

# Supply Base Report

Skeena Bioenergy Ltd.

January 30, 2020

[www.sbp-cert.org](http://www.sbp-cert.org)



## Completed in accordance with the Supply Base Report Template Version 1.3

*For further information on the SBP Framework and to view the full set of documentation see [www.sbp-cert.org](http://www.sbp-cert.org)*

### *Document history*

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# 1 Overview

Producer name: Skeena Bioenergy  
 Producer location: 5402 Highway 16W, Terrace, British Columbia V8G 0C6  
 Geographic position: [Lat E/W 54 degrees 31 minutes, Long N/S -128 degrees 38 minutes]  
 Primary contact: Nathan Bond, [nathan.bond@skeenasawmills.com](mailto:nathan.bond@skeenasawmills.com)  
 Company website: <http://skeenasawmills.com/bioenergy/>  
 Date report finalised: 10/MAR/2019  
 Close of last CB audit: 07/MAR/2019  
 Name of CB: NEPCon Certifying ApS  
 Translations from English: NA  
 SBP Standard(s) used: Standard 2 V1.0, Standard 4 V1.0, Standard 5 V1.0  
 Weblink to Standard(s) used: <https://sbp-cert.org/documents/standards-documents/standards>  
 SBP Endorsed Regional Risk Assessment: Not Applicable  
 Weblink to SBE on Company website: Not Applicable

Indicate how the current evaluation fits within the cycle of Supply Base Evaluations				
Main (Initial) Evaluation	First Surveillance	Second Surveillance	Third Surveillance	Fourth Surveillance
<input type="checkbox"/>	<b>X</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## 2 Description of the Supply Base

### 2.1 General description

Skeena Bioenergy produces wood pellets at its facility located in Terrace, British Columbia. Skeena Bioenergy’s Fibre Procurement operations currently include the purchase and transport of residual fibre. Majority of Skeena Bioenergy’s wood fibre is from suppliers that maintain Chain of Custody Certification that includes fibre from certified forest management landbase, however, a portion of fibre is controlled.

