

SBP

Sustainable Biomass Partnership

PricewaterhouseCoopers LLP Evaluation of Shaw Resources Eastern Embers Compliance with the SBP Framework: Public Summary Report

www.sustainablebiomasspartnership.org



Completed in accordance with the CB Public Summary Report Template Version 1.0

*For further information on the SBP Framework and to view the full set of documentation see
www.sustainablebiomasspartnership.org*

Document history

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1 Overview

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Primary contact for SBP: Mike Harris, Practice Leader, 604-806-7711, mike.harris@ca.pwc.com

Report completion date: 29/Mar/2017

Report authors: Cheryl Woode, Shawn Ellsworth

Certificate Holder: Shaw Resources (A Division of The Shaw Group Limited)
 Eastern Embers Pellet Facility
 9091 Highway 15, Hardwoodlands, Nova Scotia, B0N 1Y0

Producer contact for SBP: Julie Griffiths, Environmental Specialist

Certified Supply Base: Currently non applicable for Eastern Embers supply base area.

SBP Certificate Code: SBP-03-09

Date of certificate issue: 30/Aug/2017

Date of certificate expiry: 29/Aug/2022

Indicate where the current audit fits within the certification cycle				
Main (Initial) Audit	First Surveillance Audit	Second Surveillance Audit	Third Surveillance Audit	Fourth Surveillance Audit
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2 Scope of the evaluation and SBP certificate

Scope of the Evaluation: Main evaluation was to assess the Biomass Producer's conformance to SBP Standards 2, 4, and 5 and the respective Instruction Notes and Documents. The evaluation included an on-site visit to the pellet mill in Milford, Nova Scotia, Canada and field visit with suppliers.

Eastern Embers has been working on a Supply Base Evaluation to increase their ability to supply SBP Compliant fibre; however, the SBE has not yet been fully developed. Therefore, a Supply Base Evaluation is not included in the scope of the current evaluation.

Certification Scope: Production of wood pellets, for use in energy production, at Shaw Resources, Eastern Embers and transport to the Port of Belledune, New Brunswick for storage, aggregation, vessel loading and shipping. The certification scope excludes a Supply Base Evaluation.

SBP Certificate Code: SBP-03-09

3 Specific objective

The primary objectives of the assessment were:

- Collecting assessment information through documents, interviews and on-site observations with Shaw Resources staff and suppliers;
- Confirming that information and comparing it to the Sustainable Biomass Partnership (SBP) Standards 2,4,5, (V1.0) (the “Standards”), the Client’s documented processes and public documents, and PwC’s requirements (the “Requirements”);
- Generating assessment findings; and
- Preparing the Assessment report and SBP Public Summary.

4 SBP Standards utilised

4.1 SBP Standards utilised

The following SBP Standards were utilized:

- Standard 2: Verification of SBP – Compliant Feedstock. Version 1.0. 26 March 2015
- Standard 4: Chain of Custody. Version 1.0. 26 March 2015
- Standard 5: Collection and Communication of Data. Version 1.0. 26 March 2015

The above Standards can be accessed or requested from SBP at the following website:

<https://sbp-cert.org/>

4.2 SBP-endorsed Regional Risk Assessment

Not applicable - No SBP endorsed Regional Risk Assessment was used for this assessment.

5 Description of Biomass Producer, Supply Base and Forest Management

5.1 Description of Biomass Producer

Shaw Resources operates two wood pellet manufacturing plants, one in Belledune, New Brunswick and one in Milford, Nova Scotia with a corporate/central office in Milford, Nova Scotia. The Belledune pellet plant was also assessed to the SBP Framework by PwC during the same time period, but it has a separate SBP certificate and related documents. Shaw Resources holds a multi-site certification to the Programme for the Endorsement of Forest Certification (PEFCTM) Chain of Custody (CoC) Standard and for the central office and two biomass producers.

The subject of this certificate, the Eastern Embers, NS plant (Eastern Embers), procures secondary feedstock in New Brunswick (NB), Nova Scotia (NS), and Prince Edward Island (PEI) and transports their finished pellets to the Port of Belledune, NB.

