



Supply Base Report: Thunderbolt Biomass Inc.

Main (Initial) Audit

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Completed in accordance with the Supply Base Report Template Version 1.3

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

Document history

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1 Overview

Producer name: Thunderbolt Biomass Inc.

Producer location: 1624 Bluff Rd. Allendale, SC USA 29810

Geographic position: 33.0079 N / 81.3084 W

Primary contact: Mr. Knox Grant, President
1624 Bluff Rd. Allendale, SC USA 29810
Knox@thunderboltbiomass.com
843-514-4232

Company website: www.thunderboltbiomass.com

Date report finalised: 01/Dec/2019

Close of last CB audit: 06/Feb/2020

Name of CB: SCS Global Services

Translations from English: NA

SBP Standard(s) used: Standard #1, v1.0; 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: <http://www.thunderboltbiomass.com>

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

2 Description of the Supply Base

2.1 General description

Thunderbolt Biomass Inc. (TBI) purchases secondary & tertiary feedstock from one secondary supplier and four tertiary suppliers originating from pine sawmills in the form of pine shavings located in Georgia and South Carolina. The supply base for the pellet mill and its secondary suppliers includes 180 counties (15,257,718 hectares) in Georgia (134 counties) and South Carolina (46 counties) within the United States. This supply base is based on a 75-mile radius applied to its 5 supplier/sub-supplier mills. Forests are the predominant land use in this supply base (63.7%). Pine forests comprise the largest forest type (45.8%) of the supply area's forestland followed by hardwood forests (41.2%). The pine/oak forest comprises 11.6% of the supply area's forestland while about 1% of the forestland is considered non-stocked. About 77.6% of the supply area's forests are managed as natural forests while the remaining 22.4% of the supply area's forests are artificially regenerated.

The following description of land use is for South Carolina, the Company's major supply area, but the same description generally applies to rural, forested Georgia.

Forests are the predominant land cover in South Carolina, covering 67% of the land area. The vast majority of this forest is classified as timberland and the predominant forest type, occupying 2.1 million ha (total forest area is 5.1 million ha), is loblolly-shortleaf pine. The remaining 2.6 million ha is in other uses such as agriculture or urban development. Long term trends since 1968 show that forest land has been relatively stable while agricultural land has declined by 60 percent (.8 million ha). The area in urban development has increased from .4 million to 1.0 million ha as the State's population has increased from 2.5 million to about 4 million people. Urban development is the primary cause of deforestation.

Most of South Carolina's forest land is owned by private individuals or families (59%); corporate ownership (18%), forest industry (11%), national forests (5%), government (4%) and other federal lands (3%) make up the rest. 97% of the number of landowners own forest holdings of 80 ha or less, representing 57% of the privately held forest. Forest management offers landowners an economically viable means of keeping land in forest use while enjoying multiple benefits from their property, such as recreational opportunities, wildlife viewing, scenic beauty and personal satisfaction. Periodic income from timber provides an alternate to converting forest land to other uses.

The forest products industry is a very large part of the area's economy and is one of the top industries within the states generating \$20.8 billion in GA (2016) and \$21 billion in SC (2017) annually.

In South Carolina, forestry has emerged as the leading manufacturing industry in terms of employment and labor income. Nearly 45,000 people earning \$2.43 billion in labor income are directly employed by the forest sector. This is especially critical in rural South Carolina, where poverty and unemployment are much greater than statewide or national averages. 750,000 South Carolinians live in rural communities and rural South Carolina has a poverty rate of (2015) 22.4% vs the SC statewide rate of 15.6% and a national average of 13.5%. Rural unemployment was 6.2% compared to 4.6% in urban SC.

TBI only uses pine dry shavings from sawmills. Primary species used include loblolly pine (*Pinus taeda*), slash pine (*Pinus elliotii*), shortleaf pine (*Pinus echinata*) and longleaf pine (*Pinus palustris*). None of these species are listed on the CITES list. Longleaf pine is on the IUCN Red List and is classified as endangered. The Patch-Nosed Salamander is also listed in the IUCN but its status is shown as "Least Concern."

The FSC NRA shows the Patch-Nosed Salamander and Late Successional Bottomland Hardwood as High Conservation Values.

Pine forests are typically managed on an even-aged basis with a rotation age of 25 to 35 years. During this rotation the pine stand may be thinned one or two times during the middle of the rotation with a final harvest completing the rotation. Most pine forests are artificially regenerated with pine seedlings planted to defined stand densities. Chemical and/or mechanical site preparation is typically used to manage the less desirable hardwood species and herbaceous species at stand establishment. Chemical treatments are minimal or below label rates; do not kill all competing species and last about two years so the pine seedlings can become established. Fertilizers are not normally applied to these forests due to cost. Some private investment groups (REITS, TIMOs) may apply fertilizers on forests which are more intensively managed. These intensively managed pine forests represent a very small percentage of the overall pine forests in the supply basin.

Hardwood forests can be managed either as even-aged or uneven-aged stands. Most hardwood stands are 40 to 50 years when harvested if managed as an even-aged stand. No site preparation or fertilizers are used on hardwood forests. TBI does not purchase any hardwood material.

The vast majority of forests in the TBI supply area are managed according to state forestry best management practices (BMPs). Overall BMP compliance reported for the states within the supply base are: GA-93.17% (2017) and SC-95.5% (2016).

Sustainable forestry certification is present in TBI's supply base. Based on state-wide reporting approximately 10% of the forestland is certified (SFI-8.96%; FSC-1.08% & ATF-0.22%). No FSC certified fiber has been purchased to date.

TBI does not purchase any primary feedstock. Secondary & tertiary feedstock is received in the form of pine shavings from one sawmill and four tertiary suppliers, who are in turn purchasing from sawmills within 75 miles of their locations.

Supply Base Maps



2.2 Actions taken to promote certification amongst feedstock supplier

All of the Thunderbolt Biomass Inc.'s residual softwood fiber inputs are sourced from indirect and secondary suppliers. All fiber material is sourced according to the SFI Fiber Sourcing and SFI/PEFC Chain of Custody and Controlled Wood Standards which provides evidence that it is “Low Risk” of illegal and unsustainable forest practices. The largest of the wood suppliers is SFI Fiber Sourcing certified. A large proportion of material inputs including residual dust, shavings and chips are considered pre-consumer recycled material by both the SFI and PEFC Chain of Custody Standards and can be claimed a “Recycled Content.”

Formal Wood Producer Correspondence (TBI-SFI-04) is sent to the suppliers with a Purchase Order Addendum (TBI-SFI-06) specifying conditions and requirements to ensure compliance with all applicable laws and regulations, implementation of water quality BMPs and the use of Qualified Logging Professionals. All fiber suppliers are formally encouraged to pursue independent certification to the Standard(s) of their choice.

Thunderbolt Biomass Inc. is a member of the South Carolina Forestry Association, the South Carolina SFI Implementation Committee and the U.S. Industrial Pellet Association that promote forest certification and provide technical information to landowners addressing water quality BMPs, reforestation, visual quality protection, air quality protection, efficient utilization, protection of wildlife and biodiversity, control of invasive species and the identification and protection of forests.

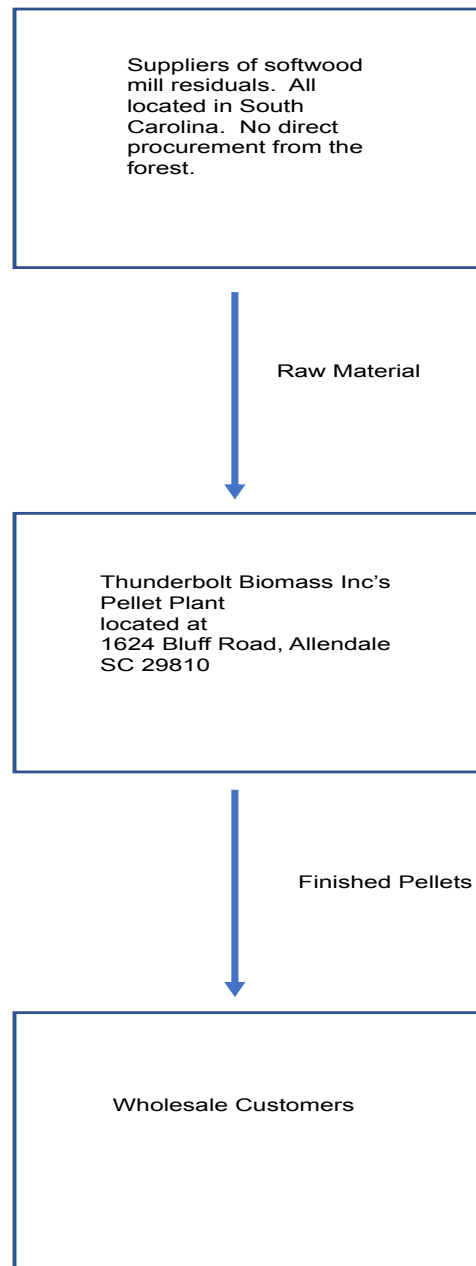
2.3 Final harvest sampling programme

Not applicable. Facility does not receive primary feedstock.

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

Thunderbolt Biomass Inc. utilizes softwood mill residuals. The residual sawdust, shavings and chips are generated by primary sawmills and secondary remanufacturing facilities, all of which are located in South Carolina (although some of these suppliers may also draw material from sources in Georgia). The pellet facility does not own forest land, does not make forest management decisions or control harvesting and does not directly procure wood from the forest. The facility also does not use any construction, demolition or post-consumer derived feedstock. A flow diagram of the inputs of raw material and outputs of finished wood pellets is below.

Flow diagram of the inputs of raw material and outputs of finished wood pellets:



2.5 Quantification of the Supply Base

Supply Base

- a. Total Supply Base area (ha): 15,257.718 ha
- b. Tenure by type (ha): **Privately Owned** (13,534,900 ha); **Public** (1,722,818 ha)
- c. Forest by type (ha):
 - 4,488,804 ha Temperate Pine Forests – Georgia,
 - 1,105,434 ha Temperate Oak-Pine – Georgia,
 - 2,516,234 ha Temperate Pine Forests – S Carolina,
 - 593,837 ha Temperate Oak-Pine – S Carolina

- d. Forest by management type (ha): **Plantation/Managed** (4,472,702 ha) **Natural/Natural** (10,785,015 ha)
- e. Certified forest by scheme (ha): **SFI** (1,366,828 ha); **ATFS** (32,873 ha); **FSC** (165,476 ha).

Feedstock

- f. Total volume of Feedstock: 0-200,000 tonnes
- g. Volume of primary feedstock: 0
- h. List percentage of primary feedstock (g), by the following categories-Not Applicable
- i. List all species in primary feedstock, including scientific name-Not Applicable
- j. Volume of primary feedstock from primary forest – Not Applicable
- k. List percentage of primary feedstock from primary forest (j), by the following categories: Not Applicable.
- l. Volume of secondary feedstock: 20%-39% Pine shavings (Slash Pine (*Pinus elliottii*), Loblolly Pine (*Pinus taeda*))
- m. Volume of tertiary feedstock: 20%-39% Pine shavings (Slash Pine (*Pinus elliottii*), Loblolly Pine (*Pinus taeda*))

The information provided in this section is made using the bands provided for each sub-section; disclosure of the exact amounts would provide sensitive commercial information in a public format which might give our competitors a commercial advantage.

3 Requirement for a Supply Base Evaluation

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

A Supply Base Evaluation (SBE) was conducted so that all feedstock material can be SBP-compliant in accordance with SBP Standard 4, 5.2.2. All of Thunderbolt Biomass Inc.'s feedstocks consists of secondary and tertiary mill residuals such as sawdust, shavings and chips. At the time of the audit, fully 100% of feedstocks are considered "pre-consumer reclaimed residual feedstocks" under the SFI and PEFC Chain of Custody Standards. (Note that all feedstocks are certified under the SFI Fiber Sourcing Standard and considered SFI/PEFC pre-consumer reclaimed material, as well as SBP-compliant secondary or tertiary feedstock and EUTR-compliant feedstock.)

4 Supply Base Evaluation

4.1 Scope

The Thunderbolt Biomass Inc. SBE & Risk Assessment includes information and evidence from the two Southern States of Georgia and South Carolina, but the fiber supply area is significantly smaller and extends approximately 60-80 highway miles from approximately five (5) sawmills and remanufacturing facilities. All material inputs are considered pre-consumer reclaimed feedstocks. All reclaimed material is derived from commercial conifer species of trees and represents a sub-scope within the SBE & RA. A map of the Supply Base is available, upon request.

4.2 Justification

The Supply Base Evaluation & Risk Assessment (Annex # 1) addresses each of the SBP Indicators contained in Standard # 1. Thunderbolt Biomass Inc. has not attempted to modify or adapt the Indicators. Many of the Indicators are similar to the requirements contained in the SFI Fiber Sourcing and SFI/PEFC Chain of Custody and Controlled Wood Standards. The evidence of conformance to the Indicators in Standard # 1 was drawn from existing SFI/PEFC/SBP Documented Procedures and Control Systems.

Additional objective evidence of conformance was drawn from publicly available sources including: State BMP monitoring, forest inventory & analysis statistics, state-wide resource assessments, wildlife action plans, World Bank Legality Matrices and other publicly available sources of information.

Thunderbolt Biomass Inc.'s approximately thirty (30) SFI, PEFC and SBP Documented Procedures and Control Systems provide the objective evidence and findings contained in the Supply Base Evaluation and Risk Assessment (Annex 1).

The Risk Assessment considered all thirty (30) of the Standard Operating Procedures (SOPs) implemented by Thunderbolt Biomass Inc. as part of its SFI Fiber Sourcing and SFI/PEFC/SBP Chain of Custody and Controlled Wood certifications. The SOPs constitute existing controls systems approved and certified by an independent Certification Body (CB) to meet the rigorous requirements of the SFI Fiber Sourcing & SFI/PEFC/SBP Chain of Custody and Controlled Wood Standards and to ensure legality and sustainability. (Note that PEFC has recognized the SFI Fiber Sourcing Standard as meeting its Due Diligence System and Controlled Wood requirements under the EU Timber Regulation.)

There are no hardwoods and no native/natural longleaf pine savannas that enter Thunderbolt Biomass Inc.'s supply chain. TBI operates pellet mills with dies that are suitable only for conifer species, not hardwoods. Longleaf Pine is extremely rare in general and effectively does not occur in commercial timber operations in Georgia and South Carolina. This is based upon interviews with all of the secondary residual suppliers.

4.3 Results of Risk Assessment

Each indicator was assessed against Thunderbolt Biomass Inc.'s SFI Fiber Sourcing and SFI/PEFC/SBP Chain of Custody and Due Diligence System Standards. The FSC US Controlled Wood National Risk Assessment (US NRA) was used as a baseline to determine if areas of high conservation value, biodiversity and conversion exist in TBI's supply base area. Based on this assessment, TBI has determined a rating of "low risk" for each indicator with the exception of indicators 2.1.2, 2.1.3, 2.2.3 and 2.2.4.

4.4 Results of Supplier Verification Programme

Not applicable; the results of the risk assessment indicate there are no indicators determined to be “unspecified risk”.

4.5 Conclusion

Based on the results of the supply base evaluation there is low risk to all indicators SBP Framework Standard 1: Feedstock Compliance except for indicators 2.1.2, 2.1.3, 2.2.3 and 2.2.4, which are determined to be “specified risk” and will require mitigation measures to lower this identified risk.

This conclusion is based on the strong legal and regulatory system found within the supply base. Federal, state and local laws regulations are in place to address a wide range of indicators including, but not limited to, illegal harvesting, water quality, rare and endangered species, worker health and safety, labor rights and air quality. In addition to these laws and regulations, voluntary state forestry best management practices (BMPs) are in place to provide guidance to forest landowners and contractors on how to sustainably manage forests. The company has made these voluntary guidelines mandatory through contract language requiring the use of all BMPs.

Thunderbolt Biomass Inc. utilizes Purchase Order Addendums to require its suppliers to use trained loggers, requires compliance with laws and regulations and State Best Management Practices and requires that steps be taken to avoid any potential impacts from forest harvesting activities. Feedback from the Stakeholder Consultation process was positive and reinforced the finding that there is a need for markets of low valued sawmill and remanufacturing residual material. No negative stakeholder input was received.

All inputs are currently limited to indirect and secondary residual sources and Thunderbolt Biomass Inc. is considered by SBP to be a “Secondary Wood Processing” facility that has no direct control or contractual link to the Forest Management Unit (FMU). 100% of the residual pre-consumer reclaimed feedstocks are supplied within the scope of the SFI Fiber Sourcing and SFI/PEFC/SBP Chain of Custody and Due Diligence Systems approved by SBP. Thus, all residual fiber inputs are considered “SBP-compliant secondary feedstock” and “EUTR-complaint feedstock” material. All inputs are also subject to the SFI Fiber Sourcing Standard and outputs are considered “SFI Certified Sourcing.” All outputs are also considered “SFI/PEFC Recycled Content.”

Thunderbolt Biomass Inc. conducts seven levels of internal monitoring, auditing and management review including:

1. Chain of Custody Evidence Manual & Internal Audit Checklist (TBI-COC-02),
2. SBP Internal Audit Checklist (TBI-SBP-04),
3. BMP Monitoring Report Form (TBI-SFI-05),
4. SFI Evidence Manual & Internal Audit Checklist (TBI-SFI-01),
5. Summary of Stakeholder Input (TBI-SBP-02),
6. Supplier Monitoring Procedure & Checklist (TBI-SBP-07),
7. Management Review Procedure and Action Items (TBI-COC-16)

In addition, the FSC US National Risk Assessment has determined “Low Risk” for Category # 1 Legality, Category # 2 Traditional and Civil Rights and Category # 5 Genetically Modified Organisms. The World Bank ranks the U.S. in the top three countries in legal and regulatory compliance. All available risk assessments, including those conducted by Thunderbolt Biomass Inc., verify and document that there is an extremely “Low Risk” of sourcing illegal and unsustainable secondary pre-consumer reclaimed feedstocks from the planted and commercially managed conifer forests of South Carolina and Georgia.

5 Supply Base Evaluation Process

Thunderbolt Biomass Inc. retained the services of R.S. Berg & Associates, Inc. to assist in the preparation of the SFI Fiber Sourcing, SFI/PEFC/SBP Chain of Custody & Due Diligence Systems, the SBP Program and Procedures, including conducting the Supply Base Evaluation & Risk Assessment. R.S. Berg & Associates, Inc. has provided consulting assistance to three hundred and ten (310) forestry organizations in North America and has conducted over sixty (60) independent and internal audits to the FSC, SFI, PEFC and American Tree Farm System Standards. Mr. Berg's resume, client list and other background information is available upon request.

Thunderbolt Biomass Inc. is certified to the SFI Fiber Sourcing and SFI/PEFC/SBP Chain of Custody and Controlled Wood Standards. Thunderbolt Biomass Inc. sources all secondary pre-consumer residual inputs from suppliers that are within scope of the SFI/PEFC/SBP Chain of Custody and Controlled Wood/Due Diligence Standards.

Thunderbolt Biomass Inc. conducts seven levels of internal monitoring and auditing referenced in Section 4.5 above. This level of monitoring and auditing verifies and documents that the Standards requirements are being met..

6 Stakeholder Consultation

A Stakeholder Consultation Procedure (TBI-SBP-01) has been implemented including correspondence to a CB approved list of interested and affected stakeholders across the two-state supply base. A list of relevant Stakeholders was developed based upon several selection criteria including: the geographic scope of the Supply Base, relevant federal and state natural resource agencies, private conservation organizations, indigenous people's groups, forestry schools and colleges, environmental advocacy organizations, the forest industry sector, as well as governmental officials.

Following approval from the Certification Body Lead Auditor, stakeholder correspondence was forwarded to all Stakeholder at least 30 days prior to the completion of the SBE/RA. A Summary of Stakeholder input was prepared documenting input and responses by Thunderbolt Biomass Inc. (TBI-SBP-02).

6.1 Response to stakeholder comments

Provide a summary of all stakeholder comments received and how the comments were taken into consideration in the SBE process.

Comment 1: Georgia Forestry Commission November 25, 2019



5645 Riggins Mill Road
Dry Branch, GA 31020
P. 478-751-3500
F. 478-751-3465
An Equal Opportunity
Employer & Service Provider



Brian Kemp
Governor
Chuck Williams
Director
Board of Commissioners:
Wesley Langdale, Chairman
Vaidosta
Larry Spillers, Vice Chairman
Roberta
Jimmy Allen
Chula
Ember Bentley
Macon
Chad Nimmer
Blackshear
Robert Pollard
Appling
Sandie Sparks
Ellijay

November 25, 2019

Mr. Knox Grant, President
Thunderbolt Biomass, Inc.
1624 Bluff Road
Allendale, SC 29810

Dear Mr. Grant,

Thank you for your November 10, 2019, invitation to comment on your plans to achieve certification to the Sustainable Biomass Partnership (SBP) Standards, particularly for your Supply Base Evaluation that will assist you in determining whether your sources of supply are considered Low Risk for legality and sustainability.

Following is some important information about Georgia's forests and forest industry that may be useful to you in your certification process.

Georgia's forest industry provides \$36.3 billion in total economic activity and supports 148,414 jobs. The wood pellet industry is an important contributor to the economy of the state, growing from zero to ten mills since 2007, providing new markets for mill by-products and small diameter trees and encouraging forest owners to "keep working forests in forests".

Georgia's robust forest industry exists because of the state's vast, sustainable forests. Remaining stable for over fifty-years at about 24 million acres, the largest commercial forest in the U.S., forest growth exceeds removals by 48% per year. Furthermore, feedstock for wood pellet mills are plentiful. In addition to 1.5 billion green tons of forest inventory, primary wood-using mills generate 15.5 million green tons of wood and bark by-products annually; moreover, timber harvests generate 8.2 million green tons of logging residues annually.

Participants in Georgia's wood supply chain are well versed in forestry laws and regulations. For example, comprehensive training and independent certification of timber harvesters has resulted in increased skills levels and professionalism as evidenced by a best management practices (BMP's) implementation rate of 94.4%; furthermore, law enforcement records show that there is less than a one-half percent chance of illegal wood accessing the state's supply chain.

Again, thank you for your inquiry and I trust that this information will be useful to you in your efforts to achieve SBP Certification.

Please let me know if you require any further information.

Sincerely,

Re

es *Risher A. Willard*

Cc

Risher A. Willard
Forest Services, Utilization & Marketing Chief

the comments were received.

Response 2: Not applicable.

7 Overview of Initial Assessment of Risk

This overview of the Controlled Wood Due Diligence System and Risk Assessment is for the purposes of communication of the findings and conclusions to SBP, customers and any other interested parties. The written summary includes the following information:

- 1) A description of the supply area(s) and respective risk designation(s);
- 2) Reference to the applicable Due Diligence System and Risk Assessment;
- 3) The organization's own risk assessment (excluding confidential information);
- 4) The procedure for filing complaints; and
- 5) Contact information of the person or position responsible for addressing complaints.

Program Scope

Thunderbolt Biomass Inc. is implementing a Controlled Wood Procedure, Due Diligence System and Risk Assessment to achieve conformance with the SFI, PEFC and SBP Standards for the evaluation of controlled or controversial wood in order to avoid material from unacceptable sources. This procedure is part of the Chain of Custody and Controlled Wood program addressing fiber procurement for its single-site pellet manufacturing facility in Allendale, South Carolina.

Note that there is no virgin fiber that is used in the pellet making process. Only upland and commercially grown pine species are used. All inputs from sawmill residual dust, chips and shavings are considered pre-consumer recycled content under the SFI, PEFC and SBP Standards. Future sources of sawmill chips will be sourced from an SFI Fiber Sourcing certified supplier. All inputs are therefore considered "SBP-compliant secondary feedstock," "EUTR-compliant feedstock," "SFI Certified Sourcing" and "SFI/PEFC recycled content."

Supply Area and Risk Designations

All residual fiber sources are from within the U.S. States of South Carolina and Georgia. Within this supply area, all sources were found to be low risk for unacceptable and unsustainable sources with the exception of those deemed specified risk per FSC standards. Mitigation is in place to to substantiate a low risk assessment.

Thunderbolt Biomass Inc. has identified all of its fiber suppliers and their incoming material as coming from either "SFI Fiber Sourcing Certified" or "Pre-consumer Recycled material," "SBP-compliant secondary feedstock" or "EUTR-compliant feedstock." The President has notified all of its suppliers that it will not accept "uncontrolled/controversial" sources of wood fiber. It has incorporated the controlled wood and fiber sourcing restrictions in its Purchase Order Addendum (TBI-SFI-06) that is agreed to by all suppliers.

SFI/PEFC/SBP Risk Assessment

The US has a number of risk assessment processes which have found "low risk" for legality. The American Hardwood Export Council Legality Assessment and the FSC US National Controlled Wood Risk Assessment have all found "Low Risk." Thunderbolt Biomass Inc. has also assessed its sources of supply and concluded Low Risk for all indicators except those assessed as specified risk which are mitigated to low risk. In addition, Low Risk has been found to the Sustainable Biomass Partnership (SBP) Feedstock Standard # 01.

Thunderbolt Biomass Inc. Risk Assessment Summary

Refer to Document # TBI-SFI-10: Controlled Wood Procedure and Due Diligence System and Document # TBI-SBP-03: Supply Base Evaluation & Risk Assessment.

Procedure for Filing Complaints, Including Contact Person

Complaints regarding the Thunderbolt Biomass Inc. Due Diligence System and/or Risk Assessment should be directed to the company’s Compliance Officer:

Mr. Jamison Swimm, Compliance Officer
 1624 Bluff Road
 Allendale, SC, USA 29810
Jswimm@thunderboltbiomass.com

Complaints must be in writing and sent by email. Thunderbolt Biomass Inc. will acknowledge the complaint as soon as practical and will provide an initial response to the complaint within two weeks.

Thunderbolt Biomass Inc. will assess each complaint and determine whether it is substantiated. If so Thunderbolt Biomass Inc. will attempt to resolve the complaint directly with the person or organization that filed, it. The Thunderbolt Biomass Inc. Complaint Procedure is further detailed in Documented Procedure TBI-COC-14.

Table 1. Overview of results from the risk assessment of all Indicators as they apply to the conifer sourcing sub-scope of the SBE.

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

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

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

2.2.8		X	
2.2.9		X	



8 Supplier Verification Programme

8.1 Description of the Supplier Verification Programme

Not applicable; all indicators of the initial risk assessment were determined to be low or specified risk and no unspecified risk was identified. No Supplier Verification Program is required.

8.2 Site visits

Not applicable.

8.3 Conclusions from the Supplier Verification Programme

Not applicable.

9 Mitigation Measures

9.1 Mitigation measures

Thunderbolt Biomass Inc. Standard Operating Procedures (SOPs) addressing sustainability and legality are already in place and have been functioning under the SFI Fiber Sourcing and SFI/PEFC/SBP Chain of Custody and Due Diligence System programs.

Thunderbolt Biomass Inc. has incorporated legality and sustainability provisions in its Purchase Order Addendum. Supplier compliance is assessed via monitoring of Thunderbolt Biomass Inc.'s suppliers, state agency inspections, stakeholder feedback, and state agency inspections or reports where relevant and available.

Further mitigation measures have been adopted as part of the SBE Risk Assessment.

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.

World Wildlife Fund (WWF) Ecoregions

NA517 Mid-Atlantic Coastal Forests

- a) WWF has declared about 88% of this ecoregion having been converted. The remaining examples of this HCV are known to occur on protected lands.
- b) The Company through its feedstock purchase contracts or supply agreements requires suppliers to comply with laws and regulations, including the Clean Water Act, and compliance with state Best Management Practices (BMPs). Verification of compliance is accomplished through supplier audits using TBI-SBP-07 Supplier Monitoring Checklists.
- c) The Company has committed to improving the education and awareness of this ecoregion through the representation of the Company at the South Carolina Forestry Association and the South Carolina SFI Implementation Committee. Information from these organizations was reviewed by company personnel.
- d) The Company reviews this educational information with its suppliers who source wood fiber from this ecoregion to educate the suppliers, their loggers and landowners on conservation values, threats from incompatible forest management, & opportunities for conservation through management that enhances biodiversity and reduces or eliminates threats. This education & outreach measure is documented using TBI-SBP-07 Supplier Monitoring Checklists.

