



Sustainable Biomass Partnership

Supply Base Report: Solvay Biomass Energy, LLC

www.sustainablebiomasspartnership.org



Completed in accordance with the Supply Base Report Template Version 1.0

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

Document history

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1 Overview

Producer name: Solvay Biomass Energy LLC

Producer location: 252 Hickory Street, Quitman, MS 39355

Geographic position: 32.04609, -88.72094

Primary contact: Mark McKelvaine, mark.mckelvaine@bthprojects.com

Company website: www.solvaybiomassenergy.com

Date report finalised: 3/Jul/2015

Close of last CB audit: 3/Jul/2015

Name of CB: PricewaterhouseCoopers LLP (PwC)

Translations from English: NA

SBP Standard(s) used: Standard 1, 2, 4, 5, version 1.0

Weblink to Standard(s) used: <http://www.sustainablebiomasspartnership.org/documents>

SBP Endorsed Regional Risk Assessment: not applicable

Weblink to SBE on Company website: <http://solavybiomassenergy.com/sbp-supply-base-report/>

Indicate how the current evaluation fits within the cycle of Supply Base Evaluations				
Main (Initial) Evaluation	First Surveillance	Second Surveillance	Third Surveillance	Fourth Surveillance
☒	☐	☐	☐	☐

2 Description of the Supply Base

2.1 General description

Solvay Biomass Energy (Solvay) may purchase softwood and hardwood wood fiber from ninety-eight (98) counties (12,608,004 hectares) in Mississippi (MS) and Alabama (AL) within the United States. These counties account for 73% of the entire states of AL and MS. Forests are the predominant land use in both states with forests occupying 65% of MS and almost 71% of AL respectively. Pine forests comprise the largest forest type (almost 48%) of the supply area's forest followed by hardwood forests (39%). The pine/oak forest comprises 12% of the supply area's forest type while about 1% of the forest is considered non-stocked. Over 65% of the supply area's forests are managed as natural forests (8.1 MM hectares) while the remaining 35% of the supply area's forests are artificially regenerated (4.5 MM hectares).

The fiber supply basin from which Solvay purchases its fiber is primarily owned by private landowners (92.4% or 11.6 M hectares). The remaining forestlands (7.6%) are publicly owned with the federal government owning 518 M hectares (5.3%) and the state and local governments owning 437 M hectares (2.3%).

The forest products industry is a very large part of the area's economy and is one of the top industries within both states generating \$13 billion in AL and \$11 billion in MS annually. In AL there are almost 50 wood products facilities and 75 paper manufacturing facilities within the state. In MS there are more than 30 wood products facilities and more than 55 paper manufacturing facilities within the state. The Solvay pellet mill is the third active biomass manufacturing facility in MS.

As previously stated, pine forests dominate the majority of the forests within the supply area. Primary species for these pine forests include loblolly pine (*Pinus taeda*), Slash pine (*Pinus elliotii*), Shortleaf pine (*Pinus echinata*) and Longleaf pine (*Pinus palustris*). Primary species for the hardwood forests include Oak (*Quercus* spp), Sweetgum (*Liquidambar styraciflua*), Maple (*Acer* spp), Sycamore (*Platanus occidentalis*), Blackgum (*Nyssa sylvatica*), and Elm (*Ulmus* spp). No species purchased at the Solvay facility is listed on the CITES list. Longleaf pine was recently added to the IUCN Red List.

Pine forests are typically managed on an even-aged basis with a rotation age of 25 to 30 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 by hand to defined stand densities. Chemical 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 costs. 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.

2.2 Actions taken to promote certification amongst feedstock supplier

Solvay is certified to SFI, FSC and PEFC standards. As part of Solvay's SFI compliance program, Solvay promotes certification including SFI and American Tree Farm. In addition, Solvay requires logging operations to be conducted by loggers trained in accordance with the state training program as conducted by the SFI state implementation committee.

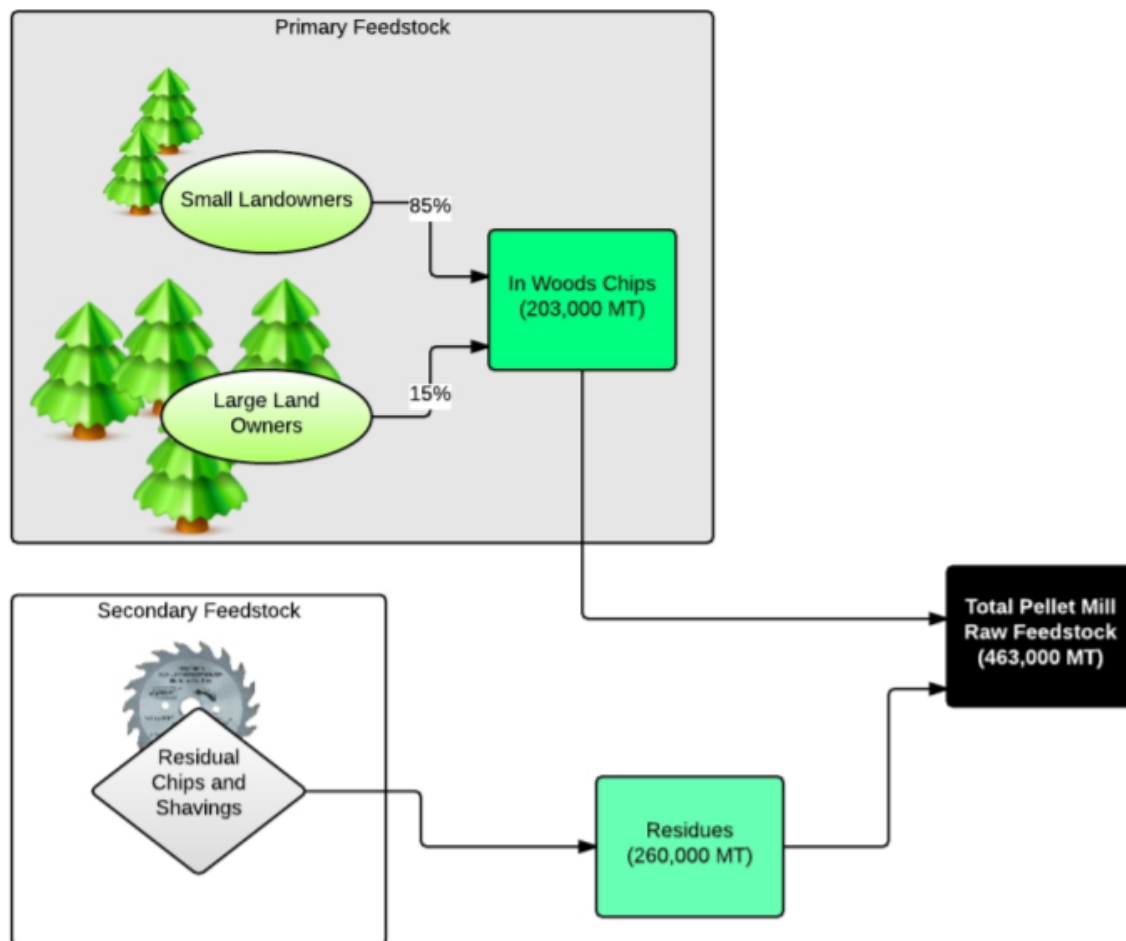
2.3 Final harvest sampling programme

In Solvay's wood basin, fiber from pulpwood represents the material that has significant alternative markets.

Approximately 43.75% of Solvay's total material is primary feedstock. Approximately 30% of all primary feedstock is from final fellings. Approximately 15% of final fellings is pulpwood. Solvay thus approximates that 1.97% ($43.75\% \times 30\% \times 15\%$) of all feedstock is primary feedstock composed of pulpwood from final fellings.

The typical rotation age of final fellings in region is approximately 30 years.

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



2.5 Quantification of the Supply Base

Supply Base

- | | |
|-------------------------------------|--|
| a. Total Supply Base area (ha): | 12,608,004 hectares |
| b. Tenure by type (ha): | privately owned (11,652,234 ha) /public (955,770 ha) |
| c. Forest by type (ha): | temperate (12,608,004 ha) |
| d. Forest by management type (ha): | plantation (4,451,817 ha) /managed natural (8,156,187 ha) |
| e. Certified forest by scheme (ha): | FSC (223,911 ha) / SFI (1,863,913 ha) / ATF (1,474,408 ha) |

Feedstock

- f. Total volume of Feedstock: 463,000 metric tons (projected)
- g. Volume of primary feedstock: 203,000 metric tons (projected)
- h. List percentage of primary feedstock (g), by the following categories. Subdivide by SBP-approved Forest Management Schemes:
- Large forest holdings certified to an SBP-approved Forest Management Schemes
 - Large forest holdings not certified to an SBP-approved Forest Management Schemes
 - Small forest holdings certified to an SBP-approved Forest Management Schemes
 - Small forest holdings not certified to an SBP-approved Forest Management Schemes
- 15% / 30,500 metric tons from Large forest holdings not certified to an SBP-approved Forest Management Schemes (projected)
- 85% / 172,500 metric tons Small forest holdings not certified to an SBP-approved Forest Management Schemes (projected)
- i. List all species in primary feedstock, including scientific name

Primary Species:	Locust (<i>Robinia spp.</i>)
Loblolly Pine (<i>Pinus taeda</i>)	Maple (<i>Acer spp.</i>)
Longleaf Pine (<i>Pinus palustris</i>)	Oak (<i>Quercus spp.</i>)
Shortleaf Pine (<i>Pinus echinata</i>)	Persimmon (<i>Diospyros virginiana</i>)
Slash Pine (<i>Pinus elliottii</i>)	Pine (<i>Pinus spp.</i>)
	Red mulberry (<i>Morus rubra</i>)
Miscellaneous Species:	Red oak (<i>Quercus falcata</i>)
American beech (<i>Fagus grandifolia</i>)	River birch (<i>Betula nigra</i>)
Ash (<i>Fraxinus spp.</i>)	Sassafras (<i>Sassafras albidum</i>)
Basswood, American (<i>Tilia americana</i>)	Sourwood (<i>Oxydendrum arboreum</i>)
Black cherry (<i>Prunus serotina</i>)	Sugarberry (<i>Celtis laevigata</i>)
Black walnut (<i>Juglans nigra</i>)	Sweetgum (<i>Liquidambar styraciflua</i>)
Blackgum (<i>Nyssa sylvatica</i>)	Sycamore (<i>Platanus occidentalis</i>)
Boxelder (<i>Acer negundo</i>)	Yellow-poplar (<i>Liriodendron tulipifera</i>)
Buckeye (<i>Aesculus spp.</i>)	Water oak (<i>Quercus nigra</i>)
Eastern cottonwood (<i>Populus deltoides</i>)	White oak (<i>Quercus alba</i>)
Elm (<i>Ulmus spp.</i>)	
Hackberry (<i>Celtis occidentalis</i>)	
Hickory (<i>Carya spp.</i>)	

- j. Volume of primary feedstock from primary forest - NONE
- k. List percentage of primary feedstock from primary forest (j), by the following categories. Subdivide by SBP-approved Forest Management Schemes:
 - Primary feedstock from primary forest certified to an SBP-approved Forest Management Scheme - NONE
 - Primary feedstock from primary forest not certified to an SBP-approved Forest Management Scheme - NONE
- l. Volume of secondary feedstock: 2600,00 metric tons (projected)
- m. Volume of tertiary feedstock: NONE

3 Requirement for a Supply Base Evaluation

SBE completed	SBE not completed
☒	☐

SBE was completed so that all material can be SBP compliant in accordance with SBP Standard 4, 5.2.2.2.

4 Supply Base Evaluation

4.1 Scope

The scope of the supply base evaluation of Solvay Biomass Energy LLC is to confirm all indicators of Criteria 1 & 2 of SBP Framework Standard 1: Feedstock Compliance Standard are considered low risk within the defined supply base.

4.2 Justification

The evaluation assessed each of the indicators within Criteria 1 & 2 of SBP Framework Standard 1: Feedstock Compliance to determine if there is a low risk associated with each indicator. This assessment reviewed applicable laws and regulations and forestry best management practices, analysed high conservation areas within the supply base for their rareness and level of protection and assessed the economic impact of the company's presence in the supply base.

