



Supply Base Report: Shaw Resources Eastern Embers

Fourth Surveillance Audit

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Completed in accordance with the Supply Base Report Template Version 1.3

For further information on the SBP Framework and to view the full set of documentation see www.sbp-cert.org

Document history

Version 1.0: published 26 March 2015

Version 1.1 published 22 February 2016

Version 1.2 published 23 June 2016

Version 1.3 published 14 January 2019; re-published 3 April 2020

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2 Description of the Supply Base

2.1 General description

Shaw Resources - Eastern Embers, located in Hardwood Lands, Nova Scotia, manufactures and supplies wood pellets primarily to the Atlantic Canada region and some are exported to European markets. Sawmill residuals (i.e. sawdust, shavings, flakes, woodchips, bark) supplied by locally sourced sawmills (Nova Scotia and New Brunswick) are the only feedstock used in wood pellet production at Eastern Embers. A small amount of fibre from Nova Scotia sawmills may originate from Prince Edward Island forests. Currently, about 20-40% of Eastern Embers secondary and tertiary feedstock originates from certified forests and is SBP-compliant, whereas the other 60-80% is SBP-controlled.

Nova Scotia Forestry

The Nova Scotia Department of Natural Resources (NSDNR) has the authority over Crown forests in Nova Scotia. They monitor and enforce activities to prevent unauthorized harvest. Harvesting companies with Crown allocations must pay stumpage royalties for the timber products that they harvest. However, the majority of primary wood products supplied to industry in Nova Scotia are from privately owned woodlots. The provincial government has developed forest management strategies to encourage and assist private woodlot owners to manage their land effectively.

Businesses and individuals that acquire primary forest products for processing must report to the Nova Scotia Registry of Buyers. The registry helps to build reliable data to understand wood demand, estimate sustainable harvest levels, and assist with long-term forest management in Nova Scotia. Registered buyers also contribute to a silviculture program (Sustainable Forest Fund) based on a rate per volume basis. Silviculture and training programs encourage the sustainable use of Nova Scotia Forests. At the current state, harvest levels on Crown, industrial and private lands are sustainable.

Nova Scotia's Code of Forest Practice are the guidelines for sustainable forest management, which are mandatory on Crown lands (administered by NSDNR), and highly encouraged on private woodlots in Nova Scotia. The Code is implemented through various provincial and federal legislation and regulations. 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. 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 adhered to.

Forestry is a big economic driver in Nova Scotia, employing 11,500 Nova Scotians directly and indirectly. In 2015, the Nova Scotia forest industry generated over \$2 billion in economic impact (NS Forest Industry Economic Impact, 2016). The three major export producers are pulp and paper, wood-fabricated materials, and primary wood products. (https://novascotia.ca/natr/forestry/reports/State_of_the_Forest_2016.pdf). Economically, the Eastern Embers pellet plant is an important part of the forest products supply chain; it directly employs 10 local workers and employs many others indirectly (i.e. local contractors and tradespeople).

The harvest of primary forest products in Nova Scotia are primarily for sawmills (53%), pulp mills (34%), and energy generation (~6%) (Registry of Buyers Report 2020). Wood pellets are generally made from secondary and tertiary forest products that would have normally been wasted: sawmill residues (sawdust and shavings) and low-grade timber from harvest sites that have no other economic value. Fibre sources for Eastern Embers include secondary and tertiary sawmill residuals. The scale of wood pellet operations is usually dependent on the availability of fibre sources; however pellet plants in Eastern Canadian provinces have an annual production in the range of 50,000 to 100,000 mt/yr.

New Brunswick Forestry

In NB, the forest industry has been described as one of the province’s biggest economic drivers, creating 24,000 jobs with 600 forest companies, and more than 2500 in the supply chain. Forest products are one of the top private GDP generators (Economic Impacts of the NB Forest Sector, 2016).

The provincial government proclaimed the Crown Lands and Forests Act in 1982, and this is the legal foundation of Crown forest management in the province. The Act divides 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 Department of Natural Resources assesses how the licensee has managed the Crown forest, and if satisfactory, will renew the agreement for another 5 year period. Each licensee must produce a 25 year forest management plan, that is 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. Most forest operations on Crown land are 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. Analysis of aerial photography and ground sample plots chart the province’s timber growth and yield. These data are updated on an annual cycle using a computerized geographical information system.

All feedstock originating from private sources in New Brunswick is monitored through 1 of 7 regional marketing boards. The marketing boards provide forest management assistance to private woodlot owners including 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.

Prince Edward Island Forestry

A very small percentage (<1%) of secondary feedstock originates from Prince Edward Island (PEI). 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.

There are currently no tree species listed in CITES found in Nova Scotia, New Brunswick, or Prince Edward Island.