Eastern Embers purchases 100% secondary feedstock within the scope of their PEFC CoC and Due Diligence management system; however, the majority of the secondary feedstock is sourced from suppliers without CoC certification. Therefore, certified feedstock will be classified SBP-compliant secondary feedstock and un-certified feedstock will be classified as SBP-controlled secondary feedstock.

5.2 Description of Biomass Producer's Supply Base

Shaw Resources Eastern Embers supply base area is considered the Canadian provinces of New Brunswick, Nova Scotia, and Prince Edward Island. Eastern Embers does not procure any primary feedstock. Instead, only secondary feedstock is procured from sawmill residues such as chips, sawdust and shavings within the supply base area.

The majority (99%) of sawmill residues are supplied by sawmills within a 100-km economic haul distance from both Crown and private woodlots from New Brunswick and Nova Scotia. A negligible amount of sawmill residues may originate from Prince Edward Island (<1%).

Each of the 3 provinces where fiber is procured, have provincial acts and legislation which aid in the protection of the region's forests, land titles and use, and also to ensure the scaling and transportation of logs and wood fibre is documented.

Forest management plans are required on Crown lands and highly encouraged on all private lands. Silviculture program funding and guidance are available to private woodlot owners to assist with forest management.

Additional detail is provided in Shaw Resources Eastern Embers Supply Base Report (SBR), which can be found on their website at the following address: <https://shawresources.ca/about-shaw/why-shaw/>

5.3 Detailed description of Supply Base

Shaw Resources Eastern Embers manufactures both residential wood pellets for the local economy and industrial wood pellets for export to European power utilities. The supply base is considered primarily New Brunswick and Nova Scotia and on occasion from Prince Edward Island.

New Brunswick Supply Base

The New Brunswick provincial government proclaimed the Crown Lands and Forests Act in 1982, and this is the legal foundation of Crown forest management in New Brunswick. The Act divides NB's Crown land into 10 timber licences; each license is leased through a 25 year forest management agreement to a large forest based company called a Licensee. On a 5 year cycle, the New Brunswick Department of Natural Resources assesses how the licensee has managed the Crown forest during the previous five years, and if satisfactory, will renew the agreement for another 5 year period. Each licensee must produce a forest management plan that covers a 25 year period, and must be sustainable over an 80 year planning horizon. Annual operating plans are also required of licensees and are monitored by the government to ensure that each licensee is following the regulations and standards. All forest operations on Crown land must be ISO 14001 certified and certified under an independent sustainable Forest Management System (i.e. CSA, FSC, SFI), making NB the first jurisdiction in the world to require certification of licensee operations.

The provincial government sets the annual allowable cut (AAC) for both Crown and private woodlots based on on-going research on forest inventory. New Brunswick has one of the best forest inventory programs in Canada. Data obtained from aerial photography analysis and ground sample plots chart the province's timber growth and yield and are updated on an annual cycle using a computerized geographical information system.

Although more stringent regulations exist for Crown Land, private lands are not exempt from Provincial and Federal Regulations & Legislation. Private woodlots in New Brunswick are monitored through 1 of 7 regional marketing boards. The marketing boards provide forest management assistance to private woodlot owners such as calculating timber inventory, harvesting layout, management plan development and programs that encourage the improved management of woodlots. Private woodlot owners operating under regional marketing boards can also obtain annual subsidies for silviculture programs.

Nova Scotia Supply Base

Nova Scotia's Code of Forest Practice provides the guidelines for sustainable forest management which are mandatory on Crown lands (administered by NSDNR), and encouraged on private woodlots in Nova Scotia. A large part of the code is implemented through various provincial and federal legislation and regulations. The Forests Act and the Crown Lands Act is enforced by the Nova Scotia Department of Natural Resources (NSDNR).