This review and analysis was completed using stated laws and regulations, published forestry best management practices, recognized research and data from the USDA Forest Service and conservation organizations such as the World Wildlife Fund, NatureServe, state forestry and wildlife agencies and other noted experts.

4.3 Results of Risk Assessment

The results of the risk assessment indicate there is low risk to all indicators within Criteria 1 & 2 of SBP Framework Standard 1: Feedstock Compliance. No additional supplier assessment programs were identified as needed.

4.4 Results of Supplier Verification Programme

Not applicable; the results of the risk assessment indicate there is low risk to all indicators within Criteria 1 & 2 of SBP Framework Standard 1: Feedstock Compliance.

4.5 Conclusion

Based on the results of the supply base evaluation there is low risk to all indicators within Criteria 1 & 2 of SBP Framework Standard 1: Feedstock Compliance. This conclusion is based on the strong legal and regulatory system found within the supply base. Federal, state and local laws and 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, labour 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.

Analysis using USDA Forest Service data clearly shows the supply area's forests are growing more fiber and

carbon stock than is being harvested. This data along with economic impact studies indicate this company is a key part of the area's economy providing employment opportunities at the manufacturing site as well as throughout the supply area.

5 Supply Base Evaluation Process

The Supply Base Evaluation was completed in partnership with Greener Options Inc., a sustainability consulting company specializing in sustainable forest certification and Biological Integrity LLC, a consulting company specializing in conservation and biodiversity. The supply base was determined based on primary and secondary feedstock suppliers and potential suppliers to ensure the complete geography of the supply area. USDA Forest Service data based on this established supply base was used to verify forest growth and harvest levels, forest ownership and overall forest composition (species, age, stand structure). Ecosystem and biodiversity data from WWF, NatureServe and the various state natural heritage programs from within the supply base was also reviewed to determine potential high conservation value (HCV) areas and the level of protection for these HCVs.

Forest management regimes for the supply base were determined from information gathered from local forestry professionals and contractors within the region. This information was also verified by Dr. Andrew Ezell, Head of the Department of Forestry, Mississippi State University. Regional economic and forest health information was gathered from state forestry agencies and forestry associations.

Solvay Biomass Energy requires the use of best management practices (BMPs), adherence to all laws and regulations and harvesting professional training as part of its contract with feedstock suppliers. The company also uses two field verification systems for its primary and secondary feedstocks. Primary feedstock suppliers are verified at the forest level through the company's Sustainable Forestry Initiative (SFI) Fiber Sourcing certification program where company personnel and contractors conduct field inspections of harvest sites for BMPs, harvesting professionals training and traceability. Secondary feedstock suppliers are visited at least annually to confirm their supply base and the species they purchase for their operations.

6 Stakeholder Consultation

A list of about twenty local and regional stakeholders was identified for consultation. These stakeholders represent interests from local contractors and businesses, local governments, state forestry and wildlife agencies, conservation organizations such as the Nature Conservancy, state forestry associations, local forest landowner associations, US Forest Service, US Fish & Wildlife Service and indigenous peoples.

A letter was sent to the identified stakeholders notifying them of the intent of Solvay Biomass Energy to become SBP certified and asking for input on their thoughts on Solvay's business practices and the impact on sustainable forestry in their area. Feedback was requested during the certification process via letter, email and/or telephone. To date no stakeholders have chosen to respond.

6.1 Response to stakeholder comments

Not applicable.

7 Overview of Initial Assessment of Risk

The results of the risk assessment indicate there is low risk to all indicators within Criteria 1&2 of SBP Framework Standard 1: Feedstock Compliance.

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

Indicator	Initial Risk Rating		
	Specified	Low	Unspecified
1.1.1		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	
2.2.8		X	
2.2.9		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	

8 Supplier Verification Programme

8.1 Description of the Supplier Verification Programme

Not applicable.

8.2 Site visits

Not applicable.

8.3 Conclusions from the Supplier Verification Programme

Not applicable.

9 Mitigation Measures

9.1 Mitigation measures

Not applicable.

9.2 Monitoring and outcomes

Not applicable.

10 Detailed Findings for Indicators

Detailed findings for each Indicator are given in Annex 1.

11 Review of Report

11.1 Peer review

Not applicable.

11.2 Public or additional reviews

Not applicable.

12 Approval of Report

Approval of Supply Base Report by senior management			
Report Prepared by:	<i>Mark McKelvaine</i>	<i>Manager of Wood Procurement and Sustainability</i>	<i>07/06/2015</i>
	Name	Title	Date
The undersigned persons confirm that I/we are members of the organisation's senior management and do hereby affirm that the contents of this evaluation report were duly acknowledged by senior management as being accurate prior to approval and finalisation of the report.			
Report approved by:	<i>[name]</i>	<i>[title]</i>	<i>[date]</i>
	Name	Title	Date
Report approved by:	<i>[name]</i>	<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

13.1 Significant changes in the Supply Base

Not applicable.

13.2 Effectiveness of previous mitigation measures

Not applicable.

13.3 New risk ratings and mitigation measures

Not applicable.

13.4 Actual figures for feedstock over the previous 12 months

Not applicable.

13.5 Projected figures for feedstock over the next 12 months

Not applicable.

Annex 1: Detailed Findings for Supply Base Evaluation Indicators

	Indicator
1.1.1	The Biomass Producer's Supply Base is defined and mapped.
Finding	Company's Supply Base is defined and mapped. The map is defined by the present and projected future needs of the plant and includes identified secondary feedstock suppliers.
Means of Verification	Map of supply basin and list of counties.
Evidence Reviewed	BTH-DOC-008 FSC Controlled Wood / PEFC Due Diligence Risk Assessments define the supply base by use of a map and a list of states and counties within those states where wood fiber originates. The map and list of states and counties from those documents has been copied into Appendix 1 and Appendix 2.
Risk Rating	☒ Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA

	Indicator
1.1.2	Feedstock can be traced back to the defined Supply Base.
Finding	The feedstock can be traced back to the defined Supply Base through (1) scale ticket documentation and Fiber Procurement Database ("FPD") records where each scale ticket defines the county and state that feedstock originates and (2) documented communications with secondary feedstock suppliers. Traceability is enforced by Company policies and procedures.
Means of Verification	Company procedures, records in FPD and communications with suppliers
Evidence Reviewed	1. Chain of Custody and Controlled Wood procedures require all wood to be traceable back to source. (BTH-PROC-002 and BTH-PROC-003) 2. SFI Certified Sourcing Procedures require BMP Compliance checks in which source of wood is verified (BTH-PROC-001) 3. Counties from which primary feedstock originates are recorded in Fiber Procurement Database ("FPD") and crosschecked with table in Appendix 2. 4. Secondary feedstock suppliers provides lists of counties that they procure wood from and those counties were included in the supply basin. Secondary feedstock supplier county lists are verified with the suppliers annually.
Risk Rating	☒ Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA

	Indicator
1.1.3	The feedstock input profile is described and categorised by the mix of inputs.
Finding	The feedstock input profile is described and categorised by the mix of inputs.
Means of Verification	Feedstock Input Profile is described in SBE-DOC-017
Evidence Reviewed	1. SBE-DOC-017
Risk Rating	☒ Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA

	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	There are appropriate control systems and procedures to ensure that legality of ownership and land use can be demonstrated for the Supply Base. Both of these steps are set forth in Company's internal procedures. Per Company's procedures: 1. All suppliers are (1) required to agree in writing to abide by all applicable laws and (2) prohibited from engaging in illegal harvesting operations. 2. Company has conducted, and revises annually, a thorough risk assessment on its supply basin to evaluate the risk of receiving wood harvesting in violation of laws. The following is a summary of the results of the risk assessment as they relate to legality: There is evidence of enforcement of logging operations in district. There is legislation in place to regulate forestry activities in the whole country. Each state has its own regulations which are adjusted to regional conditions governing forestry and forest management. The exact penalties for legal violations are mostly determined at the state level, however evidence of law enforcement is generally found in all states. http://www.globalforestregistry.org/map There is evidence in the district demonstrating the legality of harvests and wood purchases that includes robust and effective systems for granting licenses and harvest permits. Illegal harvesting in the region is prohibited by national and state laws (see Evidence below). In most states the timber buyers and/or harvesting companies have to be licensed in order to conduct their business. Evidence indicates that major violations are prosecuted and legal liability is enforced There is little or no evidence or reporting of illegal harvesting in the district of origin. There is no evidence suggesting that illegal logging is a wide scale problem in the United States (US). Commonly used terms for violations in US are timber theft, tree poaching and unlawful logging. Thefts do occur, however the share of illegal felling in hardwoods is much smaller than 1% according to a study conducted by American Hardwood Export

	Council. It is logical to conclude that similarly illegal logging is not a major problem for softwoods in US. http://www.globalforestregistry.org/map There is a low perception of corruption related to the granting or issuing of harvesting permits and other areas of law enforcement related to harvesting and wood trade. For guidance Company referenced FSC directive (FSC-DIR-40-005) which states that there is a low corruption risk is the Corruption Perception Index (CPI) for the given country is equal to or above 50. According to the latest (2015) evaluation results from Transparency International, the CPI for the USA is 76*, clearly ABOVE 50. *CPI values for all countries and more information about the survey can be found at http://www.transparency.org/cpi2015 .
Means of Verification	State laws, Company policy, regional risk assessment, contract provisions with suppliers.
Evidence Reviewed	Alabama Laws ALA. CODE 1975 § 9-13-62 awards double damages for a trespass that is committed <i>knowingly and intentionally.</i>" http://www.sfr.psu.edu/PDFs/HicksThesis.pdf Article 3 - Regulations as to Cutting, Removal, Purchase, etc., of Forest Products § 9-13-60 Unauthorized cutting, removal, transportation, etc., of timber or other forest products § 9-13-61 Charges in affidavits, information or indictments under article; proof of title, etc. § 9-13-62 Liability § 9-13-63 Record of purchases, etc., of manufactured or semi-manufactured forest products; provision of false information to purchasers, etc.; failure to maintain record, etc. § 9-13-64 Powers of State Forestry Commission employees as to enforcement of article, etc. § 9-13-65 Disposition of fines Article 9 - Timber Theft Equipment Condemnation § 9-13-220 Short title § 9-13-221 Seizure of vehicle and equipment upon arrest for certain criminal violations; delivery to district forester § 9-13-222 Report of seizure to district attorney § 9-13-223 Report to district attorney after conviction of person for theft of timber or lumber § 9-13-224 Notice to creditors; institution of condemnation proceedings; legal title to equipment

	§ 9-13-225 Forfeiture of equipment upon judgment; costs of proceedings; State Forester to keep records § 9-13-226 Use of proceeds from sale of equipment; award and distribution determined by State Forester § 9-13-227 Provisions cumulative http://www.forestry.alabama.gov/ForestryAndRelatedLaws.aspx?bv=1&s=6#Article_3_Regulations as to Cutting, Removal, Purchase, etc., of Forest Products Mississippi Laws The Mississippi Agriculture Theft Bureau Penalties Does not change existing law for timber trespass. Makes the payment of restitution to victims of timber theft (landowners) mandatory. The restitution amount will be the fair market value of the timber at the time of the loss, and also includes costs incurred by the victim as a result of the commission of the crime, such as court costs, expert and appraisal fees, and attorney's fees. Source: New Timber Theft Legislation Will Protect Timberland Owners http://msforestry.net/pdf/timbertheftbill.pdf MISSISSIPPI CODE OF 1972 § 69-29-1. Mississippi Agricultural and Livestock Theft Bureau established § 69-29-1. (h) To investigate, prevent, apprehend and arrest those persons anywhere in the state who are violating any of the laws administered by the Department of Agriculture and Commerce including, but not limited to, timber theft. http://www.mscode.com/free/statutes/69/029/0001.htm http://www.utextension.utk.edu/publications/spfiles/SP595.pdf Company policy requires that all applicable laws and regulations are followed (BTH-POL-001) Chain of Custody Procedures requires legal ownership of feedstock received (BTH-POL-002) BTH-DOC-008 FSC Controlled Wood / PEFC Due Diligence Risk Assessments state illegal harvesting of feedstock is LOW risk. Fiber Purchase Agreements have clauses concerning the legality of ownership of the feedstock to be purchased.
Risk Rating	☒ Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA

	Indicator
1.3.1	The BP has implemented appropriate control systems and procedures to ensure that feedstock is legally harvested and supplied and is in compliance with EUTR legality requirements.
Finding	There are appropriate control systems and procedures to ensure that legality of ownership and land use can be demonstrated for the Supply Base. Illegal harvesting in the supply base is prohibited by state laws. In most states the timber buyers and/or harvesting companies have to be licensed in order to conduct their business. Evidence indicates that major violations are prosecuted and legal liability is enforced. There is no evidence suggesting that illegal logging is a wide scale problem in the United States (US). Commonly used terms for violations in US are timber theft, tree poaching and unlawful logging. Thefts do occur, however the share of illegal felling in hardwoods is much smaller than 1% according to a study conducted by American Hardwood Export Council. It is logical to conclude that similarly illegal logging is not a major problem for softwoods in US. Further, legality of ownership and land use is enforced through Company procedures and contractual representations by suppliers.
Means of Verification	State laws, Company policy, regional risk assessment, contract provisions with suppliers.
Evidence Reviewed	1. State laws are referenced in the response to 1.2.1 above. 2. Company policy requires that all applicable laws and regulations are followed (BTH-POL-001) 3. Chain of Custody Procedures requires legal ownership of feedstock received (BTH-PROC-002) 4. BTH-DOC-008 FSC Controlled Wood / PEFC Due Diligence Risk Assessments state illegal harvesting of feedstock is LOW risk. 5. Company's Fiber Purchase Agreements have clauses concerning the legality of ownership of the feedstock to be purchased.
Risk Rating	☒ Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA

	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	Company 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. Fiber Purchase Agreements stipulate that all severance taxes are to be withheld and payable directly to the appropriate governmental authority by Company.
Means of Verification	Contract with suppliers, severance tax payment records

Evidence Reviewed	- Contract with suppliers states that severance tax is withheld by Company and payable by Company to relevant government authority. - Severance tax payment records evidence payment of taxes.
Risk Rating	☒ Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA
Locally Applicable Verifiers	Severance tax payment records evidence payment of taxes for wood sourced from Mississippi.

	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	Company has implemented appropriate control systems and procedures to verify that feedstock is supplied in compliance with the requirements of CITES. Based on review of the CITES list it is determined that there are no species used in Company operations that are included in the CITES list.
Means of Verification	List of species used by Company and CITES list
Evidence Reviewed	- List of species used by Company is included in BTH-DOC-002 - FSC Product Group Schedule and attached as Appendix 3. - CITES list appears in BTH-DOC-008a - PEFC Due Diligence Risk Assessment, Table A2.
Risk Rating	☒ Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA

	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	Harvesting in the supply basin presents a low risk of violation of traditional, civil and collective rights based on the following factors: (1) There is no UN Security Council ban on timber exports from the country concerned; (2) The country or district is not designated a source of conflict timber (e.g. USAID Type 1 conflict timber); (3) There are recognized and equitable processes in place to resolve conflicts of substantial magnitude pertaining to traditional rights including use rights, cultural interests or traditional cultural identity in the district concerned; and (4) There is no evidence of violation of the ILO Convention 169 on Indigenous and Tribal Peoples taking place in the forest areas in the district concerned.
Means of Verification	Company risk assessment

Evidence Reviewed	1. BTH-DOC-008 - FSC Controlled Wood Risk Assessment
Risk Rating	☒ Low Risk ☐ Specified Ris ☐ Unspecified Risk at RA

	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	Forests and other areas with high conservation values are identified and mapped. There are no Conservation International hotspots, Centres for Plant Diversity, GreenPeace Intact Forests, World Resources Institute (Global Forest Watch) Frontier Forests, or currently recognized Alliance for Zero Extinctions (AZE) sites, within the supply basin. However two World Wildlife Fund, Global 200 Ecoregions and three <i>former</i> Alliance for Zero Extinctions overlap portions of the wood basin. The World Wildlife Fund's (WWF) Global 200 Ecoregions build a framework for describing the most important areas of biodiversity on the planet. The Global 200 encompass almost 50% of life on earth. These 200 areas are places that conservation groups can target and discuss with forest products companies and other entities about the loss of global, forest biodiversity (Olson et al., 2001). 1. The Appalachian and Mixed Mesophytic Forests (#69 in the WWF Global 200) WWF 69 is ranked vulnerable and as a whole would not require evaluation. The FSC requires that the risk assessment address only those Global 200 ranked critical or endangered. However, one of the subecoregions, the Appalachian Mixed Mesophytic Forests (NA0402) is ranked critical/endangered and FSC would agree with the assessor that it should be evaluated. The other subdivision, The Appalachian-Blue Ridge Forests (NA0403), is ranked vulnerable and does not need evaluation. http://www.panda.org/about_our_earth/ecoregions/appalachian_mesophytic_forests.cfm http://www.worldwildlife.org/wildworld/profiles/terrestrial/na/na0403_full.html 2. The Southeastern Coniferous & Broadleaf Forests (# 75 in the WWF Global 200) This global 200 ecoregion intersects the wood basin. It is significant at a global scale, ranked endangered/critical. This ecoregion is subdivided into two smaller endangered/critical terrestrial ecoregions (Figure 11). However, the BTH wood basin only intersects one of those subdivisions (NA0413) and FSC requires description and assessment of that subecoregion. http://wwf.panda.org/about_our_earth/ecoregions/ecoregion_list/

	The Southeastern mixed forests (NA0413) is the first of two terrestrial ecoregions found within the Global 200 ecoregion # 75 and it overlaps the wood basin. It has a conservation status of endangered/critical. This is a highly degraded ecoregion with more than 99% of the original habitat having been altered. This region has been converted to other uses. Settlers within the ecoregion logged and then cleared the land for agriculture. The ecoregion overlaps the Piedmont on the Atlantic Slope and the rest falls into the Coastal Plain on the Gulf Coast. WWF reports that there is little habitat left to conserve in this critical/endangered ecoregion. Even though there are few protected examples (Bond Swamp National Wildlife Refuge, Ocmulgee National Monument, Robins Air Force Base) of this ecoregion <i>within the wood basin</i>, there are many more protected areas of the ecoregion <i>outside of the wood basin</i>.
Means of Verification	Figures provided in BTH-DOC-008 - FSC Controlled Wood Risk Assessment
Evidence Reviewed	1. Following figures from BTH-DOC-008 - FSC Controlled Wood Risk Assessment a. Conservation International hotspots (Figure 2) b. Centres for Plant Diversity (Figure 3 & 4) c. GreenPeace Intact Forests (Figure 5) d. World Resources Institute (Global Forest Watch) Frontier Forests (Figure 6) e. Alliance for Zero Extinctions (AZE) sites (Figure 9, 10)
Risk Rating	☒ Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA

	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	1. Company conducted a risk assessment of the supply basin to analysis the risk of receiving wood from forests in which high conservation values are threatening by forest management activities. Below is a detail of the findings of that risk assessment: A strong system of protection (effective protected areas and legislation) is in place that ensures survival of the HCVs in the District of Origin. There are protected areas with a strong protection system for each HCV in the wood basin. The following is a list of HCV areas within the wood basin that require effective protected areas and legislation Three Centre for Plant Diversity (CPD) • Granite Outcrops (CPD24) • Serpentine Soils (CPD25) • Apalachicola River Basin (NA28) Three critical/endangered subcoregions of two World Wildlife Fund (WWF) Global 200 ecoregions (g200 # 69 & 75) and overlap the wood basin. • The Appalachian mixed mesophytic forests (NA0402) • The Southeastern mixed forests (NA0413) • The Southeastern conifer forests (NA0529)

One Alliance for Zero Extinctions (AZE) site overlaps the wood basin.

- Torreya State Park

A. Conservation International hotspots, GreenPeace Intact Forests, World Resources Institute (Global Forest Watch) Frontier Forests

These important environmental resources will be protected from Company enterprise, if the Company confines its activity to the District of Origin as defined (Appendix 1 and Appendix 2) because all of these areas are outside of the described District.

B. Description of Three Global 200 ecoregions within the District of Origin

The Company wood basin overlaps two WWF Global 200 Ecoregions, each containing two subecoregions. These four scaled-down subdivisions have significance at the national level. The other Global 200 will be protected from SBE enterprise, if the company confines its activity to the District of Origin. Three of the subdivisions listed below are critical/endangered.

1. The Appalachian and Mixed Mesophytic Forests is number 69 in the WWF Global 200.

The overall ecoregion is ranked vulnerable and as a whole would not require evaluation. As guidance, Company referenced FSC guidelines which require that the risk assessment address only those Global 200 ranked critical or endangered.

However, one of the two subecoregions, the Appalachian Mixed Mesophytic Forests (NA0402) is ranked critical/endangered. Hopefully, Company believes it would be in the spirit of SBP to evaluate it. The other subdivision, The Appalachian-Blue Ridge Forests (NA0403), is ranked vulnerable and does not need evaluation.

http://www.panda.org/about_our_earth/ecoregions/appalachian_mesophytic_forests.cfm

http://www.worldwildlife.org/wildworld/profiles/terrestrial/na/na0403_full.html

2. The Southeastern Coniferous & Broadleaf Forests is identified as # 75 in the WWF Global 200)

This global 200 ecoregion intersects the wood basin. It is significant at a global scale, ranked endangered/critical. This ecoregion is subdivided into two smaller endangered/critical terrestrial ecoregions (Figure 2a). However, the Company wood basin only intersects one of those subdivisions (NA0413).

http://wwf.panda.org/about_our_earth/ecoregions/ecoregion_list/

The Southeastern mixed forests (NA0413) is the first of two terrestrial ecoregions found within the Global 200 ecoregion # 75 and it overlaps the wood basin. It has a conservation status of endangered/critical.

This is a highly degraded ecoregion with more than 99% of the original habitat having been altered. This region has been converted to other uses. Settlers within the ecoregion logged and then cleared the land for agriculture. The ecoregion overlaps the Piedmont on the Atlantic Slope and the rest falls into the Coastal Plain on the Gulf Coast. WWF reports that there is little habitat left to conserve in this critical/endangered ecoregion. Even though there are few protected examples (Bond Swamp National Wildlife Refuge, Ocmulgee National Monument, Robins Air Force

Base) of this ecoregion *within the wood basin*, there are many more protected areas of the ecoregion *outside of the wood basin*.

This region once contained three major types of stands: pure hardwood, pure pine, and mixed pine/hardwood stands. Fire was the driver of the pure pine stands. Once it was removed from the area, hardwood stands began to dominate the ecoregion.

C. Description of One Current AZE Sites within the woodbasin.

1. One Alliance for Zero Extinction Site (AZE), the Torreya State Park, is located within the wood basin in Gadsden County, Florida. The AZE site is confined to two Florida counties, Gadsden and Liberty. It protects the bulk of extant occurrences of the Florida Torreya, *Torreya taxifolia*, within its native range. Two additional management areas near the park protect additional *Torreya* occurrences (Figure 4a). The Florida Torreya, the target species within this AZE site, is an endemic to limestone bluffs along the Apalachicola River in Gadsden and Liberty counties FL as well as a few kilometers into Decatur County, GA. The Torreya is a tree. It originally comprised about 4% of the forest in this area. Its stems were used primarily for fence posts. A fungal blight destroyed the population. Its associate tree species include beech (*Fagus grandifolia*), yellow-poplar (*Liriodendron tulipifera*), American holly (*Ilex opaca*), Florida maple (*Acer barbatum*), loblolly pine (*Pinus taeda*), spruce pine (*P. glabra*), white oak (*Quercus alba*), eastern hophornbeam (*Ostrya virginiana*), and sweetgum (*Liquidambar styraciflua*). Artificial propagation of the Florida Torreya is ongoing. Cultivated individuals have survived in North Carolina for over 40 years.

D. Description of Three Former AZE Sites within the woodbasin.

The following three Alliance for Zero Extinction sites were removed from the official AZE list of sites in 2010.

http://www.zeroextinction.org/search_results_country.cfm

It was determined that it would be useful to at least bring awareness to these taxa for conservation purposes because they are within the wood basin.