Eastern Embers Feedstock (2020)				
Feedstock Product Groups	% of Certified Feedstock	% of Uncertified Feedstock	# of Suppliers	Species Mix
Controlled Feedstock		65%	4-6	(See 2.5c, below)
SBP-Compliant Primary Feedstock				
SBP-Compliant Secondary Feedstock	29%		2-3	(See 2.5c, below)
SBP-Compliant Tertiary Feedstock	6%		2	(See 2.5c, below)
SBP Non-Compliant Feedstock				

Table 1 – Feedstock Product Groups

2.2 Actions taken to promote certification amongst feedstock supplier

Suppliers recognize that the Eastern Embers plant is certified to PEFC chain of custody and Sustainable Biomass Program standards. Sustainability is a common practice amongst many of Shaw Resources' suppliers; suppliers continue to seek third party SFM certifications (FSC, or SFI) where possible. The organization has implemented training programs company-wide to ensure that employees understand the purpose of each of the certifications Shaw Resources' PEFC sustainability mission statement is publicly available and is posted on the company website:

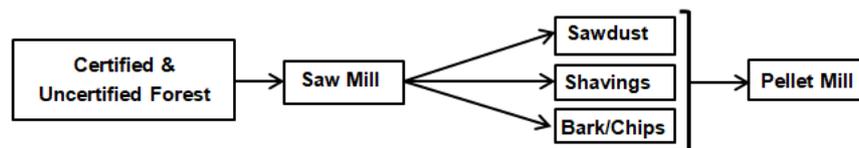
"Shaw Resources PEFC COC (Programme for the Endorsement of Forest Certification, Chain of Custody) program exists to support our customers' requirements for a socially responsible and sustainable, renewable energy source. It reflects Shaw Resources' commitment to providing its employees with a safe environment to work and to ensuring the sustainability of the natural resources used and the protection of the environment of the regions that the Shaw Resources wood pellet plants operate in."

Shaw Resources' suppliers sign PEFC scoping-in agreements and provide quarterly supplier declarations as part of the PEFC chain of custody. Furthermore, all suppliers are required to sign a supplier's assertion, which declares that feedstock originates from within the defined supply base and is not from controversial sources.

2.3 Final harvest sampling programme

N/A

2.4 Flow diagram of feedstock inputs showing feedstock type [optional]



2.5 Quantification of the Supply Base

Nova Scotia Supply Base

a. *Total Supply Base Area (ha): Cumulative forest area of all forest types within SB*
4,275,000 ha

b. *Tenure by type (ha): Privately owned/Public/Community concession*
1,994,000 ha (47%) of forest lands are public and 2,281,000 ha (53%) are private.

c. *Forest by type (ha): Boreal/Temperate/Tropical*

The forest type is **Acadian**. Common species include spruce, balsam fir, white pine, maple and birch.

d. *Forest by management type (ha): Plantation/Managed Natural/Natural*
Managed Natural

e. *Certified forest by scheme (ha): Hectares of FSC or PEFC certified*
1,300,000 ha are certified (FSC/SFI)

New Brunswick Supply Base

a. *Total Supply Base Area (ha): Cumulative forest area of all forest types within SB*
6,100,000 ha

b. *Tenure by type (ha): Privately owned/Public/Community concession*
3,200,000 ha of forest lands are public and 2,900,000 ha are private.

c. *Forest by type (ha): Boreal/Temperate/Tropical*
Acadian

d. *Forest by management type (ha): Plantation/Managed Natural/Natural*
Managed Natural

e. *Certified forest by scheme (ha): Hectares of FSC or PEFC certified*
4,200,000 ha are certified to the SFI.

Prince Edward Island Supply Base

a. *Total Supply Base Area (ha): Cumulative forest area of all forest types within SB*
250,084 ha

b. *Tenure by type (ha): Privately owned/Public/Community concession*
33,011 ha of forest lands are public and 217,073 ha are private.

c. *Forest by type (ha): Boreal/Temperate/Tropical*
Acadian

d. *Forest by management type (ha): Plantation/Managed Natural/Natural*
Managed Natural

e. *Certified forest by scheme (ha): Hectares of FSC or PEFC certified*
616 ha are certified to the FSC.

Feedstock

f. Total volume of Feedstock: tonnes or m³

0-200,000 tonnes

g. Volume of primary feedstock:

No primary feedstock is used

h. List percentage of primary feedstock (g), by the following categories. - percentages may be shown in a banding between XX% to YY% if a compelling justification is provided*.

No primary feedstock is used

i. List all species in primary feedstock, including scientific name

No primary feedstock is used

j. Volume of primary feedstock from primary forest

No primary feedstock is used

k. List percentage of primary feedstock from primary forest (j), by the following categories.

No primary feedstock is used

l. Volume of secondary feedstock: specify origin and type - the volume may be shown as a % of the figure in (f) and percentages may be shown in a banding between XX% to YY% if a compelling justification is provided*.

80-100% secondary feedstock (wood chips, sawdust, shavings from sawmills in NB and NS)

m. Volume of tertiary feedstock: specify origin and composition - the volume may be shown as a % of the figure in (f) and percentages may be shown in a banding between XX% to YY% if a compelling justification is provided*.

0-19% tertiary feedstock (kiln dried fiber from sawmills in NS)

* Compelling justification would be specific evidence that, for example, disclosure of the exact figure would reveal commercially sensitive information that could be used by competitors to gain competitive advantage. State the reasons why the information is commercially sensitive, for example, what competitors would be able to do or determine with knowledge of the information.

