objectives.</p> <p>Minor non-conformities:</p> <p>Are isolated incidents that are non-critical to the achievement of SFM Objectives.</p> <p>All non-conformities require the development of a corrective action plan within 30 days of the audit. Corrective action plans to address major non-conformities must be fully implemented by the operation within 3 months or certification cannot be achieved / maintained. Corrective action plans to address minor non-conformities must be fully implemented within 12 months.</p> <p>Opportunities for Improvement:</p> <p>Are not non-conformities but are comments on specific areas of the SFM System where improvements can be made.</p>

the SFI and ISO 14001 Standards. The SFI portion of the 2015 audit took approximately 15 auditor days to complete, 10 of which were spent on-site. The balance of audit time was spent preparing the audit plan, completing an off-site review of selected Company documents and records and completing various audit checklists and preparing the main and public summary audit reports.

- *SFM and EMS Program Representative* – Ms. Heidi Higgins served as Northern Pulp’s SFM and EMS program representative during the audit.

SFI Audit Scope

The 2015 SFI audit was conducted against the applicable requirements of the 2010-2014 edition of the SFI Standard, and incorporated a limited scope assessment against the SFI program objectives for:

- Forest management planning;
- Protection and maintenance of water resources;
- Management of visual quality and recreation benefits;
- Efficient use of forest resources;
- Fibre sourcing (landowner outreach, use of qualified resource and logging professionals, adherence to best management practices, promotion of conservation of biological diversity, etc.);
- Legal and regulatory compliance;
- Forestry research, science and technology;
- Community involvement in the practice of sustainable forestry;
- Communications and public reporting, and;
- Management review and continual improvement.

The scope of the 2015 SFI surveillance audit included an assessment of performance on Northern Pulp’s private forest land, Crown licence and western Crown land volume allocation, as well as fibre sourcing for the Company’s Pictou, NS pulp mill.

Audit Objective(s)

The objectives of the 2015 SFI/ISO 14001 surveillance audit were to:

- Assess the extent to which the Company’s FMS, forest management plans and practices conform to the requirements of SFI 2010-2014 and ISO 14001:2004;
- Assess the adequacy and state of implementation of the Company’s action plans to address the incremental requirements of the SFI 2015-2019 forest management and fibre sourcing standards;
- Evaluate the ability of Northern Pulp’s SFM system to ensure that the Company meets applicable regulatory requirements, and;
- Assess the effectiveness of the Company’s SFM system in meeting its specified SFM objectives.



The 2015 audit involved an on-site assessment of selected elements of the Company’s SFM and FMS programs, and included visits to a sample of field sites (12 roads, 11 harvesting blocks, 7 silviculture sites and 6 purchase wood sites) to evaluate the extent to which the Company’s forest management plans and practices continue to conform to the requirements of the SFI and ISO 14001 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, Ecological Landscape Plan, Forest Management System (FMS) Manual, Geographic Information System (GIS), inspection of a sample of field sites, staff interviews.
2. Forest Productivity	Not in scope for 2015.
3. Protection and Maintenance of Water Resources	SFM plan, FMS Manual, Operations Inspections, inspection of a sample of field sites with riparian features, staff and contractor interviews.
4. Conservation of Biological	Not in scope for 2015.
5. Management of Visual Quality and Recreational Benefits	SFM plan, FMS Manual, inspection of a sample of field sites, staff interviews.
6. Protection of Special Sites	Not in scope for 2015.
7. Efficient Use of Forest Resources	SFM plan, FMS Manual, Operations Inspections, inspection of a sample of field sites, staff interviews.
8. Landowner Outreach	Not in scope for 2015.
9. Use of Qualified Resource and Logging Professionals	SFI Information Package, MSIC website, staff interviews.
10. Adherence to Best Management Practices	Not in scope for 2015.
11. Promote Conservation of Biological Diversity, Biodiversity	NA. The Company does not source wood from outside of North America.
12. Avoidance of Controversial Sources including Illegal Logging	NA. The Company does not source wood from outside of North America.
13. Avoidance of Controversial Sources including Sources	NA. The Company does not source wood from outside of North America.
14. Legal and Regulatory Compliance	SFM plan, FMS Manual, Operations Inspections, internal audit results, inspection of a sample of field sites, staff and contractor interviews.
15. Forestry Research & Technology	SFM plan, SFI progress reports, research plans and reports, staff interviews.