1. The Mobile Bay is a former AZE site in Baldwin and Mobile counties. The Alabama red-bellied turtle (*Pseudemys alabmensis*), is presently known in these two counties. Today this turtle is only found in Mobile Bay and some of its tributaries.
2. The Pascagoula River is the AZE site in Clarke, Covington, Forrest, George, Greene, Jackson, Jones, Perry and Wayne counties of Mississippi. The yellow-blotched map turtle (*Graptemys flavimaculata*) is the target species, occurring in the Pascagoula River system within nine counties in MS. The turtle is most abundant in the Pascagoula River between Wade and Vancleave, Mississippi with the largest population being in Ward Bayou Wildlife Management Area just west of Vancleave.
3. Glen's Pond in Desoto National Forest is the AZE site in Harrison County. This site protects one of the last three populations of the dusky gopher frog (*Rana sevosa*). According to NatureServe the other two known occurrences are in Jackson County, MS.

E. Three Centre of Plant Diversity (CPD) Sites within the District of Origin

1. NA24. Piedmont granitic rock outcrops. Distribution of granite bedrock within and nearby the woodbasin is mapped in Figure 3. Sporadic occurrences are located in Georgia, South Carolina and Alabama. Granite rock outcrops are a prominent feature of the Piedmont region. Georgia is full of them; Florida has none. There are about 10,800

acres of exposed granite in Georgia which is about 90% of all the exposed granite in the Southeast. GIS data pinpoints the location of granite bedrock which identifies possible locations of granite outcrops. Weathering of soils over granite bedrock gradually exposes some of the bedrock at the surface. Once exposed above ground, the granite bedrock can then be called a granite outcrop. A high percentage (33%) of plants associated with these outcrops are endemics. A handful of rare species are known to occupy high quality granite outcrops and their occurrences indicate the locations of granite outcrops. They are pool sprite (*Minuartia uniflora*), black-spored quillwort (*Isoetes melanospora*), mat-forming quillwort (*Isoetes tegetiformans*), and harperella (*Ptilimnium nodosum*).

http://www.fws.gov/ecos/ajax/docs/recovery_plan/930707.pdf

Some other obligate granite outcrop associates are diamorpha (*Diamorpha smalli*), white-flowered sandwort (*Arenaria uniflora*), bentgrass (*Agrostis elliottiana*), and blue-flowered toadflax (*Linaria canadensis*).

http://plants.usda.gov/java/county?state_name=Georgia&statefips=13&symbol=DISM3

LOW RISK JUSTIFICATION – Granite outcrops are typically devoid of timber products and equipment can be damaged driving over them. These attributes keep these unique sites relatively protected from forestry activities. The largest and most significant sites are located in Georgia where they are protected. The Georgia Ecological Field Office of the USFWS lists the major threats to the listed plants that occur on rock outcrops in Georgia. They do not include forestry on the list.

Quarrying that destroys granite outcrops is the major threat. Other threats include vehicle traffic, littering, fire building, vandalism, and cattle eutrophication/trampling on outcrop

2. NA25. Serpentine florae (eastern) are restricted to soils derived from serpentine rock outcrops found in association with ultramafic rock which are located in the wood basin (Figure 3b). NA25 is restricted to the Piedmont physiographic province, based on the distribution of this bedrock given by the United States Geological Survey (USGS). Serpentine soils, associated with ultramafic bedrock, formed along a linear boundary between ancient continents. There are two of these zones in North America, one on the west coast and another on the east coast. The eastern zone extends from Alabama north into Quebec. Serpentine soils have relatively higher levels of heavy metals (cadmium and nickel) and lower levels of calcium than other soils. Therefore, are toxic to most plants. Clays in serpentine soils have a high affinity for water, more so than other clays, making less water available to plants. Plants found in this CPD are specialists. They are adapted to the harsh conditions created by these soils and cannot survive outside of this habitat, making them obligate endemics to serpentine soils.

LOW RISK JUSTIFICATION – As already stated, most plants cannot live in this environment. Therefore it is unlikely that commercial timber products would or could occur on these serpentine soils. Since wood products do not occur in this CPD, the threat is LOW RISK.

<http://www.gabotsoc.org/articleTrackrock.htm>

3. NA28. Apalachicola River drainage of north-western Florida (panhandle) and adjacent Georgia is described below. This center of diversity is within the wood basin (Figure 3c). This CPD is different from the AZE site described above in that it includes other targeted species in the watershed.

*The east side of the Apalachicola River is one of the classic areas of both endemics and rare plants, such as *Torreya taxifolia*, with its nearest relative in California, and the associated herb *Croomia pauciflora*, this occurrence is the only record of any member of the family (Croomiaceae) found outside of Asia. The flora contains many endemics and Tertiary relicts. The endemics occur primarily in the cool wet flatlands (savannas, seepage slopes and flatwoods).*

<http://www.botany.si.edu/projects/cpd/na/na-cpde.htm>

<http://www.botany.si.edu/projects/cpd/na/na-cpde.htm#south-eastern>

*The Apalachicola River basin of southwest Georgia and northwest Florida is one of the most biologically diverse regions on earth. This diversity includes ecologically significant natural areas. The basin supports habitats that vary from rare steephead ravines (with the only remaining native *Torreya taxifolia*), to towering limestone bluffs, forested floodplains, and estuaries. The region is home to numerous rare plants including species found nowhere else. Numerous trilliums, orchids and a variety of other species highlight the early-spring landscape. The eastern watershed from Bristol to Chattahoochee shelters many rare and endangered plants, its steepheads protecting *Croomia* and *Torreya* from climate extremes.*

<http://www.gabotsoc.org/wordpress/wp-content/uploads/2009/12/pilgrimage-2010finalcolor.pdf>

LOW RISK JUSTIFICATION – A Centre of Biological Diversity, the Apalachicola River Basin (NA28), intersects the Company wood basin. The Apalachicola River Basin contains multiple protected areas (Figure 3c).

One Centre of Plant Diversity (CPD) Sites Outside the District of Origin

4. NA31. The Atlantic Coastal Plain does not intersect the District of Origin. It is included in a list of CPDs on the IUCN Centres of Plant Diversity webpage. This particular CPD has very little descriptive information delineating it or the species that define it. Nevertheless, an area within the coastal plain as broadly described by the Centre for Plant Diversity is shown in (Figure 3d).

The entire description of this site given by the CPD follows:

The area from south-eastern North Carolina south to north-eastern Florida between the coast and St John's River is an important Centre of Plant Diversity site. Many now feel that coastal North Carolina-Florida should be considered a separate region since numerous endemic plants occur in its habitats, including coastal hammocks, dunes, shell mounds, marshes and flatwoods. There are 73 species endemic to northern Florida.

<http://botany.si.edu/projects/cpd/na/na-cpde.htm>

LOW RISK JUSTIFICATION – This CPD is included here because of the vague description of its location. Mapping the site helps confirm that it is outside the District of Origin. Since this CPD does not overlap with the district, the possibility of the SBE activity impacting this CPD is considered LOW RISK.

F. Three World Wildlife Fund subcoregions within the District of Origin

Two World Wildlife Fund Global 200 Ecoregions overlap the wood basin. These ecoregions build a framework for delineating the most important areas of biodiversity on the planet. The Global 200 encompass almost 50% of terrestrial biodiversity on earth.

These 200 areas are places that conservation groups target and discuss with forest products companies about the loss of global, forest biodiversity (Olson et al., 2001).

The SBE wood basin intersects Global 200 ecoregions, 69 & 75. Number 69 is ranked vulnerable; number 75 is ranked endangered/critical. Both are assessed, because one of number 75's subecoregions, the Appalachian Mixed Mesophytic Forests (NA0402), is ranked critical/endangered and for that reason it should be evaluated. The Appalachian-Blue Ridge Forests (NA0403) is ranked vulnerable and evaluation of it is not required.

<http://www.worldwildlife.org/science/ecoregions/global200.html>

http://www.panda.org/about_our_earth/ecoregions/appalachian_mesophytic_forests.cfm

http://www.worldwildlife.org/wildworld/profiles/terrestrial/na/na0403_full.html

The Appalachian and Mixed Mesophytic Forests (#69 in Global 200)

1. The Appalachian Mixed Mesophytic Forests (NA0402) - status of endangered/critical.

LOW RISK JUSTIFICATION

The Appalachian Mixed Mesophytic Forests (NA0402) was once common but currently it is ranked critical/endangered by WWF. Relatively few, relict, disjunct pockets of natural habitat are restricted to eastern and central China. Over the past 300 years more than 95% of this habitat has been destroyed by intensive forest management, agriculture, coal mining, dam building, development, and road building. The larger tracts of natural habitat and the very small remnants of old-growth are mostly restricted to national forests/parks, state forests/parks, wilderness areas, and state natural areas. National Forests in the ecoregion are still under constant harvesting pressure.

Protected areas in this subecoregion include the Big South Fork National Recreational Area (TN), Blanton Forest (KY), Cranberry Wilderness Area (VA), Cumberland Gap State Park (KY), Daniel Boone National Forest (KY), Frozen Head State Natural Area (TN), Monongahela National Forest (WV), Pine Mountain (KY), Savage Gulf State Natural Area (TN), Scott State Forest (TN), Shawnee State Forest (OH), Sipsey Wilderness Area (AL), Talladega National Forest (AL), and the Wayne National Forest (OH). These places should protect the remaining intact natural habitat through our strong legal system that enforces government rules, regulations, and laws. Procurement in this ecoregion is **Low Risk**.

<http://www.nationalgeographic.com/wildworld/profiles/terrestrial/na/na0402.html>

Southeastern Coniferous & Broadleaf Forests (# 75 in Global 200)

This global 200 ecoregion intersects the wood basin. It is significant at a global scale, but this global ecoregion (#75) is subdivided into two smaller **endangered/critical** terrestrial ecoregions (Figure 2a). These scaled-down subdivisions have significance at the national level. The SBE wood basin intersects both subdivisions, NA0413 & NA0529. These scaled-down subdivisions have significance at the national level. These terrestrial ecoregions are discussed in the next section.

http://www.panda.org/about_our_earth/ecoregions/ecoregion_list/

2. The Southeastern mixed forests (NA0413) - status of endangered/critical.

LOW RISK JUSTIFICATION

Identifying and protecting any remaining blocks of land in the ecoregion is a high priority for conservationists. Since the wood basin barely extends into this ecoregion, large tracts

of protected land from this ecoregion do not occur in the wood basin. However, overall this ecoregion does have large protected areas (Figure 2b). These are the Bienville, Holly Springs, Homochitto, Noxubee, Oconee, Sumter, Talladega, Tombigbee, Tuskegee, and Uwharrie national forests as well as Camp Perry Naval Reservation, Fort A. P. Hill, Fort Belvoir, Fort Benning, Fort George G. Meade, Fort Gordon, Fort Lee, Fort Pickett, Fort Rucker (in part), and Quantico Marine Corps Base. In addition to the other protected areas, there are multiple US Army Corps of Engineers reservoirs that have terrestrial habitat under corps management in the ecoregion. Procurement in this ecoregion is **Low Risk**.

3. The Southeastern conifer forests (NA0529) - status of endangered/critical.

LOW RISK JUSTIFICATION

The SBE wood basin overlaps the northwestern portion of this ecoregion. The ecoregion, itself, extends from the Savannah River in Georgia across the coastal plain to the eastern parishes of Louisiana and south into Florida in the vicinity of Lake Okeechobee.

This ecoregion is equated with the longleaf pine ecosystem that once spanned a significant portion of the coastal plain. It was dominated by longleaf pine overstory and an exceptionally diverse array of plants in the understory and herbaceous layer. The entire region was driven by a fire driven ecology. A regular fire regime once maintained essentially a single species overstory consisting of longleaf pine. Many species of birds, reptiles, and amphibians adapted to this environment as well. The red-cockaded woodpecker, gopher tortoise, indigo snake, and flatwoods salamander are some of the more threatened, regulated, and managed of those taxa.

Fire was suppressed in this ecosystem as it was in many of the other regions in the southeast. Due to commercial and private development, conversion to agriculture, and the planting of loblolly pine in the area, the longleaf pine flatwoods have been reduced to less than 1% of its original size. However, there are several places where the natural habitat is being maintained and fire is still allowed into the systems. Most of the conservation sites that remain can be found on national forests, military bases, and state parks (Figure 2b). Thanks to organizations like the Longleaf Alliance, private landowners are being given federal incentives to plant longleaf on their property and maintain those stands for many decades to come. As a result of education and conservation planning, there has been an increase in longleaf plantations over the past decade with an increase in newly planted acres every year within the ecoregion.