Bands for (f) and (g) are:

1. 0 – 200,000 tonnes or m³
2. 200,000 – 400,000 tonnes or m³
3. 400,000 – 600,000 tonnes or m³
4. 600,000 – 800,000 tonnes or m³
5. 800,000 – 1,000,000 tonnes or m³
6. >1,000, 000 tonnes or m³

Bands for (h), (l) and (m) are:

1. 0%-19%
2. 20%-39%
3. 40%-59%
4. 60%-79%
5. 80%-100%

NB: Percentage values to be calculated as rounded-up integers.

3 Requirement for a Supply Base Evaluation

SBE completed	SBE not completed
<input type="checkbox"/>	<input checked="" type="checkbox"/>

An SBE is not currently required at Eastern Embers.

4 Supply Base Evaluation

4.1 Scope

N/A

4.2 Justification

N/A

4.3 Results of Risk Assessment

N/A

4.4 Results of Supplier Verification Programme

N/A

4.5 Conclusion

N/A

5 Supply Base Evaluation Process

N/A

6 Stakeholder Consultation

N/A

6.1 Response to stakeholder comments

N/A

7 Overview of Initial Assessment of Risk

N/A

8 Supplier Verification Programme

8.1 Description of the Supplier Verification Programme

N/A

8.2 Site visits

N/A

8.3 Conclusions from the Supplier Verification Programme

N/A

9 Mitigation Measures

9.1 Mitigation measures

N/A

9.2 Monitoring and outcomes

N/A

10 Detailed Findings for Indicators

N/A

11 Review of Report

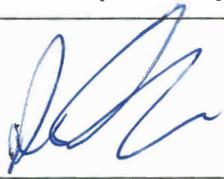
11.1 Peer review

The final version of the supply base report was reviewed by Rene Landry, Director of Wood Pellet Operations, Shaw Resources.

11.2 Public or additional reviews

N/A

12 Approval of Report

Approval of Supply Base Report by senior management			
Report Prepared by:	<i>Julie Griffiths, MSc, P.Geo</i>	<i>Geology/Environmental Specialist</i>	<i>January 4, 2021</i>
	Name	Title	Date
<p>The undersigned persons confirm that I/we are members of the organisation's senior management and do hereby affirm that the contents of this evaluation report were duly acknowledged by senior management as being accurate prior to approval and finalisation of the report.</p>			
Report approved by:	<i>[name]</i> 	<i>CEO + President</i>	<i>Jan 4, 2021</i>
	Name	Title	Date
Report approved by:	<i>[name]</i> 	<i>Corporate Secretary + Legal Counsel</i>	<i>Jan 4, 2021</i>
	Name	Title	Date

13 Updates

13.1 Significant changes in the Supply Base

There are no significant changes in the supply base.

13.2 Effectiveness of previous mitigation measures

There are no mitigation measures required.

13.3 New risk ratings and mitigation measures

There are no new risks or mitigation measures.

13.4 Actual figures for feedstock over the previous 12 months

a. *Total volume of Feedstock: tonnes or m³*

0 – 200,000 tonnes

b. *Volume of primary feedstock: tonnes or m³*

0 tonnes

c. *List percentage of primary feedstock (g), by the following categories*

0%

d. *List all species in primary feedstock, including scientific name*

No primary feedstock is used.

e. *Volume of primary feedstock from primary forest*

No primary feedstock is used

f. *List percentage of primary feedstock from primary forest (j), by the following categories. Subdivide by SBP-approved Forest Management Schemes:*

No primary feedstock is used

g. *Volume of secondary feedstock: specify origin and type*

0-200,000 tonnes. All secondary feedstock originate from NS, NB and PEI forests

h. *Volume of tertiary feedstock: specify origin and composition*

0-200,000 tonnes. All tertiary feedstock originates from NS, NB, and PEI forest

13.5 Projected figures for feedstock over the next 12 months

Total volume of Feedstock: tonnes or m³

0-200,000 tonnes

b. *Volume of primary feedstock: tonnes or m³*

0 Tonnes

c. List percentage of primary feedstock (g), by the following categories

0%

d. List all species in primary feedstock, including scientific name

No primary feedstock is used

e. Volume of primary feedstock from primary forest

No primary feedstock is used

f. List percentage of primary feedstock from primary forest

No primary feedstock is used

g. Volume of secondary feedstock: specify origin and type

0-200,000 tonnes. All secondary feedstock originate from NS, NB and PEI forests

h. Volume of tertiary feedstock: specify origin and composition

0-200,000 tonnes. All tertiary feedstock originate from NS, NB, and PEI forests

- * Compelling justification would be specific evidence that, for example, disclosure of the exact figure would reveal commercially sensitive information that could be used by competitors to gain competitive advantage. State the reasons why the information is commercially sensitive, for example, what competitors would be able to do or determine with knowledge of the information.

Bands are:

1. 0 – 200,000 tonnes or m³
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5. 800,000 – 1,000,000 tonnes or m³
6. >1,000, 000 tonnes or m³