NA529 Southeastern Conifer Forests

- a) WWF has declared over 98% of this ecoregion having been converted. The remaining examples of this HCV are known to occur on protected lands.
- b) The Company has committed to improving the education and awareness of this ecoregion through the representation of the Company at the South Carolina Forestry Association and the South Carolina SFI Implementation Committee. Information from these organizations was reviewed by company personnel. Information from these regional meetings on Native Long Leaf Pine Systems (NLPS) was reviewed by company personnel.
- c) The Company reviews this educational information with its suppliers who source wood fiber from this ecoregion to educate the suppliers, their loggers and landowners on the social benefits and values of NLPS, threats from forest management and related loss of values, and opportunities for conservation

through management that restores or maintains NLPS and reduces or eliminates these threats. Communications should recognize the importance of the forest understory and fire to NLPS. This education and outreach measure will be documented using TBI-SBP-07 Supplier Monitoring Checklists.

- d) The Company will engage with and/or provide monetary or in-kind resources to conservation organizations such as the Longleaf Alliance that are facilitating active on-the-ground implementation of management activities to restore or maintain existing examples of NLPS, with a goal of long-term conservation of this system within the specified risk area and the company's supply area.

Green Peace Intact Forests

- a) There is a strong system of protection (effective protected areas and legislation) in place within the Company's supply area that ensures survival of this intact forest.
- b) No wood is harvested out of the described National Wilderness Area which is managed by the Department of Interior. If wood is harvested from the surrounding forests described above, The Department of Interior or the Georgia Forestry Commission conducts environment impact studies and oversees all timber harvesting on these forests within the HCV providing complete protection of the site.

FSC US Controlled Wood National Risk Assessment (US NRA)

Category 3: HCV3 - Native Longleaf Pine Systems

- a) The Company has committed to improving the education and awareness of this ecoregion through the representation of the Company at the South Carolina Forestry Association and the South Carolina SFI Implementation Committee. Information from these regional organizations on Native Long Leaf Pine Systems (NLPS) was reviewed by company personnel.
- b) The Company reviews this educational information with its suppliers who source wood fiber from these counties to educate the suppliers, their loggers and landowners on the social benefits and values of NLPS, threats from forest management and related loss of values, and opportunities for conservation through management that restores or maintains NLPS and reduces or eliminates these threats. Communications should recognize the importance of the forest understory and fire to NLPS. This education and outreach measure will be documented using TBI-SBP-07 Supplier Monitoring Checklists.
- c) The Company will engage with and/or provide monetary or in-kind resources to conservation organizations such as the Longleaf Alliance that are facilitating active, on-the-ground implementation of management activities to restore or maintain existing examples of NLPS, with a goal of long-term conservation of this system within the specified risk area and the company's supply area.

The Company has developed & implemented feedstock purchase contracts with its feedstock suppliers that:

- i. mitigate the risk that material supplied originates from forest areas or using techniques where key ecosystems or habitats may not be conserved, or
- ii. assure that if some deviation from these standards has occurred the Company can reject individual loads from suppliers or discontinue its relationship with the supplier.

The Company has developed & implemented feedstock purchase contracts with its feedstock suppliers that:

- i. mitigate the risk that material supplied originates from forest areas or using techniques where key ecosystems or habitats may not be conserved, or
- ii. assure that if some deviation from these standards has occurred the Company can reject individual loads from suppliers or discontinue its relationship with the supplier.

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.*

FSC US Controlled Wood National Risk Assessment (US NRA)

Category 4: Forestland Conversion

Mitigation Measures:

- a) The BP has developed and implemented binding written agreements with its feedstock suppliers that:
 - i. mitigate the risk that material supplied originates from forest areas converted into plantation or non-forest use.
 - ii.
- b) The BP has committed to improving the education and awareness of this ecoregion through the representation of the BP at the South Carolina Forestry Association and the South Carolina SFI Implementation Committee. Information from these organizations was reviewed by BP personnel.

The BP reviews this educational information with its suppliers who source wood fiber from these counties to educate the suppliers, their loggers and landowners on the social benefits of keeping forests as forests, and the value enhancing alternatives to conversion and opportunities for the maintenance of forests. This education and outreach measure will be documented using TBI-SBP-07 Supplier Audit Checklists

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).*

World Wildlife Fund (WWF) Ecoregions

NA517 Mid-Atlantic Coastal Forests

- a) WWF has declared about 88% of this ecoregion having been converted. The remaining examples of this HCV are known to occur on protected lands.
- b) The Company through its feedstock purchase contracts or supply agreements requires suppliers to comply with laws and regulations, including the Clean Water Act, and compliance with state Best Management Practices (BMPs). Verification of compliance is accomplished through supplier audits using TBI-SBP-07 Supplier Monitoring Checklists.
- c) The Company has committed to improving the education and awareness of this ecoregion through the representation of the Company at the South Carolina Forestry Association and the South Carolina SFI Implementation Committee. Information from these organizations was reviewed by company personnel.
- d) The Company reviews this educational information with its suppliers who source wood fiber from this ecoregion to educate the suppliers, their loggers and landowners on conservation values, threats from incompatible forest management, & opportunities for conservation through management that enhances biodiversity and reduces or eliminates threats. This education & outreach measure is documented using TBI-SBP-07 Supplier Monitoring Checklists.

NA529 Southeastern Conifer Forests

- a) WWF has declared over 98% of this ecoregion having been converted. The remaining examples of this HCV are known to occur on protected lands.
- b) The Company has committed to improving the education and awareness of this ecoregion through the representation of the Company at the South Carolina Forestry Association and the South Carolina SFI Implementation Committee. Information from these organizations was reviewed by company personnel. Information from these regional meetings on Native Long Leaf Pine Systems (NLPS) was reviewed by company personnel.
- c) The Company reviews this educational information with its suppliers who source wood fiber from this ecoregion to educate the suppliers, their loggers and landowners on the social benefits and values of NLPS, threats from forest management and related loss of values, and opportunities for conservation through management that restores or maintains NLPS and reduces or eliminates these threats. Communications should recognize the importance of the forest understory and fire to NLPS. This education and outreach measure will be documented using TBI-SBP-07 Supplier Monitoring Checklists.
- d) The Company will engage with and/or provide monetary or in-kind resources to conservation organizations such as the Longleaf Alliance that are facilitating active on-the-ground implementation of management activities to restore or maintain existing examples of NLPS, with a goal of long-term conservation of this system within the specified risk area and the company's supply area.

Green Peace Intact Forests

- a) There is a strong system of protection (effective protected areas and legislation) in place within the Company's supply area that ensures survival of this intact forest.
- b) No wood is harvested out of the described National Wilderness Area which is managed by the Department of Interior. If wood is harvested from the surrounding forests described above, The Department of Interior or the Georgia Forestry Commission conducts environment impact studies and oversees all timber harvesting on these forests within the HCV providing complete protection of the site.

FSC US Controlled Wood National Risk Assessment (US NRA)

Category 3: HCV3 - Native Longleaf Pine Systems

- a) The Company has committed to improving the education and awareness of this ecoregion through the representation of the Company at the South Carolina Forestry Association and the South Carolina SFI Implementation Committee. Information from these regional organizations on Native Long Leaf Pine Systems (NLPS) was reviewed by company personnel.
- b) The Company reviews this educational information with its suppliers who source wood fiber from these counties to educate the suppliers, their loggers and landowners on the social benefits and values of NLPS, threats from forest management and related loss of values, and opportunities for conservation through management that restores or maintains NLPS and reduces or eliminates these threats. Communications should recognize the importance of the forest understory and fire to NLPS. This education and outreach measure will be documented using TBI-SBP-07 Supplier Monitoring Checklists.
- c) The Company will engage with and/or provide monetary or in-kind resources to conservation organizations such as the Longleaf Alliance that are facilitating active, on-the-ground implementation of management activities to restore or maintain existing examples of NLPS, with a goal of long-term conservation of this system within the specified risk area and the company's supply area.

The Company has developed & implemented feedstock purchase contracts with its feedstock suppliers that:

- i. mitigate the risk that material supplied originates from forest areas or using techniques where key ecosystems or habitats may not be conserved, or
- ii. assure that if some deviation from these standards has occurred the Company can reject individual loads from suppliers or discontinue its relationship with the supplier.

2.2.4 *The Biomass Producer has implemented appropriate control systems and procedures to ensure that biodiversity is protected (CPET S5b).*

World Wildlife Fund (WWF) Ecoregions

NA517 Mid-Atlantic Coastal Forests

- a) WWF has declared about 88% of this ecoregion having been converted. The remaining examples of this HCV are known to occur on protected lands.
- b) The Company through its feedstock purchase contracts or supply agreements requires suppliers to comply with laws and regulations, including the Clean Water Act, and compliance with state Best Management Practices (BMPs). Verification of compliance is accomplished through supplier audits using TBI-SBP-07 Supplier Monitoring Checklists.
- c) The Company has committed to improving the education and awareness of this ecoregion through the representation of the Company at the South Carolina Forestry Association and the South Carolina SFI Implementation Committee. Information from these organizations was reviewed by company personnel.
- d) The Company reviews this educational information with its suppliers who source wood fiber from this ecoregion to educate the suppliers, their loggers and landowners on conservation values, threats from incompatible forest management, & opportunities for conservation through management that enhances biodiversity and reduces or eliminates threats. This education & outreach measure is documented using TBI-SBP-07 Supplier Monitoring Checklists.

NA529 Southeastern Conifer Forests

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- c) The Company reviews this educational information with its suppliers who source wood fiber from this ecoregion to educate the suppliers, their loggers and landowners on the social benefits and values of NLPS, threats from forest management and related loss of values, and opportunities for conservation through management that restores or maintains NLPS and reduces or eliminates these threats. Communications should recognize the importance of the forest understory and fire to NLPS. This education and outreach measure will be documented using TBI-SBP-07 Supplier Monitoring Checklists.
- d) The Company will engage with and/or provide monetary or in-kind resources to conservation organizations such as the Longleaf Alliance that are facilitating active on-the-ground implementation of management activities to restore or maintain existing examples of NLPS, with a goal of long-term conservation of this system within the specified risk area and the company's supply area.

Green Peace Intact Forests

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- b) No wood is harvested out of the described National Wilderness Area which is managed by the Department of Interior. If wood is harvested from the surrounding forests described above, The Department of Interior or the Georgia Forestry Commission conducts environment impact studies and oversees all timber harvesting on these forests within the HCV providing complete protection of the site.

FSC US Controlled Wood National Risk Assessment (US NRA)

Category 3: HCV3 - Native Longleaf Pine Systems

- a) The Company has committed to improving the education and awareness of this ecoregion through the representation of the Company at the South Carolina Forestry Association and the South Carolina SFI Implementation Committee. Information from these regional organizations on Native Long Leaf Pine Systems (NLPS) was reviewed by company personnel.
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The Company has developed & implemented feedstock purchase contracts with its feedstock suppliers that:

- i. mitigate the risk that material supplied originates from forest areas or using techniques where key ecosystems or habitats may not be conserved, or
- ii. assure that if some deviation from these standards has occurred the Company can reject individual loads from suppliers or discontinue its relationship with the supplier.

9.2 Monitoring and outcomes

Thunderbolt Biomass Inc. Periodically and annually interviews and monitors its suppliers to confirm compliance with the Purchase Order Addendums as part of its internal monitoring and management review process. All outcomes of the interview and monitoring process confirm the finding of Low Risk.

Thunderbolt Biomass Inc. conducts seven levels of internal monitoring, auditing and management review including:

1. Chain of Custody Evidence Manual & Internal Audit Checklist (TBI-COC-02),
2. SBP Internal Audit Checklist (TBI-SBP-04),
3. BMP Monitoring Report Form (TBI-SFI-05),
4. SFI Evidence Manual & Internal Audit Checklist (TBI-SFI-01),
5. Summary of Stakeholder Input (TBI-SBP-02),

6. Supplier Monitoring Procedure & Checklist (TBI-SBP-07),
7. Management Review Procedure and Action Items (TBI-COC-16)

The above monitoring, auditing and management review system has confirmed the finding of “Full Conformance” to the applicable Standards.

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.

World Wildlife Fund (WWF) Ecoregions - NA517 Mid-Atlantic Coastal Forests

1. Protected lands identified and mapped within the Company's Supply Base.
2. Verification of compliance is accomplished through supplier audits using TBI-SBP-07 Supplier Monitoring Checklists.
3. Training records document education and awareness efforts of this ecoregion.
4. This education & outreach measure is documented using TBI-SBP-07 Supplier Monitoring Checklists.

World Wildlife Fund (WWF) Ecoregion - NA529 Southeastern Conifer Forests

1. Protected lands identified and mapped within the Company's Supply Base.
2. Training records document education and awareness efforts of this ecoregion.
3. This education and outreach measure will be documented using TBI-SBP-07 Supplier Monitoring Checklists.
4. Maintain records of involvement with conservation organizations such as the SC Forestry Association and the SC SFI Implementation Committee.

Greenpeace Intact Forest

Verification of compliance is accomplished through supplier audits using TBI-SBP-07 Supplier Monitoring Checklists.

US NRA - Category 3: HCV3 - Natural Longleaf Pine Systems

1. Training records document education and awareness efforts of Native Long Leaf Pine Systems.
2. This education and outreach measure will be documented using TBI-SBP-07 Supplier Monitoring Checklists.
3. Maintain records of involvement with conservation organizations such as the SC Forestry Association and the SC SFI Implementation Committee.

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.

FSC US Controlled Wood National Risk Assessment (US NRA) - Category 4: Forestland Conversion

1. Written agreements with its feedstock suppliers.
2. Training records document education and awareness efforts of Forestland Conversion.
3. This education and outreach measure will be documented using TBI-SBP-07 Supplier Monitoring Checklists.
4. Maintain membership records in the South Carolina Forestry Association.

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).*

World Wildlife Fund (WWF) Ecoregions - NA517 Mid-Atlantic Coastal Forests

1. Protected lands identified and mapped within the Company's Supply Base.
2. Verification of compliance is accomplished through supplier audits using TBI-SBP-07 Supplier Monitoring Checklists.
3. Training records document education and awareness efforts of this ecoregion.
4. This education & outreach measure is documented using TBI-SBP-07 Supplier Monitoring Checklists.

World Wildlife Fund (WWF) Ecoregion - NA529 Southeastern Conifer Forests

1. Protected lands identified and mapped within the Company's Supply Base.
2. Training records document education and awareness efforts of this ecoregion.
3. This education and outreach measure will be documented using TBI-SBP-07 Supplier Monitoring Checklists.
4. Maintain records of involvement with conservation organizations such as the SC Forestry Association and the SC SFI Implementation Committee.

Greenpeace Intact Forest

Verification of compliance is accomplished through supplier audits using TBI-SBP-07 Supplier Monitoring Checklists.

US NRA - Category 3: HCV3 - Natural Longleaf Pine Systems

1. Training records document education and awareness efforts of Native Long Leaf Pine Systems.
2. This education and outreach measure will be documented using TBI-SBP-07 Supplier Monitoring Checklists.
3. Maintain records of involvement with conservation organizations such as the SC Forestry Association and the SC SFI Implementation Committee.

2.2.4 *The Biomass Producer has implemented appropriate control systems and procedures to ensure that biodiversity is protected (CPET S5b).*

World Wildlife Fund (WWF) Ecoregions - NA517 Mid-Atlantic Coastal Forests

1. Protected lands identified and mapped within the Company's Supply Base.
2. Verification of compliance is accomplished through supplier audits using TBI-SBP-07 Supplier Monitoring Checklists.
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4. Maintain records of involvement with conservation organizations such as the SC Forestry Association and the SC SFI Implementation Committee.

Greenpeace Intact Forest

Verification of compliance is accomplished through supplier audits using TBI-SBP-07 Supplier Monitoring Checklists.

US NRA - Category 3: HCV3 - Natural Longleaf Pine Systems

1. Training records document education and awareness efforts of Native Long Leaf Pine Systems.
2. This education and outreach measure will be documented using TBI-SBP-07 Supplier Monitoring Checklists.
3. Maintain records of involvement with conservation organizations such as the SC Forestry Association and the SC SFI Implementation Committee.

10 Detailed Findings for Indicators

Detailed findings for each Indicator are given in SBR Annex 1.

11 Review of Report

11.1 Peer review

The SBP Standards Program has involved the development of detailed Documents and Procedures to address all relevant requirements. An outside consultant with expertise in forest certification standards was retained to help develop the procedures and conduct the Supply Base Evaluation.

A Readiness Review was conducted with the accredited Certification Body. Notifications were sent to government and non-governmental organizations and other potential stakeholders. The accredited Certification Body has assigned trained auditors to conduct an independent audit of the SBP Program. The Certification Body is also required to conduct an independent consultation with potential stakeholders.

Independent auditors conduct annual surveillance audits of the Thunderbolt Biomass Inc. SFI Fiber Sourcing and SFI/PEFC certification programs. Thunderbolt Biomass Inc. believes that sufficient independent reviews of its Programs and Procedures has taken place and that an additional Peer Review is not warranted or required at this time.

11.2 Public or additional reviews

No additional external review of this report has been completed by other stakeholders.

12 Approval of Report

Approval of Supply Base Report by senior management			
Report Prepared by:	Jamison Swimm	Compliance Officer	5/6/2020
	Name	Title	Date
The undersigned persons confirm that I/we are members of the organization'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 finalization of the report.			
Report approved by:	Mr. Knox Grant	President	5/6/2020
	Name	Title	Date
		<i>[title]</i>	<i>[date]</i>
	Name	Title	Date
Report approved by:	<i>[name]</i>	<i>[title]</i>	<i>[date]</i>
	Name	Title	Date

13 Updates

Not applicable: This is the certification audit report.

13.1 Significant changes in the Supply Base

Not applicable: This is the certification audit report.

13.2 Effectiveness of previous mitigation measures

Not applicable: This is the certification audit report.

13.3 New risk ratings and mitigation measures

Not applicable: This is the certification audit report.

13.4 Actual figures for feedstock over the previous 12 months

Not applicable: This is the certification audit report.

13.5 Projected figures for feedstock over the next 12 months

0-200,000 Tonnes

The information provided in this section is made using the bands provided; disclosure of the exact amounts would provide sensitive commercial information in a public format which might give our competitors a commercial advantage.

Annex 1: Detailed Findings for Supply Base Evaluation Indicators

	Indicator																										
1.1.1	The Biomass Producer’s Supply Base is defined and mapped.																										
Finding	<p>Thunderbolt Biomass Inc. defines and maps the overall Supply Base. All residual fiber originates from the planted conifer forests of the Coastal Plain regions of Georgia and South Carolina. The following represents the supply base area and composition for the Supply Base Evaluation.</p> <p>The facility sources secondary, as well as, tertiary residual materials from approximately five sources over a largely rural area where forestry and agriculture (e.g. forests, crops, cattle) are prevalent and are the primary sources of income for workers and the local communities. The supply base consists of planted and managed production pine forests in the U.S. States of South Carolina and Georgia. No hardwoods are sourced; there are no “Production Plantation Forests” and no “Genetically Modified Organisms.”</p> <p>Total Supply Base area (ha):</p> <p>Tenure by type (ha):</p> <table data-bbox="359 1317 922 1422"> <tr> <td>8,930,272 ha</td> <td>Private Land – Georgia</td> </tr> <tr> <td><u>4,604,628 ha</u></td> <td>Private Land – South Carolina</td> </tr> <tr> <td>13,534,900 ha</td> <td>Total</td> </tr> </table> <table data-bbox="359 1458 960 1563"> <tr> <td>1,076,988 ha</td> <td>Public Agencies – Georgia</td> </tr> <tr> <td><u>645,830 ha</u></td> <td>Public Agencies – South Carolina</td> </tr> <tr> <td>1,722,818 ha</td> <td>Total</td> </tr> </table> <p>Forest by management type (ha): planted or managed natural conifer stands</p> <table data-bbox="359 1668 944 1774"> <tr> <td>3,127,355 ha</td> <td>Planted Forest – Georgia</td> </tr> <tr> <td><u>1,345,347 ha</u></td> <td>Planted Forest – South Carolina</td> </tr> <tr> <td>4,472,702 ha</td> <td>Total</td> </tr> </table> <table data-bbox="359 1809 1007 1915"> <tr> <td>6,879,904 ha</td> <td>Managed Natural Forest - Georgia</td> </tr> <tr> <td><u>3,905,111 ha</u></td> <td>Managed Natural Forest – S Carolina</td> </tr> <tr> <td>10,785,015 ha</td> <td>Total</td> </tr> </table> <p>Certified forest by scheme (ha):</p> <table data-bbox="359 2042 730 2078"> <tr> <td>1,005,261 ha</td> <td>SFI – Georgia</td> </tr> </table>	8,930,272 ha	Private Land – Georgia	<u>4,604,628 ha</u>	Private Land – South Carolina	13,534,900 ha	Total	1,076,988 ha	Public Agencies – Georgia	<u>645,830 ha</u>	Public Agencies – South Carolina	1,722,818 ha	Total	3,127,355 ha	Planted Forest – Georgia	<u>1,345,347 ha</u>	Planted Forest – South Carolina	4,472,702 ha	Total	6,879,904 ha	Managed Natural Forest - Georgia	<u>3,905,111 ha</u>	Managed Natural Forest – S Carolina	10,785,015 ha	Total	1,005,261 ha	SFI – Georgia
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	<p><u>439,807 ha</u> SFI – South Carolina 1,445,068 ha Total SFI</p> <p>1,208,353 ha ATFS – Georgia <u>539,284 ha</u> ATFS – South Carolina 1,747,637 ha Total ATFS</p> <p>The six physiographic ecoregions of Georgia are the Southern Coastal Plain, Southeastern Coastal Plains, Piedmont, Blue Ridge, Ridge and Valley and Cumberland Plateau. The Southern Coastal Plain and Southeastern Plains, collectively referred to in this report as the Coastal Plain, are comprised mostly of loblolly, slash and longleaf pine and lowland hardwoods. The Piedmont is comprised mostly of loblolly pine, loblolly pine-hardwood mix, with small percentages of shortleaf pine, upland hardwoods and lowland hardwoods. The Blue Ridge has a majority of upland hardwood types with small percentages of white pine and hemlock types. The Ridge and Valley region varies between upland hardwoods on the ridges to mostly loblolly pine and Virginia pine in the valleys and lower slopes. The Cumberland Plateau, which only includes Dade County in extreme northwest Georgia, is comprised mostly of upland hardwoods, with some loblolly pine and Virginia pine.</p> <p>South Carolina’s forest lands can be divided into three areas: Piedmont, Southern Coastal Plain and Northern Coastal Plain. Loblolly-shortleaf pine is the predominant forest type in the State, accounting for over 44 percent of all forests. Oak-hickory is the second most recorded forest type, representing over one-fifth of the forest land base. Oak-gum-cypress, oak-pine, longleaf-slash pine and elmash- cottonwood account for 14.8 percent, 11.6 percent, 4.3 percent and 3.0 percent, respectively. Loblolly pine was the State’s most common tree species, leading both in number of trees (44 percent of all live-trees with d.b.h. ≥ 5 inches) and in total volume (42 percent of all volume). Sweetgum followed second, accounting for 10 percent of all trees and 9 percent of all volume. Close to 52 percent of the state’s volume is found in softwoods.</p>
Means of Verification	Thunderbolt Biomass Inc. communicates with all residual suppliers, verifies their supply base; communicates requirements related to BMP implementation, checks compliance with applicable requirements, monitors their conformance to SBP Standard # 1, reports findings to management and takes corrective actions as appropriate to the situation.
Evidence Reviewed	<p>Hardcopy maps of the Supply Base are maintained and available.</p> <p>Documented Procedures are implemented and maintained to identify the supply base and keep it updated.</p> <p>Various Monitoring Reports including supplier checklists, continually verify and document the Supply Base.</p> <p>The Supply Base has been confirmed with Thunderbolt Biomass Inc. and residual suppliers based upon interviews and supplier checklists</p>
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA

Comment or Mitigation Measure	<p>The Supply Base is also defined and confirmed as part of demonstrating conformance to the following additional Forest Legality and Sustainability Standards:</p> <ul style="list-style-type: none"> -SFI Fiber Sourcing Standard (Section 3) -SFI Chain of Custody Standard (Section 4) -PEFC Chain of Custody/Due Diligence System (2002:2013)
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	Indicator
1.1.2	Feedstock can be traced back to the defined Supply Base.
Finding	All feedstocks can be traced back to the overall area encompassing all places where pre-consumer feedstock was originally harvested from.
Means of Verification	<p>Thunderbolt Biomass Inc. maintains Documented Procedures including detailed formal Purchase Order Addendums with its suppliers and requires clear title and legal ownership of all residual wood fiber inputs. All shipments of residual materials are checked upon receipt to verify the supplier. The Addendum requires suppliers to maintain records of the supply base to include tree species.</p> <p>Thunderbolt Biomass has a system for collecting information on the supply base through its SFI BMP Monitoring Program, its SFI/PEFC Chain of Custody Internal Audit Checklist and its SBP Internal Audit Checklist. This information is reviewed, analyzed and updated as part of the Management Review system.</p> <p>Where Thunderbolt Biomass Inc. may source wood directly from the forest where primary sources of wood products may be utilized, it would conduct on-site monitoring, which would include the name and location of each tract of forestland, including the name of the contract logger.</p>
Evidence Reviewed	<p>Thunderbolt Biomass Inc. keeps records of payments and receipts with all of its residual suppliers. Title to the residual wood material is exchanged when it is delivered at the pellet mill. These documents and records provide objective evidence of the secondary sawmill and tertiary remanufacture suppliers and their supply base.</p> <p>The SFI/PEFC Chain of Custody and Due Diligence System requirements address the need to define the “Districts of Origin” and conduct periodic monitoring of the supply base. Thunderbolt Biomass Inc. is SFI/PEFC Chain of Custody and Due Diligence System certified.</p>

	<p>Evidence includes Thunderbolt Biomass Inc.'s SFI/PEFC Chain of Custody and Due Diligence System Risk Assessment for the identification of the supply base (TBI-COC-10).The sub-scope of the supply base is limited to planted conifer forests of the primary commercial species including Loblolly and Slasdh Pine.</p> <p>Evidence includes Thunderbolt Biomass Inc.'s SFI/PEFC Chain of Custody Procedure to identify suppliers of all residual fiber material (TBI-COC-09).</p> <p>Evidence includes the Approved Supplier List (TBI-COC-12) for records of supplier names and contact information. The Supplier List documents the name, address and contact information of each supplier.</p> <p>Evidence is contained in the internal monitoring, measuring and review conducted by Thunderbolt Biomass Inc. including:</p> <ol style="list-style-type: none"> 1. Chain of Custody Evidence Manual & Internal Audit Checklist (TBI-COC-02), 2. SBP Internal Audit Checklist (TBI-SBP-04), 3. BMP Monitoring Report Form (TBI-SFI-05), 4. SFI Evidence Manual & Internal Audit Checklist (TBI-SFI-01), 5. Summary of Stakeholder Input (TBI-SBP-02), 6. Supplier Monitoring Procedure & Checklist (TBI-SBP-07), 7. Management Review Procedure and Action Items (TBI-COC-16). <p>The Supplier Monitoring Procedures & Checklist is completed on periodic basis to confirm the suppliers and check each of the SBP indicators to confirm the risk level.</p>
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA
Comment or Mitigation Measure	<p>Thunderbolt Biomass Inc. does not currently source wood or forest residuals directly from the forest.</p> <p>All inputs are residual materials such as sawdust, shaving and chips from other secondary sawmills and tertiary remanufacturing facilities. Thunderbolt conducts monitoring of its supplies to identify and confirm the supply base and that all materials are delivered from within that supply base.</p>

	Indicator
1.1.3	The feedstock input profile is described and categorised by the mix of inputs.
Finding	All inputs are categorized as pre-consumer reclaimed material and is a mix of residual wood chips, sawdust and shaving from secondary sawmills and tertiary remanufacturing facilities.
Means of Verification	Documented Procedures define all feedstocks as residual material inputs (pre-consumer reclaimed) supplied in accordance with the SFI/PEFC Chain of Custody and

	<p>Due Diligence System Standards. SBP defines these inputs as secondary and tertiary residuals.</p> <p>Documented Procedures contain a Product Group List (TBI-COC-07) defining all inputs, outputs and claim statements.</p> <p>Documented Procedures contain the mix of feedstock inputs described as "Categories of Origin" in the Chain of Custody Procedures (TBI-COC-01). All inputs are considered Pre-consumer Reclaimed Material and can be claimed as SFI Recycled Material.</p> <p>Shipments and documentation are inspected at the pellet mill gate as a means of verifying the mix of inputs.</p>
Evidence Reviewed	<p>Evidence includes mill receipts and records for each shipment. All records are maintained and available to the independent auditors upon request.</p> <p>Evidence includes material categories identified for purposes of Chain of Custody tracking in the Product Group Lists (TBI-COC-07).</p> <p>Evidence includes the species of trees that are sourced from the supply base and are documented in the Tree Species List (TBI-COC-15). The Species List of commercial conifer species are primary sourced from planted pine forests including Loblolly and Slash Pine.</p>
Risk Rating	<p><input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA</p>
Comment or Mitigation Measure	<p>All inputs are mill residuals that qualify as pre-consumer reclaimed material under the SFI/PEFC/SBP Chain of Custody system.</p> <p>All inputs are confirmed as "SBP-compliant secondary feedstocks" and "EUTR-compliant feedstocks." They also qualify as SFI Certified Sourcing and SFI/PEFC Recycled Content.</p>

	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.