Additional Evaluation Information

4. Evaluation of Three Former Alliance for Zero Extinction Sites within the Woodbasin

The three former AZE sites target three species, two turtles and one frog. The USFWS lists “timber harvesting” as one of many threats to these two aquatic turtles, but that seems to be a minimal threat. More pervasive threats are flooding during the breeding season, loss of perching logs in the rivers and reservoirs where these turtles live, shooting of turtles by humans, over collecting, and physical disturbance of sandbars when turtles are attempting to nest (Bob Jones, pers. Comm., 2004). The principal threat to these two species is disturbance to breeding sites during the breeding period. These turtles leave

	the water and nest along the watercourse where they occur. Sandbars and river banks are the sites utilized most often (NatureServe 2009). 1. The Mobile Bay, a former AZE site, harbors the Alabama red-bellied turtle. LOW RISK JUSTIFICATION - Best Management Practices require Streamside Management Zones that should keep foresters away from the nesting areas of these reptiles. 2. The Pascagoula River, a former AZE site, harbors the yellow-blotched map turtle LOW RISK JUSTIFICATION - Best Management Practices require Streamside Management Zones that should keep foresters away from the nesting areas of these reptiles. http://www.natureserve.org/explorer/servlet/NatureServe 3. Glen's Pond, a former AZE site, harbors the dusky gopher frog. http://www.zeroextinction.org/sitedata.cfm?siteid=178 LOW RISK JUSTIFICATION Since the frog's listing by the United States as endangered in 2001, the United States Forest Service is responsible for protecting the dusky gopher frog at Glen's Pond. The Nature Conservancy (TNC) through donations of private funds has been involved with translocation at two additional sites being managed by TNC. http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/mississippi/explore/dusky-gopher-frog-profile.xml Additionally, Company has procedures whereby a Company representative visits Secondary Suppliers for evaluations. During those evaluations, the Company representative records observations on a Secondary Supply Audit Checklist. The checklist contains an item to confirm that the Secondary Supplier is not receiving wood harvested from HCVB areas.
Means of Verification	Company procedures, BMP compliance check records, fiber purchase agreements
Evidence Reviewed	1. BTH-DOC-008 FSC Controlled Wood / PEFC Due Diligence Risk Assessments 2. BTH-PROC-001 SFI Fiber Sourcing Procedures 3. BTH-DOC-009 BMP Compliance Checklist records 4. Fiber Purchase Contracts have clauses requiring adherence to state BMPs.
Risk Rating	☒ Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA

	Indicator
2.1.3	The Biomass Producer has implemented appropriate control systems and procedures for verifying that feedstock is not sourced from forests converted to production plantation forest or non-forest lands after January 2008.
Finding	Company fiber purchase agreement prohibits suppliers from supplying products from knowingly supplying fiber that is sourced from lands that were converted to production plantation forest or none forest lands after January 2008 or will be converted to plantation forest or none forest lands in the present or future. 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). Company monitors compliance through BMP audits and records compliance on the BMP compliance checklist
Means of Verification	fiber purchase agreement, BMP audit records
Evidence Reviewed	1. Fiber Purchase Agreement 2. BTH-DOC-009 - BMP Compliance Checklist
Risk Rating	☒ Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA

	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	Company has conducted a risk assessment on the supply basin. All fiber sourced at the plant can be traced to locations encompassed by the supply basin. Company requires that suppliers to harvest fiber in compliance with state BMPs to control the impact on the forests. Company conducts compliance checks to verify supplier compliance with BMPs. In addition state forestry agencies conduct BMP compliance checks randomly or upon request by stakeholders. State BMP compliance reports are available for review by Company.
Means of Verification	Risk assessment, FPD records, fiber purchase agreement, BMP compliance check records, state forestry BMP compliance reports
Evidence Reviewed	1. BTH-DOC-008 - FSC Controlled Wood Risk Assessment 2. BTH-PROC-001 - SFI Fiber Sourcing Procedures 3. BTH-DOC-009 - BMP Compliance Checklist 4. BTH Fiber Purchase Agreement 5. FPD records

Risk Rating	☒ Low Risk	☐ Specified Risk	☐ Unspecified Risk at RA
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	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	State BMPs set forth guidelines for maintaining and/or improving soil quality. Company requires that all suppliers comply with state BMP in harvesting operations. Company verifies supplier compliance with state BMPs through BMP compliance checks. Soil maps covering the supply basin are available as a resource to suppliers to assist in planning fiber harvest in a way that does not harm soil quality.
Means of Verification	Company sustainable forestry policy, fiber sourcing procedures, BMP compliance records
Evidence Reviewed	1. BTH-POL-001 - Sustainable Forestry Policy 2. BTH-PROC-001 - SFI Fiber Sourcing Procedures 3. BTH-DOC-009 - BMP Compliance Checklist 4. USGS Soil Maps: http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx
Risk Rating	☒ Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA

	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	Key ecosystems are conserved or set aside in their natural state. Two World Wildlife Fund (WWF) Global 200 Ecoregion's Sub-ecoregions 1. The Appalachian Mixed Mesophytic Forests (NA0402) The Appalachian Mixed Mesophytic Forests (NA0402) was once common but now it is ranked critical/endangered by WWF. Relatively few, relict, disjunct pockets of natural habitat are restricted to eastern and central China. Over the past 300 years more than 95% of this habitat has been destroyed by intensive forest management, agriculture, coal mining, dam building, development, and road building. The larger tracts of natural habitat and the very small remnants of old-growth are mostly restricted to national forests/parks, state forests/parks, wilderness areas, and state natural areas. National Forests in the ecoregion are still under constant harvesting pressure.

Protected areas in this subecoregion include the Big South Fork National Recreational Area (TN), Blanton Forest (KY), Cranberry Wilderness Area (VA), Cumberland Gap State Park (KY), Daniel Boone National Forest (KY), Frozen Head State Natural Area (TN), Monongahela National Forest (WV), Pine Mountain (KY), Savage Gulf State Natural Area (TN), Scott State Forest (TN), Shawnee State Forest (OH), Sipsey Wilderness Area (AL), Talladega National Forest (AL), and the Wayne National Forest (OH). These places should protect the remaining intact natural habitat through our strong legal system that enforces government rules, regulations, and laws.

2. The Southeastern mixed forests (NA0413)

Identifying and protecting any remaining blocks of land in the ecoregion is a high priority for conservationists. Since the wood basin barely extends into this ecoregion, large tracts of protected land from this ecoregion do not occur in the wood basin. However, overall this ecoregion does have large protected areas (Figure 12). These are the Bienville, Holly Springs, Homochitto, Noxubee, Oconee, Sumter, Talladega, Tombigbee, Tuskegee, and Uwharrie national forests as well as Camp Perry Naval Reservation, Fort A. P. Hill, Fort Belvoir, Fort Benning, Fort George G. Meade, Fort Gordon, Fort Lee, Fort Pickett, Fort Rucker (in part), and Quantico Marine Corps Base. In addition to the other protected areas, there are multiple US Army Corps of Engineers reservoirs that have terrestrial habitat under corps management in the ecoregion.

Three Former Alliance for Zero Extinction Sites

1. The Mobile Bay, a former AZE site, harbors the Alabama red-bellied turtle. The USFWS lists “timber harvesting” as one of many threats to these two aquatic turtles, but that seems to be a minimal threat. More pervasive threats are flooding during the breeding season, loss of perching logs in the rivers and reservoirs where these turtles live, shooting of turtles by humans, over collecting, and physical disturbance of sandbars when turtles are attempting to nest (Bob Jones, pers. Comm., 2004). The principal threat to these two species is disturbance to breeding sites during the breeding period. These turtles leave the water and nest along the watercourse where they occur. Sandbars and river banks are the sites utilized most often (NatureServe 2009). Best Management Practices require Streamside Management Zones that should keep foresters away from the nesting areas of these reptiles.

2. The Pascagoula River, a former AZE site, harbors the yellow-blotched map turtle. The USFWS lists “timber harvesting” as one of many threats to these two aquatic turtles, but that seems to be a minimal threat. More pervasive threats are flooding during the breeding season, loss of perching logs in the rivers and reservoirs where these turtles live, shooting of turtles by humans, over collecting, and physical disturbance of sandbars when turtles are attempting to nest (Bob Jones, pers. Comm., 2004). The principal threat to these two species is disturbance to breeding sites during the breeding period. These turtles leave the water and nest along the watercourse where they occur. Sandbars and

	river banks are the sites utilized most often (NatureServe 2009). Best Management Practices require Streamside Management Zones that should keep foresters away from the nesting areas of these reptiles. 3. Glen's Pond, a former AZE site, harbors the dusky gopher frog. Since the frog's listing by the United States as endangered in 2001, the United States Forest Service is responsible for protecting the dusky gopher frog at Glen's Pond. The Nature Conservancy (TNC) through donations of private funds has been involved with translocation at two additional sites being managed by TNC. In the United States the Endangered Species Act protects the habitats of listed threatened and endangered species. The Company fiber procurement contract requires that suppliers abide by all applicable laws and regulations.
Means of Verification	Risk assessment, URLs describing key habitats
Evidence Reviewed	1. The Appalachian Mixed Mesophytic Forests: http://www.nationalgeographic.com/wildworld/profiles/terrestrial/na/na0402.html 2. The Pascagoula River: http://www.natureserve.org/explorer/servlet/NatureServe 3. Glens Pond: http://www.zeroextinction.org/sitedata.cfm?siteid=178 4. http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/mississippi/explore/dusky-gopher-frog-profile.xml 5. BTH-DOC-008 - FSC Controlled Wood Risk Assessment
Risk Rating	☒ Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA

	Indicator
2.2.4	The Biomass Producer has implemented appropriate control systems and procedures to ensure that biodiversity is protected (CPET S5b).
Finding	The World Wildlife Fund's (WWF) Global 200 Ecoregions build a framework for describing the most important areas of biodiversity on the planet. The Global 200 encompass almost 50% of life on earth. These 200 areas are places that conservation groups can target and discuss with forest products companies and other entities about the loss of global, forest biodiversity (Olson et al., 2001). Alliance for Zero Extinctions are unique sites that protect most of the remaining populations of one or more globally rare species. The idea is that if those sites were damaged environmentally, then it might cause an extinction event. Sixteen of these AZE sites are identified in the USA. <u>Description of Global 200 ecoregions within the District of Origin</u>

The BTH wood basin overlaps two WWF Global 200 Ecoregions. Each of the G200 contain two subecoregions. These scaled-down subdivisions have significance at the national level.

1. The Appalachian and Mixed Mesophytic Forests (#69 in the WWF Global 200)

WWF 69 is ranked vulnerable and as a whole would not require evaluation. The FSC requires that the risk assessment address only those Global 200 ranked critical or endangered.

However, one of the subecoregions, the Appalachian Mixed Mesophytic Forests (NA0402) is ranked critical/endangered and FSC would agree with the assessor that it should be evaluated. The other subdivision, The Appalachian-Blue Ridge Forests (NA0403), is ranked vulnerable and does not need evaluation.

2. The Southeastern Coniferous & Broadleaf Forests (# 75 in the WWF Global 200)

This global 200 ecoregion intersects the wood basin. It is significant at a global scale, ranked endangered/critical. This ecoregion is subdivided into two smaller endangered/critical terrestrial ecoregions (Figure 11). However, the BTH wood basin only intersects one of those subdivisions (NA0413) and FSC requires description and assessment of that subecoregion.

The Southeastern mixed forests (NA0413) is the first of two terrestrial ecoregions found within the Global 200 ecoregion # 75 and it overlaps the wood basin. It has a conservation status of endangered/critical.

