

## Supply Base Report: Shaw Resources Belledune

Third Surveillance Audit

www.sbp-cert.org



### Completed in accordance with the Supply Base Report Template Version 1.2

For further information on the SBP Framework and to view the full set of documentation see <a href="https://www.sbp-cert.org">www.sbp-cert.org</a>

Document history

Version 1.0: published 26 March 2015

Version 1.1 published 22 February 2016

Version 1.2 published 23 June 2016

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## 1 Overview

Main (Initial) Evaluation Su	First irveillance	Second Surveillance	Third Surveillance	Fourth Surveillance		
Indicate how the c	urrent evaluat	ion fits within the cy	ycle of Supply Base	Evaluations		
Weblink to SBE on Compan	ny website:	https://shawres	sources.ca/about-sha	w/why-shaw/		
SBP Endorsed Regional Ris	sk Assessment	nent: N/A				
Weblink to Standard(s) used	d:	https://sbp-cert.org/documents				
SBP Standard(s) used:	S S	BP Standard 2: Verifi BP Standard 4: Chair	stock Compliance Sta cation of SBP-complia n of Custody (V1.0) ction and Communica	ant Feedstock (V1.0)		
Translations from English:	N	No				
Name of CB:	S	SCS Global Services				
Close of last CB audit:	19	19/Jan/2018				
Date report finalised:	9/	9/Mar/2017				
Company website:	w	www.shawresources.ca				
Primary contact:	P 90	Julie Griffiths P.O. Box 60, Shubenacadie, NS, B0N 2H0 902 750 0173 jgriffiths@shawresources.ca				
Geographic position:	L	Latitude 47.9058, Longitude -65.8670, Datum 1983				
Producer location:	52	52 Hodgins Road, Belledune, NB, E8G 2E3				
Producer name:		Belledune Wood Pellet Facility Shaw Resources (A member of The Shaw Group Limited)				

 $\sqrt{\phantom{a}}$ 



## 2 Description of the Supply Base

### 2.1 General description

Shaw Resources Belledune manufactures industrial wood pellets for export to European power utilities. The supply base is considered south-eastern Québec (QC), New Brunswick (NB), and Nova Scotia (NS). Primary feedstock (round wood) and secondary feedstock (sawmill residuals) are used in the production of wood pellets in Belledune.

#### **New Brunswick Forestry**

The NB provincial government proclaimed the Crown Lands and Forests Act in 1982; this is the legal foundation for Crown forest management in the province. 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 (NBDNR) will re-assess the forest management practices, and if satisfied, will renew the agreement for another 5 year period. Licensees are required to have a forest management plan that covers a 25 year period that is sustainable for an 80 year planning horizon. The licensees' annual operating plans are reviewed to ensure that all regulations and standards are followed. All forest operations on Crown land are ISO 14001 certified, as well as to a sustainable Forest Management (SFM) System (i.e. CSA, FSC, and SFI). NB is one of the first jurisdictions 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 forest inventory research. Data obtained from aerial photography analysis and ground sample plots chart the province's timber growth and yield. These are updated on an annual cycle using a computerized geographical information system (GIS).

Harvesting from private forest sources is monitored through 1 of 7 regional marketing boards. The marketing boards offer assistance to private woodlot owners with forest management planning; this is includes, but is not limited to, calculating timber inventory, defining harvest layout, and developing management plans. The marketing boards will also offer programs that promote sustainable forest management. The provincial government partners with private woodlot owners and marketing boards to fund silviculture treatments. A Landowner Agreement must be signed with the NB Department of Energy and Resource Development (ERD) to be eligible for silviculture treatment on a private woodlot. Any woodlot that has received silviculture funding may be inspected to ensure best management practices (BMPs) and guidelines outlined in the New Brunswick Private Woodlots Silviculture Manual (ERD, 2018) are being followed.

#### Quebec Forestry

With the implementation of Quebec's Sustainable Forest Development Act in 2010, the Minister of Natural Resources (MRN) has greater control and responsibility over Crown forest management. This includes maintaining ecosystem-based management plans that maintain ecosystem biodiversity and viability. The MRN offers technical and financial support to woodlot owners that practice sustainable forest management. This support is presented through regional agencies (similar to regional marketing boards in NB) that help with the preparation of a protection and development plan and financial and technical support. Only certified private forests have access to these government programs.

92% of Quebec's forests are publicly owned; ~8% are private forests. By August 2017, 93% of the province's publicly managed forest was SFM certified (FSC or SFI). The Federation of Forest Producers of Québec (Fédération des producteurs forestiers du Québec, FPFQ) is the provincial organization that promotes the



interests of the 130,000 private woodlot owners, which includes 35,000 forest producers. There are 13 regional agencies that were formed to help with the protection and enhancement of Québec's private forests. Municipal by-laws regulate cutting of trees to limit the size of cut blocks and protect riparian zones and sensitive environments. Permits for logging on private lands are required in all municipalities. The Civil Code of Québec provides recourse for logging performed on private property without the consent of the landowner.

#### Nova Scotia Forestry

The enforcement of the NS Forests Act on Crown and private lands supports the development of a healthy productive forest capable of yielding high volumes of high quality product. The enforcement division of NSDNR completes regular inspections to harvest sites to enforce the Forests and Crown Lands Acts.

Nova Scotia's Code of Forest Practice is a guide for sustainable forest management (SFM) in the province. SFM is required on Crown lands and highly encouraged on private woodlots in Nova Scotia. The majority of primary wood products supplied to industry are from privately sources. The provincial government develops forest management training programs and financial incentives to further encourage the sustainable use of private woodlots.

The Nova Scotia Registry of Buyers requires businesses to inventory all primary forest products acquired for processing. Registered buyers contribute to a silviculture fund based on a volume of wood acquired basis. The Registry of Buyers' annual report outlines the volumes of wood harvested throughout the province. The registry provides reliable data on market demands and estimates on sustainable harvest levels.

All product used at the Belledune wood pellet plant can be defined in 4 categories: 1) Certified SBP-Compliant Primary Feedstock, 2) Uncertified SBP-Compliant Primary Feedstock, 3) Certified SBP-Compliant Secondary Feedstock, and 4) Uncertified SBP-Compliant Secondary Feedstock (Table 1)

Feedstock Product Groups	% of Certified Feedstock	% of Uncertified Feedstock	# of Suppliers	Species Mix
Controlled Feedstock				
SBP-Compliant Primary Feedstock	62.2%	37.8%	3-5	(See 2.5i, below)
SBP-Compliant Secondary Feedstock	12.6%	87.4%	7-10	(See 2.5i, below)
SBP-Compliant Tertiary Feedstock				
SBP Non-Compliant Feedstock				

Table 1 - Feedstock Product Groups

## 2.2 Actions taken to promote certification amongst feedstock supplier

Shaw Resources' suppliers are aware of Shaw Resources' current PEFC Chain of Custody and the Sustainable Biomass Partnership certifications. In general, sustainability is a common practice amongst many of Shaw Resources' current suppliers of Shaw Resources. Suppliers continue to seek third party SFM certifications (FSC, or SFI). Shaw Resources' sustainability mission statement is publicly available and is posted on the company website. Shaw Resources' mission statement is:



"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."

Scoping-in agreements and supplier declarations facilitate the transfer of credits through Shaw Resources' PEFC Chain of Custody certification. Suppliers also provide a Supplier Assertion declaring that feedstock originates from within a defined supply base and not from controversial sources. Company-wide, Shaw Resources has implemented training programs to ensure employees understand their roles and responsibilities and the objectives of each certification.

#### 2.3 Final harvest sampling programme

Belledune's primary forest products originate from: a) Crown forest and b) private forest sources.

- a) Crown land forest management is monitored and objectives are enforced by NBDNR,
- b) Regional marketing boards, which represent the private forest woodlots regionally, distinguish between marketable saw logs and woody biomass. Approximately 85% of primary wood products sold in the province are saw logs and directed to sawmills, while about 15% of primary wood products are considered woody biomass.

The regional marketing boards complete surveys on a random selection of private woodlots chosen by the New Brunswick SFI Implementation Committee (NBSIC) on an annual basis. These surveys are compiled by NBSIC and available as an annual report.

## 2.4 Flow diagram of feedstock inputs showing feedstock type

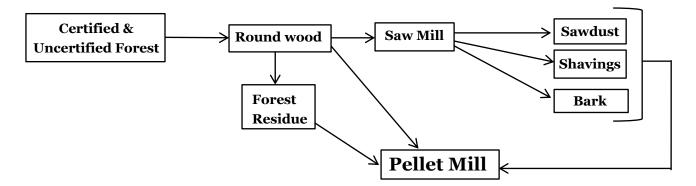


Figure 1 - Flow diagram of feedstock inputs



#### 2.5 Quantification of the Supply Base

#### **Supply Base**

#### **New Brunswick Supply Base**

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

6 of the 7 million hectares of land in New Brunswick are forested; 83% of forest cover (NBDNR). The remaining 17% is made up of agricultural and urban areas.

#### b. Tenure by type (ha): Privately owned/Public/Community concession

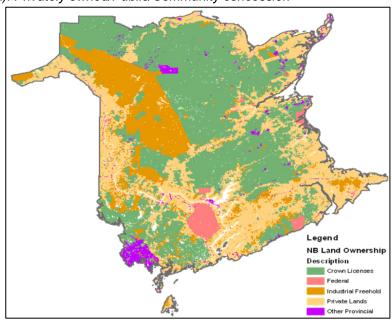


Figure 2 - Map of NB Land Tenure by Type (from www.nbforestry.com)

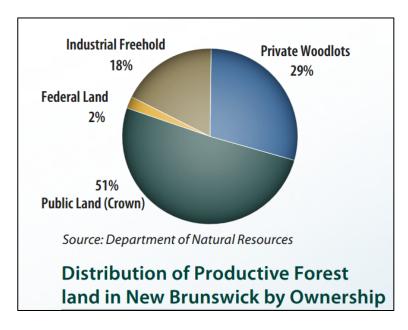




Figure 3 - Tenure by type (from State of the Forest Report, NBDNR, 2008)

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

The maritime provinces are designated as the Atlantic Maritime Eco zone. They are made up of two major regions: Appalachians and coastal plains. About 50% of NB, most of NS, and some regions in QC are made up of Acadian forest. The Acadian forest can be described as a transitional forest between boreal spruce-fir to the north and deciduous forest to the south.

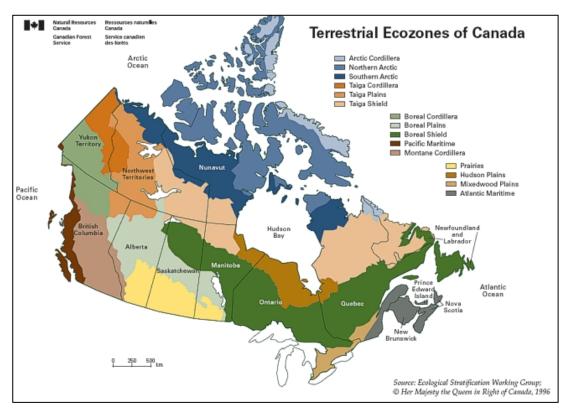


Figure 4 - Eco zones of Canada (from Ecological Stratification Working Group, NBDNR 1996)

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

There are 6.1 million hectares of forest in New Brunswick, 3.2 million hectares are Crown and the remaining 2.9 million hectares are private. The government projects that of the 3.2 million hectares of Crown forest, 26% are natural regeneration forests, 26% are mature stands, 13% are thinned regenerations, 12% have silviculture plantations and the remaining are conservation areas (protected natural areas, watercourses and wetland buffers, deer wintering areas, and old forest habitats).



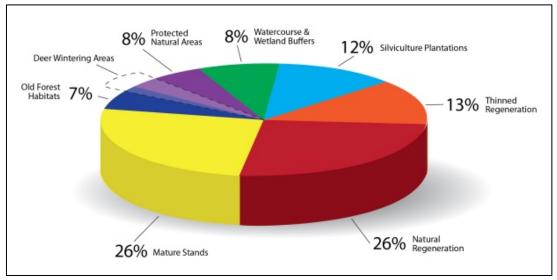


Figure 5 - New Brunswick Crown forests projection (GNB, 2014)

- e. Certified forest by scheme (ha): Hectares of FSC or PEFC certified
- 4.2 of the 6.1 million hectares of forest lands are certified to the SFI standard in New Brunswick.



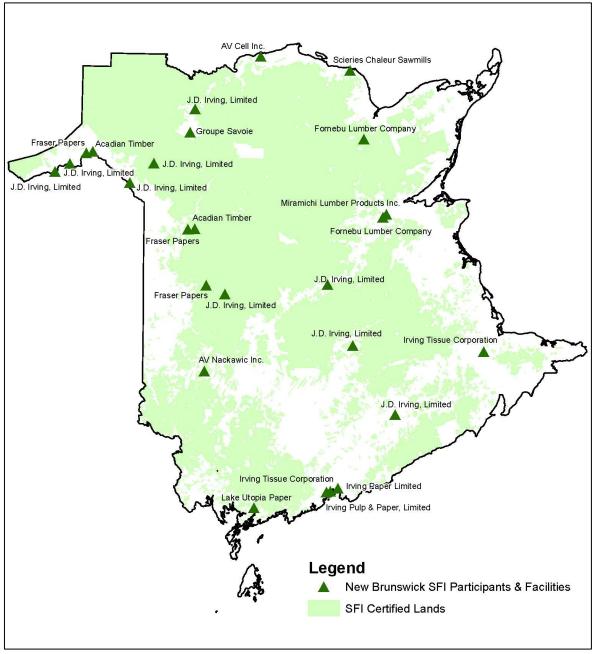


Figure 6 - SFI Certified Lands and Participants in NB (From NBSIC, 2009)

#### **Quebec Supply Base**

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

Quebec forests cover about 76.1 million hectares of the provinces 166.7 million hectares of land.

b. Tenure by type (ha): Privately owned/Public/Community concession

Of the 76.1 million hectares of forest, 70 million hectares are public and 6.1 million hectares are private.

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



Quebec's forests extend over three major bio-climatic zones. The three forest types are the boreal forest, the mixed wood forest, and the hardwood forest.

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

The forest management strategy in Quebec emphasizes natural regeneration. 100% of public forests must be regenerated after logging. When natural regeneration is insufficient, reforestation is introduced.

e. Certified forest by scheme (ha): Hectares of FSC or PEFC certified

By 2017, 93% of all productive areas in Quebec's public forests were certified.

#### **Nova Scotia Supply Base**

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

There are 4.275 million hectares of forest in Nova Scotia

- b. Tenure by type (ha): Privately owned/Public/Community concession
- 1,994,000 ha (47%) of the forested lands is public, and the remaining 2,281,000 ha (53%) is private.
- c. Forest by type (ha): Boreal/Temperate/Tropical

The forested area is part of the Acadian Forest region and common species include spruce, balsam fir, white pine, maple and birch.

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

The majority of forest woodlots in NS are replanted forests, while some are naturally regenerated forests.

e. Certified forest by scheme (ha): Hectares of FSC or PEFC certified

As of 2014, 1.3 million hectares of land in Nova Scotia were certified to CSA, FSC, or SFI.

#### Feedstock

f. Total volume of Feedstock: tonnes or m3

185,000 Tonnes

g. Volume of primary feedstock: tonnes or m<sup>3</sup>-

65,000 Tonnes

- h. List percentage of primary feedstock (g), by the following categories
  - 54.7% of primary feedstock originates from large forest holdings certified to an SBP-approved Forest Management Schemes (primarily SFI Forest Management, which is endorsed through PEFC and SFI Chain of Custody)



- 3.7% primary feedstock originates from large forest holdings not certified to an SBP-approved Forest Management Schemes
- 41.6% of primary feedstock originates from small forest holdings not certified to an SBP-approved
   Forest Management Schemes

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

- Beech (Fagus sp.)
- Poplar (Populus sp.)
- Hemlock (Tsuga sp.)
- Ash (Fraxinus sp.)
- Birch (Betula sp.)
- Maple (Acer sp.)
- Aspen (Populus sp.)
- Balsam Fir (Abies Balsamea)
- Spruce (Picea sp.)
- Cedar (Cedrus sp.)
- Pine (Pinus sp.)

j. Volume of primary feedstock from primary forest

Primary feedstock is sourced from continuously managed secondary forests.

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

- 0% of primary feedstock from primary forest certified to an SBP-approved Forest Management Schemes
- 0% of primary feedstock from primary forest not certified to an SBP-approved Forest Management Schemes

I. Volume of secondary feedstock: specify origin and type

All secondary feedstock (sawmill residuals) originate from Nova Scotia, New Brunswick and Quebec.

m. Volume of tertiary feedstock: specify origin and composition

There is no tertiary feedstock.



## 3 Requirement for a Supply Base Evaluation

SBE completed	SBE not completed
$\square$	

It was determined that a Supply Base Evaluation was required because Shaw Resources – Belledune will use the SBP-compliant claim when selling product and not all feedstock is certified to a SBP approved certification scheme. As part of the Supply Base Evaluation, a Stakeholder's Consultation was completed to allow stakeholders an opportunity to identify any foreseeable risks within the supply base.