Finding	Thunderbolt Biomass has implemented Documented Procedures to ensure the legality of ownership of the residual materials.
Means of Verification	<p>Thunderbolt Biomass implements approximately thirty (30) Documented Procedures containing control systems and procedures. All of the control measures and procedures are incorporated into the SBP Supply Base Evaluation by reference.</p> <p>Documented Procedures require Purchase Order Addendums from all residual suppliers (TBI-SFI-06). The Addendums require that all residual inputs be from legal sources.</p> <p>Sales and Delivery documents verify the supplier and evidence of legal ownership of incoming residual material from its suppliers. Supplier monitoring is conducted to verify standards conformance.</p> <p>Thunderbolt Biomass Inc. implements an SFI/PEFC Controlled Wood/Due Diligence Procedure for all of its Supply Areas/Districts of Origin (TBI-COC-10).</p>
Evidence Reviewed	<p>Evidence includes records of suppliers and their Purchase Order Addendums. The Addendum contains detailed provisions address the legality of ownership. Specific provisions addressing legality include:</p> <p>Supplier certifies that: (1) all product supplied to the BP is obtained from legal sources in accordance with relevant federal, state, and local environmental, social, health and safety regulations; and (2) no product originates from any controversial sources as that term is defined by the SFI/PEFC/SBP Standards.</p> <p>Supplier agrees to maintain records of its sources of supply, including tree species and state of origin. Such records shall be made available to the BP upon written request.</p> <p>Each shipment of residuals is accompanied by sales and delivery documents that are inspected and maintained. Sales and Delivery documents are available for review by the independent auditors upon request.</p> <p>The Controlled Wood Procedure & Due Diligence System has identified Low Risk for illegal logging.</p> <p>Thunderbolt Biomass Inc. has a high level of confidence that illegal logging, including violations of Federal and State laws and regulations, is not widespread across its wood supply areas. The comprehensive laws and regulations relating to forest management and timber harvesting are aggressively enforced by appropriate regulatory agencies.</p> <p>The Georgia and South Carolina Department of Forestry devote considerable resources to ensure the protection of water quality and the implementation of BMPs and related laws.</p> <p>Loggers operating in Georgia and South Carolina may notify the Georgia and South Carolina Department of Forestry of each timber harvest. Water quality inspectors assist loggers and landowners with timber harvest planning and execution and encourage the</p>

	<p>use of appropriate site specific voluntary best management practices to keep streams free of silvicultural sediments. If loggers fail to apply necessary BMPs on harvest sites, sediment deposition may occur, and that can lead to civil penalties. This system, and the related BMP Monitoring inspections, provides a strong state presence in the forests of the state, helping improve compliance and likely to reduce timber theft and other illegal actions associated with timber harvesting.</p> <p>Thunderbolt Biomass Inc. believes that illegal harvesting is unlikely to occur systematically in areas where there is good forest related governance. Governance-related criteria are therefore used to assess risk for illegal harvesting for a given district. These criteria will initially include:</p> <ul style="list-style-type: none"> - Perceived level of corruption related to forest activities - Degree of transparency about information that is likely to reveal or reduce illegal harvesting if made public - Degree to which key data and documents relevant to illegal harvesting exist and are of satisfactory quality - Independent reports about illegal harvesting. <p>Evidence is contained in the Internal Monitoring and Measuring conducted by Thunderbolt Biomass Inc. The individual monitoring and auditing reports are available to the independent auditors upon request. Their length and detail, including confidential information, precludes providing the completed checklists here.</p> <ol style="list-style-type: none"> 1. Chain of Custody Evidence Manual & Internal Audit Checklist (TBI-COC-02), 2. SBP Internal Audit Checklist (TBI-SBP-04), 3. BMP Monitoring Report Form (TBI-SFI-05), 4. SFI Evidence Manual & Internal Audit Checklist (TBI-SFI-01), 5. Summary of Stakeholder Input (TBI-SBP-02), 6. Supplier Monitoring Procedure & Checklist (TBI-SBP-07), 7. Management Review Procedure and Action Items (TBI-COC-16)
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA
Comment or Mitigation Measure	<p>All inputs are mill residuals from commercial conifer species of trees, which represents a sub-scope of the Supply Base Evaluation (SBE).</p> <p>The specific species and stump of origin are within an area encompassing all places where pre-consumer feedstocks originate from.</p> <p>All species are known and the supply area is continually reviewed and documented.</p>

	Indicator
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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.
Finding	Thunderbolt Biomass has implemented Documented Procedures and management systems to ensure the legality of harvesting and compliance with EUTR requirements
Means of Verification	<p>Thunderbolt Biomass Inc. has conducted a comprehensive risk assessment for its wood supply areas/districts of origin and has concluded Low Risk for “Illegally Harvested Wood.”</p> <p>Thunderbolt Biomass Inc. requires delivery documents for all residual deliveries with information on the supplier including: name, address and contact information.</p> <p>Additionally, the FSC US National Risk Assessment has determined that there is a Low Risk of Illegally harvested wood across the entire U.S.</p> <p>Thunderbolt Biomass Inc. has reviewed the World Governance Indicators Rule of Law Index and the World Justice Project Rule of Law Index 2019 and concluded that there is generally a comprehensive functioning legal system in the United States and a high level of compliance with law and regulation.</p>
Evidence Reviewed	<p>Evidence includes copies of the SFI/PEFC Controlled Wood/Due Diligence Procedures (TBI-COC-10).</p> <p>A Public Summary of the Due Diligence System (TBI-COC-11) has been prepared documenting the findings. These copies are available to the independent auditors upon request.</p> <p>Additional evidence contained in the Controlled Wood/Due Diligence Risk Assessment include:</p> <ol style="list-style-type: none"> 1. Records of the Districts of Origin of all harvested wood. 2. Federal and State laws and regulations that are actively enforced within the district demonstrate the legality of harvests and wood purchases. 3. There is little or no evidence or reporting of illegal harvesting in the district of origin. 4. The U.N. Risk Assessment has identified the U.S. as having a low perception of corruption related to the granting or issuing of harvesting permits and other areas of law enforcement related to timber harvesting. <p>Additional evidence includes relevant websites addressing timber legality from Georgia and South Carolina:</p> <p>Georgia Timber Theft</p> <p>http://sfi-georgia.org/wp-content/uploads/2008/11/SFI_NEWS_FALL_2014.pdf</p> <p>The Executive Summary of the report states the following:</p> <p>Georgia’s forestry community has been working to get the word out to landowners who may need help. The new law that provides GFC with expanded investigative authority and</p>

includes tougher penalties for violators already appears to be encouraging more people to report complaints, based on recent activity.

“In past years, we’ve only had about 15 or 20 cases that have made their way to us,” says Brian. “Since July, we have had 36 complaints already, some of which were quickly resolved and a few that required additional investigation.” Neighboring states like South Carolina and Alabama typically have 100 to 150 investigations a year. “We feel confident that the majority of people in the forestry community are good, honest people, and that there’s just a handful taking advantage,” says SFI Committee Member Bill Guthrie and Weyerhaeuser forester. “But, we want to make sure landowners are aware of the laws that protect them and know how to get help.”

SC Timber Theft & Statutes relating to Timber Transaction Crimes

<https://www.state.sc.us/forest/le.htm>

An excerpt from the South Carolina Forestry Commission states:

In the early 1990’s, the agency began investigating timber transaction crime, primarily in response to public demand. Specially trained Forestry Commission agents now investigate hundreds of timber thefts and fraudulent timber deals every year.

All Forestry Commission officers are trained and certified by the SC Criminal Justice Academy. After graduation, officers receive additional training on forestry law, wildland fire behavior, forest fire investigation, and incident management.

Forestry Commission officers have statewide jurisdiction and full power of arrest. Officers are armed with .40 Glock semi-automatic pistols; every officer is required to qualify with the weapon twice each year.

Specific South Carolina legality provisions are contained at the following weblink:

<https://www.state.sc.us/forest/lestat.htm>

[The FSC has conducted generic risk assessments for the US addressing Legality and found the following:](#)

Summary of the Risk Designations within the US NRA:

Category 1 - Illegally harvested wood: *Low Risk*

<https://us.fsc.org/en-us/certification/controlled-wood/fsc-us-controlled-wood-national-risk-assessment-us-nra>

FSC contracted with NEPCo to conduct an overall assessment of the risk of illegal logging in the U.S. The report concluded low risk for all categories of legality. The full report can be found at the following weblink.

<https://www.nepcon.org/sites/default/files/NEPCo-TIMBER-USA-Risk-Assessment-EN-V1.3.pdf>

The World Bank Worldwide Governance Indicators Rule of Law data can be found at:

	<p>https://todata360.worldbank.org/indicators/h02f9cb8c?country=USA&indicator=370&viz=line_chart&years=1996,2018</p> <p>The World Justice Project Rule of Law Index 2019 can be accessed at:</p> <p>https://www.worldjusticeproject.org/rule-of-law-index/country/United%20States</p> <p>Evidence is contained in the Internal Monitoring and Measuring conducted by Thunderbolt Biomass Inc. including:</p> <ol style="list-style-type: none"> 1. Chain of Custody Evidence Manual & Internal Audit Checklist (TBI-COC-02), 2. SBP Internal Audit Checklist (TBI-SBP-04), 3. BMP Monitoring Report Form (TBI-SFI-05), 4. SFI Evidence Manual & Internal Audit Checklist (TBI-SFI-01), 5. Summary of Stakeholder Input (TBI-SBP-02), 6. Supplier Monitoring Procedure & Checklist (TBI-SBP-07), 7. Management Review Procedure and Action Items (TBI-COC-16) <p>The detailed monitoring and auditing checklists are available to the independent auditors upon request. The amount of detail and proprietary information are not conducive to copying as part of the Supply Base Evaluation.</p>
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA
Comment or Mitigation Measure	<p>All sources of available information indicate a very low risk of illegal activities across the supply base.</p>

	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.
Finding	Thunderbolt Biomass Inc. has implemented approximately thirty (30) Documented Procedures to verify the legality of residual products delivered to the mill.
Means of Verification	<p>Thunderbolt Biomass Inc. has Documented Procedures as part of implementing the SFI Fiber Sourcing and SF/PEFC Chain of Custody and Due Diligence Systems.</p> <p>Control systems include collecting and reviewing information from all residual wood Suppliers.</p> <p>Thunderbolt Biomass Inc. requires a formal Purchase Order Addendum containing all legal and contractual requirements. The Addendum provisions include:</p>

	<p>1. <i>Supplier</i> agrees to comply with all State, Federal and other applicable environmental, social, health and safety laws and regulations imposed upon any business employing labor, paying wages, or operating equipment.</p>
Evidence Reviewed	<p>Evidence includes the approximately thirty (30) Documented Procedures and control systems to verify payment of all taxes, fees, etc. related to residual wood purchases.</p> <p>Evidence includes delivery documents and payment records demonstrating payment of fees and taxes.</p> <p>These documents are confidential and proprietary, but are available to the CB during annual audits and upon request.</p> <p>FSC contracted with NEPCon to conduct a generic risk assessment of the risk of illegal logging in the U.S., including the payment of harvest rights and taxes. The report concluded low risk for all categories of legality. The full report can be found at the following weblink.</p> <p>https://www.nepcon.org/sites/default/files/NEPCon-TIMBER-USA-Risk-Assessment-EN-V1.3.pdf</p>
Risk Rating	<p><input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA</p>
Comment or Mitigation Measure	<p>Thunderbolt Biomass Inc. does not source timber directly from the forest. It does have appropriate controls and procedures to verify the legal ownership of residual wood products delivered to its mill.</p>

	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.
Finding	<p>Thunderbolt Biomass Inc. has implemented approximately thirty (30) Documented Procedures and control systems to verify that feedstocks are in compliance with CITES.</p> <p>Procedures and control systems to verify that pre-consumer feedstocks are not sourced from CITES listed species.</p>
Means of Verification	<p>Thunderbolt Biomass Inc. implements an SFI/PEFC Chain of Custody Procedure (TBI-COC-09) and a Controlled Wood Risk Assessment that addresses the requirements of CITES (TBI-COC-10).</p>

	<p>Thunderbolt identifies the species of trees that are common to the supply base are included in the Tree Species List (TBI-COC-15). Only residual sawdust, shavings and chips identified as pre-consumer reclaimed material are used as inputs.</p> <p>Thunderbolt Biomass Inc. inspects each shipment of residuals to confirm that all material is derived from conifer trees native to the supply base.</p> <p>Thunderbolt Biomass Inc. interviews each of its residual wood suppliers to confirm that no CITES listed species are sourced (TBI-SBP-07). See the CITES website: http://www.cites.org/eng/disc/species.php</p>
Evidence Reviewed	<p>The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) addresses the legality of sourcing certain species of trees. Information on the CITES process is located at: http://www.cites.org/eng/disc/how.shtml. A list of regulated species can be found at http://www.cites.org/eng/app/appendices.shtml.</p> <p>Thunderbolt Biomass Inc. does not import tree species that are on the CITES list referenced above or that comes from the regions of the world identified as having problems with illegal wood harvests.</p> <p>Evidence includes the Tree Species Master List (TBI-COC-15). The predominate species of Loblolly and Slash Pine are from commercially planted pine forests.</p> <p>Evidence includes inspection of wood residual deliveries.</p> <p>Evidence includes interviews and monitoring of all residual suppliers.</p> <p>Evidence is contained in the Internal Monitoring and Measuring conducted by Thunderbolt Biomass Inc. including:</p> <ol style="list-style-type: none"> 1. Chain of Custody Evidence Manual & Internal Audit Checklist (TBI-COC-02), 2. SBP Internal Audit Checklist (TBI-SBP-04), 3. BMP Monitoring Report Form (TBI-SFI-05), 4. SFI Evidence Manual & Internal Audit Checklist (TBI-SFI-01), 5. Summary of Stakeholder Input (TBI-SBP-02), 6. Supplier Monitoring Procedure & Checklist (TBI-SBP-07), 7. Management Review Procedure and Action Items (TBI-COC-16) <p>The detailed monitoring and auditing checklists are available to the independent auditors upon request. The amount of detail and proprietary information are not conducive to copying as part of the Supply Base Evaluation.</p>
Risk Rating	<p><input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA</p>
Comment or Mitigation Measure	<p>No wood is imported from outside the States of Georgia and South Carolina. The Thunderbolt pellet mills can only use conifer species of wood. No CITES Listed Tree Species are found within the supply base defined as “Districts of Origin.”</p>

	Indicator
1.6.1	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.
Finding	Thunderbolt Biomass Inc. has Documented Procedures and controls in place to not source from areas where violations of traditional and civil rights are violated.
Means of Verification	<p>Procedures are implemented to communicate BP policies to suppliers that are identified and known. Wood Producer Correspondence (TBI-SFI-04) is sent to each supplier requiring legal and regulatory compliance addressing civil rights.</p> <p>Procedures are implemented to require Purchase Order Addendums (TBI-SFI-06) from all suppliers addressing legal and regulatory compliance, including civil and traditional rights.</p> <p>Procedures are implemented to conduct Supplier Monitoring (TBI-SBP-07) to confirm that regulatory compliance is occurring.</p> <p>Procedures are in place to solicit Stakeholder Input (TBI-SBP-01) including public agencies and environmental/social organizations.</p> <p>Procedures are in place to address any Public Complaints (TBI-COC-14). The Complaints Procedures specifically addressed ILO Core Conventions including:</p> <p>Inconsistent Practices & ILO Core Conventions</p> <p>Thunderbolt Biomass Inc. has processes in place for receiving and responding to public inquiries, particularly those that potentially relate to practices that appear to be inconsistent with the SFI Principles and Objectives and/or ILO Core Conventions.</p> <p>When a public inquiry is received, the following process will be followed:</p> <ol style="list-style-type: none"> 1. Staff receiving the complaint should obtain complete information, including how to contact the person making the complaint; 2. The complaint is forwarded to the appropriate responsible person, based on the topic area of the complaint.

	<ol style="list-style-type: none"> 3. Take appropriate corrective action if the complaint is valid and relevant to the BP's operations; 4. If not relevant to the BP's operations, refer the inconsistent practice to the appropriate SFI Implementation Committee; 5. Respond to the entity making the inquiry, as appropriate to the situation; and 6. Keep records of the inconsistent practices complaint and review during the annual management review process. <p>Procedures are in place to conduct SBP Internal Auditing and report findings to management (TBI-SBP-04).</p> <p>Procedures are in place to conduct Annual Management Reviews (TBI-COC-16) documenting any non-conformances with procedures and control systems.</p>
Evidence Reviewed	<p>Evidence includes records of BP policies, Purchase Order Addendums, supplier monitoring, internal auditing and management review.</p> <p>The Purchase Order Addendum specifically addresses traditional right including:</p> <ol style="list-style-type: none"> 1. Supplier certifies that: (1) all product supplied to the BP is obtained from legal sources in accordance with relevant federal, state, and local environmental, social, health and safety regulations; and (2) no product originates from any controversial sources as that term is defined by the SFI/PEFC/SBP Standards. <p>Evidence includes the FSC US National Risk Assessment finding of Low Risk for violations of traditional and civil rights.</p> <p>The FSC has conducted generic risk assessments for the US addressing Legality and found the following:</p> <p><u>Summary of the Risk Designations within the US NRA:</u> <u>Category 2 - Wood harvested in violation of traditional and human rights: <i>Low Risk</i></u></p> <p>https://us.fsc.org/preview.fsc-us-controlled-wood-risk-assessment-fsc-nra-us-v1-0.a701.pdf</p> <p>The American Hardwood Export Council Reports in 2008 and 2018 reported that:</p> <p>Violation of Traditional and Civil Rights: LOW RISK is still substantiated by the data sets used in the 2008 study, and now in the 2017 study. There is no UN Security Council ban on timber exports, the U.S. is not designated as a source of conflict timber, federal and state laws are generally consistent with ILO Fundamental Principles and Rights at work, and equitable processes are currently in place to resolve conflicts pertaining to traditional and civil rights.</p> <p>Evidence is contained in the Internal Monitoring and Measuring conducted by Thunderbolt Biomass Inc. including:</p>

	<ol style="list-style-type: none"> 1. Chain of Custody Evidence Manual & Internal Audit Checklist (TBI-COC-02), 2. SBP Internal Audit Checklist (TBI-SBP-04), 3. BMP Monitoring Report Form (TBI-SFI-05), 4. SFI Evidence Manual & Internal Audit Checklist (TBI-SFI-01), 5. Summary of Stakeholder Input (TBI-SBP-02), 6. Supplier Monitoring Procedure & Checklist (TBI-SBP-07), 7. Management Review Procedure and Action Items (TBI-COC-16)
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA
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.
Finding	Thunderbolt Biomass Inc. has Documented Procedures and control systems to verify that no softwood residuals are from high conservation value forests.
Means of Verification	<p>All protected areas are mapped and are available for download from the national GAP database which contains state and federally protected parks, reserves, refuges, wilderness areas among other designations. These protected are also referenced by the IUCN classification.</p> <p>Thunderbolt Biomass Inc. uses Guidance on HCVs provided by the High Conservation Value Network. Natural Heritage databases from Georgia and South Carolina are utilized to identify HCV occurrences. Such sites include:</p> <p>http://www.hcvnetwork.org/</p> <p>http://www.worldwildlife.org/science/ecoregions.cfm</p> <p>https://biodiversitymapping.org/wordpress/index.php/home/</p> <p>https://ipbes.net/global-assessment</p> <p>https://www.iucnredlist.org/</p>
Evidence Reviewed	Evidence includes the Master Species List (TBI-COC-15). The predominate species are from commercially planted forests of Loblolly and Slash Pine.

Evidence includes Wood Producer Correspondence (TBI-SFI-04) and the SFI Fiber Sourcing Program including the following:

Thunderbolt Biomass Inc. works with its wood producers to provide informational materials and services about Conserving Biological Diversity and sustainable forestry. Thunderbolt Biomass Inc., provides regionally appropriate SFI information addressing the conservation of wildlife biodiversity, as well as other information about sustainable forestry.

The BP encourages its wood producers to pass SFI informational materials on to landowners from whom they purchase wood. If the wood producers need additional copies of SFI informational materials, they are encouraged to notify the SFI Implementation Committee or Thunderbolt Biomass Inc.

The key sources of information on Biodiversity are the State Wildlife Action Plans. This information is reviewed and key components of the Action Plans are part of the communication with wood producers. Links to the relevant portions of the Georgia and South Carolina Wildlife Action Plans are provided below.

Georgia:

“A Strategic Plan for Georgia’s Forests” can be found at: <http://www.gatrees.mobi/about-us/strategic-plan/GFCplanDraftwithCover2.pdf>.

“The Georgia Statewide Assessment of Forest Resources” can be found at: <http://www.gfc.state.ga.us/about-us/strategic-plan/GAStateAssessment-6-17-10.pdf>

The web page <http://www.gfc.state.ga.us/about-us/strategic-plan/georgia-statewide-forest-resources-assessment-and-strategy/index.cfm> summarizes the plan and provides additional information.

Forest resource assessments and acBPing strategic plans constitute a coordinated plan for moving a state’s forests into the future and on a sustainable course. Georgia’s approach details the current conditions (the assessment) clearly defines the sustainable “desired future condition”, identifies the main barriers to achieving the goal, and then outlines the main strategies underlying actions to move towards the goals. Key barriers include forest fragmentation, population growth and associated urbanization and changing land use, changes in landowner goals and land ethics, forest regulations and taxes, and the impacts of forest pests, wildfire and weather, as well as challenges in finding resources to fund efforts to deal with these issues. The plan outlines strategies for dealing with barriers.

Another key source of information on biodiversity is the Georgia State Wildlife Action Plan. In the United States, individual [State Wildlife Action Plans](#) assess priority species, habitats, and conservation actions, as well as designating priority conservation areas. These Plans are collaborative, and include stakeholders such as government agencies, non-governmental conservation organizations, landowner groups, and private corporations. These plans are comprehensive management tools developed by the state wildlife resource agencies with considerable stakeholder involvement to improve programs intended to conserve and enhance the full array of fish and wildlife species and

their habitats. State-by-state “Wildlife Action Plans” emerged from a mandate by the U.S. Congress that each state develop a comprehensive conservation strategy to be eligible for federal funding under the State Wildlife Grants program. The wildlife action plans were written to identify species with unmet conservation needs and to plan systematically to work towards meeting those needs most effectively.

The Georgia State Wildlife Action Plan (SWAP) is available on-line:

- 2015 Updates (web page)www.georgiawildlife.com/conservation/wildlife-action-plan
- [2005 Comprehensive Wildlife Conservation Strategy for Georgia](#)

Most of the BP’s fiber procurement sources are from the Southern Coastal Plain and are limited to upland pine species. Pages 151-155 list and briefly describe 24 High priority habitats for the Southern Coastal Plain. The following are the only ones containing upland pine species.

23. Pine Flatwoods

Mesic or wet forests on flat, poorly-drained areas of the lower Coastal Plain. Dominated formerly by longleaf pine, now typically by slash pine, occasionally with loblolly or pond pine. Contains a well-developed shrub layer consisting of saw palmetto, gallberry, lowbush blueberry, and other ericaceous species. One of the most extensive and prevalent habitats of this ecoregion.

25. Wet Pine Savannas, Herb and Shrub Bogs

Wet pine savannas are poorly drained wetlands with open to sparse canopies dominated by longleaf, slash, and/or pond pine. The shrub layer may be sparse, consisting mainly of gallberry, wax myrtle, and blueberries. The herbaceous layer is often diverse and dense, dominated by grasses, sedges, composites, orchids, and lilies. May include small peatfilled depressions dominated by titi and other shrubs or by herbaceous bog plants.

The desired conservation actions vary by type, with active forest management supported in the more common types (pine flatwoods) with concerns for type and intensity of management. The most common conservation action involves acquisition by public agencies with ultimate management emphasizing ecological values.

South Carolina:

The South Carolina’s Wildlife Action Plan

<http://www.dnr.sc.gov/swap/main/2015StateWildlifeActionPlan-chapteronly.pdf>

In May of 2002, the South Carolina Department of Natural Resources (SCDNR) began a process to develop the Comprehensive Wildlife Conservation Strategy (CWCS) that was funded through the State Wildlife Grants (SWG) program. The SCDNR committed to developing the Strategy and begin implementing the conservation actions by October 1, 2005. The Strategy was to be cooperative in nature with partnerships formed among agencies, non-governmental organizations, and conservation-minded citizens of our great State. South Carolina’s 2005-2010 Strategy was accepted in January 2006.

In 2010, a revision process was initiated and the CWCS was subsequently renamed the State Wildlife Action Plan (SWAP). Due to the rapidly evolving changes in knowledge of the various priority species (“species of greatest conservation need”) and Agency personnel changes, the final draft of the 2015 SWAP was accepted in September 2015.

The diversity of animals in South Carolina is vast. Habitats in this state range from the mountains to the ocean and include many different taxonomic animal groups. SCDNR wanted to address as many of those groups as possible for inclusion in the list of priority species for the SWAP; as such, 14 taxonomic groups are included in the Strategy: mammals, birds, reptiles, amphibians, freshwater fishes, diadromous fishes, marine fishes, marine invertebrates, crayfish, freshwater mussels, freshwater snails, leeches (both aquatic and terrestrial), insects (both freshwater and terrestrial), and plants. Plants are new to the SWAP and were added as they are essential to habitats and ecosystems as a whole.

The SCDNR identified 825 species of flora and fauna to include on the State's List of Species with the Greatest Conservation Need. Reports were prepared for each species or guild (minus plants); in these reports, authors described the species, their status, population and abundance, habitat needs, challenges, conservation accomplishments and conservation actions. This approach allows for identification of both general conservation strategies for wildlife and habitats in South Carolina, as well as development of species-based conservation strategies. The latter allows for management of particular species within a given habitat. A separate document, the Supplemental Volume: Species Accounts, contains these reports in their entirety. The SCDNR also identified habitats critical for the priority species considered in the SWAP. Both terrestrial and aquatic habitats were considered and a spreadsheet was prepared for approximately 50 distinct habitat types (terrestrial and marine) organized within five ecoregions, as well as 4 ecobasins which characterize the freshwater aquatic habitats of the State.

As conservation strategies were developed for each species, it became evident that they could be separated into nine overarching categories which we have designated as Conservation Action Areas (CAAs). These nine CAAs are: Education and Outreach; Habitat Protection; Invasive and Non-native Species; Private Land Cooperation; Public Land Management; Regulatory Actions; Survey and Research Needs; Urban and Developing Lands; and Climate Change. Within each CAA, conservation actions were condensed from the recommendations prepared for each animal on South Carolina's priority species list. Some of the actions identified will affect all species included in the SWAP; others may affect only a few species. Each of these actions was prioritized and measures that indicate success of implementing the action were identified. It is also critical that we monitor priority species, their habitats, and the effectiveness of the actions that are implemented to conserve them. SWG projects are monitored to make sure data yields are expanding our knowledge base and on-the-ground habitat work is truly producing results. SC's Comprehensive Monitoring Program, outlined in Chapter 6, describes strategies to encourage data storage, data sharing, implementation of objectives, and expanding the use of citizen science networks.

From the beginning of the SWAP effort back in 2005, SCDNR and the planning team sought to realize successful partnerships and public involvement in the development of the Plan. Those relationships carried over into the implementation of the SWAP and the latest revision process. It is understood that successful conservation is furthered by the existence of a strong collaborative involvement between all resource stakeholders, private or public, governmental or nongovernmental. Back in 2005, task forces were convened to assist in determining important natural resource issues in South Carolina. Taxa teams were assembled in 2005 and again in 2013 to determine challenges to species and conservation actions to address those challenges. Public meetings were held in both 2005 and 2012 to gather input from the citizens of the State on various topics.