The majority of primary wood products supplied to industry in Nova Scotia are from privately owned woodlots. Although more stringent regulations exist for Crown Land, private lands are not exempt from Provincial and Federal Regulations & Legislation, The provincial government implements and develops forest management programs to encourage and assist private woodlot owners to manage their land more effectively. This is done by providing training programs and financial incentives such as the Sustainable Forestry Fund to encourage the sustainable use of private woodlots. The Nova Scotia Registry of Buyers is a registry where businesses and individuals register to acquire primary forest products for processing. The registry provides reliable data to help understand the demand and estimate sustainable harvest levels, as well as aiding in the long term management of Nova Scotia forests. An annual report is released by the Registry of Buyers which outlines the volumes of wood harvested throughout the province.

The Nova Scotia Forests Act was implemented to develop a healthy productive forest capable of yielding high volumes of high quality product and is directed towards both private woodlot owners and Crown lands in the province. Registered buyers of primary forest products are required to contribute to a silviculture program in the Sustainable Forest Fund based on a rate per volume basis. The enforcement division of NSDNR completes regular visits to areas being harvested on both Crown and private lands to ensure that both the Forests Act and the Crown Lands Act are being followed. The provincial government is currently implementing an increased level of silviculture programs to ensure the continued sustainability of forestlands in Nova Scotia.

Prince Edward Island Supply Base

A very small percentage (<1%) of the secondary feedstock originates from Prince Edward Island. Most of PEI's forests are privately owned (87%). The provincial government provides technical advice and assistance to land owners. Most of PEI's commercial softwood is sold to mills in NB and NS. As required by the Forest Renewal Program Regulations, commercial softwood harvested from private and public lands are subject to a cord fee. The fee is reinvested into forest management programs on both private and public lands.

5.4 Chain of Custody system

Shaw Resources Eastern Embers has implemented the requirements of the PEFC CoC Standard. A database is used to gather and control feedstock information such as supplier name, scale tickets, fiber type, certification, and district of origin. Eastern Embers has appropriate control mechanisms to verify the input material sources, calculate output volumes, certification claims and trademark/logo approval. Additionally, Shaw Resources Eastern Embers conducts an annual management review of the commitments, programs and procedures to evaluate the overall effectiveness of the SBP management system.

Shaw Resources Eastern Embers has a management system and documented procedures that are fully capable of determining feedstock compliance. Secondary feedstock is tracked through the process from the district of origin, through production to the final bill of sale. Finished pellets are transported via truck from Shaw Resources Eastern Embers to the Port of Belledune where they are stored and then loaded onto vessels..

6 Evaluation process

6.1 Timing of evaluation activities

Evaluation Activity	Date / Location	Persons Involved	Approx. Duration
Pre-Assessment / Document Review	January 15, 2016. Off-site from PwC's office.	Cheryl Woode, SBP Lead Auditor, PwC	6 hours
Initial Assessment	January 19-21, 2016. On-site at Eastern Embers and Port of Belledune	Cheryl Woode, SBP Lead Auditor, PwC Julie Griffiths, Environmental Specialist, Shaw Resources Rene Landry, Director Wood Pellet Operations, Shaw Resources Nate Ryant, RPF, Independent Consultant Interview with North Shore Marketing Board in Bathurst, New Brunswick	12 hours
Supplier Assessments	March 4, 2016. Off-site phone interviews from PwC's office.	Cheryl Woode, SBP Lead Auditor, PwC • 2 secondary feedstock suppliers	1 hour
Follow-up Initial Assessment	January 25-27, 2017 On-site at Embers and Port of Belledune	Cheryl Woode, SBP Lead Auditor, PwC	16 hours
Supplier Assessment	January 26, 2017. Interview at Supplier's production facility.	Cheryl Woode, SBP Lead Auditor, PwC • 1 secondary feedstock supplier	1 hour
Audit Closure and PwC Certification Decision	March 29, 2017. Off-site from PwC's office.	Shawn Ellsworth, Qualified SBP Lead Auditor, PwC Peer Reviewer Mike Harris, PwC Certification Decision Maker, PwC Practice Leader	4 hours

6.2 Description of evaluation activities

PwC completed the initial SBP assessment in five phases, with the most significant phase being the on-site assessment.