## 4 Supply Base Evaluation

#### 4.1 Scope

The scope of the Supply Base Evaluation (SBE) includes the supply base for all primary and secondary feedstock sources. The supply base includes the entire province of New Brunswick, Nova Scotia and Quebec. To ensure that all secondary feedstock originates from within the supply base, a 100-km radius around each of our secondary feedstock suppliers (sawmill supplier) was examined to ensure it was within the supply base.

#### 4.2 Justification

All round wood, biomass, and residuals originate from within New Brunswick, Nova Scotia and Quebec. The approach used in evaluating the supply base relied heavily on government (Federal & Provincial) legislation, regulations, and third party certification standards. Government enforcement divisions carry out regular monitoring and site visits to ensure all legislation and regulations are enforced. Furthermore, penalties are administered for non-compliance.

#### 4.3 Results of Risk Assessment

The SBE indicated a low risk of non-compliance to the SBP standards.

#### 4.4 Results of Supplier Verification Programme

Since the entire supply base is low risk, there was no need to complete a supplier verification programme.

#### 4.5 Conclusion

The SBE assesses the risk in the company's defined supply base (New Brunswick, Nova Scotia, and Quebec). The SBP Standard 1 – Feedstock Standard's aim is to assure end users that feedstock is legally and sustainably sourced. SBP-approved FM certified feedstock is considered SBP-compliant. Feedstock from forest sources that are not SBP-compliant FM-certified require verification that the supply is low risk for it to be considered SBP-compliant.

The SBE for Shaw Resources-Belledune involved a detailed assessment and evaluation of the Belledune feedstock supply base. Ultimately, the SBE indicated an overall low risk to all indicators and the defined supply base is considered SBP-compliant.



## **5** Supply Base Evaluation Process

The SBE was performed by Julie Griffiths, the Environmental Management System Representative; this individual is also responsible for the PEFC Chain of Custody system. Nate Ryant, a professional forester and consultant with NMR Resource Management, assisted in the process of completing the SBE and 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.

The SBE process involved a detailed review of all feedstock sources within a particular region and for the Belledune Facility included New Brunswick and Quebec as regional sources. The New Brunswick Department of Natural Resources, the North Shore Forestry Marketing Board, and the Forest Sector from the Department of Environment in Quebec were all consulted in the evaluation process.



### 6 Stakeholder Consultation

As part of the Stakeholder Consultation, the final SBE document along with a link to the SBP standards was emailed to regional stakeholders, who were given 30 days to respond or comment. The consultation was completed on December 17, 2015.

#### 6.1 Response to stakeholder comments

#### Comment 1:

One stakeholder had two suggestions for the SBE:

- Add a website as evidence to In/dicator 2.2.7:
   QC: <a href="http://www.mddelcc.gouv.qc.ca/air/inter\_en.htm">http://www.mddelcc.gouv.qc.ca/air/inter\_en.htm</a>
- Additional information in regards to 2.8.1: Sub-contractors in Quebec must comply with the Quebec Work Health and Safety Commission (CSST).

#### Response 1:

Stakeholder comments were reviewed, and subsequently added to the SBE.



## 7 Overview of Initial Assessment of Risk

The results of the Initial Assessment of Risk showed that all indicators were low risk.

Table 1. Overview of results from the risk assessment of all Indicators (prior to SVP)

To Parker	Init	ial Risk	Rating
Indicator	Specified	Low	Unspecified
1.1.1		Ø	
1.1.2		Ø	
1.1.3		Ø	
1.2.1		Ø	
1.3.1		Ø	
1.4.1		Ø	
1.5.1		Ø	
1.6.1		Ø	
2.1.1		Ø	
2.1.2			
2.1.3		Ø	
2.2.1		Ø	
2.2.2		Ø	
2.2.3		Ø	
2.2.4		Ø	
2.2.5		Ø	
2.2.6		Ø	
2.2.7		Ø	
2.2.8		Ø	
2.2.9		Ø	

Indicator	Initial Risk Rating			
indicator	Specified	Low	Unspecified	
2.3.1		Ø		
2.3.2				
2.3.3		Ø		
2.4.1		Ø		
2.4.2		Ø		
2.4.3		Ø		
2.5.1		Ø		
2.5.2		Ø		
2.6.1		Ø		
2.7.1		$\overline{\square}$		
2.7.2		$\square$		
2.7.3		$\square$		
2.7.4		<b>V</b>		
2.7.5		$\square$		
2.8.1		$\square$		
2.9.1		Ø		
2.9.2		Ø		
2.10.1		$\square$		



## 8 Supplier Verification Programme

#### 8.1 Description of the Supplier Verification Programme

The SBE indicated that the supply base was low risk, so a supplier verification programme was not required.

8.2 Site visits

N/A

8.3 Conclusions from the Supplier Verification Programme

N/A



## 9 Mitigation Measures

### 9.1 Mitigation measures

Mitigation measures were not required at this time as all feedstock was considered low risk in the SBE.

#### 9.2 Monitoring and outcomes

N/A



## 10 Detailed Findings for Indicators

Detailed findings for each Indicator are given in Annex 1.



## 11 Review of Report

#### 11.1 Peer review

The final version of the Supply Base Report was reviewed by the Operations Manager. A peer review was completed by Nate Ryant on January 19, 2016, a consultant with the Wood Pellet Association of Canada.

#### 11.2 Public or additional reviews

N/A



## 12 Approval of Report

Report Prepared	Julie Griffiths	Geology/Environmental Specialist	August 31, 2018
by:	Name	Title	Date
manageme Report	nt as being accurate prior to ap	evaluation report were duly acknowledge pproval and finalisation of the report.  Carol MacMillan	
ROUGHE - ADMINISTRATION - TOTAL		Chief Financial Officer	Dept 14/
approved	Name	Chief Financial Officer Title	Sept 14/
Report Report approved by:	Name  Lindsay Hawk		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

No mitigation measures are required.

#### 13.3 New risk ratings and mitigation measures

All indicators remain low risk at this time.

## 13.4 Actual figures for feedstock over the previous 12 months

a. Total volume of Feedstock: tonnes or m3

155,000 Tonnes

b. Volume of primary feedstock: tonnes or m<sup>3</sup>

60,000 Tonnes

- c. List percentage of primary feedstock (g), by the following categories
  - 71.3% of primary feedstock originates from large forest holdings certified to an SBP-approved Forest Management Schemes (primarily SFI Forest Management, which is endorsed through PEFC and SFI Chain of Custody)
  - No primary feedstock originates from large forest holdings not certified to an SBP-approved Forest Management Schemes
  - No feedstock originates from small forest holdings certified to an SBP-approved Forest Management Schemes
  - 28.7% of primary feedstock originates from small forest holdings not certified to an SBPapproved Forest Management Schemes
- d. List all species in primary feedstock, including scientific name

The species list remains unchanged.

e. Volume of primary feedstock from primary forest

Primary feedstock is sourced from continuously managed secondary forests.



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

There is no primary feedstock originating from primary forest.

- g. Volume of secondary feedstock: specify origin and type
  - ~95,000 Tonnes. All secondary feedstock (sawmill residuals) originate from Nova Scotia, New Brunswick and Quebec.
- h. Volume of tertiary feedstock: specify origin and composition

There is no tertiary feedstock.

#### 13.5 Projected figures for feedstock over the next 12 months

- a. Total volume of Feedstock: Tonnes or m3
   150,000-180,000 Tonnes (A range has been provided due to commercial sensitivity of the information)
- b. Volume of primary Feedstock: Tonnes or m3
   50,000 100,000 Tonnes (A range has been provided due to commercial sensitivity of the information)
- c. List of percentage of primary feedstock (g), by the following categories. Subdivide by SBP-approved Forest Management Schemes
  - 65-75% of primary feedstock originates from large forest holdings certified to an SBP-approved Forest Management Schemes (primarily SFI Forest Management, which is endorsed through PEFC and SFI Chain of Custody)
  - 0-5% of primary feedstock originates from large forest holdings not certified to an SBP-approved Forest Management Schemes
  - No feedstock originates from small forest holdings certified to an SBP-approved Forest Management Schemes
  - 25-30% of primary feedstock originates from small forest holdings not certified to an SBP-approved Forest Management Schemes
- d. List all species in primary feedstock, including scientific name

The species list will remain unchanged.

e. Volume of primary feedstock from primary forest

Primary feedstock will continue to be sourced from continuously managed secondary forests.

- f. List percentage of primary feedstock from primary forest (i), by the following categories. Subdivide by SBP-approved Forest Management Schemes
  - a. 0% of primary feedstock from primary forest certified to an SBP-approved Forest Management Schemes

# SBP Sustainable Biomass Program

#### Focusing on sustainable sourcing solutions

- b. 0% of primary feedstock from primary forest not certified to an SBP-approved Forest Management Schemes
- g. Volume of secondary feedstock: Specify origin and type

All secondary feedstock (sawmill residuals) originates from Nova Scotia, New Brunswick or Quebec.

h. Volume of tertiary feedstock: Specify origin and composition

There will be no tertiary feedstock.



# Annex 1: Detailed Findings for Supply Base Evaluation Indicators

	Indicator	
1.1.1	The Biomass Producer's Supply Base is defined and mapped.	
Einding	The supply base is New Brunswick (NB), Nova Scotia (NS), and south-eastern Quebec (QC). The supply base is mapped to ensure the scope is consistent with the risk assessment.	
Finding	The following ecoregions have been identified by the World Wildlife Fund (WWF): Eastern Canadian Forest (NB, NS, QC) New England-Acadian Forest (NB, NS) Gulf of St. Lawrence lowland (NB, NS)	
Means of Verification	WWF Ecoregions: http://www.worldwildlife.org/science/wildfinder/ Supplier assertions	
Evidence Reviewed	All means of verification reviewed	
Risk Rating	x Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA	
Comment or Mitigation Measure		

	Indicator
1.1.2	Feedstock can be traced back to the defined Supply Base.
Finding	The BP conducts wood procurement operations, which includes the purchase and transport of secondary sawmill residuals (wood chips, shavings & sawdust) and primary wood chips and round wood. Wood fibre is transported on trucks to the BP's wood pellet plant. Typically, the BP purchases both certified and uncertified fibre and round wood. All wood fibre originates from within the identified supply base listed above (1.1.1).



Comment or Mitigation Measure	
Risk Rating	x Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA
Evidence Reviewed	All means of verification reviewed
Means of Verification	BP's Purchase Wood Risk Assessment BP's Purchase Wood Inspection Form Supplier assertions Supplier contracts BP's annual supplier evaluations Sales documents Scale tickets, bills of lading, transportation certificates
	BP's DDS (PEFC Chain of Custody [COC]) NB, NS, and QC risk assessments
	The BP completes a Purchase Wood Risk Assessment for all round wood purchases. Round wood that originates from Crown forests undergo a compliance assessment; whereas round wood that originates from private woodlots with no SFM certification undergo field inspections. In addition to the marketing boards' annual SFI Implementation BMP surveys and reports, the BP conducts site visits and inspections which include the completion of a Purchase Wood Inspection Form.
	On an annual basis, the BP completes supplier evaluations on 25% of secondary suppliers. The evaluation, or supplier audit, consists of a site visit to review and collect documentation on forest sources (location of the stump) to ensure that feedstock originates from within the supply base, and to identify how certified feedstock is traced back to the forest management unit. This control measure provides assurance to the BP that feedstock originates from within the defined supply base of the SBE.
	The BP's Due Diligence System (DDS) is employed to ensure that the risk of receiving material from controversial sources is minimized. This includes local knowledge of supply base by staff, risk assessments, and supplier assertions. Regional risk assessments have been prepared for the entire supply base (NS, NB, and QC) and are reviewed on an annual basis. All feedstock suppliers have signed a Supplier's Assertion. The assertion declares that all feedstock originates from within the defined supply base (NS, NB and QC).
	Each load delivered to the pellet plant is accompanied by a scale ticket that identifies the supplier. Supplier declarations are completed quarterly and confirm the tonnage of feedstock and certified content received from each supplier. These can be compared to scale reports for the same period.
	Primary round wood is always accompanied with a Transportation Certificate which identifies the Property Identification (PID) that can be used to trace the supply back to the forest management unit. Secondary feedstock is purchased from New Brunswick sawmills. Sawmills procure round wood from Crown forests or private woodlots in New Brunswick. A small percentage of sawmill residuals originate from Quebec or Nova Scotia.



	Indicator
1.2.1	The Biomass Producer has implemented appropriate control systems and procedures to ensure that legality of ownership and land use can be demonstrated for the Supply Base.
	The supply base includes Crown forest and private lands. In NB, NS, and QC, it is the responsibility of the government to ensure that best management practices are carried out on Crown lands. Trip tickets that accompany each load are required to show the origin of the round wood. Provincial governments are also responsible for ensuring proper scaling is used and that transportation of all logs and wood fibre are documented. Each province has their own land use laws that ensure that the province and private land owners are able to obtain a guaranteed property title ensuring the legality of land ownership. Land use is further regulated with municipal by-laws.
	In general, private land titles are registered with provincial registry offices where annual assessments determine the annual tax rate. Forest tenure contracts are used for public or Crown land.
	New Brunswick Transportation Certificates (TCs) are mandatory for each load of primary feedstock and are subject to audits by the New Brunswick Department of Natural Resources (NBDNR) and NB Forest Products Commission. All TCs must be complete with PID to locate to the source lot. Most Crown and industry freehold lands are forest management (FM) certified (SFI, FSC, or CSA) and undergo 3 <sup>rd</sup> party annual audits. Private woodlots also undergo annual audits through regional marketing boards.
Finding	The BP will not accept private round wood without a transportation certificate that includes the Property Identification (PID) number. The enforcement of the NB Transportation of Primary Forest Products Act ensures that TCs are audited and accurately completed.
	Nova Scotia In Nova Scotia, Crown and private forests are governed by the Forests and Crown Lands Acts. The enforcement division of the Nova Scotia Department of Natural Resources (NSDNR) monitors these acts and manages all allocations assigned on Crown lands. Annually, NSDNR issues a letter of authority detailing the allowable products and maximum allowable cut is also issued by NSDNR. Private woodlot owners are the primary source of forest products for industry in Nova Scotia. Businesses and individuals register through the NS Registry of Buyers to acquire primary forest products for processing. Nova Scotia's Land Registration Act ensures that both Crown and private land owners are able to obtain a guaranteed title to a property.
	Quebec By 2013, ~90% of all productive areas in Quebec's public forests were certified (SFI, FSC or CSA).
	In Quebec, Crown and private forests are governed by the Sustainable Forest Development Act through the Minister of Natural Resources (MRN). The MRN is



responsible for preparing forest management plans for all Crown forests, and offering technical and financial support for sustainable forestry to private woodlots. The MRN authorizes all permits, agreements, and contracts associated with wood harvesting. They also inspect and audit harvested lands. All transporters of logs or wood products in Quebec must have a transportation certificate indicating the origin of the round wood. All documentation concerning transportation, processing and scaling activities must be kept and may be checked, inspected or audited.

The 2015 FSC Centralized National Risk Assessment assigns a low risk rating for land tenure and management rights (Indicator 1.1). It states that "Canada has established an extensive and rigorous system of forest governance to prevent abuses with regards to land tenure and ownership" (FSC-CNRA-CAN V1-0, 2015).

The BP's Due Diligence System (DDS) is employed to ensure that the risk of receiving material from controversial sources is minimized. This includes local knowledge of supply base by procurement staff, risk assessments, and supplier assertions. Regional risk assessments have been prepared for the entire supply base (NS, NB, and QC) and are reviewed on an annual basis.

All feedstock suppliers have signed a Supplier's Assertion. The assertion includes the following:

The supplier confirms that round wood and wood fibre don't originate from unacceptable or controversial sources, which include sources that are:

- 1. Not complying with local, national or international legislation, in particular:
  - a. forestry operations and harvesting, including biodiversity conservation and conversion of forest to other use
  - b. management of areas with designated high environmental and cultural values, protected and endangered species, including requirements of CITES.
  - health and labour issues relating to forest workers, indigenous peoples' property, tenure and use rights, third parties' property, tenure and use rights.
  - d. payment of taxes and royalties related to timber harvesting are complete and up to date,
- 2. Not complying with legislation of the country of harvest relating to trade and customs, in so far as the forest sector is concerned,
- 3. Utilizing genetically modified forest based organisms,
- 4. Converting forest to other vegetation type, including conversion of primary forests to forest plantations. Where forest plantations are defined as forests of exotic species that are under intensive stand management, are fast growing and subject to short rotations (Ie. Poplar, acacia, or eucalyptus plantations)

The round wood and biomass originates from:

- 1. Nova Scotia, New Brunswick, or Quebec;
- 2. Areas not covered by the UN Security Council ban on Timber; and Areas governed by a legislated stumpage system that requires documentation to confirm the supply of the fibre to the forest management unit (i.e. license or tenure).