	<p>Although several species have been removed from the priority list this time around and others have been added, the common themes remain the same. It has been determined that in order to sustain South Carolina's diverse wildlife resources in the future, the following actions are critical: (1) increase baseline biological inventories with emphasis on natural history, distribution and status of native species; (2) increase commitment by natural resource agencies, conservation organizations and academia toward establishing effective conservation strategies; (3) increase financial support and technological resources for planning and implementation of these strategies; and (4) create public-private partnerships and educational outreach programs for broad-scale conservation efforts. South Carolina's SWAP is a step toward instituting these actions.</p> <p>Evidence includes the Stakeholder Consultation Procedure (TBI-SBP-01) and website searches.</p> <p>Evidence includes the Summary of Stakeholder Input (TBI-SBP-02). No input was received regarding forests of high conservation value.</p> <p>Evidence is contained in the Internal Monitoring and Measuring conducted by Thunderbol Biomass Inc. including:</p> <ol style="list-style-type: none"> 1. Chain of Custody Evidence Manual & Internal Audit Checklist (TBI-COC-02), 2. SBP Internal Audit Checklist (TBI-SBP-04), 3. BMP Monitoring Report Form (TBI-SFI-05), 4. SFI Evidence Manual & Internal Audit Checklist (TBI-SFI-01), 5. Summary of Stakeholder Input (TBI-SBP-02), 6. Supplier Monitoring Procedure & Checklist (TBI-SBP-07), 7. Management Review Procedure and Action Items (TBI-COC-16) <p>In addition, monitoring demonstrates that no Bottomland Hardwood Forests are harvested to supply pine residuals to the pellet mill. The pellet mill also cannot use hardwood species and is restricted to conifers. Thus, no Control Measures are necessary for Bottomland Hardwood Forests as they cannot be used in the pellet production process.</p>
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> 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	

Thunderbolt Biomass Inc. implements approximately thirty (30) Documented Procedures and controls to address the threat of forest management on forest and areas with high conservation value.

The BP, using the FSC Controlled Wood National Risk Assessment (US NRA) and other reputable conservation initiatives, identified and mapped the presence or absence of the following high conservation value areas (HCV's) within the Company's Supply Base.

There are no World Resources Institute (Global Forest Watch) Frontier Forests or USFS Inventoried Roadless Areas.

The following HCVs have been identified and mapped within the BP's supply area and are assessed below. HCVs identified and assessed as "specified risk" will include describe measures to mitigate risks to a "low risk" level.

North America Coastal Plain (NACP)

Considered a biodiversity hot spot by the Critical Ecosystem Partnership Fund in 2016, NACP intersects part of the BP's supply area. This biodiversity hotspot reaches from northern Mexico along the Gulf Coastal and Atlantic Coastal Plains north to southern Maine. While this Coastal Plain is considered a biodiversity hotspot because of the large number of endemic plant and species located within this area, this vast designation includes the HCVs described below at a more site specific scale.

World Wildlife Fund (WWF) Ecoregions

TBI's supply area is located within three WWF ecoregions; two of which are considered "critical /endangered" and are considered as WWF Global 200 eco-regions. The final eco-region is considered vulnerable. These three ecoregions are:

- NA413 Southeastern Mixed Forests
- NA517 Mid-Atlantic Coastal Forests
- NA529 Southeastern Conifer Forests

NA413 Southeastern Mixed Forests

This ecoregion is ranked critical/endangered. This eco-region intersects approximately half of the BP's supply area. The Southeastern Mixed Forests rank among the top ten ecoregions in richness of amphibians, reptiles, and birds and among the top ten ecoregions in number of endemic reptiles, amphibians, butterflies, and mammals. The natural vegetation is dominated by oak-hickory-pine forests.

About 99% of this habitat has now been converted to agriculture or other uses, or is highly degraded. Because of the heavy rate of conversion, there is little left to conserve.

Low Risk designation:

As stated above, WWF has declared more than 99% of this ecoregion having been converted. The remaining examples of this HCV are known to occur on protected lands.

NA517 Mid-Atlantic Coastal Forests

This ecoregion is ranked critical/endangered. This eco-region intersects about half of the eastern portion of the BP's supply area.

The Mid-Atlantic Coastal Forests contains the most diverse assemblage of freshwater wetland communities in North America and perhaps of all temperate forest ecoregions. Nonalluvial wetlands, including freshwater marshes, shrub bogs, white cedar swamps, bayheads, and wet hammocks are particularly prominent. Approximately 12% of the ecoregion contains habitat that is considered intact. Conversion due to agriculture, fire suppression, urbanization, coastal development (including resorts), ditching and draining of wetlands, and damming of rivers which affect hydrology has been the greatest threat to this ecoregion.

NA529 Southeastern Conifer Forests

This ecoregion is ranked critical/endangered. This ecoregion intersects about half of the southeastern portion of the BP's supply area.

This ecoregion is the largest conifer forest ecoregion east of the Mississippi and the second largest coniferous ecoregion in the continental U.S. The Southeastern Conifer Forests were dominated by relatively open tall stands of long leaf pine (*Pinus palustris*) with an understory of wiregrass (*Aristida stricta*). The open nature of the mature long leaf pine stands and the frequency of understory fires helped maintain perhaps the richest temperate herbaceous flora on Earth. Over 98% of this habitat is now gone in the southeastern section of this ecoregion, much having been converted to agriculture or tree farms. Remaining habitat is limited to fragments and degraded larger patches.

Green Peace Intact Forests

A Greenpeace Intact Forest is located in Charlton and Ware Counties, GA which is within the BP's supply area. It is almost entirely within the 403,119-acre Okefenokee National Wildlife Refuge which has been described as "one of North America's most unspoiled, fascinating and precious natural areas". The Okefenokee Swamp is the largest, intact, un-fragmented, freshwater and black water wilderness swamp in North America. There are 353,000 acres designated as a National Wilderness Area within the refuge.

FSC US Controlled Wood National Risk Assessment (US NRA)

The BP has determined there may be areas within its supply area that are considered "specified risk" to the following categories of controlled wood:

- Category 3: Wood from forests where high conservation values are threatened by management activities:
 - HCV3 - Native Longleaf Pine Systems

The BP has determined two other Category 3 HCVs to be within its supply area. While these are found within the supply area, the BP only receives pine fiber which is not the primary tree species for the two Category 3 HCVs. No mitigation measures have been implemented for these HCVs for this reason.

- HCV1 - Patch-Nosed Salamander
- HCV3 - Late Successional Bottomland Hardwood

The BP has mapped these "specified risk" areas by supplier and will implement, as needed, adequate control measures to either avoid or to mitigate specified risk related to origin and/or risk related to mixing with non-eligible inputs in the supply chain.

Category 3: HCV3 - Native Longleaf Pine Systems

Native Longleaf Pine Systems (NLPS) are located in fifty-three (53) counties throughout the BP's supply area. All suppliers providing wood fiber that source from

	<p>counties that have been identified as containing native longleaf systems have been notified of the conservation value of longleaf pine. Once one of the most widespread forest types in the US, longleaf pine savannah has been reduced to less than 5% of its original range. In terms of proportion of original extent that remains, this makes this system one of the rarest in the world. While there has been recent success in increasing the extent of longleaf pine, it is still only a tiny fraction of its historical extent and thus continues to be considered rare. As a fiber-producing forest type, long-leaf cannot compete with loblolly or slash pine for short-term returns on investment. It is therefore extremely rare in the commercial pine forest that is the sub-scope of the Supply Base for the BP.</p> <p>NLPS were once one of the most widespread forest types in the US but have suffered an historical reduction in range driven by suppression of fire and conversion to other forest types. These forest systems are associated with high animal and plant diversity, including many rare, threatened and endangered species such as the Red-cockaded Woodpecker, Bachman’s Sparrow, Gopher Tortoise, Eastern Indigo Snake, and Flatwoods Salamander.</p> <p>“Native” in this instance refers to existing longleaf pine that is on a site that has historically been maintained as longleaf pine. Longleaf pine stands that have been restored in areas that have not been historically maintained in longleaf pine do not apply under this definition. “Native” does not imply a particular regeneration method; these stands may be either planted or naturally regenerated.</p> <p>Protected Areas as identified by Protected Areas Database of the United States (PAD-US) represents about 6% of the BP’s supply area. PAD-US is the official inventory of public parks and other protected open space. The spatial data in PAD-US represents public lands held in trust by thousands of national, state and regional/local governments, as well as non-profit conservation organizations. Approximately 50% of NLPS are in Protected Areas (and most of the older/larger diameter trees).</p> <p>These factors combine to result in a low level of mitigation required.</p>
<p>Means of Verification</p>	<p>Thunderbolt Biomass Inc. implements Documented Procedures to communicate to Wood Producers regarding knowledge and implementation of State Wildlife and Forest Resource Assessments and Plans (TBI-SFI-04).</p> <p>Thunderbolt Biomass Inc. implements Documented Procedures to identify Tree Species (TBI-COC-15) and verify that all are softwood species from planted pine forests. The predominate commercial conifer species are Loblolly and Slash Pine grown in intensively managed planted forests. No known Native Longleaf or Bottomland Hardwoods are used in the Thunderbolt Biomass Inc. facility.</p> <p>Procedures are implemented to conduct Supplier Monitoring (TBI-SBP-07) to confirm that regulatory compliance is occurring.</p> <p>Procedures are implemented to conduct BMP Monitoring (TBI-SFI-05) where wood may be delivered directly from the forest.</p> <p>Procedures are in place to solicit Stakeholder Input (TBI-SBP-01) including public</p>

	<p>agencies and environmental/social organizations. No conservation groups registered any concern about possible impacts on High Conservation Values.</p> <p>Procedures are in place to address any Public Complaints (TBI-COC-14). No public complaints addressing High Conservation Values have been received.</p> <p>Procedures are in place to conduct SBP Internal Auditing (TBI-SBP-04) addressing all SBP Criteria and report findings to management. Internal auditing and management review has not identified any native longleaf pine or bottomlands hardwood inputs.</p>
Evidence Reviewed	<p>Evidence documenting implementation of the above Means of Verification is recorded and maintained.</p> <p>Evidence includes state monitoring demonstrating that BMP compliance is at 90-95% in South Carolina & Georgia.</p> <p>Georgia: https://gatrees.org/wp-content/uploads/2020/02/BMP-Manual-2019-Web.pdf</p> <p>South Carolina: http://www.state.sc.us/forest/bmp12.pdf</p> <p>State Best Management Practices (BMP) Programs outline the specific practices and activities that are necessary to protect water quality and associated beneficial uses of water, such as fish and wildlife. Virtually all states have instituted regular monitoring of BMPs to determine their effectiveness and conformance by the forestry community. The certification programs require forest operators to use BMPs, whether regulatory or voluntary. This has engrained a culture of knowledge of BMPs and acceptance of their implementation. BMPs to protect water quality also protect the beneficial uses of the surrounding streamside management zones and the wildlife biodiversity that exists in wet areas.</p> <p>The logging community in the United States has become increasingly engaged in promoting the professionalism of loggers by developing logger training programs at the state level. Thunderbolt Biomass Inc. requires that loggers routinely attend training sessions that cover topics such as: BMPs, threatened and endangered species, awareness of rare communities, logging safety, business management and others. Participation in logger training programs has increased significantly and the 2016 SFI Annual Progress Report indicates that over 95 percent of wood deliveries to SFI certified mills are from Qualified Logging Professionals.</p> <ul style="list-style-type: none"> • SFI Certification Database http://www.sfidatabase.org/PublicSearch/MainSearch.aspx • Georgia Master Timber Harvester http://gamth.org/ • South Carolina Timber Operations Professional (TOP) Program https://www.sforestry.org/top-forestry-programs.htm • Results of Georgia's 2017 Silvicultural Best Management Practices Implementation and Compliance Survey https://gatrees.org/wp-content/uploads/2020/02/BMP-Survey-2017-Results-Report-

	<p>Final-Corrected-by-Scott-Jan112018-410pm.pdf</p> <ul style="list-style-type: none"> Forestry BMPs in South Carolina: Compliance and Implementation Monitoring Report, 2015-2016 https://www.state.sc.us/forest/bmp16.pdf <p>Evidence includes a list of Tree Species (TBI-COC-15) documenting that all residual inputs are from planted pine forests of Loblolly and Slash Pine that are not considered High Conservation Value Forests.</p> <p>Evidence includes the FSC National Risk Assessment https://us.fsc.org/en-us/certification/controlled-wood/fsc-us-controlled-wood-national-risk-assessment-us-nra</p> <p>Evidence includes supplier signed TBI-SFI-06-POAddendum and the TBI-SBP-07-Supplier Checklist.</p>
Risk Rating	<input type="checkbox"/> Low Risk <input checked="" type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA
Comment or Mitigation Measure	<p><u>World Wildlife Fund (WWF) Ecoregions</u></p> <p><u>NA517 Mid-Atlantic Coastal Forests</u></p> <p><u>Mitigation Measures:</u></p> <ul style="list-style-type: none"> e) WWF has declared about 88% of this ecoregion having been converted. The remaining examples of this HCV are known to occur on protected lands. f) The BP through its feedstock purchase contracts or supply agreements requires suppliers to comply with laws and regulations, including the Clean Water Act, and compliance with state Best Management Practices (BMPs). Verification of compliance is accomplished through supplier audits using TBI-SBP-07 Supplier Monitoring Checklists. g) The BP has committed to improving the education and awareness of this ecoregion through the representation of the BP at the South Carolina Forestry Association and the South Carolina SFI Implementation Committee. Information from these organizations was reviewed by BP personnel. h) The BP reviews this educational information with its suppliers who source wood fiber from this ecoregion to educate the suppliers, their loggers and landowners on conservation values, threats from incompatible forest management, & opportunities for conservation through management that enhances biodiversity and reduces or eliminates threats. This education & outreach measure is documented using TBI-SBP-07 Supplier Monitoring Checklists. <p><u>NA529 Southeastern Conifer Forests</u></p> <p><u>Mitigation Measures:</u></p> <ul style="list-style-type: none"> e) WWF has declared over 98% of this ecoregion having been converted. The remaining examples of this HCV are known to occur on protected lands. f) The BP has committed to improving the education and awareness of this ecoregion through the representation of the BP at the South Carolina Forestry Association and the South Carolina SFI Implementation Committee. Information from these organizations was reviewed by BP personnel. Information from these regional

meetings on Native Long Leaf Pine Systems (NLPS) was reviewed by BP personnel.

- g) The BP reviews this educational information with its suppliers who source wood fiber from this ecoregion to educate the suppliers, their loggers and landowners on the social benefits and values of NLPS, threats from forest management and related loss of values, and opportunities for conservation through management that restores or maintains NLPS and reduces or eliminates these threats. Communications should recognize the importance of the forest understory and fire to NLPS. This education and outreach measure will be documented using TBI-SBP-07 Supplier Monitoring Checklists.
- h) The BP will engage with and/or provide monetary or in-kind resources to conservation organizations such as the Longleaf Alliance that are facilitating active on-the-ground implementation of management activities to restore or maintain existing examples of NLPS, with a goal of long-term conservation of this system within the specified risk area and the BP's supply area.

Green Peace Intact Forests

Mitigation Measures:

- c) There is a strong system of protection (effective protected areas and legislation) in place within the BP's supply area that ensures survival of this intact forest.
- d) No wood is harvested out of the described National Wilderness Area which is managed by the Department of Interior. If wood is harvested from the surrounding forests described above, The Department of Interior or the Georgia Forestry Commission conducts environment impact studies and oversees all timber harvesting on these forests within the HCV providing complete protection of the site.

FSC US Controlled Wood National Risk Assessment (US NRA)

Category 3: HCV3 - Native Longleaf Pine Systems

Mitigation Measures:

- d) The BP has committed to improving the education and awareness of this ecoregion through the representation of the BP at the South Carolina Forestry Association and the South Carolina SFI Implementation Committee. Information from these regional organizations on Native Long Leaf Pine Systems (NLPS) was reviewed by BP personnel.
- e) The BP reviews this educational information with its suppliers who source wood fiber from these counties to educate the suppliers, their loggers and landowners on the social benefits and values of NLPS, threats from forest management and related loss of values, and opportunities for conservation through management that restores or maintains NLPS and reduces or eliminates these threats. Communications should recognize the importance of the forest understory and fire to NLPS. This education and outreach measure will be documented using TBI-SBP-07 Supplier Monitoring Checklists.
- f) The BP will engage with and/or provide monetary or in-kind resources to conservation organizations such as the Longleaf Alliance that are facilitating active, on-the-ground implementation of management activities to restore or maintain existing examples of NLPS, with a goal of long-term conservation of this system within the specified risk area and the BP's supply area.

The BP has developed & implemented control measures into their feedstock purchase contracts, such as TBI-SFI-06-POAddendum and the TBI-SBP-07-

	<p>Supplier Checklist, with its feedstock suppliers that:</p> <ul style="list-style-type: none"> i. mitigate the risk that material supplied originates from forest areas with high conservation values, or ii. assure that if some deviation from these standards has occurred the BP can reject individual loads from suppliers or discontinue its relationship with the supplier.

	Indicator
2.1.3	<p>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.</p>
Finding	<p><u>FSC US Controlled Wood National Risk Assessment (US NRA)</u> <u>Category 4: Forestland Conversion</u></p> <p>The US NRA has identified the forested portions of 53 counties across the FSC US Southeast and Pacific Coast Regions as areas where there is a risk greater than “low” receiving forest materials from forest conversions. Companies that wish to use non-certified materials from the identified areas are required to either avoid sourcing from specific sites where forest conversion is occurring, or to implement mitigation actions that reduce the risk of sourcing from these sites.</p> <p>There are fourteen (14) counties identified in the two states (GA, SC) that are the BP’s supply area.</p> <p>The BP has developed & implemented feedstock purchase contracts with its feedstock suppliers that mitigate the risk that material supplied originates from forest areas converted into plantation or non-forest use.</p> <p>Production plantation forests are defined as forests of exotic species that have been planted or seeded by human intervention and that are under intensive stand management, are fast growing, and subject to short rotations (e.g. poplar, acacia or eucalyptus plantations).</p>
Means of Verification	<p>Procedures are implemented to communicate policies and requirements to wood producers (TBI-SFI-04 Supplier Correspondence and TBI-SFI-06 Purchase Order Addendum) and to check compliance (TBI-SBP-07 Supplier Monitoring Checklists).</p> <p>Procedures are implemented to identify the List of Species of Trees (TBI-COC-15) and verify that they do not include “exotic species under intensive stand management subject to short rotations (Acacia or Eucalyptus plantations).</p> <p>Procedures are implemented to monitor Forest Service Forest Inventory & Analysis for South Carolina and Georgia (TBI-SFI-03) showing that there the forest resource across the supply base is stable and increasing.</p>

Evidence Reviewed	<p>Feedstock Purchase Orders (TBI-SFI-06-POAddendum and the TBI-SBP-07-Supplier Checklist) and Conditions, compliance audits.</p> <p>Evidence includes the list of native conifer tree species, predominantly Loblolly and Slash Pine grown in upland planted forests. (TBI-COC-15).</p> <p>Thunderbolt Biomass Inc. relies on supplier contracts to preclude the introduction of conversion wood considered controversial. The provision includes:</p> <p>Supplier certifies that: (1) all product supplied to the BP is obtained from legal sources in accordance with relevant federal, state, and local environmental, social, health and safety regulations; and (2) no product originates from any controversial sources as that term is defined by the SFI/PEFC/SBP Standards.</p> <p>Evidence includes US Forest Service FIA data showing a positive growth to drain ratio.</p> <p>Evidence includes the Georgia Forest Inventory and Analysis Fact Sheet. http://www.srs.fs.fed.us/pubs/su/su_srs053.pdf</p> <p>Evidence Includes the South Carolina Forest Inventory and Analysis reports https://www.fs.usda.gov/srsfia/states/south_carolina.shtml</p> <p>The Fact Sheets for both Georgia and South Carolina show increasing forest area and volumes. Note that Georgia contains the largest area of forest cover in the South with 24.8 million acres, accounting for 67 percent of the State's land area. The forest area has remained relatively stable over the last 50 years. Commercial timberland area (land available for production of forest products) comprises >98 percent of the total forest land area. The remaining area is reserved forest land where harvesting is prohibited by law.</p> <p>While forest area is stable, timber inventory has more than doubled over the last 50 years – a testament that forest landowners, with assistance from the forestry community, have engaged long term in improving timber volume production and associated resources</p> <p>The Fact Sheet for South Carolina shows that net volume on both forest land and timberland has increased from 2016, while the total number of trees decreased. These are structural changes characteristic of the increasing number of larger trees in more fully stocked stands across South Carolina as shown in previous update.</p> <p>Evidence is contained in the Internal Monitoring and Measuring conducted by Thunderbolt Biomass Inc. including:</p> <ol style="list-style-type: none"> 3. Chain of Custody Evidence Manual & Internal Audit Checklist (TBI-COC-02), 4. SBP Internal Audit Checklist (TBI-SBP-04), 5. BMP Monitoring Report Form (TBI-SFI-05), 6. SFI Evidence Manual & Internal Audit Checklist (TBI-SFI-01), 7. Summary of Stakeholder Input (TBI-SBP-02), 8. Supplier Monitoring Procedure & Checklist (TBI-SBP-07), 9. Management Review Procedure and Action Items (TBI-COC-16) <p>Ongoing monitoring shows that residual wood inputs are coming from commercial pine forests grown specifically for wood production. There is a Low Risk of any commercial</p>
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	pine coming from areas designated as Specified Risk of Conversion in largely urban areas.
Risk Rating	<input type="checkbox"/> Low Risk <input checked="" type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA
Comment or Mitigation Measure	<p><u>FSC US Controlled Wood National Risk Assessment (US NRA)</u></p> <p><u>Category 4: Forestland Conversion</u></p> <p><u>Mitigation Measures:</u></p> <p>c) The BP has developed and implemented binding written agreements with its feedstock suppliers that:</p> <p>i. mitigate the risk that material supplied originates from forest areas converted into plantation or non-forest use.</p> <p>d) The BP has committed to improving the education and awareness of this ecoregion through the representation of the BP at the South Carolina Forestry Association and the South Carolina SFI Implementation Committee. Information from these organizations was reviewed by BP personnel.</p> <p>The BP reviews this educational information with its suppliers who source wood fiber from these counties to educate the suppliers, their loggers and landowners on the social benefits of keeping forests as forests, and the value enhancing alternatives to conversion and opportunities for the maintenance of forests. This education and outreach measure will be documented using TBI-SBP-07 Supplier Audit Checklists</p>

	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	<p>Thunderbolt Biomass Inc. requires compliance with Best Management Practices (BMP) for the feedstock purchased through its feedstock purchase contracts with its suppliers.</p> <p>The BP verifies the sourcing of feedstock with its suppliers through its secondary supplier annual audit program. This verification reviews each supplier's supply area, areas of "specified risk" for areas with high conservation value (HCV) that are identified in their supply areas and mitigation measures being implemented to reduce "specified risk" to "low risk". The BP is using specific supplier maps detailing the supplier's supply area and HCV areas. Annual supplier audits also verify supplier's certification status, BMP compliance, logger training and overall environmental compliance..</p> <p>The sawmill adjacent to the BP, which will be it's principal supplier, supplies feedstock certified to the Sustainable Forestry Initiative® (SFI®) Fiber Sourcing Standard. These suppliers are 3rd party certified with verified BMP compliance monitoring programs. All suppliers require their suppliers and loggers to maintain SFI State Implementation Committee (SIC) logger training. This training educates loggers on BMPs, threatened &</p>

	<p>endangered species and biodiversity. The BP has access to SIC logger training databases to verify logger training.</p> <p>State forestry agencies conduct BMP compliance checks randomly or upon request by stakeholders. State BMP compliance reports are available for review by the BP.</p> <p>Evidence shows that the level of external influences on the BP's SB, in the form of state wide action plans, resource assessments, logger BMP's, state forestry associations, SFI state implementation committees, and other factors is sufficient to reduce this indicator to the level of "Low Risk."</p>
<p>Means of Verification</p>	<p>The SFI/PEFC Controlled Wood & Due Diligence Procedures (TBI-COC-10) implement measures to plan and monitor the operations of residual suppliers.</p> <p>State Forestry Agencies conduct periodic BMP implementation monitoring. BMP compliance has been documented to be above 90% for Georgia and South Carolina.</p> <p>The SFI Fiber Sourcing Program (TBI-SFI-03) contains procedures to support and promote logger training, education and outreach to promote sustainable forestry practices including the protection of T&E species, BMPs and protection of special sites.</p> <p>Thunderbolt Biomass Inc. has been engaged in reviewing and understanding the findings of the Statewide Forest Resource Assessments and Action Plans developed by the Georgia and South Carolina forestry agency/commissions and the Wildlife Action Plans for these two states addressed under Performance Measure 1.1.1 above.</p> <p>The Statewide Resource Assessments have involved a wide range of Stakeholders at the State and regional level. These Executive Summaries of the Assessments and Action Plans are taken into consideration during the annual management review.</p> <p>Links to the relevant Georgia Forest Resource Assessments are listed below:</p> <p>"A Strategic Plan for Georgia's Forests" can be found at: http://www.gatrees.mobi/about-us/strategic-plan/GFCplanDraftwithCover2.pdf.</p> <p>"The Georgia Statewide Assessment of Forest Resources" can be found at: http://www.gfc.state.ga.us/about-us/strategic-plan/GAStateAssessment-6-17-10.pdf</p> <p>The web page http://www.gfc.state.ga.us/about-us/strategic-plan/georgia-statewide-forest-resources-assessment-and-strategy/index.cfm summarizes the plan and provides additional information.</p> <p>Forest resource assessments and accompanying strategic plans constitute a coordinated plan for moving a state's forests into the future and on a sustainable course. Georgia's approach details the current conditions (the assessment) clearly defines the sustainable "desired future condition", identifies the main barriers to achieving the goal, and then outlines the main strategies underlying actions to move towards the goals. Key barriers include forest fragmentation, population growth and associated urbanization and changing land use, changes in landowner goals and land ethics, forest regulations and taxes, and the impacts of forest pests, wildfire and weather, as well as challenges in finding resources to fund efforts to deal with these issues. The plan outlines strategies for dealing with barriers. Links to the relevant South Carolina Forest Resource Assessments are listed below:</p>

	<p>“South Carolina’s Statewide Forest Resource Assessment and Strategy” can be found at: http://www.trees.sc.gov/scfra.pdf</p> <p>This Statewide Forest Resource Assessment provides an analysis of the benefits that the forests of South Carolina provide as well as an examination of the forces that threaten them. These benefits and threats can be summarized by the following issues, listed below in order of their priority ranking, as determined by stakeholders and steering committee members.</p> <p>Thunderbolt Biomass Inc. is a member of the South Carolina Forestry Association. This participation allows the BP to stay abreast of environmental legislation and provides opportunities to engage forest landowners in best forestry management practices.</p> <p>The South Carolina Forestry Association dedicated to forest conservation and the sustainable use of natural resources. Its Tree Farm Program supports sustainable management of family owned forest lands for wood, water, wildlife and recreation.</p> <p>The South Carolina Forestry Association represents landowners, pulp and paper mills, lumber mills, wood processors, logging companies, foresters, sportsmen and hunt clubs. The Association advocates for a business friendly climate for our landowners and forest industry while promoting conservation and sustainability of South Carolina's forests.</p> <p>https://www.scforestry.org https://www.sctreefarm.org</p> <p>Thunderbolt Biomass Inc. has also joined and participates in the South Carolina SFI Implementation Committee. The goal of the SIC’s is broaden the practice of responsible forestry at a local level and this goal includes objectives such as BMP’s, logger training, conservation, landowner outreach and community involvement.</p> <p>Since 1995, SFI program participants have contributed nearly \$75 million to support local programs through SFI Implementation Committees. This includes logger and forester training to reach the thousands of independent contractors that are the key to the quality of forest harvesting operations. By the end of 2018, more than 200,000 loggers and foresters had completed SFI-approved training programs.</p> <p>Loggers who are aware of their role as responsible professionals are better equipped to protect the environment.</p> <p>https://www.sfiprogram.org/sic/</p>
Evidence Reviewed	<p>Evidence includes Purchase Order Addendums, Best Management Practices implementation surveys and state BMP audit results.</p> <ul style="list-style-type: none"> • SFI Certification Database http://www.sfidatabase.org/PublicSearch/MainSearch.aspx • Georgia Master Timber

	<p>Harvester http://gamth.org/</p> <ul style="list-style-type: none"> • South Carolina Timber Operations Professional (TOP) Program https://www.scforestry.org/top-forestry-programs.htm • Results of Georgia's 2017 Silvicultural Best Management Practices Implementation and Compliance Survey https://gatrees.org/wp-content/uploads/2020/02/BMP-Survey-2017-Results-Report-Final-Corrected-by-Scott-Jan112018-410pm.pdf • Forestry BMPs in South Carolina: Compliance and Implementation Monitoring Report, 2015-2016 https://www.state.sc.us/forest/bmp16.pdf
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> 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).
Finding	<p>State forestry Best Management Practices (BMP) set forth guidelines for maintaining and/or improving soil quality. TBI-COC-09 Chain of Custody Procedures states the BP requires BMP compliance with the harvesting of all wood fiber it receives. Feedstock purchase contracts require BMP compliance. The BP verifies BMP compliance as part of its annual supplier audits. BMP compliance is documented using TBI-SBP-07 Supplier Audit Checklists.</p> <p>More than 1/5 of the sawmills (1 of 5 / 20%) supplying feedstock are certified to the Sustainable Forestry Initiative® (SFI®) Fiber Sourcing Standard. These suppliers are 3rd party certified with verified BMP compliance monitoring programs. All suppliers require their suppliers and loggers to maintain SFI State Implementation Committee (SIC) logger training. This training educates loggers on BMPs, threatened & endangered species and biodiversity. The BP has access to SIC logger training databases to verify logger training.</p> <p>State forestry agencies conduct BMP compliance checks randomly or upon request by stakeholders. State BMP compliance reports are available for review by the BP.</p>
Means of Verification	Refer to the Means of Verification provided in 2.2.1 covering the same basic issues.