Pre-Assessment / Document Review (DRR):

The purpose of the DRR Assessment was to evaluate if the requirements of the Standards had been met, in particular those requirements that must be documented. In addition, PwC evaluated the Chain of Custody Process/Management System to ensure that it had been through a complete Plan-Do-Check-Act (PDCA) cycle; including internal audit and management review or that these activities have been scheduled to occur prior to the Initial Assessment. In addition, Shaw Resources is certified to the PEFC CoC Standard. Time during this phase of the assessment was focused on reviewing the SBP requirements that are unique from the other standards, such as Greenhouse Gas (GHG) data and collection.

Initial Assessment:

PwC conducted the Initial Assessment on-site at Shaw Resources Eastern Embers pellet plant through observations, reviewing records and conducting interviews with staff and management. A thorough review of the CoC processes, GHG data and collection, and fibre input and output were conducted. Critical control points such as the weigh station, quality testing lab, control room, and truck loadout were included in the Assessment. PwC also interviewed a sample of secondary suppliers for verifying the location of the fibre and their sustainable forest management practices.

Additionally, PwC conducted a site visit to the Port of Belledune. Occasionally, pellets produced at Eastern Embers are transported by truck to the Port for storage, handling and export to customers. A thorough review of the CoC processes, GHG data and collection, and storage and handling of the pellets was conducted.

PwC Stakeholder Consultation:

Not applicable.

Follow-up Assessment:

Due to timeliness of reporting and audit completion, a follow-up site visit to Eastern Embers was required by SBP before the Implementation Assessment to the SBP Standards could be completed. This follow up work was completed in January, 2017 and built on earlier site visits by PwC during the initial assessment work. PwC also interviewed a sample secondary suppliers to verify their fiber supply area and the sustainable forest management practices being implemented.

Additionally, PwC conducted a follow-up site visit to the Port of Belledune. Occasionally, pellets produced at Eastern Embers are transported by truck to the Port for storage, handling and export to customers. A thorough review of the CoC processes, GHG data and collection, and storage and handling of the pellets was conducted.

Audit Closure and PwC Certification Decision:

PwC provided the findings to Shaw Resources Eastern Embers at the closing meeting of the Assessment. Shaw Resources responded and provided PwC with revised management system procedures and templates, forms, etc. The PwC Lead Auditor assembled the working papers including protocols/checklists and evidence of conformance for peer review by another qualified SBP Lead Auditor. The complete file was then reviewed by the PwC Practice Leader who made the final PwC certification decision.

6.3 Process for consultation with stakeholders

Not applicable.

7 Results

7.1 Main strengths and weaknesses

This summary of strengths and weaknesses should be read in conjunction the summary of the Assessment findings in Section 10 of this public summary. The strength of Shaw Resources SBP program is their integration of the SBP requirements with their existing fiber sourcing management system and procedures designed to meet the requirements of applicable laws and regulations in the Supply Base Area (SBA) and the requirements of PEFC CoC Standard. Shaw Resources staff have demonstrated a strong knowledge of the forestry industry practices, have a good awareness of the suppliers operating in the region and have limited the number of suppliers from which they purchase fiber.

PwC has concluded that Shaw Resources has the organizational capability to systematically meet the performance objectives and the requirements of the SBP Standards based on the elements of the SBP Standards that were tested.

7.2 Rigour of Supply Base Evaluation

Not applicable.

7.3 Compilation of data on Greenhouse Gas emissions

During the initial and follow-up on-site assessments at both Shaw Resources Eastern Embers and the Port of Belledune, PwC:

- Confirmed the greenhouse gas (GHG) sources for feedstock input from the forest, production at the facility, transportation to the port and storage and handling at the port;
- Reviewed how the input data was measured;
- Conducted interviews with operations personnel on the overview of the operations at the facility, historical operations, changes to operations, procedures and processes used to maintain the facility, and procedures and processes used to ensure data quality.
- Where appropriate, we obtained a sample of records to support the evidence provided in these interviews;
- Reviewed procedures and records on how and when emissions were calculated; and
- Inquired about controls on data collection and records.