On an annual basis, the BP completes supplier evaluations on 25% of secondary suppliers. The evaluation, or supplier audit, consists of a site visit to review and collect documentation on forest sources (location of the stump) to ensure that feedstock originates from within the supply base, and to identify how certified feedstock is traced back to the forest management unit. This control measure



	provides assurance to supply base of the SBI		riginates from within the defined	
	purchases. Round woo assessment; whereas SFM certification unde annual SFI Implementa	od that originates from C round wood that originat rgo field inspections. In a ation BMP surveys and r	ressment for all round wood crown forests undergo a compliance tes from private woodlots with no addition to the marketing boards reports, the BP conducts site visits of a Purchase Wood Inspection	
Means of Verification	BP's PEFC COC Audit Supplier contracts Supplier assertion BP's annual supplier e PEFC documentation	valuations	ortation certificates	
Evidence Reviewed	All means of verification			
Risk Rating	x Low Risk	□ Specified Risk	□ Unspecified Risk at RA	
Comment or Mitigation Measure				

	Indicator
1.1.3	The feedstock input profile is described and categorised by the mix of inputs.
Finding	The species and type of feedstock (sawdust, shavings, chips, etc.) are documented on the scale ticket, bill of lading, or transportation certificate.  Feedstock is categorized on quarterly supplier declarations, which are used for tracking incoming certified feedstock. The credit account tracks certified fibre using a percentage tracking system (inputs and outputs), which is certified to the PEFC chain of custody standard (PEFC ST 2002:2013).  PEFC Certificate No. PwC-PEFC-449
Means of Verification	Sales documents BP's PEFC credit account Quarterly supplier declarations Scale tickets, bills of lading, transportation certificates
Evidence Reviewed	All means of verification reviewed
Risk Rating	x Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA
Comment or Mitigation Measure	



	Indicator
1.3.1	The BP has implemented appropriate control systems and procedures to ensure that feedstock is legally harvested and supplied and is in compliance with EUTR legality requirements.
	On an annual basis, the BP completes a review of appropriate laws regarding legality of harvest and compliance with EUTR requirements.
	The BPs Due Diligence System (DDS) employed through the PEFC COC certification system ensures that receiving material from controversial sources is a low risk and legality requirements are met. Risk assessments are maintained for each province in the defined supply base and are updated on an annual basis. Furthermore, the following sources ensure that the source areas are low risk for illegal logging/activities or corruption:
	<ol> <li>http://www.illegal-logging-info/</li> <li>http://www.un.org/en/documents/index.html</li> <li>http://www.transparency.org</li> <li>http://info.worldbank.org/governance/wgi/index.aspx#home —</li> </ol>
Finding	Year over year, Canada is rated as having a very low incidence of corruption. Canada was ranked 8 <sup>th</sup> in the world with a score of 82 on the 2017 Corruption Perception Index (Transparency International). According to the Worldwide Governance Indicators, Canada ranks consistently high in control of corruption with a rating of 95% in 2007 and 2012, and 96% in 2017. The UN Security Council has not issued a ban on timber exports from NB, NS or QC, and Canada is not designated as a source of conflict timber. Canada ranks among the top for political stability, absence of violence and terrorism, government effectiveness, regulatory quality, rule of law and control of corruption.
	The Environmental Investigation Agency's (EIA) forest investigations and lobbying have consistently uncovered serious failings in forest governance, forest governments and industry. The EIA played a central role in delivering the European Union Timber Regulation (EUTR). The World Bank organization maintains datasets that report on Worldwide Governance Indicators (WGI). Canada is ranked with a percentile among all countries for each of the indicators. In the 2017 year, Canada ranked 88.6% for political stability and absence of violence, 97.1% for government effectiveness, 97.6% for regulatory quality, 95.7% for rule of law and 95.7% for control of corruption.
	The Canadian Council of Forest Ministers maintains data to update progress on sustainable forest management, including assessing general compliance with laws and regulations as documented in the 2005 National Status Report. The FSC Centralized National Risk Assessment concludes that Canada carries a low risk for illegal logging and illegally obtained forest licenses or tax exemptions.
	Refer to 1.2.1 for further detail on each province's legislative requirements and on the BPs supplier assertion.

Means of Verification	Transparency Internat <a href="http://www.transparence">http://www.transparence</a> Environmental Investions <a href="http://www.eia-internat-">http://www.eia-internat-</a>	rg/governance/wgi/index.asp ional: cy.org/ gation Agency: tional.org forest Ministers National State	
Evidence Reviewed	All means of verification	on reviewed	
Risk Rating	x Low Risk	□ Specified Risk	☐ Unspecified Risk at RA
Comment or			
Mitigation			
Measure			

	Indicator
1.4.1	The Biomass Producer has implemented appropriate control systems and procedures to verify that payments for harvest rights and timber, including duties, relevant royalties and taxes related to timber harvesting, are complete and up to date.
	All harvests on Canadian Crown lands have an associated harvesting fee that must be paid to the Crown (volume-based or stumpage fee). Provincial government inspectors are responsible for setting the rate for these fees. Provinces where harvesting on private lands for commercial purposes is more common often put in place legislation to regulate harvest (FSC National Risk Assessment, 2018). The FSC National Risk Assessment (2018) recognizes Canada as having a low risk for payment of royalties and harvesting fees. Provincial governments are responsible for ensuring that royalties have been paid.  In NB, Crown land licensees are responsible for the proper scaling and remitting
Finding	of all royalties. The records of royalty payments for each of the 10 licensees are published in the NBDNR annual report. Marketing boards conduct audits on select woodlots each year to ensure the legality of harvesting.  In NS, buyers must submit statistical returns with the volume of wood purchased. Export documents must be kept on hand and provided upon request of the Minister. The NS Scalers Act applies to both public and private lands. Regulations for timber scaling facilitates the differentiation between private and crown timber. Buyers who obtain more than 5,000 cubic meters/year of privately sourced wood must pay into a silviculture fund. Those with rights to Crown land must pay royalties for all timber products harvested. NSDNR's regional field staff and conservation officers monitor and enforce activities on Crown lands to prevent unauthorized harvest or theft of timber. Private landowners rely on commercial or

	civic laws to protect their property from timber theft or to enforce the terms of a business transaction.
	In Quebec, a free market was introduced for public forests along with an increase in harvesting royalties. The newly formed timber marketing boards provide supply guarantees and set the rate of annual dues and the cost of timber. Annual reports can be found on the provincial website.
	The FSC Centralized National Risk Assessment concludes that Canada carries a low risk for illegal logging and illegally obtained forest licenses or tax exemptions.
	On an annual basis, the BP completes supplier evaluations on 25% of secondary suppliers. The evaluation, or supplier audit, consists of a site visit to review and collect documentation on forest sources (location of the stump) to ensure that feedstock originates from within the supply base, and to identify how certified feedstock is traced back to the forest management unit. This control measure provides assurance to the BP that feedstock originates from within the defined supply base of the SBE.
	The BP completes a Purchase Wood Risk Assessment for all round wood purchases. Round wood that originates from Crown forests undergo a compliance assessment; whereas round wood that originates from private woodlots with no SFM certification undergo field inspections. In addition to the marketing boards' annual SFI Implementation BMP surveys and reports, the BP conducts site visits and inspections which include the completion of a Purchase Wood Inspection Form. As part of this process, there is a verification of evidence for the payment of harvest rights.
	Risk assessments have been completed for each of the 3 provinces.
Means of Verification	Review of NB Department of Natural Resources, NS Registry of Buyers, and Quebec's annual forestry reports Purchase Wood Risk Assessment Purchase Wood Inspection Form BP's annual supplier evaluations Supplier assertion Supplier contracts Transportation Certificates
Evidence Reviewed	All means of verification reviewed
Risk Rating	x Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA
Comment or Mitigation Measure	

	Indicator
1.5.1	The Biomass Producer has implemented appropriate control systems and procedures to verify that feedstock is supplied in compliance with the requirements of CITES.



	There are no Canadian commercial tree species that have ever been listed on CITES, so the risk of illegally harvesting a species on CITES is low risk.
	As a party to CITES, Canada has an international obligation to regulate the trade in CITES-listed wild animals and plants. The Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act (WAPPRIITA) provide the legislation for the control of CITES in Canada. The act is used to also control imports of other illegal non CITES-listed species.
	The FSC National Risk Assessment states that the Canadian governance system as a whole, combined with the resources and rigour of the Canadian customs agencies result in low risk of illegal practices with regards to customs regulations.
	The species type and origin of incoming feedstock are documented and no endangered or threatened species are used.
Finding	All suppliers have signed a supplier's assertion that states that round wood and wood fibre are not sourced from areas that don't comply with the requirements of CITES.
	On an annual basis, the BP completes supplier evaluations on 25% of secondary suppliers. The evaluation, or supplier audit, consists of a site visit to review and collect documentation on forest sources (location of the stump) to ensure that feedstock originates from within the supply base, and to identify how certified feedstock is traced back to the forest management unit. This control measure provides assurance to the BP that feedstock originates from within the defined supply base of the SBE.
	The BP completes a Purchase Wood Risk Assessment for all round wood purchases. Round wood that originates from Crown forests undergo a compliance assessment; whereas round wood that originates from private woodlots with no SFM certification undergo field inspections. In addition to the marketing boards' annual SFI Implementation BMP surveys and reports, the BP conducts site visits and inspections which include the completion of a Purchase Wood Inspection Form.
	Risk assessments have been completed for each of the 3 provinces.
	BP's annual supplier evaluations BP's Purchase Wood Risk Assessment BP's Purchase Wood Inspection Form BP's Provincial Risk Assessments Supplier contracts
Means of Verification	Supplier assertions Index of CITES species List of applicable laws and regulations https://www.canada.ca/en/environment-climate-change/services/convention- international-trade-endangered-species.html https://speciesplus.net/species https://ca.fsc.org/en-ca/standards/national-risk-assessment-01
Evidence Reviewed	All means of verification reviewed



Risk Rating	x Low Risk	□ Specified Risk	☐ Unspecified Risk at RA
Comment or			
Mitigation			
Measure			

The Biomass Producer has implemented appropriate control systems and procedures to ensure that feedstock is not sourced from areas where there are violations of traditional or civil rights.  The Canadian Charter of Rights and Freedoms forms the first part of the Constitution Act (1982). The Charter falls into seven distinct categories: fundamental freedoms, democratic rights, language rights, mobility rights, minority language education rights, legal rights and equality rights. The Charter also recognizes Aboriginal rights and treaty rights (Section 35).  The FSC National Risk Assessment has a low risk designation for Canada in regards to the rights of Indigenous and Traditional Peoples being upheld. There are mechanisms in place to mitigate the risk to Indigenous Peoples where their legally enforceable rights may be infringed as a result of forest management activities.  Finding  In 2018, Canada ratified the last of the fundamental ILO conventions, the Right to Organise and Collective Bargaining Convention (ILO C098). (https://www.ilo.org/global/standards/subjects-covered-by-international-labour-standards/collective-bargaining/WCMS_558488/lang-en/index.htm).  Since Canada has now ratified to all 8 of the fundamental principles and rights, it is considered low risk.  The BP has implemented a Due Diligence System (DDS) through their PEFC Chain of Custody certification. Provincial risk assessments have been completed and are updated annually for each province in the defined supply basis.  Supplier contracts BP's DDS  Canadian Charter of Rights and Freedoms: https://www.ilo.org/empent/areas/business-helpdesk/lang-en/index.htm FSC National Risk Assessment: https://www.ilo.org/empent/areas/business-helpdesk/lang-en/index.htm FSC National Risk Assessment: https://www.ilo.org/empent/areas/business-helpdesk/lang-en/index.htm Natural Resources Canada Indigenous Forestry Initiative: http://www.nrcan.gc.ca/forests/federal-programs/13125		
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Verification  FSC National Risk Assessment: <a href="https://ca.fsc.org/en-ca/standards/national-risk-assessment-01">https://ca.fsc.org/en-ca/standards/national-risk-assessment-01</a> U.S. Department of State on Canada Human Rights: <a href="http://www.state.gov/g/drl/rls/hrrpt/2005/61719.htm">http://www.state.gov/g/drl/rls/hrrpt/2005/61719.htm</a> Natural Resources Canada Indigenous Forestry Initiative: <a href="http://www.nrcan.gc.ca/forests/federal-programs/13125">http://www.nrcan.gc.ca/forests/federal-programs/13125</a> Evidence  All means of verification reviewed		· ·
https://ca.fsc.org/en-ca/standards/national-risk-assessment-01 U.S. Department of State on Canada Human Rights: http://www.state.gov/g/drl/rls/hrrpt/2005/61719.htm Natural Resources Canada Indigenous Forestry Initiative: http://www.nrcan.gc.ca/forests/federal-programs/13125  Evidence All means of verification reviewed		
http://www.state.gov/g/drl/rls/hrrpt/2005/61719.htm Natural Resources Canada Indigenous Forestry Initiative: http://www.nrcan.gc.ca/forests/federal-programs/13125  Evidence All means of verification reviewed		
Natural Resources Canada Indigenous Forestry Initiative: <a href="http://www.nrcan.gc.ca/forests/federal-programs/13125">http://www.nrcan.gc.ca/forests/federal-programs/13125</a> Evidence  All means of verification reviewed		U.S. Department of State on Canada Human Rights:
http://www.nrcan.gc.ca/forests/federal-programs/13125  Evidence All means of verification reviewed		
Evidence All means of verification reviewed		
Evidence	Evidence	
	Reviewed	



Risk Rating	x Low Risk RA	☐ Specified Risk	☐ Unspecified Risk at
Comment or			
Mitigation			
Measure			

	Indicator
2.1.1	The Biomass Producer has implemented appropriate control systems and procedures for verifying that forests and other areas with high conservation values are identified and mapped.
	About 70% of the BP's feedstock is FM certified and acquired under the BP's PEFC COC system. FSC, CSA, and SFI certificate holders are required to maintain forest management and harvest plans consistent with best management practices, particularly with regard to high conservation values. FM certified forests undergo annual 3 <sup>rd</sup> party audits, which provide assurance that critical habitat and high conservation value forests are identified, mapped, and conserved. The remaining ~30% of feedstock originates from uncertified but managed forests. The supply base is traceable back to the defined supply base (Indicator 1.1.2).  The FSC National Risk Assessment (2018) has been utilized to further assess the risk for high conservation values for each of the three WWF ecoregions identified in the guaranty base.
	in the supply base.  Three WWF ecoregions have been identified in the supply base:
Finding	<ul> <li>1. Eastern Canadian Forest</li> <li>Location: Eastern Quebec, New Brunswick and Cape Breton highlands, Newfoundland</li> <li>This forest has been designated as having "specified risk" in regards to species diversity. All other conservation values have been assigned a "low risk" rating.</li> </ul>
	<ul> <li>New England Acadian Forest</li> <li>Location: Southern Quebec, half of New Brunswick and most of Nova Scotia</li> <li>This forest has been designated as having "specified risk" in regards to species diversity. All other conservation values have been assigned a "low risk" rating.</li> </ul>
	<ul> <li>3. Gulf of St. Lawrence Lowland Forest</li> <li>Location: Prince Edward Island, east central New Brunswick, and western coast of Nova Scotia</li> <li>A "low risk" designation has been assigned for all conservation values to the Gulf of St Lawrence Lowland Forest</li> </ul>

ecoregion.



The FSC National Risk Assessment identifies one species with critical habitat in the Eastern Canadian Forest. The American Marten (*Martes americana atrata*) has been designated as having specified risk for critical habitat. The 2010 recovery plan maps critical habitat areas for the American Martin; however it is not located within the BP's defined supply base. Since there were no other specified risks identified in the FSC National Risk Assessment associated with the Eastern Canadian Forest, so it has been assigned a low risk rating.

In the New England Acadian Forest, there are four species identified in the FSC National Risk Assessment as having specified risk for critical habitat: 1) Rainbow Smelt, 2) Furbish's Lousewort, 3) Blanding's Turtle, and 4) Van Brunt's Jacob's-ladder.

- 1) Rainbow Smelt A recovery strategy was proposed for Lake Utopia's Rainbow Smelt in 2016. Critical habitat for this species has been identified as Lake Utopia in Magaguadavic River watershed in Charlotte County, New Brunswick and included in its habitat are the tributaries: Smelt Brook, Unnamed Brook and Second Brook. The provincial government (NB DELG on private land and NB DNR on Crown land) regulates any harvesting that takes place within a 30m buffer zone along watercourses to ensure that water quality and aquatic habitat are not compromised (Recovery Strategy for Lake Utopia Rainbow Smelt, 2016).
- 2) Furbish's Lousewort The 2006 Furbish's Lousewort recovery strategy includes maintaining individual populations along river segments where the species is known to occur between Grand Falls and Perth Andover. Loss of buffer trees along river banks and around inland sites that reduce shade impact this riparian floral species. The provincial government regulates any harvesting within a 30 m buffer zone along watercourses to ensure that riparian buffers are not altered.
- 3) Blanding's Turtle The 2012 Blanding's Turtle recovery plan shows that the confirmed distribution of the Blanding's Turtle population is located primarily in southwestern Nova Scotia with the majority in the protected Kejimkujik National Park. Part of the recovery plan is to work closely with local forest industries to protect and restore habitat and foster public involvement in the recovery. The provincial government regulates any harvesting within a 30 m buffer zone along watercourses to ensure that riparian buffers are not altered.
- 4) Van Brunt's Jacob's-ladder The 2012 recovery strategy for Van Brunt's Jacob's-ladder specifies that the species occur in Dipper Harbour Creek in Saint John, Trout Lake in Charlotte, and Hoyt in Sunbury, New Brunswick. Drainage from forestry operations are of a moderate level of concern. The recovery strategy includes mitigation of threats through best management practices for landowners and land managers.