	<p>Documented Procedures contained in the SFI Fiber Sourcing Program require the use of trained loggers, compliance with laws and regulations and implementation of BMPs that protect soil quality and reduce soil erosion (TBI-SFI-03).</p> <p>Documented Procedures contain correspondence with Wood Producers addressing the requirement to use trained loggers, implement BMPs and comply with laws and regulations (TBI-SFI-04).</p> <p>Documented Procedures contain Purchase Order Addendums (TBI-SFI-06) requiring the implementation of water quality BMP's.</p> <p>Supplier agrees to conduct all operations and activities in compliance with state water quality Best Management Practices.</p> <p>State Best Management Practices programs and guidelines address the protection of soils from erosion, compaction and disturbance. BMP compliance is consistently reported as higher than 90%.</p> <p>Thunderbolt Biomass Inc. is a member of the South Carolina Forestry Association. This participation allows the BP to stay abreast of environmental legislation and provides opportunities to engage forest landowners in best forestry management practices.</p> <p>The South Carolina Forestry Association dedicated to forest conservation and the sustainable use of natural resources. Its Tree Farm Program supports sustainable management of family owned forest lands for wood, water, wildlife and recreation.</p> <p>The South Carolina Forestry Association represents landowners, pulp and paper mills, lumber mills, wood processors, logging companies, foresters, sportsmen and hunt clubs. The Association advocates for a business friendly climate for our landowners and forest industry while promoting conservation and sustainability of South Carolina's forests.</p> <p>https://www.scforestry.org https://www.sctreefarm.org</p> <p>Thunderbolt Biomass Inc. has also joined and participates in the South Carolina SFI Implementation Committee. The goal of the SIC's is broaden the practice of responsible forestry at a local level and this goal includes objectives such as BMP's, logger training, conservation, landowner outreach and community involvement.</p> <p>Since 1995, SFI program participants have contributed nearly \$75 million to support local programs through SFI Implementation Committees. This includes logger and forester training to reach the thousands of independent contractors that are the key to the quality of forest harvesting operations. By the end of 2018, more than 200,000 loggers and foresters had completed SFI-approved training programs.</p> <p>Loggers who are aware of their role as responsible professionals are better equipped to protect the environment.</p> <p>https://www.sfiprogram.org/sic/</p>
Evidence Reviewed	Evidence includes Purchase Order Addendums and state Best Management

	<p>Practices implementation surveys referenced above.</p> <ul style="list-style-type: none"> • Feedstock purchase contracts • SFI Certification Database http://www.sfidatabase.org/PublicSearch/MainSearch.aspx • Georgia Master Timber Harvester http://gamth.org/ • South Carolina Timber Operations Professional (TOP) Program https://www.scforestry.org/top-forestry-programs.htm • Results of Georgia's 2017 Silvicultural Best Management Practices Implementation and Compliance Survey https://gatrees.org/wp-content/uploads/2020/02/BMP-Survey-2017-Results-Report-Final-Corrected-by-Scott-Jan112018-410pm.pdf • Forestry BMPs in South Carolina: Compliance and Implementation Monitoring Report, 2015-2016 https://www.state.sc.us/forest/bmp16.pdf <p>Evidence is contained in the Internal Monitoring and Measuring conducted by Thunderbolt Biomass Inc. including:</p> <ol style="list-style-type: none"> 1. Chain of Custody Evidence Manual & Internal Audit Checklist (TBI-COC-02), 2. SBP Internal Audit Checklist (TBI-SBP-04), 3. BMP Monitoring Report Form (TBI-SFI-05), 4. SFI Evidence Manual & Internal Audit Checklist (TBI-SFI-01), 5. Summary of Stakeholder Input (TBI-SBP-02), 6. Supplier Monitoring Procedure & Checklist (TBI-SBP-07), 7. Management Review Procedure and Action Items (TBI-COC-16)
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> 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	<p>The BP, using the FSC Controlled Wood National Risk Assessment (US NRA) and other reputable conservation initiatives, identified and mapped the presence or absence of the following high conservation value areas (HCV's) within the Company's Supply Base.</p> <p>There are no World Resources Institute (Global Forest Watch) Frontier Forests or USFS Inventoried Roadless Areas.</p> <p>The following HCVs have been identified and mapped within the BP's supply area and are assessed below. HCVs identified and assessed as "specified risk" will include describe measures to mitigate risks to a "low risk" level.</p> <p><u>North America Coastal Plain (NACP)</u></p> <p>Considered a biodiversity hot spot by the Critical Ecosystem Partnership Fund in 2016, NACP intersects more than half of the BP's supply area. This biodiversity hotspot reaches from northern Mexico along the Gulf Coastal and Atlantic Coastal Plains north to southern Maine. While this Coastal Plain is considered a biodiversity hotspot because of the large number of endemic plant and species located within this area, this vast designation includes all many of the HCVs described below at a more site specific scale.</p> <p><u>World Wildlife Fund (WWF) Ecoregions</u></p> <p>The BP's supply area is located within three WWF ecoregions; two of which are considered "critical /endangered" and are considered as WWF Global 200 eco-regions. The final eco-region is considered vulnerable. These three ecoregions are:</p> <ul style="list-style-type: none"> • NA413 Southeastern Mixed Forests • NA517 Mid-Atlantic Coastal Forests • NA529 Southeastern Conifer Forests <p><u>NA413 Southeastern Mixed Forests</u></p> <p>This ecoregion is ranked critical/endangered. This eco-region intersects approximately half of the BP's supply area. The Southeastern Mixed Forests rank among the top ten ecoregions in richness of amphibians, reptiles, and birds and among the top ten ecoregions in number of endemic reptiles, amphibians, butterflies, and mammals. The natural vegetation is dominated by oak-hickory-pine forests. About 99% of this habitat has now been converted to agriculture or other uses, or is highly degraded. Because of the heavy rate of conversion, there is little left to conserve.</p> <p><u>Low Risk designation:</u> As stated above, WWF has declared more than 99% of this ecoregion having been converted. The remaining examples of this HCV are known to occur on protected lands.</p> <p><u>NA517 Mid-Atlantic Coastal Forests</u></p> <p>This ecoregion is ranked critical/endangered. This eco-region intersects about half of the eastern portion of the BP's supply area.</p> <p>The Mid-Atlantic Coastal Forests contains the most diverse assemblage of freshwater wetland communities in North America and perhaps of all temperate forest ecoregions. Nonalluvial wetlands, including freshwater marshes, shrub bogs, white cedar swamps, bayheads, and wet hammocks are particularly prominent. Approximately 12% of the ecoregion contains habitat that is considered intact.</p>
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Conversion due to agriculture, fire suppression, urbanization, coastal development (including resorts), ditching and draining of wetlands, and damming of rivers which affect hydrology has been the greatest threat to this ecoregion.

NA529 Southeastern Conifer Forests

This ecoregion is ranked critical/endangered. This ecoregion intersects about half of the southeastern portion of the BP's supply area.

This ecoregion is the largest conifer forest ecoregion east of the Mississippi and the second largest coniferous ecoregion in the continental U.S. The Southeastern Conifer Forests were dominated by relatively open tall stands of long leaf pine (*Pinus palustris*) with an understory of wiregrass (*Aristida stricta*). The open nature of the mature long leaf pine stands and the frequency of understory fires helped maintain perhaps the richest temperate herbaceous flora on Earth. Over 98% of this habitat is now gone in the southeastern section of this ecoregion, much having been converted to agriculture or tree farms. Remaining habitat is limited to fragments and degraded larger patches.

Green Peace Intact Forests

A Greenpeace Intact Forest is located in Charlton and Ware Counties, GA which is within the BP's supply area. It is almost entirely within the 403,119-acre Okefenokee National Wildlife Refuge which has been described as "one of North America's most unspoiled, fascinating and precious natural areas". The Okefenokee Swamp is the largest, intact, un-fragmented, freshwater and black water wilderness swamp in North America. There are 353,000 acres designated as a National Wilderness Area within the refuge.

FSC US Controlled Wood National Risk Assessment (US NRA)

The BP has determined there may be areas within its supply area that are considered "specified risk" to the following categories of controlled wood:

- Category 3: Wood from forests where high conservation values are threatened by management activities:
 - HCV3 - Native Longleaf Pine Systems

The BP has determined two other Category 3 HCVs to be within its supply area. While these are found within the supply area, the BP only receives pine fiber which is not the primary tree species for the following two Category 3 HCVs. No mitigation measures have been implemented for these HCVs for this reason.

- HCV1 - Patch-Nosed Salamander
- HCV3 - Late Successional Bottomland Hardwood

Category 3: HCV3 - Native Longleaf Pine Systems

Native Longleaf Pine Systems (NLPS) are located in fifty-three (53) counties throughout the BP's supply area. All suppliers providing wood fiber that source from counties that have been identified as containing native longleaf systems have been notified of the conservation value of longleaf pine. Once one of the most widespread forest types in the US, longleaf pine savannah has been reduced to less than 5% of its original range. In terms of proportion of original extent that remains, this makes

	<p>this system one of the rarest in the world. While there has been recent success in increasing the extent of longleaf pine, it is still only a tiny fraction of its historical extent and thus continues to be considered rare. As a fiber-producing forest type, long-leaf cannot compete with loblolly or slash pine for short-term returns on investment. It is therefore extremely rare in the commercial pine forest that is the sub-scope of the Supply Base for the BP.</p> <p>NLPS were once one of the most widespread forest types in the US but have suffered an historical reduction in range driven by suppression of fire and conversion to other forest types. These forest systems are associated with high animal and plant diversity, including many rare, threatened and endangered species such as the Red- cockaded Woodpecker, Bachman’s Sparrow, Gopher Tortoise, Eastern Indigo Snake, and Flatwoods Salamander.</p> <p>“Native” in this instance refers to existing longleaf pine that is on a site that has historically been maintained as longleaf pine. Longleaf pine stands that have been restored in areas that have not been historically maintained in longleaf pine do not apply under this definition. “Native” does not imply a particular regeneration method; these stands may be either planted or naturally regenerated.</p> <p>Protected Areas as identified by Protected Areas Database of the United States (PAD-US) represents about 6% of the BP’s supply area. PAD-US is the official inventory of public parks and other protected open space. The spatial data in PAD-US represents public lands held in trust by thousands of national, state and regional/local governments, as well as non-profit conservation organizations. Approximately 50% of NLPS are in Protected Areas (and most of the older/larger diameter trees).</p> <p>These factors combine to result in a low level of mitigation required.</p>
<p>Means of Verification</p>	<p>Documented Procedures contain the SFI/PEFC Controlled Wood/Due Diligence Procedure (TBI-COC-10).</p> <p>Thunderbolt Biomass Inc. implements Documented Procedures to identify Tree Species (TBI-COC-15) and verify that all are softwood species from planted pine forests. The predominate commercial conifer species are Loblolly and Slash Pine grown in intensively managed planted forests. No known Native Longleaf or Bottomland Hardwoods are used in the Thunderbolt Biomass Inc. facility.</p> <p>Procedures are implemented to conduct Supplier Monitoring (TBI-SBP-07) to confirm that regulatory compliance is occurring.</p> <p>Procedures are implemented to conduct BMP Monitoring (TBI-SFI-05) where wood may be delivered directly from the forest.</p> <p>Documented Procedures contain supplier correspondence addressing state forest action plans and assessments (TBI-SFI-04).</p> <p>Documented Procedures contain Purchase Order Addendums addressing compliance with state and federal regulations protecting parks, reserves, wilderness areas, and other natural areas from logging (TBI-SFI-06).</p>

	<p>State and Federal Endangered Species Protection Programs and Programs to protect Forest of Exceptional Conservation Value referenced in the SFI Fiber Sourcing Program address protection of important wildlife species (TBI-SFI-03).</p> <p>Public education and outreach programs provide the control systems that address the conservation of key ecosystems and habitats including: the Environmental Quality Incentives Program (EQIP), the Landowner Incentive Program (LIP), North American Wetland Conservation Act Grants (NAWCA), the Conservation Reserve Program (CRP), Healthy Forest Reserve, the Wetlands Reserve Program (WRP), the Wildlife Habitat Incentives Program (WHIP),USFWS Safe Harbour Program, Forest Resource Development Program (FDRP).</p>
Evidence Reviewed	<p>Evidence includes the SFI Fiber Sourcing Procedures and documents, the SFI/Chain of Custody & Due Diligence System, Purchase Order Addendums, BMP Monitoring Reports, state BMP compliance monitoring, state-wide databases of trained loggers, SFI/PEFC/SBP Internal auditing reports and management review minutes and Action items.</p>
Risk Rating	<p><input type="checkbox"/> Low Risk <input checked="" type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA</p>
Comment or Mitigation Measure	<p><u>World Wildlife Fund (WWF) Ecoregions</u></p> <p><u>NA517 Mid-Atlantic Coastal Forests</u></p> <p><u>Mitigation Measures:</u></p> <ul style="list-style-type: none"> e) WWF has declared about 88% of this ecoregion having been converted. The remaining examples of this HCV are known to occur on protected lands. f) The BP through its feedstock purchase contracts or supply agreements requires suppliers to comply with laws and regulations, including the Clean Water Act, and compliance with state Best Management Practices (BMPs). Verification of compliance is accomplished through supplier audits using TBI-SBP-07 Supplier Monitoring Checklists. g) The BP has committed to improving the education and awareness of this ecoregion through the representation of the BP at the South Carolina Forestry Association and the South Carolina SFI Implementation Committee. Information from these organizations was reviewed by BP personnel. h) The BP reviews this educational information with its suppliers who source wood fiber from this ecoregion to educate the suppliers, their loggers and landowners on conservation values, threats from incompatible forest management, & opportunities for conservation through management that enhances biodiversity and reduces or eliminates threats. This education & outreach measure is documented using TBI-SBP-07 Supplier Monitoring Checklists. <p><u>NA529 Southeastern Conifer Forests</u></p> <p><u>Mitigation Measures:</u></p> <ul style="list-style-type: none"> e) WWF has declared over 98% of this ecoregion having been converted. The remaining examples of this HCV are known to occur on protected lands. f) The BP has committed to improving the education and awareness of this ecoregion through the representation of the BP at the South Carolina Forestry Association and the South Carolina SFI Implementation Committee. Information from these organizations was reviewed by BP personnel.

Information from these regional meetings on Native Long Leaf Pine Systems (NLPS) was reviewed by BP personnel.

- g) The BP reviews this educational information with its suppliers who source wood fiber from this ecoregion to educate the suppliers, their loggers and landowners on the social benefits and values of NLPS, threats from forest management and related loss of values, and opportunities for conservation through management that restores or maintains NLPS and reduces or eliminates these threats. Communications should recognize the importance of the forest understory and fire to NLPS. This education and outreach measure will be documented using TBI-SBP-07 Supplier Monitoring Checklists.
- h) The BP will engage with and/or provide monetary or in-kind resources to conservation organizations such as the Longleaf Alliance that are facilitating active on-the-ground implementation of management activities to restore or maintain existing examples of NLPS, with a goal of long-term conservation of this system within the specified risk area and the BP's supply area.

Green Peace Intact Forests

Mitigation Measures:

- c) There is a strong system of protection (effective protected areas and legislation) in place within the BP's supply area that ensures survival of this intact forest.
- d) No wood is harvested out of the described National Wilderness Area which is managed by the Department of Interior. If wood is harvested from the surrounding forests described above, The Department of Interior or the Georgia Forestry Commission conducts environment impact studies and oversees all timber harvesting on these forests within the HCV providing complete protection of the site.

FSC US Controlled Wood National Risk Assessment (US NRA)

Category 3: HCV3 - Native Longleaf Pine Systems

Mitigation Measures:

- d) The BP has committed to improving the education and awareness of this ecoregion through the representation of the BP at the South Carolina Forestry Association and the South Carolina SFI Implementation Committee. Information from these regional organizations on Native Long Leaf Pine Systems (NLPS) was reviewed by BP personnel.
- e) The BP reviews this educational information with its suppliers who source wood fiber from these counties to educate the suppliers, their loggers and landowners on the social benefits and values of NLPS, threats from forest management and related loss of values, and opportunities for conservation through management that restores or maintains NLPS and reduces or eliminates these threats. Communications should recognize the importance of the forest understory and fire to NLPS. This education and outreach measure will be documented using TBI-SBP-07 Supplier Monitoring Checklists.
- f) The BP will engage with and/or provide monetary or in-kind resources to conservation organizations such as the Longleaf Alliance that are facilitating active, on-the-ground implementation of management activities to restore or maintain existing examples of NLPS, with a goal of long-term conservation of this system within the specified risk area and the BP's supply area.

The BP has developed & implemented feedstock purchase contracts with its feedstock suppliers that:

- iii. mitigate the risk that material supplied originates from forest areas or using techniques where key ecosystems or habitats may not be conserved, or
- iv. assure that if some deviation from these standards has occurred the BP can reject individual loads from suppliers or discontinue its relationship with the supplier.

Thunderbolt Biomass Inc.'s procedures for SFI/PEFC along with strong environmental laws and regulations and a high level of BMP compliance moves 2.2.3 from Specified Risk to Low Risk.

	Indicator
2.2.4	The Biomass Producer has implemented appropriate control systems and procedures to ensure that biodiversity is protected (CPET S5b).
Finding	<p>The BP, using the FSC Controlled Wood National Risk Assessment (US NRA) and other reputable conservation initiatives, identified and mapped the presence or absence of the following high conservation value areas (HCV's) within the Company's Supply Base.</p> <p>There are no World Resources Institute (Global Forest Watch) Frontier Forests or USFS Inventoried Roadless Areas.</p> <p>The following HCVs have been identified and mapped within the BP's supply area and are assessed below. HCVs identified and assessed as "specified risk" will include describe measures to mitigate risks to a "low risk" level.</p> <p><u>North America Coastal Plain (NACP)</u></p> <p>Considered a biodiversity hot spot by the Critical Ecosystem Partnership Fund in 2016, NACP intersects more than half of the BP's supply area. This biodiversity hotspot reaches from northern Mexico along the Gulf Coastal and Atlantic Coastal Plains north to southern Maine. While this Coastal Plain is considered a biodiversity hotspot because of the large number of endemic plant and species located within this area, this vast designation includes all many of the HCVs described below at a more site specific scale.</p> <p><u>World Wildlife Fund (WWF) Ecoregions</u></p> <p>The BP's supply area is located within three WWF ecoregions; two of which are considered "critical /endangered" and are considered as WWF Global 200 ecoregions. The final eco-region is considered vulnerable. These three ecoregions are:</p> <ul style="list-style-type: none"> • NA413 Southeastern Mixed Forests • NA517 Mid-Atlantic Coastal Forests • NA529 Southeastern Conifer Forests <p><u>NA413 Southeastern Mixed Forests</u></p> <p>This ecoregion is ranked critical/endangered. This eco-region intersects approximately half of the BP's supply area. The Southeastern Mixed Forests rank among the top ten ecoregions in richness of amphibians, reptiles, and birds and among the top ten ecoregions in number of endemic reptiles, amphibians, butterflies, and mammals. The natural vegetation is dominated by oak-hickory-pine forests. About 99% of this habitat has now been converted to agriculture or other uses, or is highly degraded. Because of the heavy rate of conversion, there is little left to conserve.</p> <p><u>Low Risk designation:</u> As stated above, WWF has declared more than 99% of this ecoregion having been converted. The remaining examples of this HCV are known to occur on protected lands.</p> <p><u>NA517 Mid-Atlantic Coastal Forests</u></p> <p>This ecoregion is ranked critical/endangered. This eco-region intersects about half of</p>

the eastern portion of the BP's supply area.

The Mid-Atlantic Coastal Forests contains the most diverse assemblage of freshwater wetland communities in North America and perhaps of all temperate forest ecoregions. Nonalluvial wetlands, including freshwater marshes, shrub bogs, white cedar swamps, bayheads, and wet hammocks are particularly prominent. Approximately 12% of the ecoregion contains habitat that is considered intact. Conversion due to agriculture, fire suppression, urbanization, coastal development (including resorts), ditching and draining of wetlands, and damming of rivers which affect hydrology has been the greatest threat to this ecoregion.

NA529 Southeastern Conifer Forests

This ecoregion is ranked critical/endangered. This ecoregion intersects about half of the southeastern portion of the BP's supply area.

This ecoregion is the largest conifer forest ecoregion east of the Mississippi and the second largest coniferous ecoregion in the continental U.S. The Southeastern Conifer Forests were dominated by relatively open tall stands of long leaf pine (*Pinus palustris*) with an understory of wiregrass (*Aristida stricta*). The open nature of the mature long leaf pine stands and the frequency of understory fires helped maintain perhaps the richest temperate herbaceous flora on Earth. Over 98% of this habitat is now gone in the southeastern section of this ecoregion, much having been converted to agriculture or tree farms. Remaining habitat is limited to fragments and degraded larger patches.

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FSC US Controlled Wood National Risk Assessment (US NRA)

The BP has determined there may be areas within its supply area that are considered "specified risk" to the following categories of controlled wood:

- Category 3: Wood from forests where high conservation values are threatened by management activities:
 - HCV3 - Native Longleaf Pine Systems

The BP has determined two other Category 3 HCVs to be within its supply area. While these are found within the supply area, the BP only receives pine fiber which is not the primary tree species for the following two Category 3 HCVs. No mitigation measures have been implemented for these HCVs for this reason.

- HCV1 - Patch-Nosed Salamander
- HCV3 - Late Successional Bottomland Hardwood

Category 3: HCV3 - Native Longleaf Pine Systems

	<p>Native Longleaf Pine Systems (NLPS) are located in fifty-three (53) counties throughout the BP's supply area. All suppliers providing wood fiber that source from counties that have been identified as containing native longleaf systems have been notified of the conservation value of longleaf pine. Once one of the most widespread forest types in the US, longleaf pine savannah has been reduced to less than 5% of its original range. In terms of proportion of original extent that remains, this makes this system one of the rarest in the world. While there has been recent success in increasing the extent of longleaf pine, it is still only a tiny fraction of its historical extent and thus continues to be considered rare. As a fiber-producing forest type, long-leaf cannot compete with loblolly or slash pine for short-term returns on investment. It is therefore extremely rare in the commercial pine forest that is the sub-scope of the Supply Base for the BP.</p> <p>NLPS were once one of the most widespread forest types in the US but have suffered an historical reduction in range driven by suppression of fire and conversion to other forest types. These forest systems are associated with high animal and plant diversity, including many rare, threatened and endangered species such as the Red- cockaded Woodpecker, Bachman's Sparrow, Gopher Tortoise, Eastern Indigo Snake, and Flatwoods Salamander.</p> <p>"Native" in this instance refers to existing longleaf pine that is on a site that has historically been maintained as longleaf pine. Longleaf pine stands that have been restored in areas that have not been historically maintained in longleaf pine do not apply under this definition. "Native" does not imply a particular regeneration method; these stands may be either planted or naturally regenerated.</p> <p>Protected Areas as identified by Protected Areas Database of the United States (PAD-US) represents about 6% of the BP's supply area. PAD-US is the official inventory of public parks and other protected open space. The spatial data in PAD-US represents public lands held in trust by thousands of national, state and regional/local governments, as well as non-profit conservation organizations. Approximately 50% of NLPS are in Protected Areas (and most of the older/larger diameter trees).</p> <p>These factors combine to result in a low level of mitigation required.</p>
<p>Means of Verification</p>	<ul style="list-style-type: none"> • Feedstock purchase contracts • FSC US Controlled Wood National Risk Assessment (US NRA) • TBI-SBP-07 Supplier Audit Checklists <p>Thunderbolt Biomass Inc. works with its wood producers to provide informational material and services about Conserving Biological Diversity and sustainable forestry. Thunderbolt Biomass Inc., provides regionally appropriate SFI information addressing the conservation of wildlife biodiversity, as well as other information about sustainable forestry.</p> <p>The BP encourages its wood producers to pass SFI informational materials on to landowners from whom they purchase wood. If the wood producers need additional</p>

copies of SFI informational materials, they are encouraged to notify the SFI Implementation Committee or Thunderbolt Biomass Inc.

The focus of the Thunderbolt Biomass Inc.'s promotion program is to provide Wildlife and Biodiversity information to wood producers that would not otherwise receive it and would benefit from receiving the information.

Thunderbolt Biomass Inc.'s Compliance Officer works with the South Carolina SFI Implementation Committee to develop SFI Information addressing sustainable forestry including BMPs, wildlife and biodiversity.

The key sources of information on Biodiversity are the State Wildlife Action Plans. This information is reviewed and key components of the Action Plans are part of the communication with wood producers. Links to the relevant portions of the Georgia and South Carolina Wildlife Action Plans are provided below.

Georgia:

"A Strategic Plan for Georgia's Forests" can be found at: <http://www.gatrees.mobi/about-us/strategic-plan/GFCplanDraftwithCover2.pdf>. "The Georgia Statewide Assessment of Forest Resources" can be found at: <http://www.gfc.state.ga.us/about-us/strategic-plan/GAStateAssessment-6-17-10.pdf>

The web page <http://www.gfc.state.ga.us/about-us/strategic-plan/georgia-statewide-forest-resources-assessment-and-strategy/index.cfm> summarizes the plan and provides additional information.

Forest resource assessments and accompanying strategic plans constitute a coordinated plan for moving a state's forests into the future and on a sustainable course. Georgia's approach details the current conditions (the assessment) clearly defines the sustainable "desired future condition", identifies the main barriers to achieving the goal, and then outlines the main strategies underlying actions to move towards the goals. Key barriers include forest fragmentation, population growth and associated urbanization and changing land use, changes in landowner goals and land ethics, forest regulations and taxes, and the impacts of forest pests, wildfire and weather, as well as challenges in finding resources to fund efforts to deal with these issues. The plan outlines strategies for dealing with barriers.

Another key source of information on biodiversity is the Georgia State Wildlife Action Plan. In the United States, individual [State Wildlife Action Plans](#) assess priority species, habitats, and conservation actions, as well as designating priority conservation areas. These Plans are collaborative, and include stakeholders such as government agencies, non-governmental conservation organizations, landowner groups, and private corporations. These plans are comprehensive management tools developed by the state wildlife resource agencies with considerable stakeholder involvement to improve programs intended to conserve and enhance the full array of fish and wildlife species and their habitats. State-by-state "Wildlife Action Plans" emerged from a mandate by the U.S. Congress that each state develop a comprehensive conservation strategy to be eligible for federal funding under the State Wildlife Grants program. The wildlife action plans were written to identify species with unmet conservation needs and to plan systematically to work towards meeting those needs most effectively.