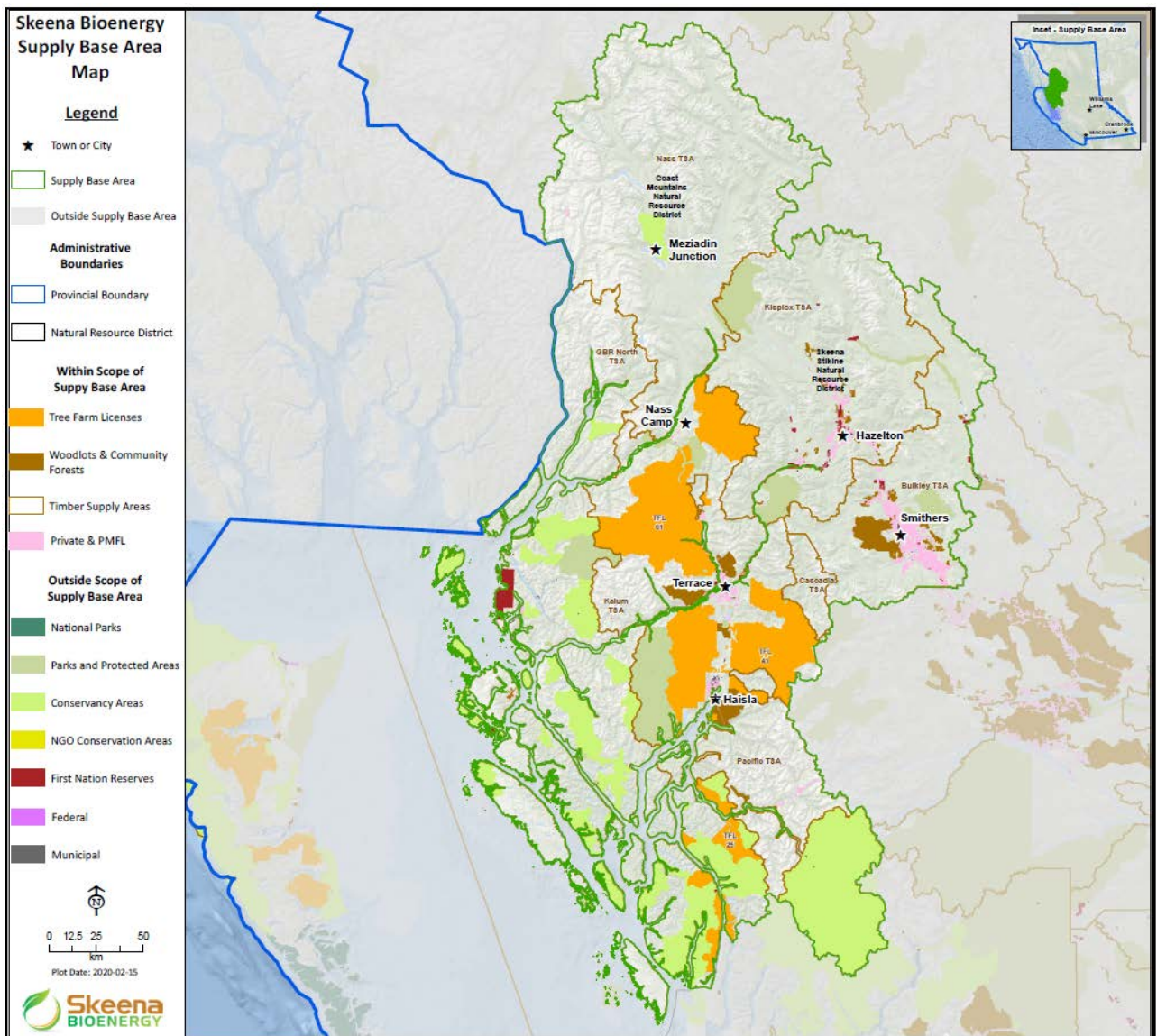
96% of the fibre procured by Skeena Bioenergy is secondary fibre, which is residual material or bi-products from the lumber sawmill in the form of bark, sawdust, shavings, hog and chips. Secondary fibre procured by Skeena Bioenergy is forest management certified and also accompanied by chain of custody claim certificates and therefore is classified by Skeena Bioenergy as SBP-compliant secondary feedstock. The remaining 4% of fibre procured by Skeena Bioenergy is primary feedstock, from bush grind operations. The primary feedstock is sourced from within the supply base area, but is from non-certified suppliers. Primary or secondary fibre is either purchased with a Programme for the Endorsement of Forest Certification (PEFC) controlled sources claim from certified suppliers, or purchased through Skeena Bioenergy’s own certified Chain of Custody/Due Dilligence System through risk assessments prepared to verify that the risk of the non-certified fibre being from controversial sources.

#### Overview of Supply Base – Skeena Bioenergy

Certified Supply Base		Un-Certified Supply Base
TSA: Bulkley, Cascadia, GBR North, Kalum, Kispiox, Nass	SFI	TSA: Bulkley, Cascadia, GBR North, Kalum, Kispiox, Nass, Pacific
Forest licence: FLA16882, FLA16885	SFI	Forest licence: not identified
Tree Farm Licence: 41	SFI	Tree Farm Licence: 1

#### Supply Base Area – Skeena Bioenergy<sup>1</sup>

<sup>1</sup> Data Source: Generalized Forest Cover Ownership –<https://catalogue.data.gov.bc.ca/dataset/generalized-forest-cover-ownership>



All forests are classified within the Temperate Conifer Forest region and none of the forest types include classified CITES or IUCN species. Certain fauna and plant species are listed as either endangered or threatened in the supply base by federal and provincial sources. Forest operations are bound by provincial and federal legislation associated with forestry practices including listed species at risk. This legal framework is enforced to prevent and deter illegal harvesting within protected areas and unadapted practices associated with species at risk habitat<sup>2</sup>.

Skeena Bioenergy's suppliers provide wood fibre from the Supply Base Area, all from North/Central Coast and Interior of British Columbia.

On public lands (Crown – CAD) Natural resources, Clean Water and Endangered Species legislation, specific to the forest industry includes, but is not limited to Forest Act and Forest and Range Practices Act

<sup>2</sup> <http://www.registrelep-sararegistry.gc.ca> - <https://www.for.gov.bc.ca/> - <https://www2.gov.bc.ca/>

(FRPA) in BC and associated regulations regarding the granting and regulation of harvesting rights and the marking, scaling and transportation of timber/fibre, as well as the planning, harvesting, reforestation, and environmental protection on Crown and State Lands. In addition to legislation, regional land use plans with legally established objectives must be followed within Forest Stewardship Plans (BC) and Woodlot Licence Plans and subsequent cutting permits and/or transport documents.