The FSC National Risk Assessment has provided several options for control measures. One of these is to provide evidence that harvesting does not take place in the species' critical habitats and/or show that harvesting is consistent with an approved plan. The 4 species, the Rainbow Smelt, Furbish's Lousewort, the



Blanding's Turtle, and Van Brunt's Jacob's-ladder are within the supply base of this evaluation, however, feedstock is not being sourced from within the areas where critical habitat has been established and identified in each of the species recovery strategies. Primary and secondary feedstock has been sourced to the forest of origin and current sources are not of concern to have originated from these areas.

In addition to above, Protected Natural Areas (PNA) in New Brunswick are mapped, and sites of high or unique ecological, historical, cultural or scenic value are preserved.

In Nova Scotia, high conservation value forests on Crown Lands are protected through legislation, and enforced by NSDNR. On private lands, designation and protection require agreement with the landowner.

In Quebec, 92% of forests are considered Crown lands, and as of 2013, 90% of productive public forests are certified under CSA, PEFC, or FSC certifications. 3<sup>rd</sup> party certification requires that areas of high conservation value are identified and mapped. Furthermore, the Minister of Environment may designate a forest as an exceptional forest ecosystem at any time, and all forest development activities would be prohibited in these areas.

Prior to bringing any feedstock onto the site, all suppliers are required to sign a supplier's assertion that states the following:

The supplier confirms that round wood and wood fibre don't originate from unacceptable or controversial sources, which include sources that are:

- 5. Not complying with local, national or international legislation, in particular:
  - a. forestry operations and harvesting, including biodiversity conservation and conversion of forest to other use
  - management of areas with designated high environmental and cultural values, protected and endangered species, including requirements of CITES.
  - health and labour issues relating to forest workers, indigenous peoples' property, tenure and use rights, third parties' property, tenure and use rights,
  - d. payment of taxes and royalties related to timber harvesting are complete and up to date,
- 6. Not complying with legislation of the country of harvest relating to trade and customs, in so far as the forest sector is concerned,
- 7. Utilizing genetically modified forest based organisms,
- 8. Converting forest to other vegetation type, including conversion of primary forests to forest plantations. Where forest plantations are defined as forests of exotic species that are under intensive stand management, are fast growing and subject to short rotations (I.e. Poplar, acacia, or eucalyptus plantations)

The round wood and biomass originates from:

- 3. Nova Scotia, New Brunswick, or Quebec;
- 4. Areas not covered by the UN Security Council ban on Timber; and
- 5. Areas governed by a legislated stumpage system that requires documentation to confirm the supply of the fibre to the forest management unit (i.e.: license or tenure).



Transportation documents, such as Transportation Certificates (which contain PIDs), scale tickets, trip tickets, and bills of lading are effective means of tracing the round wood back to the forest source and secondary fibre back to the sawmill.

The BP's annual internal audit ensures that transportation documents are properly documented and kept; they are compared to scale reports for the same period to ensure that all tickets have been received and all fibre is accounted for.

On an annual basis, the BP completes supplier evaluations on 25% of secondary suppliers. The evaluation, or supplier audit, consists of a site visit to review and collect documentation on forest sources (location of the stump) to ensure that feedstock originates from within the supply base, and to identify how certified feedstock is traced back to the forest management unit. This control measure provides assurance to the BP that feedstock originates from within the defined supply base of the SBE.

The BP completes a Purchase Wood Risk Assessment for all round wood purchases. Round wood that originates from Crown forests undergo a compliance assessment; whereas round wood that originates from private woodlots with no SFM certification undergo field inspections. In addition to the marketing boards' annual SFI Implementation BMP surveys and reports, the BP conducts site visits and inspections which includes the completion of a Purchase Wood Inspection Form. The source forests are compared to critical habitat areas to ensure that harvests aren't located in these areas.

Risk assessments have been completed for each of the 3 source provinces.

Transportation Certificates, scale tickets, bills of lading

Purchase Wood Risk Assessment

Purchase Wood Inspection Form

Supplier assertions

BP's annual supplier evaluations

BP's annual internal audit

Maps of primary & secondary feedstock sources

List of forest tracts for private woodlots

NB SIC BMP survey and reports (private woodlots)

Critical habitat maps

Means of

Verification

FSC National Risk Assessment:

https://ca.fsc.org/en-ca/standards/national-risk-assessment-01

New Brunswick Protected Natural Areas Act

https://www.gnb.ca/legis/bill/editform-e.asp?ID=158&legi=54&num=5

Nova Scotia Endangered Species Act

http://nslegislature.ca/legc/statutes/endspec.htm

Quebec Sustainable Forest Development Act

http://legisquebec.gouv.qc.ca/en/ShowDoc/cs/A-18.1

American Marten (Martes Americana atrata) Recovery Strategy

https://www.registrelep-

sararegistry.gc.ca/document/default\_e.cfm?documentID=927

Rainbow Smelt Recovery Strategy:

https://www.registrelep-

sararegistry.gc.ca/document/default e.cfm?documentID=2942

Furbish's Lousewort Recovery Strategy:

	http://www.regist		
	sararegistry.gc.ca/document/default_e.cfm?documentID=926		
	Blanding's Turtle	Recovery Strategy:	
	https://www.regis	strelep-	
	sararegis	try.gc.ca/document/default_e.cfr	m?documentID=2900
	Van Brunt's Jaco	b's-ladder Recovery Strategy:	
	http://www.regist	relep-	
	sararegis	try.gc.ca/document/default_e.cfr	m?documentID=2408
Evidence	All means of veri	fication reviewed	
Reviewed			
Diele Detiese	L. Bist	E. O	El Harris (Call Birl of BA
Risk Rating	x Low Risk	☐ Specified Risk	☐ Unspecified Risk at RA
Comment or			
Mitigation			
Measure			

	Indicator
2.1.2	The Biomass Producer has implemented appropriate control systems and procedures to identify and address potential threats to forests and other areas with high conservation values from forest management activities.
Finding	About 70% of the BP's feedstock is certified, and originates from forest management certified forest. FM certified forests maintain forest management and harvest plans consistent with best management practices, particularly with regard to high conservation values. Certificate holders undergo annual 3 <sup>rd</sup> party audits, which provides assurance that critical habitat and high conservation value forests are identified, mapped, and conserved.  The remaining ~30% of feedstock originates from uncertified forests. The supply base is traced back to the defined supply base (Indicator 1.1.2).  The FSC Centralized National Risk Assessment (2018) has been utilized to further assess the risk for high conservation values for each of the three WWF ecoregions located in the defined supply base. The assessment has identified three ecoregions (New England Acadian Forest, Eastern Canadian Forest, and Gulf of St. Lawrence Lowland Forest) from the defined supply base and has assessed the risk based on 6 high conservation value (HCV) criteria:  1) HCV 1 - Species Diversity (Critical Habitat & Special Significance)  2) HCV 2 - Landscape-level ecosystems and mosaics (i.e. Intact forest landscapes)  3) HCV 3 - Ecosystems and habitats (Rare, threatened, or endangered habitats or refugia)  4) HCV 4 - Critical ecosystem services (Protection of water catchments and control of erosion of vulnerable soils and slopes)  5) HCV 5 - Community needs (Sites and resources fundamental to basic necessities of local communities or indigenous peoples)  6) HCV 6 - Cultural values (areas of global or national cultural,
	basic necessities of local communities or indigenous peoples)



For the three ecoregions in the defined supply base, all categories were considered low risk except for HCV 1, which had specified risk for two of the forests within the defined supply base. The specified risk for HCV 1 was discussed in Indicator 2.1.1 Finding and was assigned a low risk rating.

Most areas that are considered High Conservation Value Forest are protected through federal and provincial government legislation (i.e. Protected Natural Areas Act, Parks Act, Crown Lands Act, etc.), and most have become National or Provincial Parks or wildlife reserves.

In NB, protected Natural Areas (PNA) are mapped and sites of high or unique ecological, historical, cultural or scenic value are preserved. All Crown land licensees must identify conservation areas in their forest management plans. In 2015, the New Brunswick Provincial government developed a map that shows Crown land conservation areas in New Brunswick. The marketing boards assist private woodlot owners in identifying any areas of high conservation value in their forest management plans.

Beyond the FSC Centralized National Risk Assessment's low risk designations, high conservation value habitats in Nova Scotia are protected under the NS Endangered Species Act. On private lands, designation and protection require agreement with the landowner. However, active stewardship programs and recovery strategies have been effective at conserving critical habitat.

In Quebec, high conservation value forests are protected through the Sustainable Forest Development Act. The Minister may designate a forest as an exceptional forest ecosystem, where all forest development activities are prohibited in these forests. Forest management plans for harvest site identify areas of high conservation value.

The Canadian Wildlife Service, Environment Canada, Fisheries and Oceans Canada, and Parks Canada Agency all work together to enforce federal species legislation. Provincial governments are effective at enforcing legislation that protects species and protected/conservation areas from encroachment through mechanisms such as permitting, monitoring and issuance of fines/charges for infringement (FSC National Risk Assessment, 2018).

Findings have been identified for the defined supply base in Indicator 1.1.2.

On an annual basis, the BP completes supplier evaluations on 25% of secondary suppliers. The evaluation, or supplier audit, consists of a site visit to review and collect documentation on forest sources (location of the stump) to ensure that feedstock originates from within the supply base, and to identify how certified feedstock is traced back to the forest management unit. This control measure provides assurance to the BP that feedstock originates from within the defined supply base of the SBE.

The BP completes a Purchase Wood Risk Assessment for all round wood purchases. Round wood that originates from Crown forests undergo a compliance assessment; whereas round wood that originates from private woodlots with no SFM certification undergo field inspections. In addition to the marketing boards'

	annual SFI Implementation BMP surveys and reports, the BP conducts site visits and inspections which includes the completion of a Purchase Wood Inspection Form.		
	Risk assessments have been completed for each of the 3 provinces.		
Means of Verification	Supplier assertions BP's Purchase Wood Risk Assessment BP's Purchase Wood Inspection Form Maps of primary & secondary feedstock sources List of forest tracts for private woodlots NB SIC BMP survey and reports (private woodlots) Maps of species' critical habitats (from recovery strategies) PEFC wood procurement processes Crown licence forest audits List of Applicable laws and regulations FSC National Risk Assessment: https://ca.fsc.org/en-ca/standards/national-risk-assessment-01		
Evidence Reviewed	All means of verification reviewed		
Risk Rating	x Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA		
Comment or Mitigation Measure			

	Indicator
2.1.3	The Biomass Producer has implemented appropriate control systems and procedures for verifying that feedstock is not sourced from forests converted to production plantation forest or non-forest lands after January 2008.
	Canadian forests are healthy, productive and thriving (Natural Resources Canada, 2018). The Canadian government monitors and regularly publishes reports on deforestation. Canadian forest lands represent about 9% of the world's forest cover. 94% of Canada's forests are on public land and according to laws regulations and policies across the country all public land must be reforested.  The FSC National Risk Assessment has assessed forest conversion for different
Finding	forested zones throughout Canada and has designated a low risk rating for the areas within the defined supply base.
ŭ	There are no production plantations in the supply base. All feedstock suppliers have signed an assertion that declares all feedstock originates from NS, NB and PQ, and wood fibre and round wood are not sourced from production plantations or conversion forests. Roundwood is not sourced from non-forested lands.
	The BP's source areas have been defined in Indicator 1.1.2.
	The BP's annual internal audit ensures that transportation documents are properly documented and stored. They are compared to scale reports for the same period to ensure that all tickets have been received and all fibre is accounted for.



	On an annual basis, the BP completes supplier evaluations on 25% of secondary suppliers. The evaluation, or supplier audit, consists of a site visit to review and collect documentation on forest sources (location of the stump) to ensure that feedstock originates from within the supply base, and to identify how certified feedstock is traced back to the forest management unit. This control measure provides assurance to the BP that feedstock originates from within the defined supply base of the SBE.
	The BP completes a Purchase Wood Risk Assessment for all round wood purchases. Round wood that originates from Crown forests undergo a compliance assessment; whereas round wood that originates from private woodlots with no SFM certification undergo field inspections. In addition to the marketing boards' annual SFI Implementation BMP surveys and reports, the BP conducts site visits and inspections which includes the completion of a Purchase Wood Inspection Form.
	Risk assessments have been completed for each of the 3 provinces.
Means of Verification	Supplier assertions BP's Purchase Wood Risk Assessment BP's Purchase Wood Inspection Form BP's annual supplier evaluations BP's annual internal audit List of forest tracts for private woodlots NB SIC BMP survey and reports (private woodlots) PEFC wood procurement processes Crown licence forest audits NB, NS and QC risk assessments Canada's National Deforestation Monitoring System: <a href="http://cfs.nrcan.gc.ca/publications?id=36042">http://cfs.nrcan.gc.ca/publications?id=36042</a> Deforestation in Canada: <a href="https://www.nrcan.gc.ca/forests/fire-insects-disturbances/deforestation/13419">https://www.nrcan.gc.ca/forests/fire-insects-disturbances/deforestation/13419</a> FSC National Risk Assessment: <a href="https://ca.fsc.org/en-ca/standards/national-risk-assessment-01">https://ca.fsc.org/en-ca/standards/national-risk-assessment-01</a>
Evidence Reviewed	All means of verification reviewed
Risk Rating	x Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA
Comment or Mitigation Measure	

	Indicator
2.2.1	The Biomass Producer has implemented appropriate control systems and procedures to verify that feedstock is sourced from forests where there is appropriate assessment of impacts, and planning, implementation and monitoring to minimise them.
Finding	Forest management implemented in Canada is based on nationally recognized standards for the long term protection and development of the forest. Canada's forest laws are some of the strictest in the world that are based on sustainable forest



management principles, scientific research and analysis, and developed with public consultation.

All forest companies in New Brunswick must formally report on their operations. Crown forest harvest plans are developed and include detailed maps of harvest blocks, roadways, watercourse crossings, and high conservation areas. For private woodlots, forest management planning is required to obtain silviculture funding. Provincial forest acts include comprehensive regulations for ensuring that there is an appropriate assessment of impacts, and planning, implementation and monitoring to minimize them. The provincial forest authorities have inspectors to ensure that forest operators respect harvesting regulations. Forest operators on Crown land are required to implement environmental impact mitigation measures, and those that don't can receive penalties, fines, suspension of licence, timber seizure, or even imprisonment (FSC National Risk Assessment, 2018).

Forest management certified forests are required to maintain an operating and harvest plan and complete annual audits by their certification bodies. Private woodlots must follow best management practices and have operating/harvesting plans for consideration of silviculture funding. A contract between the marketing board and the woodlot owner/contractor specifies that all silviculture work must be completed in accordance with local standard and practices of the Department of Natural Resources. The New Brunswick Private Woodlot Silviculture manual lists the rules and regulations governing activities on private woodlots.

Government agencies are responsible and enforcing applicable acts and regulations. This includes carrying out audits, detailed investigations, issuing warnings, fines, penalties, and prosecution for serious infractions through the court system. (https://www.nrcan.gc.ca/forests/canada/laws/17497)

On an annual basis, the BP completes supplier evaluations on 25% of secondary suppliers. The evaluation, or supplier audit, consists of a site visit to review and collect documentation on forest sources (location of the stump) to ensure that feedstock originates from within the supply base, and to identify how certified feedstock is traced back to the forest management unit. This control measure provides assurance to the BP that feedstock originates from within the defined supply base of the SBE.

The BP completes a Purchase Wood Risk Assessment for all round wood purchases. Round wood that originates from Crown forests undergo a compliance assessment; whereas round wood that originates from private woodlots with no SFM certification undergo field inspections. In addition to the marketing boards' annual SFI Implementation BMP surveys and reports, the BP conducts site visits and inspections which includes the completion of a Purchase Wood Inspection Form.

Risk assessments have been completed for each of the 3 source provinces.

Means of Verification

Crown licensee audits

3<sup>rd</sup> party Forest Management audits
Forest Management certificates

Supplier assertion

BP's annual supplier evaluations

BP's Purchase Wood Risk Assessment BP's Purchase Wood Inspection Form

		y and reports (private woodlots)	
		Silviculture Program 2018-2019 silviculture funding agreement	
	List of applicable lav	•	
	FSC National Risk		
	https://ca.fsc.org/er	<u>n-ca/standards/national-risk-asses</u>	sment-01
Evidence	All means of verifica	ition reviewed	
Reviewed			
Risk Rating	x Low Risk	☐ Specified Risk	☐ Unspecified Risk at RA
Comment or			
Mitigation			
Measure			

	Indicator
2.2.2	The Biomass Producer has implemented appropriate control systems and procedures for verifying that feedstock is sourced from forests where management maintains or improves soil quality (CPET S5b).
	Harvesting regulations and guidelines on environmental impacts to soils are elaborated in each of the provinces' forest acts. Each province's Department of Natural Resources have their own established offices in forested regions with inspectors that have authority to enforce regulations. If a Crown/Public land tenure holder fails to implement environmental impact mitigation measures, they could end up with fines, suspension of harvesting rights, and seizure of timber or imprisonment (FSC Risk Assessment, 2018). Best management practices in place for each province provide guidance for the management of soils.
Finding	New Brunswick The 2009 Biodiversity Strategy is a comprehensive plan which aims to conserve genetic, species and ecosystem diversity and the sustainable use and development of biological resources. New Brunswick trees are harvested according to specific guidelines that consider habitat, conservation, tree type and growth, and 100% of the areas harvested would grow back naturally but about ½ are replanted to ensure there is a healthy productive forest moving forward  ( <a href="https://www2.gnb.ca/content/gnb/en/departments/erd/natural_resources/content/ForestsCrownLands.html">https://www2.gnb.ca/content/gnb/en/departments/erd/natural_resources/content/ForestsCrownLands.html</a> )
	Crown land conservation areas are mapped by provincial Government: http://www.snb.ca/GeoNB1/e/map-carte/DNR_cf_E.asp
	The Crown forest management system in New Brunswick is established under the Crown Lands and Forest Act and is monitored by NBDNR and citizens of NB. The government sets objectives and standards for management of the lands and Licensees are responsible for achieving those objectives. Under the Act, the Minister of Natural Resources evaluates Crown forest management performance every five years. The evaluation results are used to determine whether the Forest Management Agreement is extended or terminated. Most Crown forests in the province are FM certified and undergo annual 3 <sup>rd</sup> party audits.



