

REPORT Forest Certification



Northern Pulp Nova Scotia Corporation – 2014 SFI Re-certification Audit

In October 2014, an audit team from KPMG Performance Registrar Inc. (“KPMG PRI”) carried out a re-certification 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. 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 landowner 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.

The Northern Pulp crown licence of approximately 80,000 hectares 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.

In 2010, Northern Pulp purchased 192,000 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 Protect Lands Program. The remaining fee 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 60% of the pulp mill’s total chip furnish.

The balance of the mill’s chip furnish comes from Northern Pulp’s Crown licence and small and large private stumpage, including stumpage wood harvested by Northern Pulp on the freehold lands owned by Wagner Forest Management (“Wagner”).

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 was subsequently renewed most recently on October 8, 2013, and remains 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 2014 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 (13 roads, 16 harvesting blocks and 5 silviculture 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.
- **SFM and EMS Program Representative** – Ms. Heidi Christensen served as Northern Pulp’s SFM and EMS program representative during the audit.

SFI Audit Scope

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

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

The scope of the 2014 SFI re-certification 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 pulp mill.

Northern Pulp 2014 SFI Re-certification Audit Findings

Open Non-conformities from previous audits	0
New Major Non-	0
New Minor Non-conformities	0
New Opportunities for Improvement	2

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.

Audit Objective(s)

The objectives of the 2014 SFI/ re-certification/ISO 14001 surveillance audit were to: (1) 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, (2) evaluate the ability of Northern Pulp’s SFM system to ensure that the Company meets applicable regulatory requirements, and (3) assess the effectiveness of the Company’s SFM system in meeting its specified SFM objectives.

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	SFM plan, FMS Manual, Operations Inspections, silviculture records, inspection of a sample of field sites, staff and contractor interviews.
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 Diversity	SFM plan, Ecological Landscape Plan, FMS Manual, GIS, inspection of a sample of field sites, staff and contractor interviews.
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	SFM plan, FMS Manual, Operations Inspections, inspection of a sample of field sites, staff and contractor interviews.
7. Efficient Use of Forest Resources	SFM plan, FMS Manual, Operations Inspections, inspection of a sample of field sites, staff interviews.
8. Landowner Outreach	SFI Information Package, Maritime SFI Implementation Committee (MSIC) website, minutes of MSIC meetings, staff interviews.
9. Use of Qualified Resource and Logging Professionals	SFI Information Package, MSIC website, staff interviews.



The 2014 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 (13 roads, 16 harvesting blocks and 5 silviculture 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.

SFI Objective #	Key Evidence of Conformity
10. Adherence to Best Management Practices	Company and chip supplier wood procurement policies, results of chip supplier audits, inspection of a sample of field sites, staff interviews.
11. Promote Conservation of Biological Diversity, Biodiversity Hotspots and Major Tropical Wilderness Areas	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 without Effective Social Laws	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.
16. Training and Education	FMS Manual, staff and contractor training records, internal audit results, inspection of a sample of field sites, staff and contractor interviews.
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	SFM plan, correspondence with Nova Scotia Department of Natural Resources (NSDNR) regarding the Annual Operating Plan (AOP) for the Company's Crown licence, staff interviews.
19. Communications and Public Reporting	Certification summary report.
20. Management Review and Continual Improvement	SFM plan, management review, internal audit, Environmental Management Programs (EMPs).



Inspection of a sample of active and recently completed harvest sites (some of which were quite patchy with a low merchantable volume) found that the Company had done a good job of harvesting the complete forest profile.

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 2014 SFI re-certification audit.