This is a highly degraded ecoregion with more than 99% of the original habitat having been altered. This region has been converted to other uses. Settlers within the ecoregion logged and then cleared the land for agriculture. The ecoregion overlaps the Piedmont on the Atlantic Slope and the rest falls into the Coastal Plain on the Gulf Coast. WWF reports that there is little habitat left to conserve in this critical/endangered ecoregion. Even though there are few protected examples (Bond Swamp National Wildlife Refuge, Ocmulgee National Monument, Robins Air Force Base) of this ecoregion *within the wood basin*, there are many more protected areas of the ecoregion *outside of the wood basin*. This region once contained three major types of stands: pure hardwood, pure pine, and mixed pine/hardwood stands. Fire was the driver of the pure pine stands. Once it was removed from the area, hardwood stands began to dominate the ecoregion.

Description of Three Former AZE Sites within the woodbasin.

The following three Alliance for Zero Extinction sites were removed from the official AZE list of sites in 2010.

It was determined that it would be useful to at least bring awareness to these taxa for conservation purposes.

1. The Mobile Bay is a former AZE site in Baldwin and Mobile counties. The Alabama red-bellied turtle (*Pseudemys alabmensis*), is presently known in these two counties. Today this turtle is only found in Mobile Bay and some of its tributaries.

	2. The Pascagoula River is the AZE site in Clarke, Covington, Forrest, George, Greene, Jackson, Jones, Perry and Wayne counties of Mississippi. The yellow-blotched map turtle (<i>Graptemys flavimaculata</i>) is the target species, occurring in the Pascagoula River system within nine counties in MS. The turtle is most abundant in the Pascagoula River between Wade and Vancleave, Mississippi with the largest population being in Ward Bayou Wildlife Management Area just west of Vancleave. 3. Glen's Pond in Desoto National Forest is the AZE site in Harrison County. This site protects one of the last three populations of the dusky gopher frog (<i>Rana sevosa</i>). According to NatureServe the other two known occurrences are in Jackson County, MS. Company fiber sourcing procedures and fiber purchase agreement require that all harvesting operations be conducted by a SFI trained logger. The SFI training for logger includes education on conservation and biodiversity awareness, including threatened and endangered species.
Means of Verification	Risk assessment, fiber purchase agreement, Company procedures, URLs describing key habitats
Evidence Reviewed	1. BTH-DOC-008 - FSC Controlled Wood Risk Assessment 2. The Appalachian and Mixed Mesophytic Forests: http://www.panda.org/about_our_earth/ecoregions/appalachian_mesophytic_forests.cfm 3. AZE Sites: http://www.zeroextinction.org/search_results_country.cfm 4. World Wildlife Fund: http://wwf.panda.org/about_our_earth/ecoregions/ecoregion_list/ 5. Fiber Purchase Agreement 6. BTH-PROC-001 - SFI Fiber Sourcing Procedures
Risk Rating	☒ Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA

	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	Company has implemented appropriate control systems and procedures to ensure residue removals is minimized in harming the ecosystem. Regional BMPs address wood and residue utilization. Fiber Purchase Contracts have clauses requiring adherence to state BMPs. Procedures are in place to monitor BMP compliance on tracts delivering fiber directly from the forest. BMP Compliance Checklists are used to record wood utilization. Lastly, the Company has plans to distribute "Forest Biomass Retention and Harvesting Guidelines for the Southeast" from the Forest Guild to be used as a tool to ensure biomass removal minimizes the harm to ecosystems.
Means of Verification	State BMPs, Fiber Purchase Contract provisions with suppliers, BMP compliance checks
Evidence Reviewed	1. State BMP Manuals a. MS: http://www.mfc.ms.gov/pdf/mgt/wq/entire_bmp_2008-7-24.pdf b. AL: http://www.forestry.state.al.us/publications/BMPs/2007_BMP_Manual.pdf 2. BTH-PROC-001 SFI Sourcing Procedures 3. Company Fiber Purchase Contract

	4. BTH-DOC-009 BMP Compliance Checklist 5. "Forest Biomass Retention and Harvesting Guidelines for the Southeast" (Forest Guild): http://www.forestguild.org/publications/research/2012/FG_Biomass_Guidelines_SE.pdf
Risk Rating	☒ Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA

	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).
Finding	State and Federal laws, such as the Clean Water Act, are in place to protect the waters of the United States. Access to these laws are available to Company personnel. State Forestry Commissions, working with state Environmental Protection Divisions are charged with the enforcement of these state and federal laws. In addition, state forestry BMPs have been developed in all states to provide guidance in water quality protection. The state Forestry Commissions also conduct BMP compliance checks throughout the year and publicly report their findings. Company policy and procedures are in place to provide support and guidance on how Company employees and suppliers will meet BMPs in the harvest of fiber for the mill without having negative impacts to water quality. Fiber Purchase Contracts have clauses requiring adherence to state BMPs. Procedures are in place to monitor BMP compliance on tracts delivering fiber directly from the forest.
Means of Verification	State and Federal law, State BMPs, Fiber Purchase Contract provisions with suppliers, BMP compliance checks
Evidence Reviewed	- State and Federal laws - State BMP Manuals - MS: http://www.mfc.ms.gov/sites/default/files/Entire_bmp_2008-7-24_2.pdfAL: http://www.forestry.state.al.us/publications/BMPs/2007_BMP_Manual.pdf - State BMP Compliance Surveys/Reports - MS: http://www.mfc.ms.gov/sites/default/files/2010_BMP_%20Implementation_Survey_0.pdf - AL: http://c.ymcdn.com/sites/www.alaforestry.org/resource/resmgr/imported/BMP2010-2011.pdf - BTH-POL-001 Sustainable Forestry Policy - BTH-PROC-001 SFI Sourcing Procedures - Company Fiber Purchase Contract - BTH-DOC-009 BMP Compliance Checklist
Risk Rating	☒ Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA

	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	While the Company does not conduct forest management activities (prescribed burning) that directly impacts air quality, the Company actively promotes the use of prescribed burning to forest landowners as a sustainable forestry activity through its SFI Sourcing certification. The Company actively educates forest landowners about sustainable forestry by providing educational materials developed for landowners. The Company is located in a rural area in MS and purchases fiber from rural areas located in MS and AL. Most of the Company's supply basin is not located in areas outside of priority airsheds as reported in Alabama's Forest Assessment and Resource Strategy (2010). Both MS and AL forest assessment reports state forest activities such as prescribed burning have mixed impacts on the forests. While smoke from prescribed burning can lower air quality temporarily, the lack of burning has a direct negative impact of longleaf pine and other fire tolerant species within the Company's supply basin.
Means of Verification	Employee interviews, SFI Annual Progress Report
Evidence Reviewed	1. BTH-PROC-001 SFI Sourcing Procedures 2. SFI Annual Progress Reports: http://www.sfiprogram.org/files/pdf/sfi2013progressreportfinalwebspreadspdf/ 3. Alabama's Forest Assessment and Resource Strategy (2010) 4. Mississippi's Assessment of Forest Resources and Forest Resource Strategy (2010)
Risk Rating	☒ Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA

	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	While the Company does not conduct forest management activities which use forest chemicals, the Company actively promotes the use of Integrated Pest Management to forest landowners as a sustainable forestry activity through its SFI Sourcing certification. The Company actively educates forest landowners about sustainable forestry by providing educational materials developed for landowners. The Company actively participates on the MS SFI State Implementation Committee (SIC) as part of its SFI Sourcing certification. Participation on this SIC enables Company personnel to interact with University Research Extensive personnel as well as foresters

	who are actively managing the state's forests. As a result of these interactions, Company personnel keep informed of current forest management trends. Currently chemical use in forests is decreasing due to increasing chemical costs and decreased timber values (Dr. Andrew Ezell, MSU Extension). Typical chemical site preparation rates (20 oz Arsenal AC + 5 qts glyphosate) are below those chemicals labelled rates (Arsenal - 40 oz & glyphosate - 6 qts)
Means of Verification	Employee interviews, SFI Annual Progress Report
Evidence Reviewed	1. BTH-PROC-001 SFI Sourcing Procedures 2. SFI Annual Progress Reports: http://www.sfiprogram.org/files/pdf/sfi2013progressreportfinalwebspreadspdf/ 3. MS SIC Meeting Minutes
Risk Rating	☒ Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA
Locally Applicable Verifier	Solvay Biomass Energy ("SBE") is a member of the Sustainable Forestry Initiative (SFI) Mississippi State Implementation Committee (SIC). SBE's operating subsidiary BTH Quitman Hickory LLC appears on the list of SFI program participants maintained by the Mississippi Forestry Association (http://www.msforestry.net/?SustainableForestry).

	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	State and Federal laws, such as the CERCLA, are in place to protect from oil spills and hazardous substance releases. Access to these laws are available to Company personnel. Company procedures require suppliers to maintain SFI training which includes modules addressing proper waste disposal. Company Fiber Purchase Contracts have clauses requiring adherence to federal, state and local laws and state BMPs. Company BMP compliance checks also record the existence of trash or oil spills on forest lands.
Means of Verification	State and Federal law, State BMPs, Fiber Purchase Contract provisions with suppliers, Master Logger Training records, BMP compliance checks
Evidence Reviewed	1. State and Federal law a. CERCLA - 42 US Code Chapter 103: https://www.law.cornell.edu/uscode/text/42/chapter-103 2. State BMP Manuals a. MS: http://www.mfc.ms.gov/pdf/mgt/wq/entire_bmp_2008-7-24.pdf b. AL: http://www.forestry.state.al.us/publications/BMPs/2007_BMP_Manual.pdf 3. State BMP Compliance Surveys/Reports a. MS: http://www.mfc.ms.gov/pdf/Mgt/WQ/2014_BMP_%20Implementation_Survey_V5.pdf

	b. AL: http://c.ymcdn.com/sites/www.alaforestry.org/resource/resmgr/imported/BMP2010-2011.pdf 4. State Master Logger lists a. MS: http://www.logged.msstate.edu/loggers.asp b. AL: http://www.alaforestry.org/search/custom.asp?id=2294 5. BTH-POL-001 Sustainable Forestry Policy 6. BTH-PROC-001 SFI Sourcing Procedures 7. Company Fiber Purchase Contract 8. BTH-DOC-009 BMP Compliance Checklist
Risk Rating	☒ Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA

	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	Harvest levels for Alabama and Mississippi do not exceed growth according to USDA Forest Service forest inventory data. Forest Service removals, growth and mortality records for 2011 show a positive average rate of growth to removals (and mortality) at 1.45 for all species with softwood being 1.68 and hardwood being 1.03. More recent data from Alabama shows 2013 data also having a positive average annual growth to harvest rate of 1.42 for all species as well as 1.35 for softwood and 1.67 for hardwood.
Means of Verification	USDA Forest Service FIA data
Evidence Reviewed	1. USDA Forest Service 2012 Update to the 2010 Resources Planning Act Assessment; Table 36 (Net annual growth, removals and mortality of growing stock on timberlands in the US by species group, region, subregion and state, 2011) 2. AFC 2014 Annual Report
Risk Rating	☒ Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA

	Indicator
2.3.2	Adequate training is provided for all personnel, including employees and contractors (CPET S6d).
Finding	Company policy requires all professional wood producers delivering wood to complete SFI Implementation Committee approved logger training to achieve SFI Logger Education “trained” status. Company procedures provide guidance on who should be trained and how to check training records. The Company’s fiber procurement manager is also Master Logger trained.
Means of Verification	Master Logger Training records, Company training records
Evidence Reviewed	- State Master Logger lists - Mississippi: http://www.logged.msstate.edu/loggers_results.asp?county= - Alabama: http://www.alaforestry.org/search/custom.asp?id=2294 - BTH-POL-001 Sustainable Forestry Policy - BTH-PROC-001 SFI Sourcing Procedures - BTH-DOC-003 Training Records
Risk Rating	☒ Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA
Locally Applicable Verifier	Company verifies that loggers appear on applicable state logger lists: - Mississippi: http://www.logged.msstate.edu/loggers_results.asp?county= - Alabama: http://www.alaforestry.org/search/custom.asp?id=2294

	Indicator
2.3.3	Analysis shows that feedstock harvesting and biomass production positively contribute to the local economy, including employment.
Finding	In addition to the 30-50 jobs created at the facility, the Company has created another market for wood fiber. This additional market only adds to a forest products industry that is a leading industry and employer in both MS and AL. According to recent economic studies, forestry is a \$10.4 billion industry in MS and a \$11.2 billion industry in AL for 2010. Forestry and its related jobs accounted for 4.2% of all jobs in MS and accounted for almost 30,000 direct jobs and more than 120,000 related jobs in 2010.
Means of Verification	Economic studies, Employee interviews
Evidence Reviewed	- The Economic Impact of Forestry and the Forest Products Industry on Mississippi’s Congressional Districts (2013) - Economic Impacts of Alabama’s Agricultural, Forestry and Related Industries (2013)
Risk Rating	☒ Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA

	Indicator
2.4.1	The Biomass Producer has implemented appropriate control systems and procedures for verifying that the health, vitality and other services provided by forest ecosystems are maintained or improved (CPET S7a).
Finding	The Company's FSC Controlled Wood Risk Assessment assesses the health, vitality and other services provided by the forest ecosystems within the supply area. This risk assessment has identified key ecosystems and habitats present within the supply area. The risk assessment also has determined there is low risk of working in areas of high conservation value. Company policy and procedures are place to provide support and guidance on how Company employees and suppliers will meet BMPs in the harvest of fiber for the mill thus verifying the health and vitality of the forest ecosystems. Fiber Purchase Contracts have clauses requiring adherence to state BMPs. Procedures are in place to monitor BMP compliance on tracts delivering fiber directly from the forest. The Company also actively promotes the use of sustainable forest practices to forest landowners through its SFI Sourcing certification. The Company actively educates forest landowners about sustainable forestry by providing educational materials developed for landowners. The Company will also work with state Forestry Commissions, as needed, to address issues of forest health through its participation on the MS SIC.
Means of Verification	Risk assessment, fiber purchase contract, Company policy and procedures, BMP Compliance checklists
Evidence Reviewed	1. BTH-DOC-008 FSC Controlled Wood Risk Assessment 2. BTH-POL-001 Sustainable Forestry Policy 3. BTH-PROC-001 SFI Sourcing Procedures 4. BTH-DOC-009 BMP Compliance Checklist 5. Company Fiber Purchase Contract
Risk Rating	☒ Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA

	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	While the Company does not conduct forest management activities that manage fires, pests and diseases, the Company actively promotes the use of prescribed burning and other integrated pest management activities to forest landowners as a sustainable forestry activity through its SFI Sourcing certification. The Company actively educates forest landowners about sustainable forestry by providing educational materials developed for landowners. The Company will also work with state Forestry Commissions, as needed, to address issues of forest health through its participation on the MS SIC. The MS Forestry Commission in its 2014 Annual Report stated MFC suppressed 1,928 fires burning 25,870 acres. This was lower than its 5 year average of 2,256 fires burning 27,717 acres. Pest and disease incidences were also reported to be less than previous years. The AL Forestry Commission in its 2014 Annual Report stated similar findings for the year. There were 1,485 fires suppressed covering 26,619 acres. Insect and disease occurrences were also down for the year.
Means of Verification	State Forestry Commission reports
Evidence Reviewed	1. BTH-PROC-001 SFI Sourcing Procedures 2. SFI Annual Progress Report 3. MS SIC Committee Meeting Minutes 4. AFC 2014 Annual Report 5. MFC 2014 Annual Report
Risk Rating	☒ Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA

	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	There are appropriate control systems and procedures to ensure adequate protection of the forest from unauthorized activities such as illegal logging, mining and encroachment can be demonstrated for the Supply Base. Illegal harvesting in the supply base is prohibited by state laws. In most states the timber buyers and/or harvesting companies have to be licensed in order to conduct their business. Evidence indicates that major violations are prosecuted and legal liability is enforced. There is no evidence suggesting that illegal logging is a wide scale problem in the United States (US). Commonly used terms for violations in US are timber theft, tree poaching and unlawful logging. Thefts do occur, however the share of illegal felling in hardwoods is much smaller than 1% according to a study conducted by American Hardwood Export Council. It is logical to conclude that similarly illegal logging is not a major problem for softwoods in US. Further, legality of ownership and land use is enforced through Company procedures and contractual representations by suppliers.
Means of Verification	State laws, Company policy, regional risk assessment, contract provisions with suppliers.
Evidence Reviewed	Alabama Laws ALA. CODE 1975 § 9-13-62 awards double damages for a trespass that is committed <i>knowingly and intentionally</i>." http://www.sfr.psu.edu/PDFs/HicksThesis.pdf Article 3 - Regulations as to Cutting, Removal, Purchase, etc., of Forest Products § 9-13-60 Unauthorized cutting, removal, transportation, etc., of timber or other forest products § 9-13-61 Charges in affidavits, information or indictments under article; proof of title, etc. § 9-13-62 Liability § 9-13-63 Record of purchases, etc., of manufactured or semi-manufactured forest products; provision of false information to purchasers, etc.; failure to maintain record, etc. § 9-13-64 Powers of State Forestry Commission employees as to enforcement of article, etc. § 9-13-65 Disposition of fines Article 9 - Timber Theft Equipment Condemnation § 9-13-220 Short title § 9-13-221 Seizure of vehicle and equipment upon arrest for certain criminal violations; delivery to district forester

§ 9-13-222	Report of seizure to district attorney
§ 9-13-223	Report to district attorney after conviction of person for theft of timber or lumber
§ 9-13-224	Notice to creditors; institution of condemnation proceedings; legal title to equipment
§ 9-13-225	Forfeiture of equipment upon judgment; costs of proceedings; State Forester to keep records
§ 9-13-226	Use of proceeds from sale of equipment; award and distribution determined by State Forester
§ 9-13-227	Provisions cumulative
	http://www.forestry.alabama.gov/ForestryAndRelatedLaws.aspx?bv=1&s=6#Article_3_Regulations_as_to_Cutting,Removal,Purchase,etc.,of_Forest_Products
	Mississippi Laws
	The Mississippi Agriculture Theft Bureau
	Penalties
	Does not change existing law for timber trespass.
	Makes the payment of restitution to victims of timber theft (landowners) mandatory. The restitution amount will be the fair market value of the timber at the time of the loss, and also includes costs incurred by the victim as a result of the commission of the crime, such as court costs, expert and appraisal fees, and attorney's fees.
	Source: New Timber Theft Legislation Will Protect Timberland Owners
	http://msforestry.net/pdf/timbertheftbill.pdf
	MISSISSIPPI CODE OF 1972
	§ 69-29-1. Mississippi Agricultural and Livestock Theft Bureau established
	§ 69-29-1. (h) To investigate, prevent, apprehend and arrest those persons anywhere in the state who are violating any of the laws administered by the Department of Agriculture and Commerce including, but not limited to, timber theft.
	http://www.mscode.com/free/statutes/69/029/0001.htm
	http://www.utextension.utk.edu/publications/spfiles/SP595.pdf
	Company policy requires that all applicable laws and regulations are followed (BTH-POL-001)
	Chain of Custody Procedures requires legal ownership of feedstock received (BTH-POL-002)
	BTH-DOC-008 FSC Controlled Wood / PEFC Due Diligence Risk Assessments state illegal harvesting of feedstock is LOW risk.

	Fiber Purchase Agreements have clauses concerning the legality of ownership of the feedstock to be purchased.
Risk Rating	☒ Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA

	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	There are appropriate control systems and procedures to verify that legal, customary and traditional tenure and use rights of indigenous people and local communities related to the forest are identified, documented and respected for the Supply Base. According to the Company's FSC Controlled Wood Risk Assessment FSC's Global Forestry Registry the United States can be shown as LOW RISK. They go on to say that "International assessments of violation of traditional or civil rights do not identify the US as problematic. In addition, the US has equitable processes in place to resolve disputes. Native Americans are protected by federal law rather than state law according to the Nonintercourse Act of 1790. The Indian Removal Act of 1830 was intended to promote the voluntary removal of Native Americans out of the US Territory peacefully through treaties and land sales. The Mississippi Band of Choctaw Indians has a reservation located within the supply area. A letter to the chief has been sent as part of stakeholder consultation process to establish relations with this tribe.
Means of Verification	Risk Assessment
Evidence Reviewed	1. BTH-DOC-008 FSC Controlled Wood Risk Assessment 2. Stakeholder Letter to Mississippi Band of Choctaw Indians
Risk Rating	☒ Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA

	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	Company policy and procedures are place to provide support and guidance on how Company employees and suppliers will meet BMPs in the harvest of fiber for the mill thus verifying the 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. Fiber Purchase Contracts have clauses requiring

	adherence to state BMPs. Procedures are in place to monitor BMP compliance on tracts delivering fiber directly from the forest. The Company has recently reached out to local and regional stakeholders who may have specific needs from the forestlands within their community. Feedback from these stakeholder consultations will be addressed as needed.
Means of Verification	Company policy and procedures, Fiber Purchase Contract, BMP Compliance Checklists, Stakeholder consultation feedback and follow-up
Evidence Reviewed	1. BTH-POL-001 Sustainable Forestry Policy 2. BTH-PROC-001 SFI Sourcing Procedures 3. Fiber Purchase Contract 4. BTH-DOC-009 BMP Compliance Checklist 5. SBE-DOC-018 Stakeholder List 6. Stakeholder Letter Template
Risk Rating	☒ Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA

	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	The Company has complaint mechanisms in place as part of its chain of custody and controlled wood / due diligence procedures. Both procedures provide guidance on how and when will the Company respond to grievances and complaints.
Means of Verification	Company procedures, Interview with certification body
Evidence Reviewed	1. BTH-PROC-002 Chain of Custody procedures 2. BTH-PROC-003 FSC Controlled Wood/PEFC Due Diligence Procedures 3. BTH-DOC-013 Complaints Report 4. BTH-DOC-014 Complaints Log
Risk Rating	☒ Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA

	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	The Company recognizes the right to collective bargaining and the Freedom of Association. The Company is FSC Chain of Custody certified and has signed the Self Declaration which demonstrates support of FSC Policy FSC-POL-01-004, Policy for the Association of Organizations with FSC. Further, Federal laws in the United States codified in both the National Labor Relations Act of 1935 and OSHA protect workers' rights to collective bargaining.
Means of Verification	Employee interviews and review of Federal Laws
Evidence Reviewed	1. FSC Self Declaration 2. National Labor Relations Act: http://www.nlrb.gov/resources/national-labor-relations-act 3. 29 CFR 2200.22: https://www.law.cornell.edu/cfr/text/29/2200.22
Risk Rating	☒ Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA

	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	The United States Federal Constitution 13th Amendment provides "Neither slavery nor involuntary servitude, except as a punishment for crime whereof the party shall have been duly convicted, shall exist within the United States, or any place subject to their jurisdiction" "Further, benefiting from compulsory labor in the United States is a federal crime punishable by up to 20 years in prison. The Company also has policies on workers rights, discrimination, etc.
Means of Verification	Review of Company employment policies, Employee interviews
Evidence Reviewed	1. Employment Posters 2. Employment Handbook 3. Company Policies 4. Amendment XIII of the United States Constitution: https://www.law.cornell.edu/constitution/amendmentxiii 5. 18 US Code 1589: https://www.law.cornell.edu/uscode/text/18/1589
Risk Rating	☒ Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA

	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	State and Federal laws, such as the Equal Employment Opportunity and OSHA, are in place to prohibit child labor. Specifically, Mississippi state law provides that “No boy or girl under the age of fourteen (14) years shall be employed or permitted to work in any mill, cannery, workshop, factory, or manufacturing establishment within this state. The Company also has policies on workers rights, discrimination, etc.
Means of Verification	Review of Company employment policies, Employee interviews
Evidence Reviewed	1. Employment Posters 2. Employment Handbook 3. Company Policies 4. US Federal Child Labor Laws: http://www.dol.gov/whd/childlabor.htm 5. 29 U.S. Code 212: https://www.law.cornell.edu/uscode/text/29/212 6. Mississippi States Law 71-1-17: http://law.justia.com/codes/mississippi/2013/title-71/chapter-1/section-71-1-17
Risk Rating	☒ Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA

	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	State and Federal laws, such as the Equal Employment Opportunity and OSHA, are in place to provide rights to workers. The Company also has policies on workers rights, discrimination, etc.
Means of Verification	Review of Company employment policies, Employee interviews, Federal laws
Evidence Reviewed	1. Employment Posters 2. Employment Handbook 3. Company Policies 4. 2 US Code 1311: https://www.law.cornell.edu/uscode/text/2/1311 5. Equal Pay Act of 1963: http://www.eeoc.gov/laws/statutes/epa.cfm
Risk Rating	☒ Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA

	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	State and Federal laws, such as the Equal Employment Opportunity and OSHA, are in place to ensure pay and employment conditions are fair. The Company also has policies on workers rights, pay, safety, etc.
Means of Verification	Review of Company employment policies, Employee interviews
Evidence Reviewed	1. Employment Posters 2. Employment Handbook 3. Company Policies
Risk Rating	☒ Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA

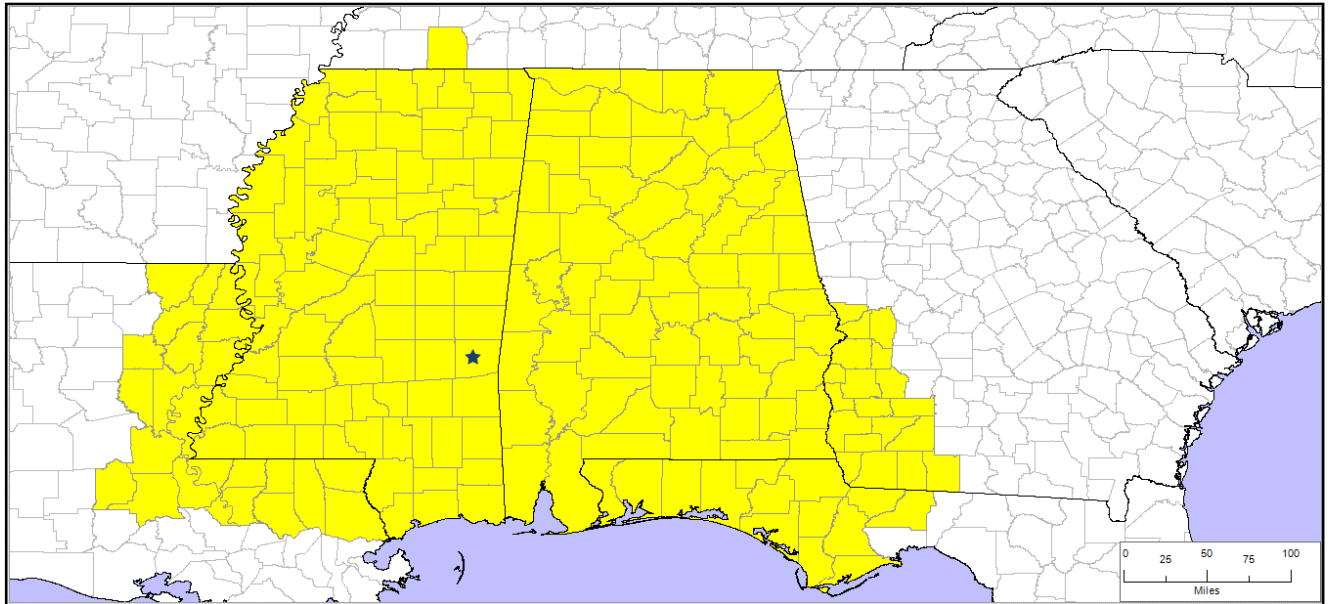
	Indicator
2.8.1	The Biomass Producer has implemented appropriate control systems and procedures for verifying that appropriate safeguards are put in place to protect the health and safety of forest workers (CPET S12).
Finding	State and Federal laws, such as OSHA to ensure worker health and safety in the work place. The Company also has policies on workers health and safety. The Company has a health and safety program that is managed by dedicated personnel. This program includes the use of personal protective equipment and safety meetings.
Means of Verification	Review of Company safety manual. Training records. Employee interviews
Evidence Reviewed	1. Company Safety Manual 2. Safety Training records 3. Safety Inspections
Risk Rating	☒ Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA

	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	USDA Forest Service FIA data on carbon storage for the Company's supply area was determined to be 1.52 billion short tons in 2006. FIA data was not available for the stated year of 2008 in MS. In 2014 the supply area was determined to have 1.6 billion short tons of carbon stock. This accounts for over a 5% increase in 8 years.
Means of Verification	USDA Forest Service FIA data
Evidence Reviewed	1. Carbon Reports from Forest Data Inventory Online from the USDA Forest Service website.
Risk Rating	☒ Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA

	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	USDA Forest Service FIA data on carbon storage for the Company's supply area was determined to be 1.52 billion short tons in 2006. FIA data was not available for the stated year of 2008 in MS. In 2014 the supply area was determined to have 1.6 billion short tons of carbon stock. This accounts for over a 5% increase in 8 years.
Means of Verification	USDA Forest Service FIA data
Evidence Reviewed	1. Carbon Reports from Forest Data Inventory Online from the USDA Forest Service website.
Risk Rating	☒ Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA

	Indicator
2.10.1	Genetically modified trees are not used.
Finding	The Company completed a FSC Controlled Wood Risk Assessment (BTH-DOC-008) which assessed the level of risk GMO trees are available for operational use. The Risk Assessment states there are no operational GMO forests or stands in the United States.
Means of Verification	Review of citations within Risk Assessment
Evidence Reviewed	1. BTH-DOC-008 FSC Controlled Wood Risk Assessment
Risk Rating	☒ Low Risk ☐ Specified Risk ☐ Unspecified Risk at RA

Appendix 1



Appendix 2

Count	State	County / Parish	Count	State	County / Parish	Count	State	County / Parish	Count	State	County / Parish
1	AL	Autauga	53	AL	Perry	5	LA	East Baton Rouge	33	MS	Jefferson Davis
2	AL	Baldwin	54	AL	Pickens	6	LA	East Carroll	34	MS	Jones
3	AL	Barbour	55	AL	Pike	7	LA	East Feliciana	35	MS	Kemper
4	AL	Bibb	56	AL	Randolph	8	LA	Evangeline	36	MS	Lafayette
5	AL	Blount	57	AL	Russell	9	LA	Franklin	37	MS	Lamar
6	AL	Bullock	58	AL	Shelby	10	LA	La Salle	38	MS	Lauderdale
7	AL	Butler	59	AL	St Clair	11	LA	Livingston	39	MS	Lawrence
8	AL	Calhoun	60	AL	Sumter	12	LA	Madison	40	MS	Leake
9	AL	Chambers	61	AL	Talladega	13	LA	Morehouse	41	MS	Lee
10	AL	Cherokee	62	AL	Tallapoosa	14	LA	Pointe Coupee	42	MS	Lefflore
11	AL	Chilton	63	AL	Tuscaloosa	15	LA	Richland	43	MS	Lincoln
12	AL	Choctaw	64	AL	Walker	16	LA	St. Helena	44	MS	Lowndes
13	AL	Clarke	65	AL	Washington	17	LA	St. Landry	45	MS	Madison
14	AL	Clay	66	AL	Wilcox	18	LA	St. Tammany	46	MS	Marion
15	AL	Cleburne	67	AL	Winston	19	LA	Tangipahoa	47	MS	Marshall
16	AL	Coffee	1	FL	Bay	20	LA	Tensas	48	MS	Monroe
17	AL	Colbert	2	FL	Calhoun	21	LA	Washington	49	MS	Montgomery
18	AL	Conceh	3	FL	Escambia	22	LA	West Baton Rouge	50	MS	Neshoba
19	AL	Coosa	4	FL	Franklin	23	LA	West Carroll	51	MS	Newton
20	AL	Covington	5	FL	Gadsden	24	LA	West Feliciana	52	MS	Noxubee
21	AL	Crenshaw	6	FL	Gulf	1	MS	Adams	53	MS	Oktibbeha
22	AL	Cullman	7	FL	Holmes	2	MS	Alcorn	54	MS	Panola
23	AL	Dale	8	FL	Jackson	3	MS	Amite	55	MS	Pearl River
24	AL	Dallas	9	FL	Leon	4	MS	Attala	56	MS	Perry
25	AL	De Kalb	10	FL	Liberty	5	MS	Benton	57	MS	Pike
26	AL	Elmore	11	FL	Okaloosa	6	MS	Bolivar	58	MS	Pontotoc
27	AL	Escambia	12	FL	Santa Rosa	7	MS	Calhoun	59	MS	Prentiss
28	AL	Etowah	13	FL	Walton	8	MS	Carroll	60	MS	Quitman
29	AL	Fayette	14	FL	Washington	9	MS	Chickasaw	61	MS	Rankin
30	AL	Franklin	1	GA	Baker	10	MS	Choctaw	62	MS	Scott
31	AL	Geneva	2	GA	Calhoun	11	MS	Claiborne	63	MS	Sharkey
32	AL	Greene	3	GA	Chattahoochee	12	MS	Clarke	64	MS	Simpson
33	AL	Hale	4	GA	Clay	13	MS	Clay	65	MS	Smith
34	AL	Henry	5	GA	Decatur	14	MS	Coahoma	66	MS	Stone
35	AL	Houston	6	GA	Dougherty	15	MS	Copiah	67	MS	Sunflower
36	AL	Jackson	7	GA	Early	16	MS	Covington	68	MS	Tallahatchie
37	AL	Jefferson	8	GA	Grady	17	MS	DeSoto	69	MS	Tate
38	AL	Lamar	9	GA	Marion	18	MS	Forrest	70	MS	Tippah
39	AL	Lauderdale	10	GA	Miller	19	MS	Franklin	71	MS	Tishomingo
40	AL	Lawrence	11	GA	Mitchell	20	MS	George	72	MS	Tunica
41	AL	Lee	12	GA	Muscogee	21	MS	Greene	73	MS	Union
42	AL	Limestone	13	GA	Quitman	22	MS	Grenada	74	MS	Walthall
43	AL	Lowndes	14	GA	Randolph	23	MS	Hancock	75	MS	Warren
44	AL	Macon	15	GA	Seminole	24	MS	Harrison	76	MS	Washington
45	AL	Madison	16	GA	Stewart	25	MS	Hinds	77	MS	Wayne
46	AL	Marengo	17	GA	Terrell	26	MS	Holmes	78	MS	Webster
47	AL	Marion	18	GA	Thomas	27	MS	Humphreys	79	MS	Wilkinson
48	AL	Marshall	19	GA	Webster	28	MS	Issaquena	80	MS	Winston
49	AL	Mobile	1	LA	Avoyelles	29	MS	Itawamba	81	MS	Yalobusha
50	AL	Monroe	2	LA	Caldwell	30	MS	Jackson	82	MS	Yazoo
51	AL	Montgomery	3	LA	Catahoula	31	MS	Jasper	1	TN	Hardeman
52	AL	Morgan	4	LA	Concordia	32	MS	Jefferson			

Appendix 3

Primary Species: Loblolly Pine (<i>Pinus taeda</i>) Longleaf Pine (<i>Pinus palustris</i>) Shortleaf Pine (<i>Pinus echinata</i>) Slash Pine (<i>Pinus elliottii</i>) Miscellaneous Species: American beech (<i>Fagus grandifolia</i>) Ash (<i>Fraxinus spp.</i>) Basswood, American (<i>Tilia americana</i>) Black cherry (<i>Prunus serotina</i>) Black walnut (<i>Juglans nigra</i>) Blackgum (<i>Nyssa sylvatica</i>) Boxelder (<i>Acer negundo</i>) Buckeye (<i>Aesculus spp.</i>) Eastern cottonwood (<i>Populus deltoides</i>) Elm (<i>Ulmus spp.</i>) Hackberry (<i>Celtis occidentalis</i>) Hickory (<i>Carya spp.</i>)	Locust (<i>Robinia spp.</i>) Maple (<i>Acer spp.</i>) Oak (<i>Quercus spp.</i>) Persimmon (<i>Diospyros virginiana</i>) Pine (<i>Pinus spp.</i>) Red mulberry (<i>Morus rubra</i>) Red oak (<i>Quercus falcata</i>) River birch (<i>Betula nigra</i>) Sassafras (<i>Sassafras albidum</i>) Sourwood (<i>Oxydendrum arboreum</i>) Sugarberry (<i>Celtis laevigata</i>) Sweetgum (<i>Liquidambar styraciflua</i>) Sycamore (<i>Platanus occidentalis</i>) Yellow-poplar (<i>Liriodendron tulipifera</i>) Water oak (<i>Quercus nigra</i>) White oak (<i>Quercus alba</i>)
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