Best management practice (BMP) manuals are supplied to private woodlot owners through regional marketing boards. Marketing boards' complete annual audits on a random selection of private woodlots and these data are summarized in an annual audit report. Adherence to the Clean Water Act and watercourse buffer zone guidelines is also required in both private and Crown forests in NB.

Private woodlots can acquire funding for the preparation of a woodlot management recommendation document or management plan, which includes forest stand description, access roads, treatment recommendations, and long term resource consideration (wetlands, forest health, protection from fires and insects, biodiversity, wildlife habitat, etc.). Private woodlots must follow best management practices and have operating/harvesting plans for consideration of silviculture funding. An agreement between the marketing board and the woodlot owner/contractor specifies that all silviculture work must be completed in accordance with local standard and practices of the Department of Natural Resources. The New Brunswick Private Woodlot Silviculture manual lists the rules and regulations governing activities on private woodlots.

#### **Nova Scotia**

Nova Scotia's Code of Forest Practice states that forest management will be designed and conducted in a manner that maintains and enhances the quality of air, water, and soil. The Wildlife Habitat and Protection Regulations, made under section 40 of the Forests act have several requirements including: 1) Legacy trees and habitat structure, which includes specific regulations in regards to number of trees, proportion of species, average height and diameter, and clump size, 2) Special Management Zones for watercourses (> 50 cm wide), and 3) Protection of watercourses (< 50 cm wide). BMPs are provided to private woodlot owners through regional organizations who assist private woodlot owners' forest management planning using best management practices.

#### Quebec

The Sustainable Forest Development Act is used as a guideline when constructing forest management plans in Quebec. The Minister of Natural Resources (MRN) is responsible for all forest management plans on Crown lands. Confirmation of management practices is part of the supplier risk assessment and monitoring system. Annual audits ensure that appropriate control measures are in place for maintaining or improving soil quality.

The supply base is defined and can be traced back to the forest management unit (Indicator 1.1.2).

On an annual basis, the BP completes supplier evaluations on 25% of secondary suppliers. The evaluation, or supplier audit, consists of a site visit to review and collect documentation on forest sources (location of the stump) to ensure that feedstock originates from within the supply base, and to identify how certified feedstock is traced back to the forest management unit. This control measure provides assurance to the BP that feedstock originates from within the defined supply base of the SBE.

The BP completes a Purchase Wood Risk Assessment for all round wood purchases. Round wood that originates from Crown forests undergo a compliance assessment; whereas round wood that originates from private woodlots with no SFM

	certification undergo field inspections. In addition to the marketing boards' annual	
	SFI Implementation BMP surveys and reports, the BP conducts site visits and	
	inspections which includes the completion of a Purchase Wood Inspection Form.	
	Risk assessments have been completed for each of the 3 provinces.	
	PEFC wood procurement processes	
	NB SIC BMP survey and reports (private woodlots)	
	Supplier assertion	
	BP's annual supplier evaluations	
	BP's Purchase Wood Risk Assessment	
Means of	BP's Purchase Wood Inspection Form	
Verification	Company risk assessments	
Vermoation	NB Private Woodlot Silviculture Program 2018-2019	
	NB private woodlot silviculture funding agreement	
	Supplier contracts	
	List of applicable laws and regulations	
	FSC National Risk Assessment:	
	https://ca.fsc.org/en-ca/standards/national-risk-assessment-01	
Evidence	All means of verification reviewed	
Reviewed		
Risk Rating	x Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA	
Comment or		
Mitigation		
Measure		

	Indicator
2.2.3	The Biomass Producer has implemented appropriate control systems and procedures to ensure that key ecosystems and habitats are conserved or set aside in their natural state (CPET S8b).
Finding	Soil and water resources are quintessential to the health, vitality and conservation of Canadian ecosystems and habitats. Encroachment, habitat loss and fragmentation are growing issues associated with increased urbanization and agriculture. Canada's national priority is now focussed on their commitment to freshwater stewardship, conservation and science-based decision-making (WWF, 2018). 7% of Canadian forests (24 million hectares) are designated as protected areas. The National Parks Act was developed to help create and manage these protected areas. Most areas considered high conservation value forest are protected through federal and provincial government legislation (i.e. Protected Natural Areas Act, Parks Act, Crown Lands Act, etc.) and have become national or provincial parks or wildlife reserves.  Each provincial government is responsible for the management of their forest resource. They have the power to develop and enforce legislation, regulations, standards and programs to ensure the conservation and management of the province's forest.
	New Brunswick



Crown forest land licensees in New Brunswick have implemented best management practices (BMPs) for soil, water, ecological, geological, historical, cultural, wildlife, biodiversity and special sites for the conservation of key ecosystems and habitats.

Regional marketing boards that support the private woodlots throughout the province provide assistance and advice for the effective management of private forests throughout the province. Each of the 7 regional marketing boards' complete annual audits on a selection of private woodlot owners; these data are summarized in an annual report.

Private woodlots must follow best management practices and have harvesting plans in place for consideration of silviculture funding. An agreement between the marketing board and the woodlot owner or contractor specifies that all silviculture work must be completed in accordance with local standards and practices of the Department of Natural Resources. The New Brunswick Private Woodlot Silviculture manual lists the rules and regulations governing activities on private woodlots.

Adherence to the Clean Water Act and Watercourse Buffer Zone guidelines are also required in both private and Crown forests in NB.

#### **Nova Scotia**

The Nova Scotia's Code of Forest Practice states that forest management will be designed and conducted in a manner that maintains and enhances the quality of air, water, and soil. The watercourse and wildlife habitat protection regulations require that on Crown and private lands that buffer strips must be left along watercourses, legacy trees must be left in clumps, and coarse woody debris must be left in all types of forest harvesting and management activities. BMPs are provided to private woodlot owners through regional organizations who assist private woodlot owners in their forests' management. Private woodlot owners are encouraged to adopt BMPs and must conform to the NS Forest Act.

#### Quebec

In QC, the Sustainable Forest Development Act is used as a guideline when constructing forest management plans. The Minister of Natural Resources (MRN) is responsible for all forest management plans on Crown lands.

Prior to the delivering feedstock to the BP's wood pellet plant, suppliers must sign an assertion declaring that all feedstock originates from within the BP's defined supply base.

On an annual basis, the BP completes supplier evaluations on 25% of secondary suppliers. The evaluation, or supplier audit, consists of a site visit to review and collect documentation on forest sources (location of the stump) to ensure that feedstock originates from within the supply base, and to identify how certified feedstock is traced back to the forest management unit. This control measure provides assurance to the BP that feedstock originates from within the defined supply base of the SBE.

The BP completes a Purchase Wood Risk Assessment for all round wood purchases. Round wood that originates from Crown forests undergo a compliance assessment; whereas round wood that originates from private woodlots with no SFM certification undergo field inspections. In addition to the marketing boards' annual SFI

	Implementation BMP surveys and reports, the BP conducts site visits and inspections which includes the completion of a Purchase Wood Inspection Form.
	Risk assessments have been completed for each of the 3 provinces.
	List of applicable laws and regulations
	PEFC wood procurement processes
	Company risk assessments
	Supplier assertion
Means of	BP's annual supplier evaluations
Verification	BP's Purchases Wood Risk Assessment
	BP's Purchase wood Inspection Form
	NB SIC BMP survey and reports (private woodlots)
	NB Private Woodlot Silviculture program 2018-2019
	NB private woodlot silviculture funding agreement
Evidence	All means of verification reviewed
Reviewed	
Risk Rating	x Low Risk □ Specified Risk □ Unspecified Risk at RA
Trisk Training	x Low Risk
Comment or	
Mitigation	
Measure	

	Indicator
2.2.4	The Biomass Producer has implemented appropriate control systems and procedures to ensure that biodiversity is protected (CPET S5b).
Finding	Federal and provincial governments both have a responsibility in managing biodiversity, strategies are been implemented in each province.
	About 70% of the BP's feedstock is certified, and originates from forest management certified land. FSC, CSA, and SFI certificate holders are required to maintain forest management and harvest plans consistent with best management practices, particularly with regard to high conservation values and biodiversity. Certificate holders undergo 3 <sup>rd</sup> party audits, providing assurance that critical habitat and high conservation value forests are identified, mapped, and conserved.
	The remaining ~30% of feedstock originates from uncertified forests. The supply base has been defined and is traceable back to the defined supply base (Indicator 1.1.2).
	The FSC National Risk Assessment (2018) has been utilized to further assess the risk for high conservation values for each of the three WWF ecoregions identified in the supply base. Three WWF ecoregions have been identified in the supply base:



### 1. Eastern Canadian Forest

- Location: Eastern Quebec, New Brunswick and Cape Breton highlands, Newfoundland
- This forest has been designated as having "specified risk" in regards to species diversity. All other conservation values have been assigned a "low risk" rating.



#### 2. New England Acadian Forest

- Location: Southern Quebec, half of New Brunswick and most of Nova Scotia
- This forest has been designated as having "specified risk" in regards to species diversity. All other conservation values have been assigned a "low risk" rating.



### 3. Gulf of St. Lawrence Lowland Forest

- Location: Prince Edward Island, east central New Brunswick, and western coast of Nova Scotia
- A "low risk" designation has been assigned for all conservation values to the Gulf of St Lawrence Lowland Forest ecoregion.



In the Eastern Canadian Forest, one species has been identified with critical habitat in the FSC National Risk Assessment - the American Marten.

American Marten – *Martes americana atrata* has been designated as specified risk for critical habitat. This particular species only inhabits the province of Newfoundland, where a recovery plan has been in place since 2010.

The habitat for the endangered American Marten is outside of the BP's defined supply base. Since there were no other specified risks identified in the FSC National Risk Assessment associated with the Eastern Canadian Forest, it has been deemed low risk for the BP's supply base.

In the New England Acadian Forest, four species identified in the FSC National Risk Assessment have specified risk - 1) Rainbow Smelt, 2) Furbish's Lousewort, 3) Blanding's Turtle, and 4) Van Brunt's Jacob's-ladder.

 Rainbow Smelt – A recovery strategy was proposed for Lake Utopia's Rainbow Smelt in 2016. Critical habitat for this species has been identified as Lake Utopia in Magaguadavic River watershed in Charlotte County, New Brunswick and included in its habitat are the tributaries: Smelt Brook, Unnamed Brook and Second Brook. The provincial government (NB DELG on private land and NB DNR on Crown land) regulates any harvesting that takes place within a 30m buffer zone along watercourses to ensure that water quality and aquatic habitat are not compromised (Recovery Strategy for Lake Utopia Rainbow Smelt, 2016).



- 2. Furbish's Lousewort The 2006 Furbish's Lousewort recovery strategy includes maintaining individual populations along river segments where the species is known to occur between Grand Falls and Perth Andover. Loss of buffer trees along river banks and around inland sites that reduce shade impact this riparian floral species. The provincial government regulates any harvesting within a 30 m buffer zone along watercourses to ensure that riparian buffers are not altered.
- 3. Blanding's Turtle The 2012 Blanding's Turtle recovery plan shows that the confirmed distribution of the Blanding's Turtle population is located primarily in southwestern Nova Scotia with the majority in the protected Kejimkujik National Park. Part of the recovery plan is to work closely with local forest industries to protect and restore habitat and foster public involvement in the recovery. The provincial government regulates any harvesting within a 30 m buffer zone along watercourses to ensure that riparian buffers are not altered.
- 4. Van Brunt's Jacob's-ladder The 2012 recovery strategy for Van Brunt's Jacob's-ladder specifies that the species occur in Dipper Harbour Creek in Saint John, Trout Lake in Charlotte, and Hoyt in Sunbury, New Brunswick. Drainage from forestry operations are of a moderate level of concern. The recovery strategy includes mitigation of threats through best management practices for landowners and land managers.

Each of the five species identified in the defined supply base have their own respective recovery strategies. Recovery strategies identify and map specific critical habitat regions for the species.

The FSC National Risk Assessment has provided several options for control measures. One of these is to provide evidence that harvesting does not take place in the species' critical habitats and/or that harvesting is consistent with an approved plan. The 4 species, the Rainbow Smelt, Furbish's Lousewort, the Blanding's Turtle, and Van Brunt's Jacob's-ladder are within the supply base of this evaluation, however, feedstock is not being sourced from within the areas where critical habitat has been established and identified in each of the species recovery strategies. Primary and secondary feedstock are sourced to the forest of origin and current sources are not of concern to have originated from these areas. Forest source maps and critical habitat maps have been compared to ensure that feedstock is not sourced from within these regions.

#### **New Brunswick**

Protected Natural Areas (PNA) in New Brunswick are mapped, and sites of high or unique ecological, historical, cultural or scenic value are preserved. Regional forests have implemented best management practices (BMPs) that ensure biodiversity is protected. BMPs are supplied to private woodlot owners through the regional marketing boards. Furthermore, the marketing boards' complete annual audits on a selection of their primary wood private woodlot suppliers and these data are summarized in an annual report.

Computer based modelling software is used to create maps of forest inventory data and simulate the growth of different forest communities. These maps show eco regions, species present and include areas which are considered more vulnerable,





including sites of endangered species, waterways, deer wintering areas and oldspruce forests. These maps are used in management plans to ensure biodiversity of Crown forest in New Brunswick is maintained.

Private woodlots must follow best management practices and have operating/harvesting plans for consideration of silviculture funding. An agreement between the marketing board and the woodlot owner/contractor specifies that all silviculture work must be completed in accordance with local standard and practices of the Department of Natural Resources which includes best management practices. The New Brunswick Private Woodlot Silviculture manual lists the rules and regulations governing activities on private woodlots. Once silviculture work is completed and approved by either the marketing board or the Department of Natural Resources, the contractor is paid the pre-approved rate per hectare.

#### **Nova Scotia**

The Nova Scotia Code of Forest Practice states that forest management will be designed and conducted in a manner that maintains and enhances the quality of air, water, and soil. The Watercourse and Wildlife Habitat Protection Regulations require that on Crown and Private lands that buffer strips must be left along watercourses, legacy trees must be left in clumps, and coarse woody debris must be left in all types of forest harvesting and management activities. In Nova Scotia, BMP's are provided to private woodlot owners through regional organizations who assist private woodlot owners in their forests' management.

#### Quebec

The Sustainable Forest Development Act is used as a guideline when constructing forest management plans, which for Crown lands are done primarily by the Minister of Natural Resources (MRN). The majority of secondary feedstock originating from Quebec is sourced from FSC forest management certified lands that are audited via third party certification bodies.

Prior to delivering feedstock to the BP's wood pellet plant, suppliers must sign an assertion declaring that all feedstock originates from within the BP's defined supply base.

On an annual basis, the BP completes supplier evaluations on 25% of secondary suppliers. The evaluation, or supplier audit, consists of a site visit to review and collect documentation on forest sources (location of the stump) to ensure that feedstock originates from within the supply base, and to identify how certified feedstock is traced back to the forest management unit. This control measure provides assurance to the BP that feedstock originates from within the defined supply base of the SBE.

The BP completes a Purchase Wood Risk Assessment for all round wood purchases. Round wood that originates from Crown forests undergo a compliance assessment; whereas round wood that originates from private woodlots with no SFM certification undergo field inspections. In addition to the marketing boards' annual SFI Implementation BMP surveys and reports, the BP conducts site visits and inspections which includes the completion of a Purchase Wood Inspection Form.

Risk assessments have been completed for each of the 3 source provinces.