Enforcement of natural resources legislation is supported by the Province's Compliance & Enforcement Agency, under the Ministry of Forests Lands and Natural Resource Operations and Rural Development (FLNRORD). In addition, the Provincial Forest Practices Board conducts independent audits and investigations.

For Federal Lands, Natural resources legislation through federal Species at Risk Act (BC and Canada), CITES, the provincial Timber Marking and Transport Regulations, provincial labour and health legislation, and applicable enforcement agencies address forest activities.

On private lands, harvesting on is legislated through the Private Managed Forest Land Act (PMFLA) in BC. Further legislation is provided through the federal Species at Risk Act (BC), CITES (CAD, BC), the provincial Timber Marking and Transport Regulations, provincial labour and health legislation. Forest activities are regulated/monitored for conformance and alleged non-compliance via the Managed Forest Council in BC.

## 2.2 Actions taken to promote certification amongst feedstock supplier

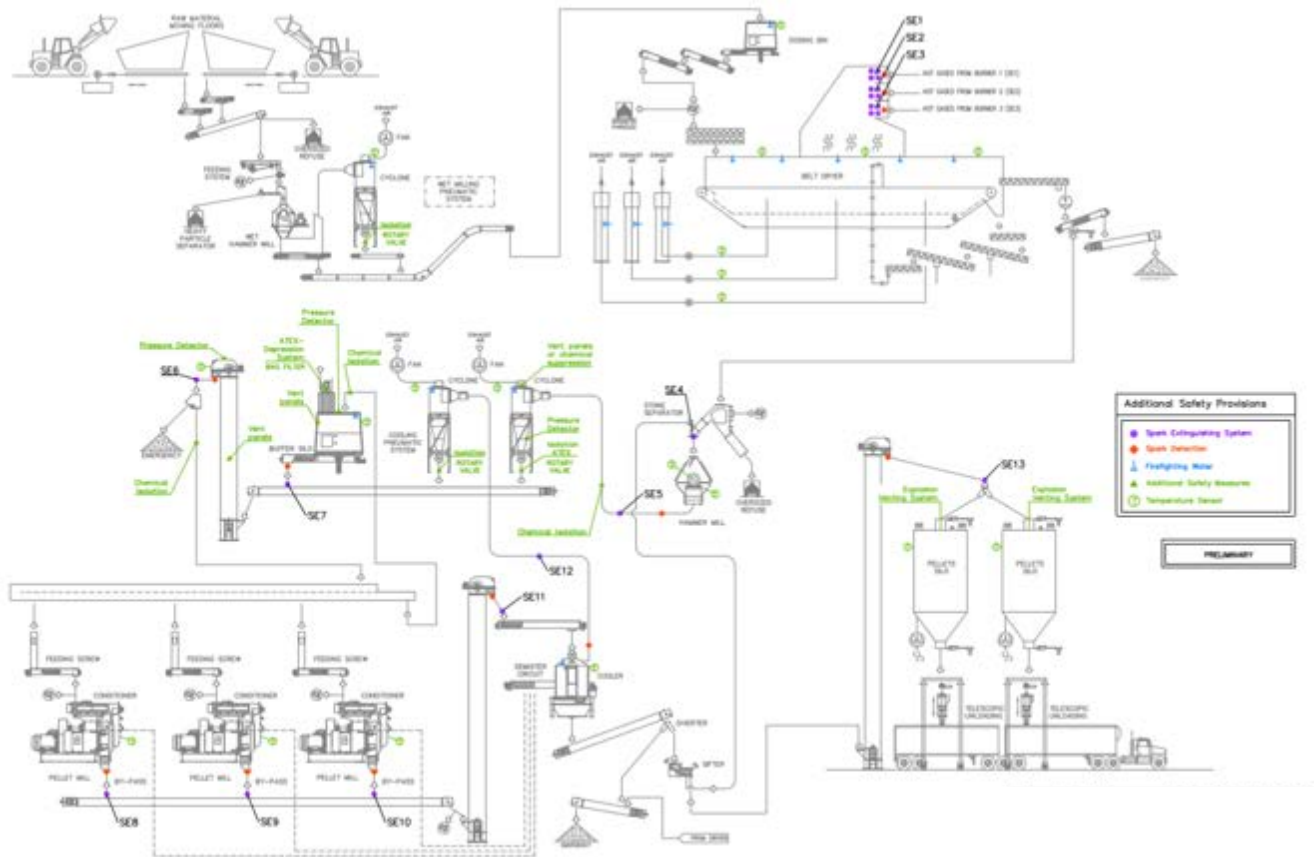
Forest certification is a fundamental part of the forestry industry in BC due to customer demand for certified wood products. Majority of Skeena Bioenergy's input is from secondary feedstock from suppliers that hold forest management (CSA Z809 FM/SFI®-FM) certification and PEFC™ chain of custody certification to either SFI or PEFC. When entering into a purchase agreement with minor suppliers who are non-certified, Skeena Bioenergy provides a Wood Producer Information package, which contains information promoting certification and Best Management Practices.