	<p>The Georgia State Wildlife Action Plan (SWAP) is available on-line:</p> <ul style="list-style-type: none"> • 2015 Updates (web page)www.georgiawildlife.com/conservation/wildlife-action-plan • 2005 Comprehensive Wildlife Conservation Strategy for Georgia <p>The 2015 Georgia SWAP will be the basis for ongoing efforts by the BP to understand how its wood procurement efforts can best support the plan’s objectives. The plan divides the state into four ecoregions:</p> <p>SA/RV = Southwestern Appalachians/Ridge & Valley BR = Blue Ridge PD = Piedmont SP = Southeastern Plains SCP = Southern Coastal Plain</p> <p>Most of the BP’s fiber procurement sources are from the Southern Coastal Plain and are limited to upland pine species. Pages 151-155 list and briefly describe 24 High priority habitats for the Southern Coastal Plain. The following are the only ones containing upland pine species.</p> <p>23. Pine Flatwoods</p> <p>Mesic or wet forests on flat, poorly-drained areas of the lower Coastal Plain. Dominated formerly by longleaf pine, now typically by slash pine, occasionally with loblolly or pond pine. Contains a well-developed shrub layer consisting of saw palmetto, gallberry, lowbush blueberry, and other ericaceous species. One of the most extensive and prevalent habitats of this ecoregion.</p> <p>25. Wet Pine Savannas, Herb and Shrub Bogs</p> <p>Wet pine savannas are poorly drained wetlands with open to sparse canopies dominated by longleaf, slash, and/or pond pine. The shrub layer may be sparse, consisting mainly of gallberry, wax myrtle, and blueberries. The herbaceous layer is often diverse and dense, dominated by grasses, sedges, composites, orchids, and lilies. May include small peat filled depressions dominated by titi and other shrubs or by herbaceous bog plants. The desired conservation actions vary by type, with active forest management supported in the more common types (pine flatwoods) with concerns for type and intensity of management. The most common conservation action involves acquisition by public agencies with ultimate management emphasizing ecological values.</p> <p>South Carolina:</p> <p>The South Carolina’s Wildlife Action Plan http://www.dnr.sc.gov/swap/main/2015StateWildlifeActionPlan-chapteronly.pdf</p>
Evidence Reviewed	<p>The Documented Procedures listed above contain the evidence of conformance as well as the Procedures and Control Systems.</p> <p>Thunderbolt Biomass Inc. has reviewed the WWF website that has identified small rivers of the Southeastern U.S. as Critical/Endangered (http://www.panda.org). Water quality and aquatic populations are said to be impaired by development, agriculture and other land uses. Current harvesting of upland pine forests are not listed as constituting a "threat."</p> <p>Thunderbolt Biomass Inc. has reviewed the National Geographic website for evidence of eco-regionally significant high conservation values. The National Geographic website</p>

	<p>does not identify planted conifer forests in the state of South Carolina and Georgia as threatened. (http://www.nationalgeographic.com).</p> <p>The States of South Carolina and Georgia have extensive laws and regulations to protect water quality and provide natural areas for the protection of native biodiversity. State laws and regulations are accessible through the state agency websites contained in the SFI Fiber Sourcing Program (TBI-SFI-03).</p> <p>Private conservation efforts such as easements, private reserves and protected areas by the Nature Conservancy, the Trust for Public Lands and other land trusts are active in identifying HCVs and taking steps to purchase and/or protect them through easements.</p> <p>The U.S. has also received a Global Governance Index rating that exceeds the minimum of 75%. The Index addressing Regulatory Quality exceeds 90%. See the Global Governance Index for the United States: (http://info.worldbank.org/governance/wqi/sc_chart.asp)</p> <p>Thunderbolt Biomass Inc. has not received any stakeholder input (TBI-SBP-02) identifying any issue or concerns with biodiversity protection.</p> <p>Evidence is contained in the Internal Monitoring and Measuring conducted by Thunderbolt Biomass Inc. including:</p> <ol style="list-style-type: none"> 1. Chain of Custody Evidence Manual & Internal Audit Checklist (TBI-COC-02), 2. SBP Internal Audit Checklist (TBI-SBP-04), 3. BMP Monitoring Report Form (TBI-SFI-05), 4. SFI Evidence Manual & Internal Audit Checklist (TBI-SFI-01), 5. Summary of Stakeholder Input (TBI-SBP-02), 6. Supplier Monitoring Procedure & Checklist (TBI-SBP-07), 7. Management Review Procedure and Action Items (TBI-COC-16)
Risk Rating	<input type="checkbox"/> Low Risk <input checked="" type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA
Comment or Mitigation Measure	<p><u>World Wildlife Fund (WWF) Ecoregions</u></p> <p><u>NA517 Mid-Atlantic Coastal Forests</u></p> <p><u>Mitigation Measures:</u></p> <ol style="list-style-type: none"> e) WWF has declared about 88% of this ecoregion having been converted. The remaining examples of this HCV are known to occur on protected lands. f) The BP through its feedstock purchase contracts or supply agreements requires suppliers to comply with laws and regulations, including the Clean Water Act, and compliance with state Best Management Practices (BMPs). Verification of compliance is accomplished through supplier audits using TBI-SBP-07 Supplier Monitoring Checklists. g) The BP has committed to improving the education and awareness of this ecoregion through the representation of the BP at the South Carolina Forestry Association and the South Carolina SFI Implementation Committee. Information from these organizations was reviewed by BP personnel. h) The BP reviews this educational information with its suppliers who source wood fiber from this ecoregion to educate the suppliers, their loggers and landowners on conservation values, threats from incompatible forest management, &

opportunities for conservation through management that enhances biodiversity and reduces or eliminates threats. This education & outreach measure is documented using TBI-SBP-07 Supplier Monitoring Checklists.

NA529 Southeastern Conifer Forests

Mitigation Measures:

- e) WWF has declared over 98% of this ecoregion having been converted. The remaining examples of this HCV are known to occur on protected lands.
- f) The BP has committed to improving the education and awareness of this ecoregion through the representation of the BP at the South Carolina Forestry Association and the South Carolina SFI Implementation Committee. Information from these organizations was reviewed by BP personnel. Information from these regional meetings on Native Long Leaf Pine Systems (NLPS) was reviewed by BP personnel.
- g) The BP reviews this educational information with its suppliers who source wood fiber from this ecoregion to educate the suppliers, their loggers and landowners on the social benefits and values of NLPS, threats from forest management and related loss of values, and opportunities for conservation through management that restores or maintains NLPS and reduces or eliminates these threats. Communications should recognize the importance of the forest understory and fire to NLPS. This education and outreach measure will be documented using TBI-SBP-07 Supplier Monitoring Checklists.
- h) The BP will engage with and/or provide monetary or in-kind resources to conservation organizations such as the Longleaf Alliance that are facilitating active on-the-ground implementation of management activities to restore or maintain existing examples of NLPS, with a goal of long-term conservation of this system within the specified risk area and the BP's supply area.

Green Peace Intact Forests

Mitigation Measures:

- c) There is a strong system of protection (effective protected areas and legislation) in place within the BP's supply area that ensures survival of this intact forest.
- d) No wood is harvested out of the described National Wilderness Area which is managed by the Department of Interior. If wood is harvested from the surrounding forests described above, The Department of Interior or the Georgia Forestry Commission conducts environment impact studies and oversees all timber harvesting on these forests within the HCV providing complete protection of the site.

FSC US Controlled Wood National Risk Assessment (US NRA)

Category 3: HCV3 - Native Longleaf Pine Systems

Mitigation Measures:

- d) The BP has committed to improving the education and awareness of this ecoregion through the representation of the BP at the South Carolina Forestry Association and the South Carolina SFI Implementation Committee. Information from these regional organizations on Native Long Leaf Pine Systems (NLPS) was reviewed by BP personnel.

	<p>e) The BP reviews this educational information with its suppliers who source wood fiber from these counties to educate the suppliers, their loggers and landowners on the social benefits and values of NLPS, threats from forest management and related loss of values, and opportunities for conservation through management that restores or maintains NLPS and reduces or eliminates these threats. Communications should recognize the importance of the forest understory and fire to NLPS. This education and outreach measure will be documented using TBI-SBP-07 Supplier Monitoring Checklists.</p> <p>f) The BP will engage with and/or provide monetary or in-kind resources to conservation organizations such as the Longleaf Alliance that are facilitating active, on-the-ground implementation of management activities to restore or maintain existing examples of NLPS, with a goal of long-term conservation of this system within the specified risk area and the BP's supply area.</p> <p>The BP has developed & implemented feedstock purchase contracts with its feedstock suppliers that:</p> <ul style="list-style-type: none"> i. mitigate the risk that material supplied originates from forest areas or using techniques where key ecosystems or habitats may not be conserved, or ii. assure that if some deviation from these standards has occurred the BP can reject individual loads from suppliers or discontinue its relationship with the supplier. <p>Thunderbolt Biomass Inc.'s procedures for SFI/PEFC along with strong environmental laws and regulations and a high level of BMP compliance moves 2.2.4 from Specified Risk to Low Risk.</p>
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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.
Finding	<p>The Company has appropriate control systems and procedures to ensure residue removals are minimized in harming the ecosystem. State forestry Best Management Practices (BMP) address wood and residue utilization. TBI-SBP-07 Supplier Audit Checklists states the Company requires BMP compliance with the harvesting of all wood fiber it receives. Feedstock purchase contracts require BMP compliance. The Company verifies BMP compliance as part of its annual supplier audits. BMP compliance is documented using TBI-SBP-07 Supplier Audit Checklists.</p> <p>The sawmill adjacent to the BP, which will be it's principal supplier, supplies feedstock certified to the Sustainable Forestry Initiative® (SFI®) Fiber Sourcing Standard. These suppliers are 3rd party certified with verified BMP compliance monitoring programs. All suppliers require their suppliers and loggers to maintain SFI State Implementation Committee (SIC) logger training. This training educates loggers on BMPs, threatened & endangered species and biodiversity. The BP has access to SIC logger training databases to verify logger training.</p>

	<p>State forestry Best Management Practices (BMP) address wood and residue utilization.</p> <p>Evidence shows that the level of external influences on the BP's SB, in the form of state wide action plans, resource assessments, logger BMP's, state forestry associations, SFI state implementation committees, and other factors is sufficient to reduce this indicator to the level of "Low Risk".</p>
Means of Verification	Feedstock purchase contracts, TBI-SBP-07 Supplier Audit Checklists
Evidence Reviewed	<ul style="list-style-type: none"> • Feedstock purchase contracts • TBI-SBP-07 Supplier Audit Checklists • SFI Certification Database http://www.sfidatabase.org/PublicSearch/MainSearch.aspx • South Carolina Timber Operations Professional (TOP) Program https://www.scforestry.org/top-forestry-programs.htm • Results of Georgia's 2017 Silvicultural Best Management Practices Implementation and Compliance Survey http://www.gfc.state.ga.us/forest-management/water-quality/bmps/BMP%20Survey%202017%20Results%20Report%20Final%20Corrected%20by%20Scott%20Jan112018%20410pm.pdf • Forest Biomass Retention and Harvesting Guidelines for the Southeast https://foreststewardsguild.org/wp-content/uploads/2019/05/FG_Biomass_Guidelines_SE.pdf • Georgia Master Timber Harvester http://gamth.org/ • Forestry BMPs in South Carolina: Compliance and Implementation Monitoring Report, 2015-2016 https://www.state.sc.us/forest/bmp16.pdf • Forest Biomass Retention and Harvesting Guidelines for the Southeast https://foreststewardsguild.org/wp-content/uploads/2019/05/FG_Biomass_Guidelines_SE.pdf
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> 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).

<p>Finding</p>	<p>Evidence shows that the level of external influences on the BO's SB, in the form of state wide action plans, resource assessments, logger BMP's, state forestry associations, SFI state implementation committees, and other factors is sufficient to reduce this indicator to the level of "Low Risk".</p>
<p>Means of Verification</p>	<p>Refer to the Means of Verification provided in 2.2.1 and 2.2.2 covering the same basic issues.</p> <p>Documented Procedures contained in the SFI Fiber Sourcing Program require the use of trained loggers, compliance with laws and regulations and implementation of BMPs that protect soil quality and reduce soil erosion (TBI-SFI-03).</p> <p>Documented Procedures contain correspondence with Wood Producers addressing the requirement to use trained loggers, implement BMPs and comply with laws and regulations (TBI-SFI-04). The clauses in the Wood Producer correspondence include:</p> <p>We are asking for your help in encouraging organizations that supply you with wood material to ensure that appropriate state Best Management Practices (BMPs) are implemented to protect water quality, take steps to protect wildlife and biodiversity, comply with applicable laws and regulations and be vigilant to ensure the legality of forestry operations.</p> <p>Attached are sample copies of the SFI Information Brochures addressing these sustainable forestry issues. Please pass these or your own promotional materials on to landowners that you purchase wood from. Wildlife Biodiversity is a key component of the South's natural heritage. Please consider reviewing and adopting the practices outlined in the South Carolina Wildlife Action Plan, which can be found at the following website: http://www.dnr.sc.gov/swap/index.html .</p> <p>We are also requiring that you ensure that each logging crew is supervised by someone who has successfully completed the SFI sponsored logger training program. Please review the attached Purchase Order Addendum addressing forest legality and sustainability. We also encourage you to promote landowner recognition and certification programs including the Sustainable Forestry Initiative® (SFI®) and the American Tree Farm System®. Additional information about Tree Farm Certification can be obtained at www.treefarmssystem.org and SFI at http://www.sfiprogram.org/.</p> <p>Thunderbolt Biomass Inc. is a member of the South Carolina Forestry Association. This participation allows the BP to stay abreast of environmental legislation and provides opportunities to engage forest landowners in best forestry management practices.</p> <p>The South Carolina Forestry Association represents landowners, pulp and paper mills, lumber mills, wood processors, logging companies, foresters, sportsmen and hunt clubs. The Association advocates for a business friendly climate for our landowners and forest industry while promoting conservation and sustainability of South Carolina's forests.</p> <p>The South Carolina Forestry Association dedicated to forest conservation and the sustainable use of natural resources. Its Tree Farm Program supports sustainable management of family owned forest lands for wood, water, wildlife and recreation.</p> <p>https://www.scforestry.org</p>

	<p>https://www.sctreefarm.org</p> <p>Thunderbolt Biomass Inc. has also joined and participates in the South Carolina SFI Implementation Committee. The goal of the SIC's is broaden the practice of responsible forestry at a local level and this goal includes objectives such as BMP's, logger training, conservation, landowner outreach and community involvement.</p> <p>Since 1995, SFI program participants have contributed nearly \$75 million to support local programs through SFI Implementation Committees. This includes logger and forester training to reach the thousands of independent contractors that are the key to the quality of forest harvesting operations. By the end of 2018, more than 200,000 loggers and foresters had completed SFI-approved training programs.</p> <p>Loggers who are aware of their role as responsible professionals are better equipped to protect the environment.</p> <p>https://www.sfiprogram.org/sic/</p> <p>State Best Management Practices programs and guidelines address the protection of soils from erosion, compaction and disturbance. State of South Carolina and Georgia BMP Compliance Monitoring reports document that BMP implementation is consistently higher than 90%.</p>
Evidence Reviewed	<p>Evidence includes the SFI Fiber Sourcing Procedure (TBI-SFI-03).</p> <p>Evidence includes Purchase Order Addendums (TBI-SFI-06) requiring the use of trained loggers, compliance with BMPs and compliance with applicable laws and regulations.</p> <p>Evidence includes Wood Producer Correspondence communicating the above requirements to residual wood suppliers (TBI-SFI-04).</p> <p>Evidence includes State Forestry Agency/Commission BMP implementation monitoring reports documenting that BMP compliance is consistently above 90%.</p> <p>Evidence includes the Georgia Forestry Commission Statewide Forestry BMP Survey where 232 sites were evaluated. Of the 6044 individual BMPs evaluated, the statewide percentage of correct implementation was 93.17 percent. (See SFI Fiber Sourcing Program (TBI-SFI-03) for website links)</p> <p>Evidence includes the forestry community's BMP implementation rate for streamside management zones is 93%.</p> <p>The report from the Southern Group of State Foresters (SGSF) in 2012 reported high rates of BMP compliance: http://www.forestry.alabama.gov/PDFs/SGSF_BMP_Report_2012.pdf. Seven BMP categories were considered in the report and covered 11 states in the southern region. Overall, the southern region BMP implementation average increased from 87% in 2008 to 92% in 2012.</p> <p>A recent Technical Bulletin 966 (September, 2009) issued by the National Council for Air and Stream Improvement (NCASI) has reported high levels of compliance with water quality laws and BMP requirements across the U.S: (http://www.ncasi.org/Publications/Detail.aspx?id=3204).</p>

	<p>State BMPs are essentially required on all certified forest lands in South Carolina and Georgia. The respective State BMP Manuals for forestry are contained below:</p> <p>Georgia: http://www.gfc.state.ga.us/resources/publications/BMPManualGA0609.pdf</p> <p>South Carolina: http://www.state.sc.us/forest/bmpmanual.pdf</p> <ul style="list-style-type: none"> • Georgia's Best Management Practices for Forestry http://www.gfc.state.ga.us/forest-management/water-quality/bmps/manual/BMP%20Manual%202019%20Web.p df • South Carolina's Best Management Practices for Forestry https://www.state.sc.us/forest/bmpmanual.pdf • SFI Certification Database http://www.sfidatabase.org/PublicSearch/MainSearch.aspx • Georgia Master Timber Harvester http://gamth.org/ • South Carolina Timber Operations Professional (TOP) Program https://www.scforestry.org/top-forestry-programs.htm
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> 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	Thunderbolt Biomass Inc. has Documented Procedures and Control Systems in place to demonstrate that impacts to air quality from prescribed burning are minimized.
Means of Verification	<p>Thunderbolt Biomass Inc. is several contracts removed from landowners and managers that may conduct prescribed burning. However, the use of prescribed burning is being reduced due to liability and air quality concerns and is heavily regulated by State Forestry Agencies.</p> <p>Documented Procedures contain Purchase Order Addendums with all suppliers requiring that all applicable laws and regulations, including those addressing air quality, be complied with (TBI-SFI-06).</p>

	<p>Documented Procedures address Wood Producer correspondence communicating the requirement to comply with applicable laws and regulations (TBI-SFI-04).</p> <p>Prescribed burning on all lands in South Carolina and Georgia is regulated by the following State Forestry Commissions and permitting processes:</p> <p>Georgia: http://www.gfc.state.ga.us/online-permits/index.cfm</p> <p>South Carolina: http://www.state.sc.us/forest/fireburn.htm</p>
Evidence Reviewed	<p>Refer to the Means of Verification outlined above for evidence of conformance.</p> <p>There have been no Public Complaints filed with Thunderbolt Biomass Inc. addressing the use of prescribed burning and air quality issues. (TBI-SBP-02).</p> <p>No public comments were received expressing concerns about prescribed burning impacts.</p>
Risk Rating	<p><input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA</p>
Comment or Mitigation Measure	<p>Thunderbolt Biomass Inc. relies on the state agency programs dealing with smoke management conducted by forest managers to address air quality impacts from prescribed burning. The TBI pellet mills do not impact air quality from forest management activities.</p>

	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	<p>Thunderbolt Biomass Inc. only receives secondary & tertiary feedstock and does not conduct forest management activities which use forest chemicals or is directly involved with Integrated Pest Management (IPM).</p> <p>TBI-COC-02 states the BP will abide by all laws and regulations, including those laws associated with the environment. Feedstock purchase contracts require suppliers to abide all applicable laws and regulations.</p> <p>Within the US, chemical use on forestlands is regulated under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). The US Environmental Protection Agency (EPA) has responsibility for implementing and enforcing FIFRA. All chemicals use in forest management activities must be EPA registered and applicators must follow guidelines prescribed for each chemical's application.</p>
Means of Verification	<p>Thunderbolt Biomass Inc. has no involvement in a landowner's decision whether or not to use forest chemicals. It relies on Federal and State programs, laws and regulations to ensure compliance.</p> <p>Documented Procedures contain Purchase Order Addendums with all suppliers requiring that all applicable laws and regulations, including those addressing air quality, be complied with (TBI-SFI-06).</p> <p>Documented Procedures address Wood Producer correspondence communicating the requirement to comply with applicable laws and regulations (TBI-SFI-04).</p> <p>Thunderbolt Biomass Inc. promotes Integrated Pest Management (IPM) through its utilization of low valued and low quality mill residues that would otherwise be disposed of.</p> <p>Each State forest agency has Procedures and Control Systems addressing Forest Health and Pest Control and they monitor use of forest chemicals. Pest management programs are administered by the following State Forestry Agencies/Commissions.</p> <p>Georgia: http://www.gfc.state.ga.us/forest-management/forest-health/</p> <p>South Carolina: http://www.state.sc.us/forest/id.htm</p> <p>Employee interviews and Feedstock purchase contracts.</p> <p>Refer to the Means of Verification provided in 2.2.1 and 2.2.2 covering the same basic issues.</p> <p>Documented Procedures contained in the SFI Fiber Sourcing Program require the use of trained loggers, compliance with laws and regulations and implementation of BMPs that protect soil quality and reduce soil erosion (TBI-SFI-03).</p>

Documented Procedures contain correspondence with Wood Producers addressing the requirement to use trained loggers, implement BMPs and comply with laws and regulations (TBI-SFI-04). The clauses in the Wood Producer correspondence include:

We are asking for your help in encouraging organizations that supply you with wood material to ensure that appropriate state Best Management Practices (BMPs) are implemented to protect water quality, take steps to protect wildlife and biodiversity, comply with applicable laws and regulations and be vigilant to ensure the legality of forestry operations.

Attached are sample copies of the SFI Information Brochures addressing these sustainable forestry issues. Please pass these or your own promotional materials on to landowners that you purchase wood from. Wildlife Biodiversity is a key component of the South's natural heritage. Please consider reviewing and adopting the practices outlined in the South Carolina Wildlife Action Plan, which can be found at the following website: <http://www.dnr.sc.gov/swap/index.html> .

We are also requiring that you ensure that each logging crew is supervised by someone who has successfully completed the SFI sponsored logger training program. Please review the attached Purchase Order Addendum addressing forest legality and sustainability. We also encourage you to promote landowner recognition and certification programs including the Sustainable Forestry Initiative® (SFI®) and the American Tree Farm System®. You can obtain additional information about Tree Farm Certification at www.treefarmssystem.org and SFI at <http://www.sfiprogram.org/>.

Thunderbolt Biomass Inc. is a member of the South Carolina Forestry Association. This participation allows the BP to stay abreast of environmental legislation and provides opportunities to engage forest landowners in best forestry management practices.

The South Carolina Forestry Association dedicated to forest conservation and the sustainable use of natural resources. Its Tree Farm Program supports sustainable management of family owned forest lands for wood, water, wildlife and recreation.

The South Carolina Forestry Association represents landowners, pulp and paper mills, lumber mills, wood processors, logging companies, foresters, sportsmen and hunt clubs. The Association advocates for a business friendly climate for our landowners and forest industry while promoting conservation and sustainability of South Carolina's forests.

<https://www.scforestry.org>
<https://www.sctreefarm.org>

Thunderbolt Biomass Inc. has also joined and participates in the South Carolina SFI Implementation Committee. The goal of the SIC's is broaden the practice of responsible forestry at a local level and this goal includes objectives such as BMP's, logger training, conservation, landowner outreach and community involvement.

Since 1995, SFI program participants have contributed nearly \$75 million to support local programs through SFI Implementation Committees. This includes logger and forester training to reach the thousands of independent contractors that are the key to the quality of forest harvesting operations. By the end of 2018, more than 200,000 loggers and foresters had completed SFI-approved training programs.

	<p>Loggers who are aware of their role as responsible professionals are better equipped to protect the environment.</p> <p>https://www.sfiprogram.org/sic/</p>
Evidence Reviewed	<p>Evidence includes the above referenced Documented Procedures implemented by Thunderbolt Biomass Inc. (TBI-COC-01)</p> <p>Additional evidence is maintained by the State Forestry Agencies and Commissions at the websites included above.</p> <p>There have been no Public Complaints filed with Thunderbolt Biomass Inc. regarding landowner use of forest chemicals (TBI-COC-14).</p> <p>Evidence includes the SFI Fiber Sourcing Procedure (TBI-SFI-03).</p> <p>Evidence includes Purchase Order Addendums (TBI-SFI-06) requiring the use of trained loggers, compliance with BMPs and compliance with applicable laws and regulations.</p> <p>Evidence includes Wood Producer Correspondence communicating the above requirements to residual wood suppliers (TBI-SFI-04).</p> <p>Evidence includes State Forestry Agency/Commission BMP implementation monitoring reports documenting that BMP compliance is consistently above 90%.</p> <p>Evidence includes the Georgia Forestry Commission Statewide Forestry BMP Survey where 232 sites were evaluated. Of the 6044 individual BMPs evaluated, the statewide percentage of correct implementation was 93.17 percent. (See SFI Fiber Sourcing Program (TBI-SFI-03) for website links)</p> <p>Evidence includes the forestry community's BMP implementation rate for streamside management zones is 93%.</p> <p>The report from the Southern Group of State Foresters (SGSF) in 2012 reported high rates of BMP compliance: http://www.forestry.alabama.gov/PDFs/SGSF_BMP_Report_2012.pdf. Seven BMP categories were considered in the report and covered 11 states in the southern region. Overall, the southern region BMP implementation average increased from 87% in 2008 to 92% in 2012.</p> <p>A recent Technical Bulletin 966 (September, 2009) issued by the National Council for Air and Stream Improvement (NCASI) has reported high levels of compliance with water quality laws and BMP requirements across the U.S: http://www.ncasi.org/Publications/Detail.aspx?id=3204.</p> <p>State BMPs are essentially required on all certified forest lands in South Carolina and Georgia. The respective State BMP Manuals for forestry are contained below:</p> <p>Georgia: http://www.gfc.state.ga.us/resources/publications/BMPManualGA0609.pdf</p>

	<p>South Carolina: http://www.state.sc.us/forest/bmpmanual.pdf</p> <ul style="list-style-type: none"> • Georgia’s Best Management Practices for Forestry http://www.gfc.state.ga.us/forest-management/water-quality/bmps/manual/BMP%20Manual%202019%20Web.pdf • South Carolina’s Best Management Practices for Forestry https://www.state.sc.us/forest/bmpmanual.pdf • SFI Certification Database http://www.sfidatabase.org/PublicSearch/MainSearch.aspx • Georgia Master Timber Harvester http://gamth.org/ • South Carolina Timber Operations Professional (TOP) Program https://www.scforestry.org/top-forestry-programs.htm <p>Evidence includes the South Carolina SFI Implementation Committee Procedures for addressing inconsistent practices. https://www.scforestry.org/PDFs/Inconsistent%20Practices%20Allegation%20Procedure.pdf</p> <p>Evidence is contained in the Internal Monitoring and Measuring conducted by Thunderbolt Biomass Inc. including:</p> <ol style="list-style-type: none"> 1. Chain of Custody Evidence Manual & Internal Audit Checklist (TBI-COC-02), 2. SBP Internal Audit Checklist (TBI-SBP-04), 3. BMP Monitoring Report Form (TBI-SFI-05), 4. SFI Evidence Manual & Internal Audit Checklist (TBI-SFI-01), 5. Summary of Stakeholder Input (TBI-SBP-02), 6. Supplier Monitoring Procedure & Checklist (TBI-SBP-07), 7. Management Review and Action Items (TBI-COC-16)
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA
Comment or Mitigation 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	Thunderbolt Biomass Inc. has Documented Procedures and Control Systems in place to demonstrate that waste disposal from forest management activities is controlled and minimized.