	List of applicable laws and regulations	
	Company risk assessments	
	Supplier assertion	
	BP's annual supplier evaluations	
	BP's Purchase Wood Risk Assessment	
Means of	BP's Purchase Wood Inspection Form	
Verification	NB SIC BMP survey and reports (private woodlots)	
verilleation	Map of forest sources	
	Critical habitat maps	
	NB Private Woodlot Silviculture Program 2018-2019	
	NB private woodlot silviculture funding agreement	
	FSC National Risk Assessment:	
	https://ca.fsc.org/en-ca/standards/national-risk-assessment-01	
Evidence	All means of verification reviewed	
Reviewed		
Risk Rating	x Low Risk	
Comment or		
Mitigation		
Measure		

	Indicator
2.2.5	The Biomass Producer has implemented appropriate control systems and procedures for verifying that the process of residue removal minimises harm to ecosystems.
	About 70% of the BP's feedstock is from forest management certified forests. FSC, CSA, and SFI certificate holders are required to maintain forest management and harvest plans consistent with best management practices. This includes protecting ecosystems, soil and water quality.
	The remaining ~30% of feedstock is from uncertified forests. The supply base has been defined and is traceable back to the defined supply base (Indicator 1.1.2). Supplier contracts and assertions provide assurance that forest activities are in compliance with local and national legislations and regulations.
Finding	New Brunswick The 2009 Biodiversity Strategy is a comprehensive plan which aims to conserve genetic, species and ecosystem diversity and the sustainable use and development of biological resources. New Brunswick trees are harvested according to specific guidelines that consider habitat, conservation, tree type and growth, and 100% of the areas harvested would grow back naturally; however, about ¼ of them are replanted to ensure there is a healthy productive forest moving forward ( <a href="https://www2.gnb.ca/content/gnb/en/departments/erd/natural_resources/content/ForestsCrownLands.html">https://www2.gnb.ca/content/gnb/en/departments/erd/natural_resources/content/ForestsCrownLands.html</a> )
	The Crown forest management system in New Brunswick is established under the Crown Lands and Forest Act and is monitored by NBDNR and citizens of NB. The government sets objectives and standards for management of the lands and Licensees are responsible for achieving those objectives. Under the Act, the Minister of Natural Resources evaluates Crown forest management performance every five



years. The evaluation results are used to determine whether the Forest Management Agreement is extended or terminated. Most Crown forests in the province are third party forest management certified (SFI 2015-2019 SFM standard) and undergo annual 3<sup>rd</sup> party audits.

The Department of Natural Resources recognizes that biomass (tree tops, branches, foliage, non-merchantable woody stems, etc.) is an important source of nutrients for forest development and growth. The NB biomass policy identifies procedures to assess impacts of harvesting on sustainability and forest growth and provides guidelines in selecting eligible areas for biomass harvesting. Biomass removal is limited to forest stands within harvest blocks of approved forest management plans and must minimize soil disturbance (compaction, rutting & erosion) and not remove forest floor (Litter layer, soil surface, stumps and root systems).

Computer-based modelling software is used to create maps of forest inventory data. These maps show ecoregions, species present and include areas which are considered more vulnerable, including sites of endangered species, waterways, deer wintering areas and old-spruce forests. These maps are used in the management plans to ensure environmental impact mitigation and ecosystem protection can be considered in forest management planning.

Best management practice (BMP) manuals are supplied to private woodlot owners through regional marketing boards. Marketing boards complete annual audits on a random selection of private woodlots, and these data are summarized in an annual audit report. Adherence to the Clean Water Act and watercourse buffer zone guidelines is also required in both private and Crown forests in NB.

Private woodlots can acquire funding for the preparation of a woodlot management recommendation document or management plan, which includes forest stand description, access roads, treatment recommendations, and long term resource consideration (wetlands, forest health, protection from fires and insects, biodiversity and wildlife habitat, etc.). Private woodlots must follow best management practices and have operating/harvesting plans for consideration of silviculture funding. An agreement between the marketing board and the woodlot owner/contractor specifies that all silviculture work must be completed in accordance with local standard and practices of the Department of Natural Resources. The New Brunswick Private Woodlot Silviculture manual lists the rules and regulations governing activities on private woodlots.

#### **Nova Scotia**

Nova Scotia's Code of Forest Practice states that forest management will be designed and conducted in a manner that maintains and enhances the quality of air, water, and soil. In Nova Scotia, BMP's are provided to private woodlot owners through regional organizations who assist private woodlot owners in their forests' management.

The Wildlife Habitat and Protection Regulations, made under section 40 of the Forests act have several requirements including: 1) Legacy trees and habitat structure, which includes specific regulations in regards to number of trees, proportion of species, average height and diameter, and clump size, 2) Special Management Zones for watercourses (> 50 cm wide), and 3) Protection of watercourse (< 50 cm wide). BMPs are provided to private woodlot owners through





	regional organizations who assist private woodlot owners in their forests' management.
	BMPs are provided to private woodlot owners through regional organizations who assist private woodlot owners in their forests' management.
	<b>Quebec</b> Sustainable Forest Development Act is used as a guideline when constructing forest management plans, which for the Crown lands are done primarily by the Minister of Natural Resources (MRN).
	On an annual basis, the BP completes supplier evaluations on 25% of secondary suppliers. The evaluation, or supplier audit, consists of a site visit to review and collect documentation on forest sources (location of the stump) to ensure that feedstock originates from within the supply base, and to identify how certified feedstock is traced back to the forest management unit. This control measure provides assurance to the BP that feedstock originates from within the defined supply base of the SBE.
	The BP completes a Purchase Wood Risk Assessment for all round wood purchases. Round wood that originates from Crown forests undergo a compliance assessment; whereas round wood that originates from private woodlots with no SFM certification undergo field inspections. In addition to the marketing boards annual SFI Implementation BMP surveys and reports, the BP conducts site visits and inspections which includes the completion of a Purchase Wood Inspection Form.
Means of Verification	Wood procurement processes List of applicable laws and regulations Company risk assessments BP's Purchase Wood Risk Assessment BP's Purchase Wood Inspection Form PEFC audit Provincial BMP manuals Supplier contracts NB SIC BMP survey and reports (private woodlots) Crown and third party certification audit NB Forest Biomass Policy: <a href="https://www2.gnb.ca/content/gnb/en/services/services_renderer.201174.Crown_Lands-Harvest_Forest_Biomasshtml">https://www2.gnb.ca/content/gnb/en/services/services_renderer.201174.Crown_Lands-Harvest_Forest_Biomasshtml</a> FSC National Risk Assessment: <a href="https://ca.fsc.org/en-ca/standards/national-risk-assessment-01">https://ca.fsc.org/en-ca/standards/national-risk-assessment-01</a>
Evidence Reviewed	All means of verification reviewed
Risk Rating	x Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA
Comment or Mitigation Measure	

Indicator	



#### 2.2.6

The Biomass Producer has implemented appropriate control systems and procedures to verify that negative impacts on ground water, surface water and water downstream from forest management are minimised (CPET S5b).

The Clean Water Act, established in 1989, includes important aspects of legislation related to protecting quality and quantity of water in rivers, streams and lakes, and diversity of aquatic habitats and species, as well as drinking water supplies. Forestry operations are bound by this national legislation, which are enforced by provincial governments.

High Conservation Value (HCV) 4 and 5 in the 2018 FSC National Risk Assessment addresses the protection of water. HCV 4 is in regards to catchments. Catchments are considered the forested areas important for the provision of ecological services associated with waterbodies and watersheds. HCV 5 is with regard to protection of forested areas for the provision of water for a community. The regions within the defined supply base are considered low risk for both HCV 4 and 5 in the FSC's assessment.

#### **New Brunswick**

Regulations protecting surface water under the Clean Water Act include the Watershed Protected Areas Designation Order, Water Classification Regulation and the Watercourse and Wetland Alteration Regulation. Crown forests are FM certified and are 3<sup>rd</sup> party audited annually to ensure that BMPs are implemented on harvest sites. Regional marketing boards supply BMP manuals and complete annual audits on a selection of private woodlots. These data are summarized in an annual report. Adherence to the Clean Water Act and Watercourse Buffer Zone guidelines is also required in NB forests and are enforced by the provincial government.

### Finding

#### **Nova Scotia**

In Nova Scotia, the provincial government works with stakeholders and municipalities to protect surface waters through watershed management planning and the use of best management practices. In areas where municipalities rely on surface water sources for drinking water, the development of Source Water Protection Plans are required through Nova Scotia Environment approvals. The plans also serve as a guide to protect surface waters for aquatic life habitat. Documents on best management practices and forest planning in municipal drinking water supply areas in Nova Scotia have been created for guidance. There is further protection of water under the Water Resources Protection Act.

Nova Scotia's Code of Forest Practice states that forest management will be designed and conducted in a manner that maintains and enhances the quality of air, water, and soil. The Watercourse and Wildlife Habitat Protection regulations require all forestlands to have buffer strips left along watercourses, legacy trees left in clumps, and coarse woody debris left in all types of forest harvesting activities. In Nova Scotia, BMPs are provided to private woodlot owners through regional organizations who assist private woodlot owners in their forests' management.

#### Quebec

Water quality in Quebec is protected through a recently tightened standard, the Regulation respecting the quality of drinking water and regulation respecting groundwater catchment. The Sustainable Forest Development Act prevents negative impacts to watercourses and groundwater on public lands. All watercourses in Quebec are protected through the protection policy for lakeshores, riverbanks, littoral

	zones and floodplains under the Environmental Policy Act. Regulations are also in place to cover environmental impacts such as buffer zones for watercourses and breeding sites, with requirements for machinery and water crossings (FSC National Risk Assessment, 2018).
	Prior to the delivering feedstock to the BP's wood pellet plant, suppliers must sign an assertion declaring that all feedstock originates from within the BP's defined supply base.
	On an annual basis, the BP completes supplier evaluations on 25% of secondary suppliers. The evaluation, or supplier audit, consists of a site visit to review and collect documentation on forest sources (location of the stump) to ensure that feedstock originates from within the supply base, and to identify how certified feedstock is traced back to the forest management unit. This control measure provides assurance to the BP that feedstock originates from within the defined supply base of the SBE.
	The BP completes a Purchase Wood Risk Assessment for all round wood purchases. Round wood that originates from Crown forests undergo a compliance assessment; whereas round wood that originates from private woodlots with no SFM certification undergo field inspections. In addition to the marketing boards annual SFI Implementation BMP surveys and reports, the BP conducts site visits and inspections which includes the completion of a Purchase Wood Inspection Form.
	Risk assessments have been completed for each of the 3 provinces.
Means of Verification	List of applicable laws and regulations NBSIC Surveys Supplier contracts Supplier assertions BP's annual supplier evaluations BP's Purchase Wood Risk Assessment BP's Purchase Wood Inspection Form FSC National Risk Assessment: https://ca.fsc.org/en-ca/standards/national-risk-assessment-01
Evidence Reviewed	All means of verification reviewed
Risk Rating	x Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA
Comment or Mitigation Measure	

	Indicator
2.2.7	The Biomass Producer has implemented appropriate control systems and procedures for verifying that air quality is not adversely affected by forest management activities.
Finding	Equipment used to harvest and generate biomass is regularly inspected and maintained. This includes the use of modern engine designs and the changing of air filters at specified periods. Each province (NB, NS, and QC) carry out their own air

	quality monitoring programs. The data are compiled into a federal air quality health index and data are used to ensure compliance with the Clean Air Act.
	New Brunswick The Department of the Environment and local government continuously monitor a variety of air pollutants at over 100 locations throughout the province. All industries are required to take steps to cut their emissions when levels begin to approach provincial standards and/or national guidelines.
	Nova Scotia The NS provincial government also has air monitoring stations set up throughout the province. The ambient air monitoring stations measure air quality from many sources including power plants, mills, vehicles, and natural sources. These are compared against the Maximum Permissible Ground Level Concentrations in the Nova Scotia Air Quality Regulations and the Canadian Ambient Air Quality Standards.
	Quebec Data from monitoring stations throughout Quebec are compared to the Quebec Air Quality Standards and criteria.
Means of Verification	Supplier contracts Supplier assertions Provincial and federal government reports List of applicable laws and regulations
Evidence Reviewed	Reviewed all means of verification
Risk Rating	x Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA
Comment or Mitigation Measure	

	Indicator	
2.2.8	The Biomass Producer has implemented appropriate control systems and procedures for verifying that there is controlled and appropriate use of chemicals, and that Integrated Pest Management (IPM) is implemented wherever possible in forest management activities (CPET S5c).	
Finding	Pesticides are regulated by Pest Management Regulatory Agency who administer the Pest Control Products Act on behalf of the Minister of Health.  Provincial governments ensure that there is control over the use of chemicals and that proper pest management techniques are employed within each province.	
Means of Verification	Supplier contracts Supplier assertions List of applicable laws and regulations	
Evidence Reviewed	All means of verification reviewed	
Risk Rating	x Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA	

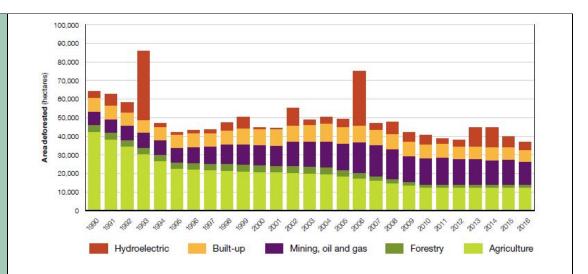


Comment or	nt or
Mitigation	n
Measure	

	Indicator
2.2.9	The Biomass Producer has implemented appropriate control systems and procedures for verifying that methods of waste disposal minimise negative impacts on forest ecosystems (CPET S5d).
Finding	Each province requires spills of hazardous substances and environmental contaminants be reported as soon as possible. The spill response is evaluated and it is determined whether further action/follow-up or fines are required.  In NB and QC, all spills must be reported to the provincial government. In NS, authorities must be notified if the unauthorized release of contaminants is greater than pre-determined level. Each province has a spill reporting hotline.
Means of Verification	List of applicable laws and regulations Supplier contracts and assertions
Evidence Reviewed	Review of provincial legislation
Risk Rating	x Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA
Comment or Mitigation Measure	

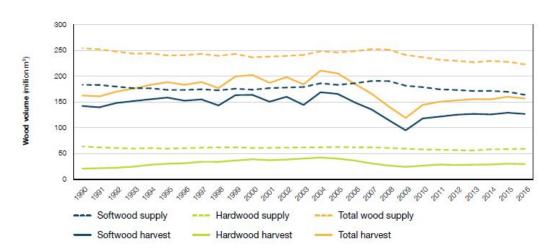
	Indicator						
2.3.1	Analysis shows that feedstock harvesting does not exceed the long-term production capacity of the forest, avoids significant negative impacts on forest productivity and ensures long-term economic viability. Harvest levels are justified by inventory and growth data.						
	Canada's fo Canada's fo					years. From	1990 to 2016,
Finding	YEAR	1990	1995	2000	2005	2010	2015
	Forest area	348.3	348.0	347.8	347.6	347.3	347.1





Estimated area (ha) of deforestation in Canada by sector, State of Canada's Forest Report, 2018

About 90% of Canada's forests are on Crown lands. Timber harvesting is sustainable in Canada because of robust laws, management and the requirement that all harvested public lands be regenerated, either naturally or by planting and seeding, or by a combination of these methods. Each year, provincial governments specify an annual allowable cut which includes the annual level of harvest allowed and the minimum forest age. The area of forest harvested each year is monitored to ensure that the level is sustainable over the long term. Canada continues to harvest less than the estimated sustainable wood supply levels, as shown in the graph below from the State of Canada's Forest Report.



Annual harvest versus sustainable supply, State Of Canada's Forest Report, 2018

The area harvested each year is less than half of 1% of Canada's 347 million hectares of forest, significantly less than the hectares affected by insects and forest fires each year (NRCan, 2018)

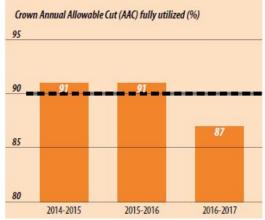
#### **New Brunswick**

Forest development surveys of Crown forests provide quantitative stand data such as volume, density, and age by individual species. Licensee-managed changes to



the forest are updated annually to track the implementation of the long term forest management plan.

In harvesting, a variety of techniques are used (i.e. uneven-aged management) to ensure the long term sustainability of the forest. Licensees are responsible for ensuring that they do not exceed the annual allowable cut. Annual reports submitted to NBDNR summarize the harvest by forest zone and annual volume harvested. After 5 and 10 year intervals, a status of plantations and naturally regenerating areas including species mix, average tree height are determined. To ensure responsible resource development, the Department of Natural Resources monitors the progress of Crown harvests on a quarterly cycle. During the 2016-2017 year, 87% of the AAC was harvested.

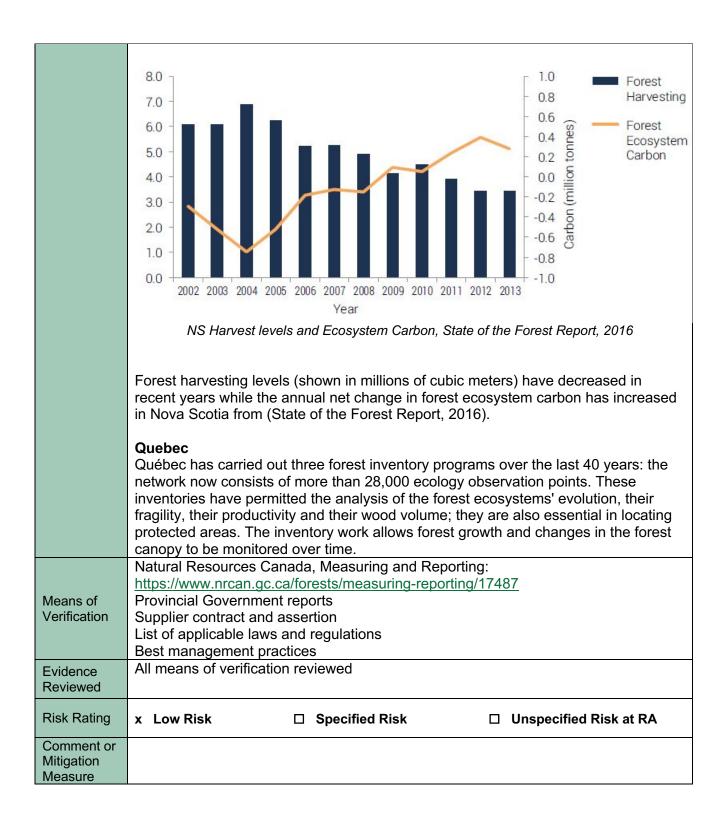


Crown annual allowable cut, NB Energy and Resource Development, Annual Report 2016-2017

#### **Nova Scotia**

NSDNR have been collecting data on volume of forest harvest and secondary forest products for 60 years, which is reported in the NS forest production survey. NSDNR opted for a more detailed data collection system and implemented the NS Registry of Buyers. NSDNR's forest inventory program collects inventory data via photo interpretation and permanent forest inventory plots. Data analysis is used to define and track many forest components, such as volume and growth. The data also provides a basis for modelling volume, biomass and carbon. The Timber Management Group through NSDNR collect data on forest resources such as how they are affected by silviculture and harvesting via trials, experiments and surveys. The Spatially Related Forest Resources Information System shows forest stand descriptions, ownership, wildlife habitat, wetlands information, and natural and protected areas.