## 2.3 Final harvest sampling programme

Final Harvest Sampling Programme is not applicable to Skeena Bioenergy as the primary feedstock was derived from commercial thinning operations.



## 2.4 Flow diagram of feedstock inputs showing feedstock type



## 2.5 Quantification of the Supply Base

### Supply Base<sup>3</sup>

a. Total Supply Base area (ha): cumulative area of all forest types within SB – **8, 135, 589 ha**

b. Tenure by type (ha): privately owned/public/community concession

i. Crown Land: **7, 725, 822 ha**

ii. Federal Land: **40, 044 ha**

iii. Private Land: **312, 761 ha**

iv. Unknown: **690 ha**

NOTE: Within the above listed 'tenure type' – the following protected areas exist:

i. BC Parks, Protected Areas, Ecoreserves – **348, 138 ha**

ii. NGO Conservation Areas (Fee Simple Properties) – **397 ha**

iii. Conservancy Areas: **894, 796 ha**

iv. Conservation Lands: **18, 145 ha**

c. Forest by type (ha):

I. Biome:

i. Temperate Coniferous → **7, 134, 101 ha**

ii. Tundra → **777, 770 ha**

II. Ecoregions:

i. British Columbia mainland coastal forests: **4, 878, 235 ha**

ii. Central British Columbia Mountain forests: **154, 884 ha**

iii. Fraser Plateau and Basin complex: **277, 760 ha**

iv. Northern transitional alpine forests: **1, 823, 221 ha**

v. Pacific Coastal Mountain icefields and tundra: **777, 770 ha**

vi. Rock and Ice: **69, 110 ha**

d. Forest by management type (ha): plantation/managed natural/natural – **100% natural managed forests**

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<sup>3</sup> Data Source: Generalized Forest Cover Ownership – <https://catalogue.data.gov.bc.ca/dataset/generalized-forest-cover-ownership>

e. Certified forest by scheme<sup>4</sup> (ha): (e.g. hectares of FSC or PEFC-certified forest)

i. TSAs within the SBA

TSA	Certification	Non-certified (%)	Certified (%)
<b>Bulkley TSA</b>	SFI	29.42	70.58
<b>Cascadia TSA</b>	SFI	Not Available	Not Available
<b>GBR North TSA</b>	SFI	33.26	66.74
<b>Kalum TSA</b>	SFI	73.03	26.97
<b>Kispiox TSA</b>	SFI	76.61	23.39
<b>Nass TSA</b>	SFI	53.65	46.35
<b>Pacific TSA</b>	SFI	Not available	Not available

ii. TFL Certification within SBA

TFL #	Certification	Company	Non-Certified (%)	Certified (%)
<b>TFL1</b>	-	-	0.00	0.00
<b>TFL41</b>	SFI	Skeena Sawmills Ltd.	0.00	100.00

Timber Supply Area (TSA) and Timber Farm License (TFL) are two processes managed by the provincial government to grant timber access to the forest industry plants. The TSA designations ensure BC Timber Sales has sufficient allowable annual cut allocation. The TFL grants exclusive rights to harvest timber and manage and conserve forest resources within a defined area of land.