The forest management approach employed by the Company is based largely on even-aged management, ground-based harvesting systems, clearcut harvesting with the retention of clumps of standing trees within harvest areas, re-planting of harvest areas within a few years with a mix of ecologically suited tree species and control of competing vegetation through the use of government-approved chemical herbicides and/or mechanical means. Tolerant hardwood stands are managed using either the selection system or two-aged management such as extended shelterwood.

SFI Objective #	Key Evidence of Conformity
16. Training and Education	Not in scope for 2015.
17. Community Involvement in the Practice of Sustainable Forestry	FMS Manual, minutes of SFI Advisory Committee, stakeholder and MSIC meetings, staff and stakeholder interviews.
18. Public Land Management Responsibilities	Not in scope for 2015.
19. Communications and Public Reporting	Certification summary report.
20. Management Review and Continual Improvement	SFM plan, management review, internal audit, Environmental Management Programs (EMPs).

Use of Substitute Indicators

The audit was based on the applicable indicators included in the 2010-2014 versions of the SFI Standard. No substitute indicators were used during the 2015 SFI surveillance audit.

Good Practices

A number of good practices were identified during the course of the audit, including:

- SFI Objective 1 (forest management planning) – Northern is making innovative use of LiDAR (Light Detection And Ranging) remote sensing data as a means to support/enhance the Company’s traditional aerial photo and cruise-based inventory data. This information will be used in the upcoming forest analysis and is expected to improve the accuracy of the AAC determination for the Company’s freehold lands.
- SFI Objective 7 (efficient use of forest resources) – The audit observed good wood utilization in some difficult operating conditions, especially on the Western Crown and Wagner lands.
- SFI Objective 14 (legal and regulatory compliance) – The audit found a high level of compliance with applicable FMS requirements on the sites included in the field sample.
- SFI Objective 14 (legal and regulatory compliance) – The audit noted a significant improvement in the availability of required FMS documents (e.g., “green sheet”, work orders, remote location plans, etc.) on the sample of active sites visited.
- SFI Objective 16 (training and education) – Interviews with a sample of logging contractor employees found a good level of awareness of Northern Pulp’s operational procedures and the site specific environmental concerns applicable to the worksites they were working on.

Note: 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 audit sample. Rather, they are simply observations made by the audit team that were deemed worthy of inclusion in the audit report as a means to highlight some of the positive aspects of the Company’s forest management practices.



The audit observed good wood utilization in some difficult operating conditions, especially on the Western Crown and Wagner lands.

Follow-up on Findings from Previous Audits

At the time of this Assessment there were a total of 0 open non-conformities and 4 opportunities for improvement from previous audits. The audit team reviewed the status of the issues that gave rise to these findings and found that the Company had made good progress towards addressing most of them. The 2016 audit will include a follow-up assessment of the remaining opportunities for improvement to assess the Company's progress towards addressing them. These include:

- Weaknesses in the content of the Company's ecological landscape plan in relation to seral stage and patch size targets.
- An opportunity for the Company to work more closely with its logging contractors to encourage limited harvesting within riparian special management zones (SMZs) where stand conditions and topography permit.

New Areas of Nonconformity

No new non-conformities were identified in relation to the requirements of the SFI 2010-2014 standard were identified during the 2015 SFI surveillance audit.

New Opportunities for Improvement

A total of 6 new opportunities for improvement were however identified in relation to the requirements of the SFI 2010-2014 standard during the 2015 SFI surveillance audit, including:

- SFI 2010-2014 Objective 20 (management review and continual improvement) – Review of the 2015 Northern Pulp Targets and Objectives document confirmed that environmental programs have been developed to achieve the targets that have been set for 2015. These include specific actions to be taken and the designation of the person(s) responsible for completing the actions specified. However, the 2015 Targets and Objectives document does not include clear due dates by which the various actions are to be completed.
- SFI 2010-2014 Objective 1 (forest management planning) – Northern Pulp completed a re-inventory of its freehold lands in 2013 and also acquired LiDAR data as a means to supplement its more traditional aerial photo-based inventory data. Using this information, the Company had planned to complete a new forest modeling exercise and determine a new AAC for its fee lands by spring 2015. Once this work was finalized, revisions to the Company's SFM plan and Ecological Landscape Plan were to be made in order to provide clearer direction to the management of landscape level biodiversity. However, various delays in integrating the LiDAR data have resulted in the forest modeling exercise and new AAC determination being postponed until the first quarter of 2016.
- SFI 2010-2014 Objective 15 (forestry research & technology) – In 2011 the Company established the Northern Pulp Nova Scotia Forest Research Program, which includes research funding of \$1 million over a period of 5 years. Follow-up on the status of this program during the 2015 audit found that although a number of research projects have been completed or are ongoing, they are unlikely to meet their current 5 year research funding target. Although Northern Pulp continues to invest in forest research through its membership in FPInnovations, there is an opportunity to re-evaluate the role of the Northern Pulp Nova Scotia Forest Research Program within the Company's overall forest research effort, decide whether the research priorities that were set in 2011 still make sense and then identify and fund research projects that fit these priorities.



The Northern Pulp forest management system (FMS) contains a wide range of procedures to address the environmental risks associated with forest practices, including procedures related to fuel storage, transportation and emergency response.

- SFI 2010-2014 Objective 18 (public land management responsibilities) – The SFI standard requires Program Participants to maintain appropriate contact with local stakeholders over forest management issues through state, federal, provincial and independent collaboration. Northern Pulp addresses this requirement through a variety of means, including an SFI Advisory Committee that was set up to provide an avenue for stakeholders to provide input into the Company’s forest management plans and practices. However, the Northern Pulp SFI Advisory Committee has only met once in the past year. In addition, review of the minutes of the September 24, 2015 meeting found that the discussions were largely confined to a review of recent developments at the mill. As a result, the Company currently only receives limited input regarding its forest management plans and practices from the committee.
- SFI 2010-2014 Objective 14 (legal and regulatory compliance) – The SFI standard includes a requirement for Program Participants to develop and implement a system to achieve compliance with applicable federal, provincial, state or local laws and regulations. Northern Pulp’s operational controls are documented in the Company’s Forest Management System (FMS) Manual. The audit found that these procedures had been implemented as required on the large majority of the sites included in the 2015 audit sample. However, a number of isolated weaknesses in implementation were noted during the audit (e.g., overharvesting in a short section of riparian SMZ on 1 block; a minor fuel tank leak that was noted on 1 road construction project; 2 large fuel tanks that were not well secured to the deck of a fuel trailer; a limited number of high stumps that were observed on a winter harvest block; 1 logging contractor foreman who could not locate a copy of the applicable work order for the site he was working on).
- SFI 2010-2014 Objective 2 (forest productivity) – FMS procedure EN-012-01 outlines the Company’s procedures and responsibilities for emergency preparedness and response, and includes a requirement for the SFM Team to periodically test these procedures during operational procedures audits. The audit found that the Company continues to periodically test its emergency response procedures as required. However, an interview of a manual weeding silviculture crew working on 1 block found that the crew gave inconsistent responses regarding the requirements for reporting and fighting forest fires. According to Northern Pulp staff, silviculture contractors have historically been the subject of operational procedures audits, although none have been audited in the past few years.



The Company has developed and implemented a risk-based schedule for the completion of bridge inspections that takes into consideration the type of structure, location and its condition during the previous inspection.

Findings against the SFI 2015-2019 Standards

The following findings were identified in relation to the incremental requirements of the SFI 2015-2019 Forest management and Fibre Sourcing standards which the Company is required to be in conformance with by December 31, 2015:

- The Company has developed a number of documents (e.g., Procurement Policy, Environment and Sustainable Forestry Policy, FMS manual, SFM plan, management review minutes template, etc.) that it uses as the basis for meeting various requirements of the SFI 2010-2014 standard. However, these documents have yet to be fully revised to address the incremental requirements of the 2015-2019 SFI forest management and fibre sourcing standards.
- SFI 2015-2019 Forest Management Performance Measure 11.1/Fibre Sourcing Performance Measure 6.1 include requirements for staff and contractor training regarding their roles and responsibilities under the SFI program. However, although the Company has previously provided its staff and contractors with training relative to the requirements of SFI 2010-2014, it has yet to do so in relation to the requirements of the SFI 2015-2019 forest management and fibre sourcing standards.