	Indicator
2.3.2	Adequate training is provided for all personnel, including employees and contractors (CPET S6d).

	All staff and contractors are trained to ensure they are aware and competent. The operations identify environmental and sustainable forestry training needs for employees and contractors to ensure that individuals performing tasks which can cause significant environmental impacts are competent on the basis of appropriate education, training and/or experience.  Logger training is required for employees and contractors working in FM certified
	forests. Private woodlot owners and contractors can undergo training through regional marketing boards. The most recent SFI logger training course was offered in 2016.
Finding	On an annual basis, the BP completes supplier evaluations on 25% of secondary suppliers. The evaluation, or supplier audit, consists of a site visit to review and collect documentation on forest sources (location of the stump) to ensure that feedstock originates from within the supply base, and to identify how certified feedstock is traced back to the forest management unit. This control measure provides assurance to the BP that feedstock originates from within the defined supply base of the SBE.
	The BP completes a Purchase Wood Risk Assessment for all round wood purchases. Round wood that originates from Crown forests undergo a compliance assessment; whereas round wood that originates from private woodlots with no SFM certification undergo field inspections. In addition to the marketing boards annual SFI Implementation BMP surveys and reports, the BP conducts site visits and inspections which includes the completion of a Purchase Wood Inspection Form.
	Also refer to Indicator 2.8.1 in regards to health and safety regulations.
Means of Verification	Private woodlot owner/contractor agreement Supplier contracts and assertions Training programs & matrix Electronic training records BP's annual supplier evaluations BP's Purchase Wood Risk Assessment BP's Purchase Wood Inspection Form List of applicable laws and regulations
Evidence Reviewed	All means of verification reviewed
Risk Rating	x Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA
Comment or Mitigation Measure	

	Indicator
2.3.3	Analysis shows that feedstock harvesting and biomass production positively contribute to the local economy, including employment.

Finding	The work force is hired locally in the adjoining communities where the pellet plant is located. Wherever possible, equipment, supplies and other resources are also sourced locally. The facility also contributes to the communities in the form of municipal taxes.
	The BP completed an economic analysis for the wood pellet plant and how it positively contributes to the local economy. The analysis will be reviewed and updated every 5 years.
	Forest NS and Forest NB complete Forest Industry Economic Impact reports. The Conference Board of Canada also provides regular economic updates to provincial forest sectors (cited below).
Means of Verification	BP's economic analysis Employee addresses Account payables Supplier list Distance to suppliers Conference Board of Canada Economic Update NS Forest Industry Economic Impact: <a href="http://forestns.ca/ns-forest-industry-economic-impact/">http://forestns.ca/ns-forest-industry-economic-impact/</a> NB Forest Industry Economic Impact: <a href="http://www.nbforestry.com/jobs-economy/">http://www.nbforestry.com/jobs-economy/</a>
Evidence Reviewed	All means of verification reviewed
Risk Rating	x Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA
Comment or Mitigation Measure	

	Indicator
2.4.1	The Biomass Producer has implemented appropriate control systems and procedures for verifying that the health, vitality and other services provided by forest ecosystems are maintained or improved (CPET S7a).
Finding	The National Forest Inventory, a collaboration between federal, provincial and territorial governments, compiles detailed information for each of Canada's ecozones. The Canadian Forest Service maintains the national database and leads data analysis and reporting. Each province collects data using consistent standards and procedures. The Canadian Wood Fibre Centre (CWFC) is currently working to develop even more enhanced forest inventory systems. This will include aerial and terrestrial LiDAR, high-resolution digital imagery and statistical modelling.
	New Brunswick Forest health and vitality are monitored through the provincial government. They determine the annual allowable cut for Crown and private woodlots based on ongoing research. Aerial photography and forest plots are used to chart the timber's growth and yields. These are updated annually using a computerized Geographical Information System (GIS). The marketing boards in New Brunswick



assist private woodlots owners with timber inventory, harvest layout, and forest management plan development. The board also offers programs that help improve the management of private woodlots.

#### **Nova Scotia**

The forest protection division helps to maintain the health of Nova Scotia's woodlands by protecting them from pests and fires. The forest health section (advice and management of pests), risk services section (Provincial forest protection program), wildfire management section (Wildfire management) all work together to maintain forest health in Nova Scotia. The Forests Act was implemented to develop a healthy productive forest capable of yielding high volumes of high quality product. The Act is targeted to both private woodlot owners and Crown lands in the province. The provincial government is responsible for ensuring the enforcement of these acts.

The Nova Scotia Registry of Buyers requires businesses to inventory all primary forest products acquired for processing. Registered buyers contribute to a silviculture fund based on a volume of wood acquired basis. The Registry of Buyers' annual report outlines the volumes of wood harvested throughout the province. The registry provides reliable data on market demands and estimates on sustainable harvest levels.

#### Quebec

An independent body, the chief forester, is contracted by the provincial government. The chief forester is responsible for the collection of data to report on the health and vitality of the province's forests. 5-year reports summarize the volume of timber harvested, natural disturbances (fire, insects & disease) and forest protection measures (protected areas, targets and certification)

Refer to finding for Indicator 2.3.1.

The supply base is defined and is traceable back to the source (Indicator 1.1.2)

Prior to the delivering feedstock to the BP's wood pellet plant, suppliers must sign an assertion declaring that all feedstock originates from within the BP's defined supply base.

On an annual basis, the BP completes supplier evaluations on 25% of secondary suppliers. The evaluation, or supplier audit, consists of a site visit to review and collect documentation on forest sources (location of the stump) to ensure that feedstock originates from within the supply base, and to identify how certified feedstock is traced back to the forest management unit. This control measure provides assurance to the BP that feedstock originates from within the defined supply base of the SBE.

The BP completes a Purchase Wood Risk Assessment for all round wood purchases. Round wood that originates from Crown forests undergo a compliance assessment; whereas round wood that originates from private woodlots with no SFM certification undergo field inspections. In addition to the marketing boards annual SFI Implementation BMP surveys and reports, the BP conducts site visits and inspections which includes the completion of a Purchase Wood Inspection Form.

Means of Verification	NB SIC BMP survey and reports (private woodlots) Crown land licensee audits Supplier contract Supplier declaration BP's annual supplier evaluations BP's Purchase Wood Risk Assessment BP's Purchase Wood Inspection Form Government Reporting: Natural Resources Canada, Measuring and Reporting: https://www.nrcan.gc.ca/forests/measuring-reporting/17487 Quebec - Chief Forester Reports: http://forestierenchef.gouv.qc.ca/ New Brunswick – New Approaches for Private Woodlots http://www2.gnb.ca/content/dam/gnb/Departments/nr-
Evidence Reviewed	All means of verification reviewed
Risk Rating	x Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA
Comment or Mitigation Measure	

	Indicator
2.4.2	The Biomass Producer has implemented appropriate control systems and procedures for verifying that natural processes, such as fires, pests and diseases are managed appropriately (CPET S7b).
Finding	New Brunswick Forest fires, pests and diseases are monitored through the provincial government. The Department of Natural Resources' Forest Pest Management Group is responsible for protecting New Brunswick's forests from insects and disease. The group have a forest pest management program that acts as an effective detection, monitoring and forecasting system. Forest fires are monitored through DNR's Forest Fire Watch. If at any time the fire hazard in the province is high, the provincial government will restrict forestry operations within the province. Furthermore, New Brunswick has an online reporting system for the public to report forest pests, disease or damage.  Nova Scotia The forest protection division helps to maintain the health of Nova Scotia's woodlands by protecting them from pests and fires. The forest health section



(Advice and management of pests), risk services section (Provincial forest protection program), wildfire management section (Wildfire management) all work together to ensure that fires, pests and diseases are managed properly. The forest health group's vision is to use integrated pest management methods to promote healthy forest. The risk services section have recently completed projects on wildfire and forest pest risk mapping, brown spruce longhorn beetle and spruce budworm studies, aerial wildfire detection improvements, aerial pest detection survey, and etc.

#### Quebec

The chief forester is responsible for the collection of data to report on the health and vitality of the province's forests. 5-year reports summarize the volume of timber harvested, natural disturbances (Fire, insects & disease) and forest protection measures (Protected areas, targets and certification).

Prior to the delivering feedstock to the BP's wood pellet plant, suppliers must sign an assertion declaring that all feedstock originates from within the BP's defined supply base.

On an annual basis, the BP completes supplier evaluations on 25% of secondary suppliers. The evaluation, or supplier audit, consists of a site visit to review and collect documentation on forest sources (location of the stump) to ensure that feedstock originates from within the supply base, and to identify how certified feedstock is traced back to the forest management unit. This control measure provides assurance to the BP that feedstock originates from within the defined supply base of the SBE.

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NB SIC BMP survey and reports (private woodlots)

Supplier assertion

BP's annual supplier evaluation

Canadian Forest Fire database:

http://cwfis.cfs.nrcan.gc.ca/ha/nfdb

Canadian Wildland Fire Information System

http://cwfis.cfs.nrcan.gc.ca/interactive-map

Quebec - chief forester reports:

Means of Verification http://forestierenchef.gouv.qc.ca/ NB forest fire watch:

https://www2.gnb.ca/content/gnb/en/news/public alerts/forest fire watch.html

Forest fire protection regulation:

https://novascotia.ca/just/regulations/regs/fofire.htm

New Brunswick – New Approaches for Private Woodlots

http://www2.gnb.ca/content/dam/gnb/Departments/nr-

rn/pdf/en/ForestsCrownLands/NewApproachesForPrivateWoodlots.pdf

New Brunswick – A balanced management approach for New Brunswick's Crown Forest



	http://www2.gnb.ca/content/dam/gnb/Departments/nr-			
	rn/pdf/en/ForestsCrownLands/BMAF.pdf			
	Nova Scotia – Registry of Buyers annual report			
	http://novascotia.ca/natr/forestry/registry/ann_report.asp			
Evidence Reviewed	All means of verificat	tion have been reviewed		
Risk Rating	x Low Risk	□ Specified Risk		Unspecified Risk at RA
Comment or Mitigation Measure				

	Indicator
2.4.3	The Biomass Producer has implemented appropriate control systems and procedures for verifying that there is adequate protection of the forest from unauthorised activities, such as illegal logging, mining and encroachment (CPETS7c).
Finding	The risk of illegal logging is negligible across Canada, regardless of the region.  Strong legislation is in place in NB, NS, and QC to ensure the scaling and transportation of logs and wood fibre is documented.  Supplier contracts/assertions state that wood fibre does not originate from controversial sources i.e. illegal or unauthorized sources (as discussed in previous findings)  The BP has completed risk assessments for each of the 3 provinces.
Means of Verification	Canada's Legal Forest Products: <a href="http://www.sfmcanada.org/en/forest-products/legal-forest-products">http://www.sfmcanada.org/en/forest-products/legal-forest-products</a> Company risk assessment  Supplier contracts  Supplier assertions  NB SIC BMP survey and reports (private woodlots)  NB Crown licensee audits  Transportation certificates
Evidence Reviewed	All means of verification reviewed
Risk Rating	x Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA
Comment or Mitigation Measure	

	Indicator
2.5.1	The Biomass Producer has implemented appropriate control systems and procedures for verifying that legal, customary and traditional tenure and use rights of indigenous people

	and local communities related to the forest are identified, documented and respected (CPET S9).		
Finding	The Canadian Charter of Rights and Freedoms forms the first part of the Constitution Act (1982). The bill guarantees certain political rights of Canadian citizens and civil rights to everyone in Canada. Aboriginal rights, like treaty rights, are recognized by Section 35 of the Constitution Act. Historically, aboriginal rights have been achieved by way of treaty or land claims settlement rather than through legislation. Supplier contracts/assertions require legal compliance to local and national regulations and legislation.  The new Aboriginal Forestry Initiative (AFI) is the federal government's approach		
	to enhance aboriginal participation in Canada's forest sector. The AFI is supported by Natural Resources Canada and Aboriginal Affairs and Northern Development Canada.		
	Supplier contracts and assertions US Department of State on Canadian Human Rights: <a href="http://www.state.gov/g/drl/rls/hrrpt/2005/61719.htm">http://www.state.gov/g/drl/rls/hrrpt/2005/61719.htm</a>		
Means of Verification	National Aboriginal Rights Association:		
verilication	http://www.nafaforestry.org/pdf/2015/First%20Nation- Held%20Forest%20Tenure%20Report%202015.pdf		
	Indigenous Forestry Initiative:		
	http://www.nrcan.gc.ca/forests/federal-programs/13125		
Evidence Reviewed	All means of verification reviewed		
Risk Rating	x Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA		
Comment or Mitigation			
Measure			

	Indicator			
2.5.2	The Biomass Producer has implemented appropriate control systems and procedures fo verifying that production of feedstock does not endanger food, water supply or subsisten means of communities, where the use of this specific feedstock or water is essential for the fulfilment of basic needs.			
Finding	The FSC National Risk Assessment (2018) assesses the resources that are fundamental to basic necessities of local communities or indigenous peoples. Water (sources for irrigation and community water) and areas of subsistence harvesting for indigenous peoples (hunting, fishing, trapping and plant collection) were evaluated.			
T inding	Each province in the supply base delineates community watersheds as sources for drinking water or irrigation and has sufficient regulatory measures to mitigate any threats. Legal mechanisms are in place to mitigate the potential impacts to areas of subsistence harvesting for indigenous people. The three provinces within the defined supply base were deemed low risk by the FSC risk assessment.			
Means of Verification	NB, NS and QC risk assessments FSC National Risk Assessment: <a href="https://ca.fsc.org/en-ca/standards/national-risk-assessment-01">https://ca.fsc.org/en-ca/standards/national-risk-assessment-01</a>			



Evidence Reviewed	All means of verification reviewed		
Risk Rating	x Low Risk	☐ Specified Risk	☐ Unspecified Risk at RA
Comment or Mitigation Measure			

	Indicator			
2.6.1	The Biomass Producer has implemented appropriate control systems and procedures for verifying that appropriate mechanisms are in place for resolving grievances and disputes, including those relating to tenure and use rights, to forest management practices and to work conditions.			
	90% of Canada's land area is Crown land (Federal & Provincial). The federal and provincial governments regulate the tenure & use rights and forest management practices on their land.			
Finding	Private land tenure is regulated through provincial acts and regulations (NB's Land Titles Act, NS's Land Registration Act, and the Land registry of Quebec). Private land use rights are regulated by the Provincial acts and municipal bylaws (NB's Community Planning Act, NS Municipal Government Act, QC's Act Respecting Land Use Planning and Development).			
	Supplier contracts and assertion provide assurance that suppliers are following applicable legislation and regulations.			
	Furthermore, the BP has an employee safety orientation, which includes a review of employee rights and health and safety regulations.			
Means of Verification	Provincial and federal legislation Supplier contracts and assertions Private woodlot owner/contractor agreements Safety orientation program EMS manual			
Evidence Reviewed	All means of verification reviewed			
Risk Rating	x Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA			
Comment or Mitigation Measure				

	Indicator
2.7.1	The Biomass Producer has implemented appropriate control systems and procedures for verifying that Freedom of Association and the effective recognition of the right to collective bargaining are respected.