## Feedstock

- a. Total volume of Feedstock: **44,713.74 Oven Dried Tonnes (ODT's)**
- b. Volume of primary feedstock: 1,571.78 ODT's
- c. List percentage of primary feedstock (g), by the following categories.
  - Certified to an SBP-approved Forest Management Scheme – **0%**
  - Not certified to an SBP-approved Forest Management Scheme – **100%**
- d. List all species in primary feedstock, including scientific name
  - Western Hemlock – *Tsuga heterophylla*
  - Mountain Hemlock (*Tsuga mertensiana*)
  - Amabilis Fir – *Abies amabilis*
  - Subalpine Fir – *Abies lasiocarpa*
  - Hybrid White Spruce – *Picea glauca x engelmannii*
  - Engelmann Spruce – *Picea engelmannii*
  - Sitka Spruce – *Picea sitchensis*
  - White Spruce – *Picea glauca*
  - Lodgepole Pine – *Pinus contorta*
  - Western Red Cedar – *Thuja plicata*

<sup>4</sup> <http://certificationcanada.org/index.php/maps-en/provincial/bc>

- Yellow Cedar – *Chameocyparis nootkatensis*
- e. Volume of primary feedstock from primary forest – **1,581.78 ODT’s**
- f. List percentage of primary feedstock from primary forest (j), by the following categories. Subdivide by SBP-approved Forest Management Schemes:
  - Primary feedstock from primary forest certified to an SBP-approved Forest Management Scheme – **0%**
  - Primary feedstock from primary forest not certified to an SBP-approved Forest Management Scheme – **100%**
- g. Volume of secondary feedstock: **43,131.96 ODT’s**
  - Origin of secondary feedstock: **North/Central Coast and Interior of British Columbia**
  - Type: **Sawmill residuals, sawdust, bark, shavings, hog and chips**
  - Percentage of volume: **96% sawmill waste from the Supply Base Area**
- h. Volume of tertiary feedstock: **0%**

### 3 Requirement for a Supply Base Evaluation

SBE completed	SBE not completed
□	X

Not applicable at this time as the majority of feedstock is considered as PEFC Controlled Sources or X% PEFC certified.

## 4 Supply Base Evaluation

### 4.1 Scope

N/A

### 4.2 Justification

N/A

### 4.3 Results of Risk Assessment

N/A

## 4.4 Results of Supplier Verification Programme

N/A

## 4.5 Conclusion

N/A

# 5 Supply Base Evaluation Process

N/A

# 6 Stakeholder Consultation

N/A

## 6.1 Response to stakeholder comments

N/A

# 7 Overview of Initial Assessment of Risk

N/A

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

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

Indicator	Initial Risk Rating		
	Specified	Low	Unspecified
2.3.1			
2.3.2			
2.3.3			
2.4.1			
2.4.2			
2.4.3			
2.5.1			
2.5.2			
2.6.1			
2.7.1			
2.7.2			
2.7.3			
2.7.4			
2.7.5			
2.8.1			
2.9.1			
2.9.2			
2.10.1			

## 8 Supplier Verification Programme

### 8.1 Description of the Supplier Verification Programme

N/A

### 8.2 Site visits

N/A

### 8.3 Conclusions from the Supplier Verification Programme

N/A

## 9 Mitigation Measures

### 9.1 Mitigation measures

N/A

### 9.2 Monitoring and outcomes

N/A

## 10 Detailed Findings for Indicators

N/A

# 11 Review of Report


## 11.1 Peer review

A peer review was completed prior to the finalization of the SBR. The draft SBR, as well as the CoC Procedures, were reviewed to ensure the SBR was thorough and comprehensive. Recommendations were provided to add clarity to the SBR. Nicolas Blanchette, ing.f. from INCOS Strategies completed the External Peer Review. Nicolas Blanchette is an experienced independent natural resource professional, providing services in the areas of Certification (Forest Management and Chain of Custody) Auditing, Regulatory Compliance, Standards and Procedures Development and Implementation. Nicolas Blanchette is a Quebec Registered Professional Forester (ing.f.) with work experience in multiple Canadian provinces.

## 11.2 Public or additional reviews

N/A

# 12 Approval of Report

Approval of Supply Base Report by senior management			
Report Prepared by:			
	<i>Jessica Hochins</i>	<i>Harvesting Supervisor</i>	<i>February 2020</i>
	Name	Title	Date
The undersigned persons confirm that I/we are members of the organisation’s senior management and do hereby affirm that the contents of this evaluation report were duly acknowledged by senior management as being accurate prior to approval and finalisation of the report.			
Report approved by:	<i>Roger Keery</i>	<i>President</i>	<i>February 2020</i>
	Name	Title	Date
Report approved by:	<i>Rick Harris</i>	<i>VP, Sales &amp; Marketing</i>	<i>February 2020</i>
	Name	Title	Date



## 13 Updates

The Supply Base Report has been updated with the changes to: Supply Base Area, Actual figures for feedstock and projected figures for feedstock over the next 12 months.