Good Practices

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

- SFI Objective 1 (forest management planning) – Northern Pulp has recently acquired LiDAR (Light Detection and Ranging) data for all of its Crown and fee lands as a means to support/enhance the traditional inventory data that will be used in the upcoming forest analysis.
- SFI Objective 1 (forest management planning) – Inspection of a sample of active and recently completed harvest sites (some of which were quite patchy with a low merchantable volume) found that the Company had done a good job of harvesting the complete forest profile.
- SFI Objective 3 (protection and maintenance of water resources) – The audit observed a significant improvement in the bridge inspection and maintenance program compared to previous years (e.g., Company inspections of several structures that had not been inspected for a number of years, installation of several new/replacement bridges that were well designed and constructed, effective use of hay mulch and rip-rap on bridge approaches and abutments, etc.).
- SFI Objective 3 (protection and maintenance of water resources) – The audit noted a road maintenance contractor who had developed a method of bunching brush and saplings during roadside brushing of existing haul roads. The practice results in a better functioning ditch and is much more aesthetically pleasing than simply pushing brush and saplings off to the side or crushing them down at roadside.
- SFI Objective 14 (legal and regulatory compliance) – The audit found a high level of compliance with applicable regulatory and EMS requirements on the sites included in the field sample.
- SFI Objective 16 (training and education) – The Company has recently implemented an information sign-off form for new logging contractors to ensure that key FMS requirement have been communicated to them.

Follow-up on Findings from Previous Audits

At the time of this Assessment there were a total of 2 open non-conformities and 9 opportunities for improvement from previous audits. The audit team reviewed the implementation of the action plans developed by Northern Pulp to address these issues, and found that the Company had made good progress towards addressing many of the findings raised. As a result, both of the previously-identified minor non-conformities and 7 out of the 9 previously-identified opportunities for improvement have also been closed. The remaining opportunities for improvement include:

- Weaknesses in the content of the Company's ecological landscape plan in relation to seral stage and patch size targets.
- Isolated weaknesses in the availability of personal protective equipment (PPE) on active work sites.

The 2015 audit will include a follow-up assessment of the above issues to confirm that the action plans developed to address them have been implemented and are effective.



The audit observed a significant improvement in the bridge inspection and maintenance program compared to previous years (e.g., Company inspections of several structures that had not been inspected for a number of years, installation of several new/replacement bridges that were well designed and constructed, effective use of hay mulch and rip-rap on bridge approaches and abutments, etc.).

New Areas of Nonconformity

No new non-conformities were identified during the 2014 SFI re-certification audit.

New Opportunities for Improvement

A total of 2 new opportunities for improvement were identified during the 2014 SFI re-certification audit, including:

- SFI Objective 3 (legal and regulatory compliance) – The Nova Scotia Wildlife Habitat and Watercourses Protection Regulations require that forest land on which forestry operations are carried out include a 20 metre special management zone (SMZ) on each side of all watercourses that are equal to or greater than 50 cm in width. Within the SMZ companies must ensure that:
 - A 7 metre machine exclusion zone (MEZ) is maintained adjacent to the watercourse.
 - Harvesting operations within the MEZ do not reduce the basal area of living trees to less than 20 m² per hectare, or create an opening in the dominant tree canopy larger than 15 m at its greatest dimension.

The audit found that Northern Pulp had met the requirements for the establishment of 20 metre SMZs and 7 metre MEZs on the large majority of sites included in the audit sample. However, only 1 of the SMZs found on the sites inspected exhibited any harvesting within the SMZ. There is an opportunity for the Company to work with its logging contractors to encourage limited harvesting within SMZs (where stand conditions and topography permit) to: (1) capture the associated volume that is currently not being harvested, and (2) create some disturbance within SMZs so as to more closely emulate the prevailing fire and wind driven natural disturbance regime.

- Inspection of a sample of active field sites found that the required FMS documents (“green sheet” FMS procedures, harvest block maps, work orders, etc.) were present on the large majority of sites. However, insolated weaknesses in the implementation of document control procedures were noted on 2 active worksites (e.g., missing or outdated versions of the “green sheet” were observed on 2 pieces of equipment, 1 operator did not have a copy of the Northern Pulp species at risk guide).

Corrective Action Plans

No non-conformities were identified during the audit. As a result, formal corrective action plans to address the findings of the audit were not 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.



The audit found a high level of compliance with applicable regulatory and EMS requirements on the sites included in the field sample. In the example depicted above, the excavator operator had laid down a temporary crossing to avoid entering the stream during bridge construction.

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 Nova Scotia Wildlife Habitat and Watercourses Protection Regulations require that on all harvest sites greater than 3 hectares in size at least 1 legacy tree clump be retained for every 8 hectares of area harvested.

Contacts:

Chris Ridley-Thomas, RPBio, CEA (604) 691-3088
David Bebb, RPF, CEA (604) 691-3451

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