- SFI 2015-2019 Forest Management Performance Measure 8.1 includes a requirement for Program Participants to develop a written policy acknowledging a commitment to recognize and respect the rights of First Nations and to provide that policy to the local First Nations with an interest in the management unit. However, the Company has yet to: (1) revise its existing Environment and Sustainable Forestry Policy to include such a commitment, and (2) provide it to local First Nations.
- SFI 2015-2019 Fibre Sourcing Performance Measure 6.1 requires that Program Participants require appropriate training of personnel and contractors so that they are competent to fulfill their responsibilities under the SFI 2015-2019 Fibre Sourcing Standard. Indicator 5 under this Performance Measure expands upon this requirement by requiring that Program Participants have written agreements for the use of Qualified Logging Professionals (QLPs) and/or Certified Logging Professionals (CLPs) (where available) and/or wood producers that have completed training programs and are recognized as QLPs. However, the current Northern Pulp log purchase agreement template does not include a requirement for applicable wood producers to use QLPs (where available) during forest operations.
- SFI 2015-2019 Forest Management Performance Measure 8.3 includes requirements for Program Participants to: (1) be aware of traditional forest related knowledge such as known cultural heritage sites, and (2) respond to inquiries and concerns from Indigenous Peoples. Northern Pulp's EMS includes procedures for responding to inquiries from stakeholders regarding the EMS. In addition, the chair of the Company's SFI Advisory Committee has recently contacted a local Mi'kmaq representative to request that a member of the local band sit as a member of the committee. However: (1) Northern Pulp's forest operations planning group does not currently have a good understanding of traditional forest-related knowledge in relation to the Company's fee lands, and (2) the Company has yet to develop and implement consultation procedures for its fee lands that are specific to First Nations.
- SFI 2015-2019 Forest Management Performance Measure 11.1 includes a requirement for program participants to have written contracts with logging contractors that require them to employ QLPs where available. However, neither the current logging contract template nor the FMS Manual include a specific requirement for logging contractors to employ QLPs where available. Note: The Company currently encourages (but does not formally require) its logging contractors to employ QLPs and monitors the proportion of wood delivered to the mill that was harvested by QLPs. Recent monitoring results (up to the end of September 2015) show that approximately 91% of deliveries are from suppliers who use QLPs.



The audit confirmed that the Company continues to meet its reforestation obligations on the areas it harvests.

Corrective Action Plans

Corrective action plans designed to address the root cause(s) of the non-conformities identified during the audit have been developed by Northern Pulp 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.

Audit Conclusions

The audit found that Northern Pulp Nova Scotia Corporation's SFM system: (1) was in full conformance with the requirements of the ISO 14001 and SFI Standards included within the scope of the audit, except where noted otherwise in this report, (2) continues to be effectively implemented, and (3) is sufficient to systematically meet the commitments included within the Company's environmental and SFM policies, provided that the system continues to be implemented and maintained as required. As a result, a decision was taken to continue to certify the Company to the SFI and ISO 14001 standards.

Focus Areas for the Next Audit Visit

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

- Completion and effectiveness of the action plans developed by Northern Pulp to address the open findings from all previous audits.
- Completion of the current forest modeling exercise and determination of a new AAC for the Company's fee lands.
- Developments (e.g., consortium structure, roles and responsibilities of participants, etc.) related to the management of the Company western Crown land volume allocation.
- The Company's existing ISO 14001 certification expires on October 7, 2016. As a result, a full-scope ISO 14001 re-certification audit will be required at least 1 month prior to the expiry of the certificate (i.e., late August/early September 2016).
- Implementation and effectiveness of the Company's action plans to address the incremental requirements of the SFI 2015-2019 forest management and fibre sourcing standards.



Northern Pulp's forest management system (FMS) includes documented riparian management procedures which are included in the Company FMS Manual and "green sheet" standard operating procedures (SOPs). Contractors are required to: (1) leave a 20 metre special management zone (SMZ) along streams > 50 cm in width and lakes and wetlands > 3 hectares in size, and (2) maintain a 7 metre MEZ (machine exclusion zone) along all watercourses regardless of size.

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