### 13.1 Significant changes in the Supply Base

The Supply Base Area has changed significantly from the initial valuation. Skeena Bioenergy has removed the Cassiar TSA and portions of the GBR North TSA. These Timber Supply Areas are not economically viable for Skeena Bioenergy to receive primary or secondary feedstock from and have subsequently been taken out of the Supply Base Area.

### 13.2 Effectiveness of previous mitigation measures

*For each mitigation measure identified during the evaluation, give a detailed account of whether the measures were shown to be effective or not.*

### 13.3 New risk ratings and mitigation measures

*Provide an update of risk ratings for all relevant Indicators.*

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

- a. Total volume of Feedstock: **44,713.74 Oven Dried Tonnes (ODT's)**
- b. Volume of primary feedstock: 1,571.78 ODT's
- c. List percentage of primary feedstock (g), by the following categories.
  - i. Certified to an SBP-approved Forest Management Scheme – **0%**
  - ii. Not certified to an SBP-approved Forest Management Scheme – **100%**
- d. List all species in primary feedstock, including scientific name
  - Western Hemlock – *Tsuga heterophylla*
  - Mountain Hemlock (*Tsuga mertensiana*)
  - Amabilis Fir – *Abies amabilis*
  - Subalpine Fir – *Abies lasiocarpa*
  - Hybrid White Spruce – *Picea glauca x engelmannii*
  - Engelmann Spruce – *Picea engelmannii*
  - Sitka Spruce – *Picea sitchensis*
  - White Spruce – *Picea glauca*
  - Lodgepole Pine – *Pinus contorta*
  - Western Red Cedar – *Thuja plicata*
  - Yellow Cedar – *Chameocyparis nootkatensis*
- e. Volume of primary feedstock from primary forest – **1,581.78 ODT's**

- f. List percentage of primary feedstock from primary forest (j), by the following categories. Subdivide by SBP-approved Forest Management Schemes:
  - i. Primary feedstock from primary forest certified to an SBP-approved Forest Management Scheme – **0%**
  - ii. Primary feedstock from primary forest not certified to an SBP-approved Forest Management Scheme – **100%**
- g. Volume of secondary feedstock: **43,131.96 ODT's**
  - i. Origin of secondary feedstock: **North/Central Coast and Interior of British Columbia**
  - ii. Type: **Sawmill residuals, sawdust, bark, shavings, hog and chips**
  - iii. Percentage of volume: **96% sawmill waste from the Supply Base Area**
- h. Volume of tertiary feedstock: **0%**

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

- a. Total volume of Feedstock: **82,800 Oven Dried Tonnes (ODT's)**
- b. Volume of primary feedstock: **15,000 ODT's**
- c. List percentage of primary feedstock (g), by the following categories.
  - i. Certified to an SBP-approved Forest Management Scheme – **0%**
  - ii. Not certified to an SBP-approved Forest Management Scheme – **100%**
- d. List all species in primary feedstock, including scientific name
  - Western Hemlock – *Tsuga heterophylla*
  - Mountain Hemlock (*Tsuga mertensiana*)
  - Amabilis Fir – *Abies amabilis*
  - Subalpine Fir – *Abies lasiocarpa*
  - Hybrid White Spruce – *Picea glauca x engelmannii*
  - Engelmann Spruce – *Picea engelmannii*
  - Sitka Spruce – *Picea sitchensis*
  - White Spruce – *Picea glauca*
  - Lodgepole Pine – *Pinus contorta*
  - Western Red Cedar – *Thuja plicata*
  - Yellow Cedar – *Chameocyparis nootkatensis*
- e. Volume of primary feedstock from primary forest – **5,000 ODT's**
- f. List percentage of primary feedstock from primary forest (j), by the following categories. Subdivide by SBP-approved Forest Management Schemes:
  - i. Primary feedstock from primary forest certified to an SBP-approved Forest Management Scheme – **0%**
  - ii. Primary feedstock from primary forest not certified to an SBP-approved Forest Management Scheme – **100%**
- g. Volume of secondary feedstock: **67,800 ODT's**
  - i. Origin of secondary feedstock: **North/Central Coast and Interior of British Columbia**
  - ii. Type: **Sawmill residuals, sawdust, bark, shavings, hog and chips**
  - iii. Percentage of volume: **80% sawmill waste from the Supply Base Area**
- h. Volume of tertiary feedstock: **0%**