	Rights to Freedom of Association and to Collective Bargaining are protected under the Canadian Charter of Rights. Supplier contracts and assertions provide assurance that suppliers are complying with local and national legislation and regulations.		
Finding	Shaw Resources provides all employees with an orientation handbook and policy manual. Safe job procedures and appropriate training is in place and is documented in a training matrix by the Health and Safety Coordinator.  Occupational Health and Safety regulations for NB and NS are available on the company server (Health & Safety Act, WHMIS & First Aid regulations, and etc.). Shaw Resources' policy statement states that practical and effective measures are in place to protect the health and safety of employees, customers and contractors. The company motto is "No one will be hurt today or tomorrow".  Supplier contracts and assertion provide assurance that suppliers are following		
	applicable legislation and regulations.		
Means of Verification	Provincial and Federal Employment Standard Acts and labour codes Canadian Charter of Rights Policy manual Supplier contracts and assertions Training matrix		
Evidence Reviewed	All means of verification reviewed		
Risk Rating	x Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA		
Comment or Mitigation Measure			

	Indicator			
2.7.2	The Biomass Producer has implemented appropriate control systems and procedures for verifying that feedstock is not supplied using any form of compulsory labour.			
	Human Resources staff implements company policies to ensure employment standards are complied with.			
Finding	Forest employment in Canada is regulated under federal and provincial labour codes to provide for a safe and healthy workplace, protect workers' rights to organize and are consistent with the ILO provisions.			
	Supplier contracts and assertion provide assurance that suppliers are following applicable legislation and regulations.			
	Provincial and Federal Employment Standard Acts and labour codes.			
	Company human resource manuals and policies Supplier contracts & assertions			
Means of	US Department of State on Canadian Human Rights:			
Verification	http://www.state.gov/g/drl/rls/hrrpt/2005/61719.htm			
	Government of Canada Labour Program:			
	https://www.canada.ca/en/employment-social-			
	development/corporate/portfolio/labour.html			



Canadian Labour Standards Regulations:				
	http://laws.justice.gc.ca/eng/regulations/C.R.C., c. 986/			
	Government of Canada Employment Standards:			
	http://www.cic.gc.ca	<u>/english/work/labour-standard</u>	ds.asp	
Evidence All means of verification re		tion reviewed		
Reviewed				
Risk Rating	x Low Risk	□ Specified Risk		Unspecified Risk at RA
Comment or Mitigation Measure				

	Indicator				
2.7.3	The Biomass Producer has implemented appropriate control systems and procedures to verify that feedstock is not supplied using child labour.				
Finding	Forest employment in Canada is regulated under federal and provincial labour codes which prohibit child labour, provide for a safe and healthy workplace, protect workers' rights to organize and are consistent with the ILO provisions. There is no evidence of child labour violations.  Supplier contracts and assertion provide assurance that suppliers are following applicable legislation and regulations.				
Means of Verification	Provincial and Federal Employment Standard Acts and labour codes Company human resource manuals and policies US Department of State on Canadian Human Rights: <a href="http://www.state.gov/g/drl/rls/hrrpt/2005/61719.htm">http://www.state.gov/g/drl/rls/hrrpt/2005/61719.htm</a> Government of Canada Labour Program: <a href="https://www.canada.ca/en/employment-social-development/corporate/portfolio/labour.html">https://www.canada.ca/en/employment-social-development/corporate/portfolio/labour.html</a> Canadian Labour Standards Regulations: <a href="http://laws.justice.gc.ca/eng/regulations/C.R.C.">http://laws.justice.gc.ca/eng/regulations/C.R.C.</a> , c. 986/ Government of Canada Employment Standards: <a href="http://www.cic.gc.ca/english/work/labour-standards.asp">http://www.cic.gc.ca/english/work/labour-standards.asp</a>				
Evidence Reviewed	All means of verification reviewed				
Risk Rating	x Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA				
Comment or Mitigation Measure					

	Indicator
2.7.4	The Biomass Producer has implemented appropriate control systems and procedures for verifying that feedstock is not supplied using labour which is discriminated against in respect of employment and occupation.

Finding	Forest employment in Canada is regulated under federal and provincial labour codes which prohibit child labour, provide for a safe and healthy workplace, protect workers' rights to organize and are consistent with the ILO provisions. There is no evidence of discrimination violations between the company and their workers.  Supplier contracts and assertion provide assurance that suppliers are following applicable legislation and regulations.
Means of Verification	Provincial and Federal Employment Standard Acts and labour codes Company human resource manuals and policies e.g. anti-discrimination policies US Department of State on Canadian Human Rights: <a href="http://www.state.gov/g/drl/rls/hrrpt/2005/61719.htm">http://www.state.gov/g/drl/rls/hrrpt/2005/61719.htm</a> Government of Canada Labour Program: <a href="https://www.canada.ca/en/employment-social-development/corporate/portfolio/labour.html">https://www.canada.ca/en/employment-social-development/corporate/portfolio/labour.html</a> Canadian Labour Standards Regulations: <a href="http://laws.justice.gc.ca/eng/regulations/C.R.C.">http://laws.justice.gc.ca/eng/regulations/C.R.C.</a> , c. 986/ Government of Canada Employment Standards: <a href="http://www.cic.gc.ca/english/work/labour-standards.asp">http://www.cic.gc.ca/english/work/labour-standards.asp</a>
Evidence Reviewed	All means of verification reviewed
Risk Rating	x Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA
Comment or Mitigation Measure	

	Indicator
2.7.5	The Biomass Producer has implemented appropriate control systems and procedures for verifying that feedstock is supplied using labour where the pay and employment conditions are fair and meet, or exceed, minimum requirements.
Finding	Forest employment in Canada is regulated under federal and provincial labour codes. Forest workers are protected by either federal or provincial laws.  Employment standard laws protect the rights of workers in relation to work hours, pay rate, vacation, holidays, breaks, leaves of absences or termination.  Supplier contracts and assertion provide assurance that suppliers are following applicable legislation and regulations.
Means of Verification	Provincial and Federal Employment Standard Acts and labour codes US Department of State on Canadian Human Rights: http://www.state.gov/g/drl/rls/hrrpt/2005/61719.htm Government of Canada Labour Program: https://www.canada.ca/en/employment-social- development/corporate/portfolio/labour.html Canadian Labour Standards Regulations: http://laws.justice.gc.ca/eng/regulations/C.R.C., c. 986/ Government of Canada Employment Standards: http://www.cic.gc.ca/english/work/labour-standards.asp



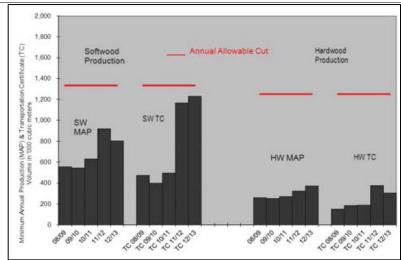
Evidence Reviewed	All means of verification reviewed		
Risk Rating	x Low Risk	□ Specified Risk	☐ Unspecified Risk at RA
Comment or Mitigation Measure			

	Indicator		
2.8.1	The Biomass Producer has implemented appropriate control systems and procedures for verifying that appropriate safeguards are put in place to protect the health and safety of forest workers (CPET S12).		
	Canada is a model for health and safety in the workplace, and in forestry harvesting activities in particular; and is designated as low risk in the FSC Centralized National Risk Assessment (FSC-CNRA-CAN V1-0, 2015). The provincial government is responsible for the implementation and enforcement of occupational health and safety regulations in each province.		
Finding	In Nova Scotia, the Department of Labour and Advanced Education are responsible for the enforcement of the provincial Occupational Health and Safety Act and regulations. The Department completes regular audits and responds to complaints in regards to health and safety and have the right to issue warnings, orders, recommendations or fines. Non-compliances and convictions can be found on the provincial website: <a href="https://novascotia.ca/lae/healthandsafety/">https://novascotia.ca/lae/healthandsafety/</a>		
	In New Brunswick, WorkSafe NB is responsible for overseeing the implementation and application of NB's Occupational Health and Safety Act. WorkSafe NB lists recent court cases, arbitration and compliance decision on the WorkSafe NB website: <a href="https://www.worksafenb.ca/policy-and-legal/cases-and-decisions/arbitration-decisions/">https://www.worksafenb.ca/policy-and-legal/cases-and-decisions/</a>		
	In Quebec, it is the Commission of health and security at work (CSST) that is responsible for the enforcement of the Occupational Health and Safety Act in Quebec. Workplaces that are not in compliance with the act can be issued warnings, orders, recommendations, or fines. The CSST website:  https://www.csst.qc.ca/lois_reglements_normes_politiques/Pages/loi_35.aspx		
Means of Verification	Provincial Occupational Health and Safety acts, regulations, and websites BP's health and safety program BP's Purchase Wood Risk Assessment Supplier contracts Supplier assertions		
Evidence Reviewed	All means of verification reviewed		
Risk Rating	x Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA		
Comment or Mitigation Measure			



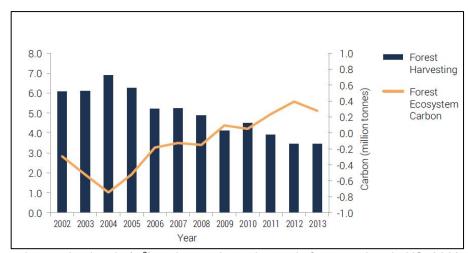
	Indicator
2.9.1	Biomass is not sourced from areas that had high carbon stocks in January 2008 and no longer have those high carbon stocks.
2.9.1 Finding	Biomass is not sourced from areas that had high carbon stocks in January 2008 and no longer have those high carbon stocks.  Wood fibre is not sourced from wetlands, peatlands, riparian reserve zones or protected areas. All harvesting is regulated by provincial forestry regulations which have stringent controls to ensure the protection of areas deemed to have high carbon stocks.  The National Inventory Report on Greenhouse Gas Sources and Sinks in Canada (1990-2016), has shown an overall decrease in carbon emissions (Mt CO₂ Equivalent) for New Brunswick, Nova Scotia and Quebec over the period of 1990 to 2016.  The Canadian government estimates sustainable wood supply by using information from all jurisdictions. Provincial Crown land harvests are regulated by the annual allowable cut (AAC). The aggregate of all AACs throughout the country has been relatively constant since 1990, and in 2014, only 2/3 of the allowable cut was harvested (The State of Canada's forest, 2016).
	The Canadian Forest Service (CFS) uses the National Forest Carbon Monitoring, Accounting and Reporting System (NFCMARS) to quantify GHG emissions and removals by forests, estimate the balance of the fluxes and track changes over time. Deforestation affects less than 0.02% of Canada's forests each year (NRCan, 2016).
	Accounting and Reporting System (NFCMARS) to quantify GHG emissions and removals by forests, estimate the balance of the fluxes and track changes over time. Deforestation affects less than 0.02% of Canada's forests each year (NRCan, 2016).  In New Brunswick, Licensees operating on Crown lands must have forest
	management plans that demonstrate sustainability over an 80 year period. The 2008 Forest Report indicated that actual harvest levels were below sustainable harvest levels. Private woodlot harvests are monitored and for the 2012 to 2013 year shows that the actual cut was much lower than the AAC.





NB Private Woodlot production compared to Annual Allowable Cut in NB (New Brunswick Forest Products Commission Annual Report, 2013)

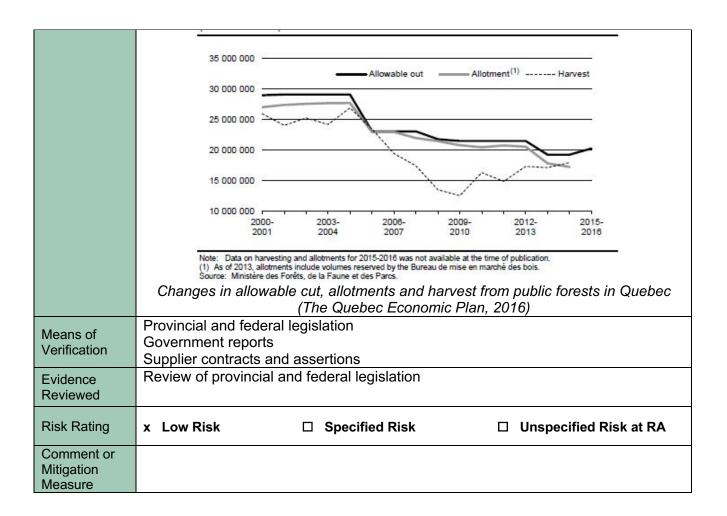
In Nova Scotia, the State of the Forest Report states that forests in Nova Scotia have become a carbon sink since 2009, storing more carbon than what is being lost from forest harvesting. Furthermore, long term estimates of available wood supply indicate that harvest levels are sustainable.



Forest harvesting levels (m³) and annual net change in forest carbon in NS, 2002-2013 (State of the Forest Report, 2016)

In Quebec, the chief forester is responsible for determining and updating the allowable cut every 5 years. The annual allowable cut is the maximum volume of timber that may be harvested annually to ensure resource sustainability. The calculation includes the anticipated effects of natural disturbances from fire, insect infestations and disease. The annual allowable cut has decreased considerably in the past few years (The Quebec Economic Plan, 2016-2017)





	Indicator
2.9.2	Analysis demonstrates that feedstock harvesting does not diminish the capability of the forest to act as an effective sink or store of carbon over the long term.
Finding	Reforestation is mandated for all Crown lands within each of the provinces and the company's supply areas.  The National Inventory Report on Greenhouse Gas Sources and Sinks in Canada (1990-2016), has shown an overall decrease in carbon emissions (Mt CO <sub>2</sub> Equivalent) for New Brunswick, Nova Scotia and Quebec over the period of 1990 to 2016. The Land Use, Land-Use Change and Forestry Sectors reported anthropogenic GHG fluxes between atmosphere and Canada's managed lands as having a net flux that amounted to the removal of 28 MT of atmospheric CO <sub>2</sub> .  About 94% of Canadian forest are publicly owned. The Canadian government estimates sustainable wood supply by using information from all jurisdictions. Provincial Crown land harvests are regulated by the annual allowable cut (AAC). The aggregate of all AACs throughout the country has been relatively constant since 1990, and in 2014, only 2/3 of this allowable cut was harvested (The State of Canada's forest, 2016).



In 2014, New Brunswick government released a forest strategy which set a new standard for Crown land management. Crown lands are managed for multiple objectives recognized in sustainable forest management: a) Stewardship of the Environment, b) Supporting a Vibrant Forest Sector, and c) Maintaining a Social Licence to Operate. Each has defined values goals and objectives (Forest Management Manual for New Brunswick Crown Lands, 2004).

Crown land licensees must have forest management plan maps that span a period of 10 years and show the area set aside to achieve objectives for the conservation forest, and the planned location, time and general prescription of harvest activity to access the annual allowable cut. Any catastrophic natural disturbance (forest fire, insect outbreak, disease, etc.) triggers an update to the plan. The provincial government defines goals, objectives and requirements of forest management plans. They also define the boundaries of protected areas, habitats and other special management zones that form the conservation forest. NBDNR evaluates licensee's forest management performance on a five year interval, which is based on a set of predetermined goals, objectives, indicators and outcomes.

Harvesting from private forest sources in NB is monitored through 1 of 7 regional marketing boards. The marketing boards offer assistance to private woodlot owners with forest management planning; this includes, calculating timber inventory, defining harvest layout, and developing management plans. The marketing boards will also offer programs that promote sustainable forest management. The provincial government partners with private woodlot owners and marketing boards to fund silviculture treatments. A Landowner Agreement must be signed with Department of Energy and Resource Development (ERD) to be eligible for silviculture treatment on a private woodlot. Any woodlot that has received silviculture funding may be inspected to ensure best management practices (BMPs) and guidelines outlined in the New Brunswick Private Woodlots Silviculture Manual (ERD, 2018) are being followed.

In Nova Scotia, the enforcement of the NS Forests Act on Crown and private lands supports the development of a healthy productive forest capable of yielding high volumes of high quality product. The enforcement division of NSDNR completes regular inspections of harvest sites.

Nova Scotia's Code of Forest Practice is a guide for sustainable forest management (SFM) in the province. SFM is required on Crown lands and highly encouraged on private woodlots in Nova Scotia. The majority of primary wood products supplied to industry are from privately sources. The provincial government develops forest management training programs and financial incentives to further encourage the sustainable use of private woodlots.

The Nova Scotia Registry of Buyers requires businesses to inventory all primary forest products acquired for processing. Registered buyers contribute to a silviculture fund based on a volume of wood acquired basis. The Registry of Buyers' annual report outlines the volumes of wood harvested throughout the province. The registry provides reliable data on market demands and estimates on sustainable harvest levels.



	In Quebec, the Sustainable Forest Development Act was implemented in 2010. The act gives the Minister of Natural Resources (MRN) greater control and responsibility over Crown forest management. This includes maintaining ecosystem-based management plans that maintain ecosystem biodiversity and viability. The MRN offers technical and financial support to woodlot owners that practice sustainable forest management. This support is presented through regional agencies (similar to regional marketing boards in NB) that help with the preparation of a protection and development plan and financial and technical support. Only certified private forests have access to these government programs  Supplier contracts and assertion provides assurance that suppliers are following applicable legislation and regulations. See 2.9.1 in regards to sustainable harvest levels
Means of Verification	NB SIC survey Federal and Provincial Acts & Regulations Provincial and federal government reports NB SIC BMP survey and reports (private woodlots) Supplier contracts and assertions Best management practices
Evidence Reviewed	All means of verification reviewed
Risk Rating	x Low Risk   Specified Risk   Unspecified Risk at RA
Comment or Mitigation Measure	

	Indicator
2.10.1	Genetically modified trees are not used.
Finding	The Food and Agricultural Organization of the United Nations summarizes that no GMO trees are used commercially in Canada. Genetically engineered forest trees are not approved for commercial plantings in Canada. The Federal Food Inspection Agency confirms that confined field trials of plants with novel traits are limited to scientific research. None of the harvested tree species are listed on the list of plants with novel traits (PNT) on the CFIA database. The 2015 FSC Centralized National Risk Assessment for Canada assigned a low risk for the use of genetically modified tree usage in Canada.
Means of Verification	FAO Reports CFIA Database Supplier contracts & assertions FSC National Risk Assessment: https://ca.fsc.org/en-ca/standards/national-risk-assessment-01
Evidence Reviewed	All means of verification reviewed
Risk Rating	x Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA



Comment or
Mitigation
Measure