PwC concluded that Shaw Resources Eastern Embers has the competency to analyse and accurately report the required data on Greenhouse Gas emissions..

7.4 Competency of involved personnel

Shaw Resources engaged Nate Ryant, a professional forester and consultant with NMR Resource Management, to assist in the process of implementing SBP processes. Nate has assisted several other pellet mills in implementing SBP and chain of custody certifications, and was recommended by the Wood Pellets Association of Canada.

Shaw Resources assigned personnel with appropriate skills and competency to implement and execute the management and control systems relating to SBP compliance. Staff interviewed during the assessment were found to be knowledgeable of the SBP requirements..

7.5 Stakeholder feedback

Not applicable.

7.6 Preconditions

PwC has not issued any preconditions to Shaw Resources Eastern Embers.

8 Review of Biomass Producer's Risk Assessments

Shaw Resources is certified to a multi-site PEFC Chain of Custody Standard. Eastern Embers purchases all feedstock within the scope of their PEFC CoC certification and rely on their PEFC Due Diligence System to manage supplied fibre risks.

A Supply Base Evaluation is not included in the scope of the evaluation.

9 Review of Biomass Producer's mitigation measures

Not applicable. Mitigation measures were not required

10 Non-conformities and observations

The details of the Non-conformities and Opportunities for Improvement raised during the evaluation are provided in Table 2:

Table 2. Audit Findings

PwC Reference Number	SBP Requirement	Finding Details	Status
Non-conformities			
SBP-IA-NC-01 Major	SBP Instruction Note 5A @ 5.2 requires that the legal owner report the fuel and power used at the different storage, handling and trans-shipment locations within the scope of its certification.	<p>Shaw Resources has collected and reported the energy consumption associated with the production of pellets; however, the fuel and power used at the Port of Belledune for storage, handling and trans-shipment has not been reported.</p> <p>Shaw Resources was given 60 days to resolve the issue and has subsequently provided PwC with an acceptable action plan and evidence of implementation.</p>	CLOSED
Opportunity for Improvement			
SBP-IA-OFI-01	SBP Instruction Document 5A @ 4.5.3. Where the meter(s) used for invoicing purposes covers not only the biomass production process but also other process lines (e.g. sawmill or other production facilities) and ancillary facilities (e.g. offices, cafeterias, workshops, site lighting, laboratories) requires that appropriate metering in place to exclude the consumption from the total to determine the share of the invoiced power to be allocated to biomass production	<p>Shaw Resources has a separate meter for the electricity used for the pellet production at Eastern Embers plant. The electricity consumption is recorded on a monthly basis in the month-end inventory spreadsheet by the plant operator. Shaw may wish to use this number in their GHG calculations instead of waiting for the final bill from the electricity company which includes the electricity consumption from not only the biomass production process but also ancillary facilities (site office).</p> <p>PwC reviewed the finding during the follow up assessment and verified that the electricity consumption is recorded from the month-end inventory spreadsheets.</p>	CLOSED

11 Certification decision

PwC has concluded that Shaw Resources Eastern Embers has the organizational capability to systematically meet the performance objectives and the requirements of the Standards based on the elements of the Standards that were tested as discussed earlier in Section 6 of this Public Summary. PwC's Practice Leader recommends certification of Shaw Resources Eastern Embers as of March 29, 2017.

12 Surveillance updates

12.1 Evaluation details

Not applicable.

12.2 Significant changes

Not applicable.

12.3 Follow-up on outstanding non-conformities

Not applicable.

12.4 New non-conformities

Not applicable.

12.5 Stakeholder feedback

Not applicable.

12.6 Conditions for continuing certification

Not applicable.

12.7 Certification recommendation

Not applicable.