	<p>State and Federal laws, such as the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), are in place to protect from oil spills and hazardous substance releases. Access to these laws is available to BP personnel. Policy states the BP will abide by all laws and regulations, including those laws associated with the environment. Feedstock purchase contracts require suppliers to abide all applicable laws and regulations and requires compliance to state forestry Best Management Practices (BMP).</p> <p>TBI-SBP-07 Supplier Audit Checklist documents supplier BMP compliance and/or regulatory violations.</p>
<p>Means of Verification</p>	<p>Refer to the Means of Verification provided in 2.2.1 and 2.2.2 covering the issues around implementing State BMPs which address trash, garbage and other waste materials associated with logging operations.</p> <p>Documented Procedures contained in the SFI Fiber Sourcing Program and Purchase Order Addendums require the use of trained loggers, compliance with laws and regulations and implementation of BMPs that protect soil quality and reduce soil erosion (TBI-SFI-03).</p> <p>https://www.fia.fs.fed.us/library/bus-org-documents/docs/2017_GPO%20952%20FIA%20Business%20Report_508_Passed.pdf</p> <p>Documented Procedures contain correspondence with Wood Producers addressing the requirement to use trained loggers, implement BMPs and comply with laws and regulations (TBI-SFI-04).</p> <p>Documented Procedures requiring BMP compliance are contained in the Purchase Order Addendums (TBI-SFI-06). The provision requiring BMP and regulatory compliance includes the following:</p> <ol style="list-style-type: none"> 1. Supplier agrees to conduct all operations and activities in compliance with the state water quality Best Management Practices. 2. Supplier agrees to comply with all State, Federal and other applicable environmental, social, health and safety laws and regulations imposed upon any business employing labor, paying wages, or operating equipment. <p>Documented Procedures contain BMP Monitoring Reports (TBI-SFI-05) that are conducted where wood may be sourced directly from the forest.</p> <p>State BMP addressing disposal of logging waste and debris is addressed in the respective State BMP Manuals for forestry and are referenced below:</p> <p>Georgia: http://www.gfc.state.ga.us/resources/publications/BMPManualGA0609.pdf</p> <p>South Carolina: http://www.state.sc.us/forest/bmpmanual.pdf</p> <p>State Best Management Practices programs and guidelines address the protection of soils from erosion, compaction and disturbance. State of South Carolina and Georgia BMP Compliance Monitoring reports document that BMP implementation is consistently higher than 90%.</p>

	<p>Thunderbolt Biomass Inc. is a member of the South Carolina Forestry Association. This participation allows the BP to stay abreast of environmental legislation and provides opportunities to engage forest landowners in best forestry management practices.</p> <p>The South Carolina Forestry Association dedicated to forest conservation and the sustainable use of natural resources. Its Tree Farm Program supports sustainable management of family owned forest lands for wood, water, wildlife and recreation.</p> <p>The South Carolina Forestry Association represents landowners, pulp and paper mills, lumber mills, wood processors, logging companies, foresters, sportsmen and hunt clubs. The Association advocates for a business friendly climate for our landowners and forest industry while promoting conservation and sustainability of South Carolina's forests.</p> <p>https://www.scforestry.org https://www.sctreefarm.org</p> <p>Thunderbolt Biomass Inc. has also joined and participates in the South Carolina SFI Implementation Committee. The goal of the SIC's is broaden the practice of responsible forestry at a local level and this goal includes objectives such as BMP's, logger training, conservation, landowner outreach and community involvement.</p> <p>Since 1995, SFI program participants have contributed nearly \$75 million to support local programs through SFI Implementation Committees. This includes logger and forester training to reach the thousands of independent contractors that are the key to the quality of forest harvesting operations. By the end of 2018, more than 200,000 loggers and foresters had completed SFI-approved training programs.</p> <p>Loggers who are aware of their role as responsible professionals are better equipped to protect the environment.</p> <p>https://www.sfiprogram.org/sic/</p>
Evidence Reviewed	<p>Refer to the evidence contained in the Documented Procedures referenced above.</p> <p>Evidence includes the BMP Monitoring Reports (TBI-SFI-05) that are conducted where wood may be sourced directly from the forest.</p> <p>There have been no Public Complaints filed with Thunderbolt Biomass Inc. regarding logging trash and debris left on logging sites (TBI-COC-14).</p> <p>Evidence includes the SFI Fiber Sourcing Procedure (TBI-SFI-03).</p> <p>Evidence includes Purchase Order Addendums (TBI-SFI-06) requiring the use of trained loggers, compliance with BMPs and compliance with applicable laws and regulations.</p> <p>Evidence includes Wood Producer Correspondence communicating the above requirements to residual wood suppliers (TBI-SFI-04).</p> <p>Evidence includes State Forestry Agency/Commission BMP implementation monitoring reports documenting that BMP compliance is consistently above 90%.</p>

Evidence includes the Georgia Forestry Commission Statewide Forestry BMP Survey where 232 sites were evaluated. Of the 6044 individual BMPs evaluated, the statewide percentage of correct implementation was 93.17 percent. (See SFI Fiber Sourcing Program (TBI-SFI-03) for website links)

Evidence includes the forestry community's BMP implementation rate for streamside management zones is 93%.

The report from the Southern Group of State Foresters (SGSF) in 2012 reported high rates of BMP compliance: http://www.forestry.alabama.gov/PDFs/SGSF_BMP_Report_2012.pdf.

Seven BMP categories were considered in the report and covered 11 states in the southern region. Overall, the southern region BMP implementation average increased from 87% in 2008 to 92% in 2012.

A recent Technical Bulletin 966 (September, 2009) issued by the National Council for Air and Stream Improvement (NCASI) has reported high levels of compliance with water quality laws and BMP requirements across the U.S: (<http://www.ncasi.org/Publications/Detail.aspx?id=3204>).

State BMPs are essentially required on all certified forest lands in South Carolina and Georgia. The respective State BMP Manuals for forestry are contained below:

Georgia: <http://www.gfc.state.ga.us/resources/publications/BMPManualGA0609.pdf>

South Carolina: <http://www.state.sc.us/forest/bmpmanual.pdf>

- Georgia's Best Management Practices for Forestry <http://www.gfc.state.ga.us/forest-management/water-quality/bmps/manual/BMP%20Manual%202019%20Web.pdf>
- South Carolina's Best Management Practices for Forestry <https://www.state.sc.us/forest/bmpmanual.pdf>
- SFI Certification Database <http://www.sfidatabase.org/PublicSearch/MainSearch.aspx>
- Georgia Master Timber Harvester <http://gamth.org/>
- South Carolina Timber Operations Professional (TOP) Program <https://www.scforestry.org/top-forestry-programs.htm>

Evidence includes the South Carolina SFI Implementation Committee Procedures for addressing inconsistent practices.

<https://www.scforestry.org/PDFs/Inconsistent%20Practices%20Allegation%20Procedure.pdf>

Evidence is contained in the Internal Monitoring and Measuring conducted by Thunderbolt Biomass Inc. including:

1. Chain of Custody Evidence Manual & Internal Audit Checklist (TBI-COC-02),

	2. SBP Internal Audit Checklist (TBI-SBP-04), 3. BMP Monitoring Report Form (TBI-SFI-05), 4. SFI Evidence Manual & Internal Audit Checklist (TBI-SFI-01), 5. Summary of Stakeholder Input (TBI-SBP-02), 6. Supplier Monitoring Procedure & Checklist (TBI-SBP-07), 7. Management Review and Action Items (TBI-COC-16)
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA
Comment or Mitigation Measure	Note again that Thunderbolt Biomass Inc. does not source wood from the forest and has no involvement in logging operations. It does require suppliers to comply with BMP applicable laws and regulations.

	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.															
Finding	Thunderbolt Biomass Inc. monitors US Forest Service Forest Inventory & Analysis Reports documenting that growth exceeds harvest in South Carolina and Georgia and does not exceed long-term production capacity.															
Means of Verification	<p>Thunderbolt Biomass Inc.'s procurement of mill residual material contributes to reducing environmental impacts and enhancing the productivity of forests. Markets for low valued wood products allow for more efficient and cost-effective forest harvesting, site preparation and reforestation and contributes to long-term forest health and productivity.</p> <p>The latest forest inventory data for the States of Georgia and South Carolina demonstrate softwood inventories are remaining stable or even increasing. Growth vs. drain ratios are consistently positive.</p> <p>USFS FIA DATA >= 5" DBH Live trees on Forest Land</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>State</th> <th>County</th> <th>Growth</th> <th>Removals</th> <th>Ratio</th> </tr> </thead> <tbody> <tr> <td>GA</td> <td>All</td> <td>1,988,906,880</td> <td>1,374,740,587</td> <td>1.4</td> </tr> <tr> <td>SC</td> <td>All</td> <td>1,306,833,899</td> <td>868,192,671</td> <td>1.5</td> </tr> </tbody> </table> <p>The US Forest Service conducts annual forest inventory updates for South Carolina and Georgia. State Forest Inventory & Analysis (FIA) Updates and Fact Sheets are available at the following websites:</p> <p>Georgia: http://www.gfc.state.ga.us/forest-management/private-forest-management/forest-inventory/index.cfm</p>	State	County	Growth	Removals	Ratio	GA	All	1,988,906,880	1,374,740,587	1.4	SC	All	1,306,833,899	868,192,671	1.5
State	County	Growth	Removals	Ratio												
GA	All	1,988,906,880	1,374,740,587	1.4												
SC	All	1,306,833,899	868,192,671	1.5												

	South Carolina: http://www.srs.fs.usda.gov/pubs/su/su_srs041.pdf
Evidence Reviewed	<p>Evidence demonstrating SBP compliance is available at the websites indicated above.</p> <ul style="list-style-type: none"> • Forests of Georgia, 2017 https://www.srs.fs.usda.gov/pubs/ru/ru_srs183.pdf • • Forest of South Carolina, 2017 https://www.srs.fs.usda.gov/pubs/ru/ru_srs179.pdf <p>Evidence is contained in the Internal Monitoring and Measuring conducted by Thunderbolt Biomass Inc. including:</p> <ol style="list-style-type: none"> 1. Chain of Custody Evidence Manual & Internal Audit Checklist (TBI-COC-02), 2. SBP Internal Audit Checklist (TBI-SBP-04), 3. BMP Monitoring Report Form (TBI-SFI-05), 4. SFI Evidence Manual & Internal Audit Checklist (TBI-SFI-01), 5. Summary of Stakeholder Input (TBI-SBP-02), 6. Supplier Monitoring Procedure & Checklist (TBI-SBP-07), 7. Management Review and Action Items (TBI-COC-16)
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA
Comment or Mitigation Measure	Note that the use of mill residues has the effect of reducing demands on the forest and is an effective way to improve efficiency and minimize resource use.

	Indicator
2.3.2	Adequate training is provided for all personnel, including employees and contractors (CPET S6d).
Finding	Thunderbolt Biomass Inc. has procedures and programs to conduct training for all personnel and contractors with responsibility for compliance with the Standards.
Means of Verification	<p>Documented Procedures contain the Training Session Agenda (TBI-COC-05).</p> <p>Documented Procedures contain an Explanation of the Applicable Standards (TBI-COC-06).</p> <p>Documented Procedures are communicated to responsible staff and employees and documented on Training Sign-in Sheets (TBI-COC-04)</p> <p>Documented Procedures contain Purchase Order Addendums requiring the use of trained loggers and legal compliance (TBI-SFI-06). The Addendum requires:</p>

	<p>Supplier agrees to use Qualified Logging Professionals as defined in the Sustainable Forestry Initiative® (SFI®) Standards.</p> <p>Documented Procedures contain correspondence with all wood suppliers addressing Standards requirements (TBI-SFI-04). The supplier correspondence includes:</p> <p><i>“We are also requiring that you ensure that each logging crew is supervised by someone who has successfully completed the SFI sponsored logger training program. Please review the attached Purchase Order Addendum addressing forest legality and sustainability.”</i></p> <p>Documented Procedures addressing the SFI Fiber Sourcing Program contain references to statewide training databases for loggers (TBI-SFI-03).</p>
Evidence Reviewed	<p>Evidence is contained in the Training Sign-in Sheets (TBI-COC-04) and Training Agenda (TBI-COC-05).</p> <p>See additional evidence outlined in the Means of Verification above.</p> <p>Evidence of training is contained in the Internal Monitoring and Measuring conducted by Thunderbolt Biomass Inc. including:</p> <ol style="list-style-type: none"> 1. Chain of Custody Evidence Manual & Internal Audit Checklist (TBI-COC-02), 2. SBP Internal Audit Checklist (TBI-SBP-04), 3. BMP Monitoring Report Form (TBI-SFI-05), 4. SFI Evidence Manual & Internal Audit Checklist (TBI-SFI-01), 5. Summary of Stakeholder Input (TBI-SBP-02), 6. Supplier Monitoring Procedure & Checklist (TBI-SBP-07), 7. Management Review and Action Items (TBI-COC-16)
Risk Rating	<p><input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA</p>
Comment or Mitigation Measure	<p>Note that virtually all logging contractors in South Carolina and Georgia are considered Qualified Logging Professionals due to the SFI Fiber Sourcing Standard requirements.</p>

	Indicator
2.3.3	Analysis shows that feedstock harvesting and biomass production positively contribute to the local economy, including employment.
Finding	Thunderbolt Biomass Inc. makes a significant contribution to the Allendale, South Carolina economy and provides needed employment in a largely rural community.
Means of Verification	Thunderbolt Biomass Inc.’s pellet mills contribute to the local economy by providing employment and using local businesses.

	<p>Thunderbolt Biomass Inc. employs approximately 17 people at its pellet mill. The pellet mill contributes significantly to the local economy directly and indirectly by using local businesses, transportation companies and local contractors. For every direct job in the forest industry, approximately 3 additional jobs are supported.</p> <p>Thunderbolt Biomass Inc.'s operations provide a market for low valued biomass and make a significant contribution to employment by loggers, harvesters and processors, trucking companies and income to landowners. Local harvesting contractors are always used.</p> <p>The economic contribution of forestry to the States of Georgia and South Carolina economies is substantial. In Georgia, forestry is the #2 industry in the state. Forestry ranks as the #1 manufacturing sector in South Carolina. More economic data for each state can be found at the following websites:</p> <p>Georgia: www.forestryimpacts.net/reports/georgia</p> <p>Georgia's forest industry has many components, which interact with all other sectors of the economy in complex ways. The purposes of this analysis are to: (1) quantify the level of economic activity conducted by the components of the forest industry, (2) estimate economic activity supported in all Georgia sectors by the industry's activities, (3) compare the level of activity in the forest industry with other industries, and (4) quantify the economic activity of forest industry sectors within each of the 12 regional commissions in Georgia.</p> <p>Georgia's forest industry employs 55,089 workers in all sectors of the forest industry in 2018. These jobs were paid an annual compensation¹ of more than \$4 billion, and generated an estimated total revenue of \$21.5 billion.</p> <p>South Carolina: https://www.forestryimpacts.net/reports/south-carolina</p> <p>Excerpt from: https://www.forestryimpacts.net/reports/south-carolina/forestrys-economic-contribution-to-south-carolinas-economy</p> <p>"This analysis reveals that In 2018, the total economic contribution of forestry to South Carolina's economy was \$21.2 billion. The pulp & paper aggregate sector accounts for 60% of forestry's total contribution, even though It declined 8.7% since 2017. The decline In contribution by pulp & paper was more than made up by the growth In forest-based recreation."</p>
Evidence Reviewed	<p>Refer to the economic impact data cited above for the States of South Carolina and Georgia.</p> <p>Evidence includes payroll records for Thunderbolt Biomass Inc.</p> <p>Evidence includes support from the Southern Carolina Regional Development Alliance located at: 1750 Jackson St., Suite 100, Barnwell, SC 29812.</p>
Risk Rating	<p><input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA</p>

Comment or Mitigation Measure	Records clearly demonstrate that the Thunderbolt Biomass Inc. Facility makes a positive economic contribution to the rural economy of South Carolina.
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	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	Evidence shows that the level of external influences on the BP's SB, in the form of state wide action plans, resource assessments, logger BMP's, state forestry associations, SFI state implementation committees, and other factors is sufficient to reduce this indicator to the level of "Low Risk"
Means of Verification	<p>Thunderbolt Biomass Inc. and affiliated industries directly and indirectly contribute to the health and vitality of the forest resource and dependent communities.</p> <p>Forest Service FIA forest inventory data for the States of Georgia and South Carolina indicate that softwood inventories are increasing over the long term. See the SFI Fiber Sourcing Program web links (TBI-SFI-03).</p> <p>Forest Service data documents that forest land area has remained unchanged at 23-24 million acres since the 1950s but during the same period the wood volume on those acres has increased from 17 billion cu ft to 41 billion cu ft.</p> <p>State forest agencies, in particular the Georgia Forestry Commission and South Carolina Forestry Commission have very active state forestry agencies that monitor forests for wildfires, Southern Pine Beetle, and other pests.</p> <p>There are also federal cost-sharing programs that are administered by state forestry agencies that provide private landowners assistance with tree planting, prescribed burning, invasive species removal, and management plan development that promote healthy, productive forests.</p> <p>Thunderbolt Biomass Inc. has reviewed the Georgia and South Carolina Statewide Forest Resource Assessments, inventory updates and supports the State Action Plans addressing forest health available at the following websites:</p> <p>Georgia: http://www.gatrees.org/about-us/strategic-plan/GAStateAssessment-6-17-10.pdf South Carolina: http://forestactionplans.org/states/south-carolina</p> <p>Thunderbolt Biomass Inc. maintains a Purchase Order Addendum with suppliers containing requirements related to legal compliance, BMP implementation and use of trained loggers (TBI-SFI-06).</p>

	<p>Thunderbolt Biomass Inc. is a member of the South Carolina Forestry Association. This participation allows the BP to stay abreast of environmental legislation and provides opportunities to engage forest landowners in best forestry management practices.</p> <p>The South Carolina Forestry Association dedicated to forest conservation and the sustainable use of natural resources. Its Tree Farm Program supports sustainable management of family owned forest lands for wood, water, wildlife and recreation.</p> <p>The South Carolina Forestry Association represents landowners, pulp and paper mills, lumber mills, wood processors, logging companies, foresters, sportsmen and hunt clubs. The Association advocates for a business friendly climate for our landowners and forest industry while promoting conservation and sustainability of South Carolina's forests.</p> <p>https://www.scforestry.org https://www.sctreefarm.org</p> <p>Thunderbolt Biomass Inc. has also joined and participates in the South Carolina SFI Implementation Committee. The goal of the SIC's is broaden the practice of responsible forestry at a local level and this goal includes objectives such as BMP's, logger training, conservation, landowner outreach and community involvement.</p> <p>Since 1995, SFI program participants have contributed nearly \$75 million to support local programs through SFI Implementation Committees. This includes logger and forester training to reach the thousands of independent contractors that are the key to the quality of forest harvesting operations. By the end of 2018, more than 200,000 loggers and foresters had completed SFI-approved training programs.</p> <p>Loggers who are aware of their role as responsible professionals are better equipped to protect the environment.</p> <p>https://www.sfiprogram.org/sic/</p>
Evidence Reviewed	<p>Evidence is provided in the above references and websites.</p> <p>Both Georgia and Sout Carolina have State Foresters Forest Action Plans (see the web links below). These plans detail the State Foresters efforts to promote the benefits of forest land across the states to citizens, to enhance clean air, clean water and abundant frest products. The plans' goals include reducing urbanization, reducing storm runoff and pollution and proteting aquifers. These plans generally seek to maintain the health and vitality of the forest resources withn the states and enhance the services and enjoyment of the forests by citizens, such as access for camping, hunting, biking and hiking.</p> <p>Georgia: https://www.stateforesters.org/districts/georgia/</p> <p>South Carolina: https://www.stateforesters.org/districts/south-carolina/</p> <p>https://www.nepcon.org/sites/default/files/NEPCon-TIMBER-USA-Risk-Assessment-EN-V1.3.pdf</p>

The Statewide Resource Assessments have involved a wide range of Stakeholders at the State and regional level. These Executive Summaries of the Assessments and Action Plans are taken into consideration during the annual management review.

Links to the relevant Georgia Forest Resource Assessments are listed below: “A Strategic Plan for Georgia’s Forests” can be found at: <http://www.gatrees.mobi/about-us/strategic-plan/GFCplanDraftwithCover2.pdf>. “The Georgia Statewide Assessment of Forest Resources” can be found at: <http://www.gfc.state.ga.us/about-us/strategic-plan/GAStateAssessment-6-17-10.pdf>

The web page <http://www.gfc.state.ga.us/about-us/strategic-plan/georgia-statewide-forest-resources-assessment-and-strategy/index.cfm> summarizes the plan and provides additional information.

Forest resource assessments and accompanying strategic plans constitute a coordinated plan for moving a state’s forests into the future and on a sustainable course. Georgia’s approach details the current conditions (the assessment) clearly defines the sustainable “desired future condition”, identifies the main barriers to achieving the goal, and then outlines the main strategies underlying actions to move towards the goals. Key barriers include forest fragmentation, population growth and associated urbanization and changing land use, changes in landowner goals and land ethics, forest regulations and taxes, and the impacts of forest pests, wildfire and weather, as well as challenges in finding resources to fund efforts to deal with these issues. The plan outlines strategies for dealing with barriers.

Links to the South Carolina Forestry Commission Forest Management program and South Carolina Forest Resource Assessments are listed below:
<http://www.trees.sc.gov/fmgt.htm>

Thunderbolt Biomass Inc. has also joined and participates in the South Carolina SFI Implementation Committee. The goal of the SIC’s is broaden the practice of responsible forestry at a local level and this goal includes objectives such as BMP’s, logger training, conservation, landowner outreach and community involvement.

<https://www.sfiprogram.org/sic/>

Evidence includes the SFI Fiber Sourcing Procedure (TBI-SFI-03).

Evidence includes Purchase Order Addendums (TBI-SFI-06) requiring the use of trained loggers, compliance with BMPs and compliance with applicable laws and regulations.

Evidence includes Wood Producer Correspondence communicating the above requirements to residual wood suppliers (TBI-SFI-04).

Evidence includes State Forestry Agency/Commission BMP implementation monitoring reports documenting that BMP compliance is consistently above 90%.

Evidence includes the Georgia Forestry Commission Statewide Forestry BMP Survey where 232 sites were evaluated. Of the 6044 individual BMPs evaluated, the statewide percentage of correct implementation was 93.17 percent. (See SFI Fiber Sourcing Program (TBI-SFI-03) for website links).

The report from the Southern Group of State Foresters (SGSF) in 2012 reported high rates of BMP compliance: http://www.forestry.alabama.gov/PDFs/SGSF_BMP_Report_2012.pdf. Seven BMP categories were considered in the report and covered 11 states in the southern

	<p>region. Overall, the southern region BMP implementation average increased from 87% in 2008 to 92% in 2012.</p> <p>A recent Technical Bulletin 966 (September, 2009) issued by the National Council for Air and Stream Improvement (NCASI) has reported high levels of compliance with water quality laws and BMP requirements across the U.S: (http://www.ncasi.org/Publications/Detail.aspx?id=3204).</p> <p>State BMPs are essentially required on all certified forest lands in South Carolina and Georgia. The respective State BMP Manuals for forestry are contained below:</p> <p>Georgia: http://www.gfc.state.ga.us/resources/publications/BMPManualGA0609.pdf</p> <p>South Carolina: http://www.state.sc.us/forest/bmpmanual.pdf</p> <ul style="list-style-type: none"> • Georgia's Best Management Practices for Forestry http://www.gfc.state.ga.us/forest-management/water-quality/bmps/manual/BMP%20Manual%202019%20Web.pdf • South Carolina's Best Management Practices for Forestry https://www.state.sc.us/forest/bmpmanual.pdf • SFI Certification Database http://www.sfidatabase.org/PublicSearch/MainSearch.aspx • Georgia Master Timber Harvester http://gamth.org/ • South Carolina Timber Operations Professional (TOP) Program https://www.scforestry.org/top-forestry-programs.htm <p>Evidence includes the South Carolina SFI Implementation Committee Procedures for addressing inconsistent practices. https://www.scforestry.org/PDFs/Inconsistent%20Practices%20Allegation%20Procedure.pdf</p>
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA
Comment or Mitigation Measure	<p>.</p>

	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	Thunderbolt Biomass Inc. implements Documented Procedures and Control Systems to demonstrate that fire, pests and diseases are appropriately managed.
Means of Verification	<p>Thunderbolt Biomass Inc. supports the Georgia Forestry Commission and South Carolina Forestry Commission that have very active state forestry agencies that monitor forests for wildfires, Southern Pine Beetle, and other pests.</p> <p>It also supports the USDA Animal and Plant Health Inspection Service (APHIS) that is charged with the responsibility to safeguard US agriculture and natural resources against the entry, establishment and spread of economically and environmentally significant pests.</p> <p>The USDA Forest Service regional research stations address pest and disease control, forest management and conducts the Forest Inventory Analysis (FIA) used to determine growth and removals.</p> <p>Thunderbolt Biomass Inc. supports through taxes, the Georgia and South Carolina Forestry Commissions to monitor and manage the prevention of forest fires, pests and diseases.</p> <p>The Georgia Forestry Commission (http://www.gfc.state.ga.us/forest-fire/) is responsible for wildfire suppression in the State. All taxpayers in the State pay taxes that support the fire fighting efforts of the Commission.</p> <p>Thunderbolt Biomass Inc. relies on the State Forestry Commissions that have active forest health and fire control programs administered on all state and private lands. For example, the Georgia and South Carolina Forestry Commissions have substantial budgets, personnel and equipment to prevent and fight forest fires.</p> <p>Another priority of the Forestry Commissions is to monitor, detect and control insects and diseases. See the Georgia Forestry Commissions website addressing forest health: http://www.gfc.state.ga.us/forest-management/forest-health/</p> <p>The U.S. Forest Service also provides funding to State Forestry Commissions through its State & Private Forestry Programs. See the US Forest Service website addressing fire prevention and control and forest health. https://www.fs.fed.us/spf/</p> <p>Thunderbolt Biomass Inc. has Documented Procedures that require support of the South Carolina SFI Implementation Committee (SIC) that addresses forest management issues, forest health, timber theft, logger training, public complaints, etc.</p>
Evidence Reviewed	Evidence documents that Thunderbolt Biomass Inc. is a member of the South Carolina SFI Implementation Committee (TBI-SFI-03) and supports state and federal programs to address fire, pests and diseases.

	<p>Evidence of SFI/PEFC and SBP compliance is documented in the Internal Monitoring and Measuring conducted by Thunderbolt Biomass Inc. including:</p> <ol style="list-style-type: none"> 1. Chain of Custody Evidence Manual & Internal Audit Checklist (TBI-COC-02), 2. SBP Internal Audit Checklist (TBI-SBP-04), 3. BMP Monitoring Report Form (TBI-SFI-05), 4. SFI Evidence Manual & Internal Audit Checklist (TBI-SFI-01), 5. Summary of Stakeholder Input (TBI-SBP-02), 6. Supplier Monitoring Procedure & Checklist (TBI-SBP-07), 7. Management Review and Action Items (TBI-COC-16)
Risk Rating	<p><input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA</p>
Comment or Mitigation Measure	<p>Note again that Thunderbolt Biomass Inc. does not own forest land and does not have responsibility for forest management. The BP has no direct way to monitor insect disease outbreaks, prevent or control forest fires, or otherwise manage such landscape scale forestry issues. The BP cannot control insects and diseases on the property of private family forest owners.</p> <p>Thunderbolt Biomass Inc. does promote sustainable forestry and encourages landowners to certify their lands to one or more of the sustainable forestry certification standards. This is communicated through correspondence with suppliers including:</p> <p>We also encourage you to promote landowner recognition and certification programs including the Sustainable Forestry Initiative® (SFI®) and the American Tree Farm System®. You can obtain additional information about Tree Farm Certification at www.treefarmssystem.org and SFI at http://www.sfiprogram.org/. Thunderbolt Biomass Inc. has adopted procurement procedures to broaden the practice of sustainable forestry with you our wood producers, as well as other contractors and landowners within our wood supply area. If logging contractors or landowners that you work with desire more information about sustainable forestry practices, please encourage them to contact the South Carolina SFI Implementation Committee or Thunderbolt Biomass Inc.</p>

	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	Thunderbolt Biomass Inc. implements Documented Procedures and Control Systems to verify that there is adequate protection against illegal logging and other unauthorized activities.
Means of Verification	

	<p>Documented Procedures including Thunderbolt Biomass Inc.'s Sustainable Forestry Policy (TBI-COC-03) address legality and compliance with applicable laws and regulations.</p> <p>Documented Procedures require suppliers to have Purchase Order Addendums addressing legal compliance and illegal activities (TBI-SFI-06).</p> <p>Documented Procedures are in place to conduct a Due Diligence System/Risk Assessment confirming Low Risk for Illegal logging and activities (TBI-COC-10).</p> <p>Control Systems are in place at the Georgia and South Carolina Forestry Commissions with active law enforcement divisions that address illegal trespass, timber theft, forest arson and illegal encroachment on private lands.</p> <p>The FSC NRA has concluded "Low Risk: for Cat 1 – Illegal Logging, meaning that the U.S. is Low Risk for Illegal logging activities. Illegal logging is recognized as a non-issue in the U.S. context.</p> <p>Documented Procedures in the SFI Fiber Sourcing Program address the State SFI implementation committee process for responding to public complaints, including any dealing with illegal activities (TBI-SFI-03).</p>
Evidence Reviewed	<p>Refer to the Documented Procedures outlined in the above Means of Verification.</p> <p>There have been no Public Complaints filed with Thunderbolt Biomass Inc. regarding Illegal logging or other prohibited activities (TBI-COC-14).</p> <p>No public comment has been received from the Stake Holder Consultation Process.</p> <p>Evidence of SFI/PEFC and SBP compliance is documented in the Internal Monitoring and Measuring conducted by Thunderbolt Biomass Inc. including:</p> <ol style="list-style-type: none"> 1. Chain of Custody Evidence Manual & Internal Audit Checklist (TBI-COC-02), 2. SBP Internal Audit Checklist (TBI-SBP-04), 3. BMP Monitoring Report Form (TBI-SFI-05), 4. SFI Evidence Manual & Internal Audit Checklist (TBI-SFI-01), 5. Summary of Stakeholder Input (TBI-SBP-02), 6. Supplier Monitoring Procedure & Checklist (TBI-SBP-07), 7. Management Review and Action Items (TBI-COC-16)
Risk Rating	<p><input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA</p>
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	Thunderbolt Biomass Inc. implements Documented Procedures and Control Systems to verify that customary and traditional tenure and use rights of indigenous peoples have been identified and respected.
Means of Verification	<p>The FSC US NRA has concluded Low Risk for Category 2 – Wood harvested in violation of traditional or human rights. This constitutes a means of verification that such issues are Low Risk in the U.S. context. https://us.fsc.org/preview.fsc-us-controlled-wood-risk-assessment-fsc-nra-us-v1-0.a-701.pdf</p> <p>Documented Procedures in the SFI Fiber Sourcing Procedure address identifying and respecting indigenous peoples rights (TBI-SFI-03).</p> <p>Documented Procedures are in place in the Complaints Procedures (TBI-COC-14) to address any complaints regarding customary and traditional rights of indigenous peoples.</p>
Evidence Reviewed	<p>Refer to the Documented Procedures outlined in the above Means of Verification.</p> <p>There have been no Public Complaints filed with Thunderbolt Biomass Inc. regarding Illegal logging or other prohibited activities (TBI-COC-14).</p> <p>Evidence of SFI/PEFC and SBP compliance is documented in the Internal Monitoring and Measuring conducted by Thunderbolt Biomass Inc. including:</p> <ol style="list-style-type: none"> 1. Chain of Custody Evidence Manual & Internal Audit Checklist (TBI-COC-02), 2. SBP Internal Audit Checklist (TBI-SBP-04), 3. BMP Monitoring Report Form (TBI-SFI-05), 4. SFI Evidence Manual & Internal Audit Checklist (TBI-SFI-01), 5. Summary of Stakeholder Input (TBI-SBP-02), 6. Supplier Monitoring Procedure & Checklist (TBI-SBP-07), 7. Management Review and Action Items (TBI-COC-16)
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA
Comment or Mitigation Measure	

	Indicator
2.5.2	The Biomass Producer has implemented appropriate control systems and procedures for verifying that production of feedstock does not endanger food, water supply or subsistence means of communities, where the use of this specific feedstock or water is essential for the fulfilment of basic needs.
Finding	Thunderbolt Biomass Inc. implements Documented Procedures and Control Systems verifying that there are no subsistence level communities where the production of residual sawdust, shavings and chips could endanger their food, water of subsistence means are involved.
Means of Verification	<p>No subsistence level communities are present across the supply base where the use of the wood feedstock is essential to fulfil basic human needs. Therefore, this Indicator is outside the scope of Thunderbolt Biomass Inc.'s SBP Program. As such, it is considered Low Risk.</p> <p>A very broad stakeholder consultation and involvement process did not uncover any entities or organizations with the view that any such subsistence level communities exist across the supply base.</p> <p>The Statewide Forest Resource Assessment cited elsewhere in the volumes of SBP evidence had not identified any such subsistence communities.</p>
Evidence Reviewed	<p>There have been no Public Complaints filed with Thunderbolt Biomass Inc. regarding subsistence level communities (TBI-COC-14).</p> <p>Evidence of SFI/PEFC and SBP compliance is documented in the Internal Monitoring and Measuring conducted by Thunderbolt Biomass Inc. including:</p> <ol style="list-style-type: none"> 1. Chain of Custody Evidence Manual & Internal Audit Checklist (TBI-COC-02), 2. SBP Internal Audit Checklist (TBI-SBP-04), 3. BMP Monitoring Report Form (TBI-SFI-05), 4. SFI Evidence Manual & Internal Audit Checklist (TBI-SFI-01), 5. Summary of Stakeholder Input (TBI-SBP-02), 6. Supplier Monitoring Procedure & Checklist (TBI-SBP-07), 7. Management Review and Action Items (TBI-COC-16)
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> 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.
Finding	Thunderbolt Biomass Inc. implements Documented Procedures and Control Systems for resolving grievances and disputes relating to tenure and use rights and work conditions.
Means of Verification	<p>Documented Procedures and Control Systems are implemented in the Public Complaints Procedure to address any grievances or disputes (TBI-COC-14).</p> <p>Documented Procedures in the SFI Fiber Sourcing Program address complaints regarding possible non-conformances to the SFI Fiber Sourcing Standard (TBI-SFI-03).</p>
Evidence Reviewed	<p>There have been no Public Complaints filed with Thunderbolt Biomass Inc. regarding tenure and use rights (TBI-COC-14).</p> <p>No public comments have been received from the Stakeholder Consultation Process.</p> <p>Evidence of SFI/PEFC and SBP compliance is documented in the Internal Monitoring and Measuring conducted by Thunderbolt Biomass Inc. including:</p> <ol style="list-style-type: none"> 1. Chain of Custody Evidence Manual & Internal Audit Checklist (TBI-COC-02), 2. SBP Internal Audit Checklist (TBI-SBP-04), 3. BMP Monitoring Report Form (TBI-SFI-05), 4. SFI Evidence Manual & Internal Audit Checklist (TBI-SFI-01), 5. Summary of Stakeholder Input (TBI-SBP-02), 6. Supplier Monitoring Procedure & Checklist (TBI-SBP-07), 7. Management Review and Action Items (TBI-COC-16)
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> 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.

Finding	<p>Documented Procedures and Control System are in place to protect the rights of workers regarding Freedom of Association and collective bargaining.</p>
Means of Verification	<p>Thunderbolt Biomass Inc. relies on legal compliance which is enforced primarily with its contract with Suppliers.</p> <p>Documented Procedures in the SFI/PEFC Chain of Custody and Controlled Wood Certification provides objective evidence of conformance addressing Freedom of Association.</p> <p>The FSC US NRA has concluded Low Risk for Category 2, Wood Harvested in violation of traditional and human rights. https://us.fsc.org/preview.fsc-us-controlled-wood-risk-assessment-fsc-nra-us-v1-0.a-701.pdf</p> <p>U.S. law clearly specifies rights to collective bargaining and freedom of association. http://www.dol.gov/dol/aboutdol/history/amworkerconclusion.htm</p> <p>Documented Procedures contain Purchase Order Addendums specifying compliance with applicable U.S. and state labor laws and regulations (TBI-SFI-06).</p> <p>Documented Procedures and Control Systems and programs are in place to demonstrate Low Risk of violating any of the applicable U.S. laws and the SBP requirements. Those management system elements addressed throughout the documents and procedures include:</p> <ol style="list-style-type: none"> 1) a Policy Statement of Commitment to legal compliance, 2) signed Purchase Order Addendums to comply with applicable social laws and regulations, 3) access to all applicable laws and regulations as documented in the Supply Base Evaluation, 4) training of responsible personnel, 5) internal monitoring and auditing of conformance to applicable laws and certification requirements, 6) corrective and preventive action procedures to address any non-compliance issues, 7) annual management reviews of compliance issues, and 8) independent certification to numerous standards including SBP, SFI and PEFC.
Evidence Reviewed	<p>There have been no Public Complaints filed with Thunderbolt Biomass Inc. regarding subsistence level communities (TBI-COC-14).</p> <p>Evidence of SFI/PEFC and SBP compliance is documented in the Internal Monitoring and Measuring conducted by Thunderbolt Biomass Inc. including:</p> <ol style="list-style-type: none"> 1. Chain of Custody Evidence Manual & Internal Audit Checklist (TBI-COC-02), 2. SBP Internal Audit Checklist (TBI-SBP-04), 3. BMP Monitoring Report Form (TBI-SFI-05), 4. SFI Evidence Manual & Internal Audit Checklist (TBI-SFI-01), 5. Summary of Stakeholder Input (TBI-SBP-02),

	6. Supplier Monitoring Procedure & Checklist (TBI-SBP-07), 7. Management Review and Action Items (TBI-COC-16)
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> 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.
Finding	Thunderbolt Biomass Inc. has Documented Procedures and Control Systems in place to protect workers from compulsory labor.
Means of Verification	<p>Thunderbolt Biomass Inc. relies on legal compliance which is enforced by state and federal regulatory agencies.</p> <p>Documented Procedures in the SFI/PEFC Chain of Custody and Controlled Wood Certification provides objective evidence of conformance addressing the elimination of compulsory labor.</p> <p>The FSC US NRA has concluded Low Risk for Category 2, Wood Harvested in violation of traditional and human rights across the entire U.S. https://us.fsc.org/preview.fsc-us-controlled-wood-risk-assessment-fsc-nra-us-v1-0.a-701.pdf</p> <p>Documented Procedures are in place to conduct a Due Diligence System/Risk Assessment confirming Low Risk for violation of labor laws and regulations (TBI-COC-10).</p> <p>The US Constitution has control systems in place that forbids slavery and the US has also ratified ILO Convention 105 -<i>Abolition of Forced Labour Convention, 1957</i>, which means there is a corresponding law to match this convention.</p>
Evidence Reviewed	<p>Refer to the evidence provided in section 2.7.1 above.</p> <p>There have been no Public Complaints filed with Thunderbolt Biomass Inc. regarding Compulsory labor (TBI-COC-14).</p> <p>No public comments have been received from Stakeholder Consultation Process.</p> <p>Evidence of SFI/PEFC and SBP compliance is documented in the Internal Monitoring and Measuring conducted by Thunderbolt Biomass Inc. including:</p> <ol style="list-style-type: none"> 1. Chain of Custody Evidence Manual & Internal Audit Checklist (TBI-COC-02), 2. SBP Internal Audit Checklist (TBI-SBP-04),

	3. BMP Monitoring Report Form (TBI-SFI-05), 4. SFI Evidence Manual & Internal Audit Checklist (TBI-SFI-01), 5. Summary of Stakeholder Input (TBI-SBP-02), 6. Supplier Monitoring Procedure & Checklist (TBI-SBP-07), 7. Management Review and Action Items (TBI-COC-16)
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> 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	Thunderbolt Biomass Inc. has Documented Procedures and Control Systems in place to verify that child labor is not used.
Means of Verification	<p>Documented Procedures contained in the SFI/PEFC Chain of Custody and Controlled Procedures (TBI-COC-09/10) address worker rights including child labor.</p> <p>The FSC US NRA has concluded Low Risk for Category 2, Wood Harvested in violation of traditional and human rights. https://us.fsc.org/preview.fsc-us-controlled-wood-risk-assessment-fsc-nra-us-v1-0.a-701.pdf</p> <p>Control Systems are in place through child Labor laws and regulations are enforced by the U.S. Department of Labor: http://www.dol.gov/dol/topic/youthlabor/</p> <p>Control Systems are addressed in ILO Convention 182 (<i>Worst Forms of Child Labour</i>) that has been ratified by US.</p> <p>Thunderbolt Biomass Inc. has reviewed the World Governance Indicators Rule of Law Index and the World Justice Project Rule of Law Index 2019 and concluded that there is generally a comprehensive functioning legal system in the United States and a high level of compliance with law and regulation.</p> <p>See 2.7.1 above for additional Means of Verification.</p>
Evidence Reviewed	<p>Refer to the evidence provided in the above sections.</p> <p>The World Bank Worldwide Governance Indicators Rule of Law data can be found at: https://tcdata360.worldbank.org/indicators/h02f9cb8c?country=USA&indicator=370&viz=line_chart&years=1996,2018</p>

	<p>The World Justice Project Rule of Law Index 2019 can be accessed at:</p> <p>https://www.worldjusticeproject.org/rule-of-law-index/country/United%20States</p> <p>SC Department of Labor https://www.llr.sc.gov/labor/index.asp?file=wages/childlabor.htm</p> <p>GA Department of Labor https://dol.georgia.gov/child-labor-and-minors-entertainment</p> <p>US Department of Labor https://www.dol.gov/whd/childlabor.htm</p> <p>There have been no Public Complaints filed with Thunderbolt Biomass Inc. regarding the use of child labor (TBI-COC-14).</p> <p>No public comments have been received from the Stakeholder Consultation Process</p> <p>Evidence of SFI/PEFC and SBP compliance is documented in the Internal Monitoring and Measuring conducted by Thunderbolt Biomass Inc. including:</p> <ol style="list-style-type: none"> 1. Chain of Custody Evidence Manual & Internal Audit Checklist (TBI-COC-02), 2. SBP Internal Audit Checklist (TBI-SBP-04), 3. BMP Monitoring Report Form (TBI-SFI-05), 4. SFI Evidence Manual & Internal Audit Checklist (TBI-SFI-01), 5. Summary of Stakeholder Input (TBI-SBP-02), 6. Supplier Monitoring Procedure & Checklist (TBI-SBP-07), 7. Management Review and Action Items (TBI-COC-16)
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> 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	Thunderbolt Biomass Inc. has Documented Procedures and Control Systems in place to verify that workers are not discriminated against with respect to employment. Use of Employee interviews and documented Federal Laws
Means of Verification	Documented Procedures contained in the SFI/PEFC/SBP Chain of Custody program provides objective evidence of elimination of discrimination in employment (TBI-COC-09).

	<p>Documented Procedures including Thunderbolt Biomass Inc.'s Sustainable Forestry Policy (TBI-COC-03) address legality and compliance with applicable laws and regulations.</p> <p>Documented Procedures require suppliers to have Purchase Order Addendums addressing legal compliance and illegal activities (TBI-SFI-06).</p> <p>Documented Procedures are in place to conduct a Due Diligence System/Risk Assessment confirming Low Risk for Illegal discrimination (TBI-COC-10).</p> <p>Control Systems are in place at the U.S. Department of Labor to enforce anti-discrimination laws and regulations: http://www.eeoc.gov/facts/qanda.html</p> <p>The FSC US NRA has concluded Low Risk for Category 2, Wood Harvested in violation of traditional and human rights.</p> <p>Thunderbolt Biomass Inc. has reviewed the World Governance Indicators Rule of Law Index and the World Justice Project Rule of Law Index 2019 and concluded that there is generally a comprehensive functioning legal system in the United States and a high level of compliance with law and regulation.</p>
Evidence Reviewed	<p>Refer to the evidence provided in the above sections addressing worker rights.</p> <p>Occupational Safety and Health Administration (OSHA) https://www.osha.gov/</p> <p>U.S. Equal Employment Opportunity Commission https://www.eeoc.gov/eeoc/</p> <p>The World Bank Worldwide Governance Indicators Rule of Law data can be found at: https://tcdata360.worldbank.org/indicators/h02f9cb8c?country=USA&indicator=370&viz=line_chart&years=1996,2018</p> <p>The World Justice Project Rule of Law Index 2019 can be accessed at: https://www.worldjusticeproject.org/rule-of-law-index/country/United%20States</p> <p>There have been no Public Complaints filed with Thunderbolt Biomass Inc. regarding Discrimination in the work place (TBI-COC-14).</p> <p>No public comments have been received from the Stakeholder Consultation Process.</p> <p>Evidence of SFI/PEFC and SBP compliance is documented in the Internal Monitoring and Measuring conducted by Thunderbolt Biomass Inc. including:</p> <ol style="list-style-type: none"> 1. Chain of Custody Evidence Manual & Internal Audit Checklist (TBI-COC-02), 2. SBP Internal Audit Checklist (TBI-SBP-04), 3. BMP Monitoring Report Form (TBI-SFI-05), 4. SFI Evidence Manual & Internal Audit Checklist (TBI-SFI-01), 5. Summary of Stakeholder Input (TBI-SBP-02),

	6. Supplier Monitoring Procedure & Checklist (TBI-SBP-07), 7. Management Review and Action Items (TBI-COC-16)
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> 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	Thunderbolt Biomass Inc. has Documented Procedures and Control Systems in place to verify that meets or exceed minimum requirements.
Means of Verification	<p>Documented Procedures contained in the SFI/PEFC Chain of Custody program provides objective evidence of fair pay and employment conditions (TBI-COC-09).</p> <p>Documented Procedures including Thunderbolt Biomass Inc.'s Sustainable Forestry Policy (TBI-COC-03) address legality and compliance with applicable laws and regulations.</p> <p>Documented Procedures require suppliers to have Purchase Order Addendums addressing legal compliance and illegal activities (TBI-SFI-06). The Addendum Contains the following clause:</p> <ol style="list-style-type: none"> Supplier agrees to comply with all State, Federal and other applicable environmental, social, health and safety laws and regulations imposed upon any business employing labor, paying wages, or operating equipment. <p>Documented Procedures are in place to conduct an SFI/PEFC Due Diligence System/Risk Assessment confirming Low Risk addressing employment conditions (TBI-COC-10).</p> <p>Control Systems are in place at the U.S. Department of Labor to enforce anti-discrimination laws and regulations: http://www.eeoc.gov/facts/qanda.html</p> <p>The FSC US NRA has concluded Low Risk for Category 2, Wood Harvested in violation of traditional and human rights. https://us.fsc.org/preview.fsc-us-controlled-wood-risk-assessment-fsc-nra-us-v1-0.a-701.pdf</p> <p>Thunderbolt Biomass Inc. has reviewed the World Governance Indicators Rule of Law Index and the World Justice Project Rule of Law Index 2019 and concluded that there is generally a comprehensive functioning legal system in the United States and a high level of compliance with law and regulation.</p>

Evidence Reviewed	<p>Refer to the evidence provided in the above sections addressing worker rights.</p> <p>U.S. Equal Employment Opportunity Commission https://www.eeoc.gov/eeoc/</p> <p>Occupational Safety and Health Administration (OSHA) https://www.osha.gov/</p> <p>The World Bank Worldwide Governance Indicators Rule of Law data can be found at: https://tcdata360.worldbank.org/indicators/h02f9cb8c?country=USA&indicator=370&viz=line_chart&years=1996,2018</p> <p>The World Justice Project Rule of Law Index 2019 can be accessed at: https://www.worldjusticeproject.org/rule-of-law-index/country/United%20States</p> <p>There have been no Public Complaints filed with Thunderbolt Biomass Inc. regarding working conditions and pay (TBI-COC-14).</p> <p>Evidence of SFI/PEFC and SBP compliance is documented in the Internal Monitoring and Measuring conducted by Thunderbolt Biomass Inc. including:</p> <ol style="list-style-type: none"> 1. Chain of Custody Evidence Manual & Internal Audit Checklist (TBI-COC-02), 2. SBP Internal Audit Checklist (TBI-SBP-04), 3. BMP Monitoring Report Form (TBI-SFI-05), 4. SFI Evidence Manual & Internal Audit Checklist (TBI-SFI-01), 5. Summary of Stakeholder Input (TBI-SBP-02), 6. Supplier Monitoring Procedure & Checklist (TBI-SBP-07), 7. Management Review and Action Items (TBI-COC-16)
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA
Comment or Mitigation Measure	<p>Note that each Indicator in this Section of the SBP standard deals with worker rights and working conditions fully addressed and enforced under U.S. federal and state laws and regulations.</p>

	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).

<p>Finding</p>	<p>Thunderbolt Biomass Inc. has Documented Procedures and Control Systems in place to verify that safeguards are in place to protect worker health and safety.</p> <p>State and Federal laws, such as OSHA to ensure worker health and safety in the work place.</p>
<p>Means of Verification</p>	<p>Documented Procedures contained in the SFI/PEFC Chain of Custody program provides objective evidence of safe working conditions (TBI-COC-09).</p> <p>Documented Procedures including Thunderbolt Biomass Inc.'s Sustainable Forestry Policy (TBI-COC-03) address legality and compliance with applicable laws and regulations. The provision of the policy includes:</p> <p style="padding-left: 40px;">Thunderbolt Biomass Inc. is committed to continually achieve certification to the Sustainable Forestry Initiative® (SFI®), the Program for the Endorsement of Forest Certification (PEFC™) and the Sustainable Biomass Partnership® (SBP®) Chain of Custody and Due Diligence System Standards and Trademark Use Rules, as well as comply with applicable U.S. environmental, social, health and safety laws and regulations, including those related to worker rights.</p> <p>Documented Procedures are in place in the SFI Fiber Sourcing Program to address logger training and compliance with laws and regulations (TBI-SFI-03).</p> <p>Documented Procedures require suppliers to have Purchase Order Addendums addressing legal compliance and illegal activities (TBI-SFI-06). The Addendum provision addressing working safety includes:</p> <ol style="list-style-type: none"> 1. Supplier agrees to comply with all State, Federal and other applicable environmental, social, health and safety laws and regulations imposed upon any business employing labor, paying wages, or operating equipment. <p>Documented Procedures are in place to conduct an SFI/PEFC Due Diligence System/Risk Assessment confirming Low Risk addressing worker health and safety (TBI-COC-10).</p> <p>Control Systems are in place addressing OSHA Logging Safety and are addressed the following website dealing with forest safety. https://www.osha.gov/SLTC/logging/</p> <p>Thunderbolt Biomass Inc. has reviewed the World Governance Indicators Rule of Law Index and the World Justice Project Rule of Law Index 2019 and concluded that there is generally a comprehensive functioning legal system in the United States and a high level of compliance with law and regulation.</p>
<p>Evidence Reviewed</p>	<p>Refer to the evidence provided in the above sections addressing worker rights.</p> <p>Occupational Safety and Health Administration (OSHA) https://www.osha.gov/</p> <p>The World Bank Worldwide Governance Indicators Rule of Law data can be found at:</p>

	<p>https://tcdata360.worldbank.org/indicators/h02f9cb8c?country=USA&indicator=370&viz=line_chart&years=1996,2018</p> <p>The World Justice Project Rule of Law Index 2019 can be accessed at:</p> <p>https://www.worldjusticeproject.org/rule-of-law-index/country/United%20States</p> <p>There have been no Public Complaints filed with Thunderbolt Biomass Inc. regarding worker health and safety (TBI-COC-14).</p> <p>Evidence of SFI/PEFC and SBP compliance is documented in the Internal Monitoring and Measuring conducted by Thunderbolt Biomass Inc. including:</p> <ol style="list-style-type: none"> 1. Chain of Custody Evidence Manual & Internal Audit Checklist (TBI-COC-02), 2. SBP Internal Audit Checklist (TBI-SBP-04), 3. BMP Monitoring Report Form (TBI-SFI-05), 4. SFI Evidence Manual & Internal Audit Checklist (TBI-SFI-01), 5. Summary of Stakeholder Input (TBI-SBP-02), 6. Supplier Monitoring Procedure & Checklist (TBI-SBP-07), 7. Management Review and Action Items (TBI-COC-16)
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> 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.
Finding	Thunderbolt Biomass Inc. has Documented Procedures and Control Systems in place to avoid sourcing from areas with high carbon stocks.
Means of Verification	<p>High carbon stocks are defined as swamps or peatlands, such as the Okefenokee Swamp (Federally protected) or old growth forests. Thunderbolt Biomass Inc. does not source from peatlands and there are no identified old growth pine forests in the supply base.</p> <p>Documented Procedures require Purchase Order Addendums specifying compliance with BMPs and all local, state, and federal laws. (TBI-SFI-06).</p>

	<p>Documented Procedures verify that secondary sawmills and tertiary remanufacturing suppliers source from areas that have been in pine production for many years and are at low risk for being harvested from peatlands or wetlands.</p> <p>Control Measures have been proven effecting in a scientific paper by the USFS Forest Inventory Analysis describing carbon stocks in Region 8 (SE US) as increasing: https://www.fs.fed.us/climatechange/documents/SouthernRegionCarbonAssessmentTwoBaselines.pdf</p> <p>Recent estimates of net annual storage indicate forests are an important carbon sink, removing more carbon from the atmosphere than they are emitting (Pan et al. 2011). Carbon stored in U.S. forests is projected to peak between 2020 and 2040 and then decline through 2060. This decline will be primarily due to removal of trees as private forest lands are converted to urban and other developed land uses (USDA 2012). Western forest ecosystems may also emit greater amounts of carbon if wildfire area and insect disturbance increase as expected (Vose et al. 2012).</p>
Evidence Reviewed	<p>Refer to the evidence contained in the above Documented Procedures.</p> <p>Evidence of SFI/PEFC and SBP compliance is documented in the Internal Monitoring and Measuring conducted by Thunderbolt Biomass Inc. including:</p> <ol style="list-style-type: none"> 1. Chain of Custody Evidence Manual & Internal Audit Checklist (TBI-COC-02), 2. SBP Internal Audit Checklist (TBI-SBP-04), 3. BMP Monitoring Report Form (TBI-SFI-05), 4. SFI Evidence Manual & Internal Audit Checklist (TBI-SFI-01), 5. Summary of Stakeholder Input (TBI-SBP-02), 6. Supplier Monitoring Procedure & Checklist (TBI-SBP-07), 7. Management Review and Action Items (TBI-COC-16)
Risk Rating	<p><input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA</p>
Comment or Mitigation Measure	

	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	Thunderbolt Biomass Inc. implements Documented Procedures that contribute to forests acting as carbon sinks.
Means of Verification	

	<p>Control Measures are implemented demonstrating that forest management in the U.S. does not diminish the capability of the forest to serve as carbon sinks. Forests are shown to serve as a carbon sink and offset 13% of carbon emissions from the burning of fossil fuel. http://www.fia.fs.fed.us/forestcarbon/docs/CarbonReport_OnlineDraft-opt.pdf</p> <p>Research addressing harvest impacts on soil carbon storage in temperate forests indicates that there are no significant impacts on mineral soils and their capacity to serve as carbon sinks. See Forest Ecology and Management research article: http://www.nrs.fs.fed.us/pubs/jrnl/2010/nrs_2010_nave_001.pdf</p> <p>Reports by the USDA USFS Southern Research station also show that pine volumes have increased since 2008, showing that there has been no net release of carbon. Forecasts in the resource assessment are for the growth to removal ratio to remain above 1.0 going forward.</p> <p>Control Systems involving implementation of BMPs are effective with state BMP monitoring showing very high levels (90%+) of BMP compliance and the avoidance of impacts to water quality and the quantity that wetlands containing carbon sinks.</p> <p>Documented Procedures in the SFI Fiber Sourcing Program require adherence to BMPs (TBI-SFI-03). Implementation of BMPs of primary wood suppliers is monitored using the BMP Monitoring Report Form.</p> <p>BMPs Programs are addressed at the following websites:</p> <p>Georgia: http://www.gfc.state.ga.us/forest-management/water-quality/bmps/2011BMPSurveyResults.pdf South Carolina: http://www.state.sc.us/forest/bmpmanual.pdf</p>
Evidence Reviewed	<p>Evidence of increasing carbon stocks in forests is documented at the U.S. Forest Service website: http://www.fs.usda.gov/ccrc/topics/forest-carbon</p> <p>Evidence of SFI/PEFC and SBP compliance is documented in the Internal Monitoring and Measuring conducted by Thunderbolt Biomass Inc. including:</p> <ol style="list-style-type: none"> 1. Chain of Custody Evidence Manual & Internal Audit Checklist (TBI-COC-02), 2. SBP Internal Audit Checklist (TBI-SBP-04), 3. BMP Monitoring Report Form (TBI-SFI-05), 4. SFI Evidence Manual & Internal Audit Checklist (TBI-SFI-01), 5. Summary of Stakeholder Input (TBI-SBP-02), 6. Supplier Monitoring Procedure & Checklist (TBI-SBP-07), 7. Management Review and Action Items (TBI-COC-16)
Risk Rating	<p><input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA</p>
Comment or Mitigation Measure	

	Indicator
2.10.1	Genetically modified trees are not used.
Finding	Thunderbolt Biomass Inc. had documented that there are no GMOs in current use in the States of South Carolina and Georgia. Thus, this Indicator is considered Low Risk.
Means of Verification	<p>The FSC US NRA concludes Low Risk for Category 5 – Use of GMOs.</p> <p>Thunderbolt Biomass Inc. did not find its wood supply areas on any lists contained in the FAO preliminary review of biotechnology in forestry: http://www.fao.org/docrep/008/ae574e/AE574E00.HTM</p> <p>The Global Forest Registry (www.globalforestregistry.org) indicates the US may be considered Low Risk in relation to wood from GMO trees.</p>
Evidence Reviewed	Refer to the above Means of Verification and evidence that GMOs are not used in South Carolina or Georgia.
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA
Comment or Mitigation Measure	