SBP

Sustainable Biomass Partnership

Supply Base Report for Enviva Cottondale

www.sustainablebiomasspartnership.org

Version 1.2
June 2016

NOTE:

This template, v1.2, is effective as of the date of publication, that is, 23 June 2016. Template v1.1 may still be used for those audits undertaken prior to 23 June 2016 and where the certificate is issued to Certificate Holders before 1 October 2016.

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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Contents

1 Overview

Producer name: Enviva Holdings LP

Producer location: 7200 Wisconsin Ave Suite 1000 Bethesda, MD 20814

Geographic position: Enviva Pellets Cottondale, Florida

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Close of last CB audit: TBD Panama City, Florida, USA

Name of CB: SCS Global

Translations from English: NA

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

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

SBP Endorsed Regional Risk Assessment: NA

Weblink to SBE on Company website: http://envivabiomass.com/sustainability/wood-sourcing/sustainable-biomass-partnership

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

2 Description of the Supply Base

2.1 General description

Enviva Holdings LP ("Enviva") operates the Enviva Pellets Cottondale mill located in northwest Florida, USA. The catchment area for primary feedstock at this facility includes north western Florida, south eastern Alabama, and south western Georgia. The supply base area for secondary feedstock includes counties in Alabama, Florida, Georgia, Mississippi, South Carolina, and Tennessee in the Southeast United States of America. Table 1 illustrates that the entire Cottondale supply base area encompasses 362 counties and 50,008,007 hectares.

Figure 1. Cottondale Supply Base

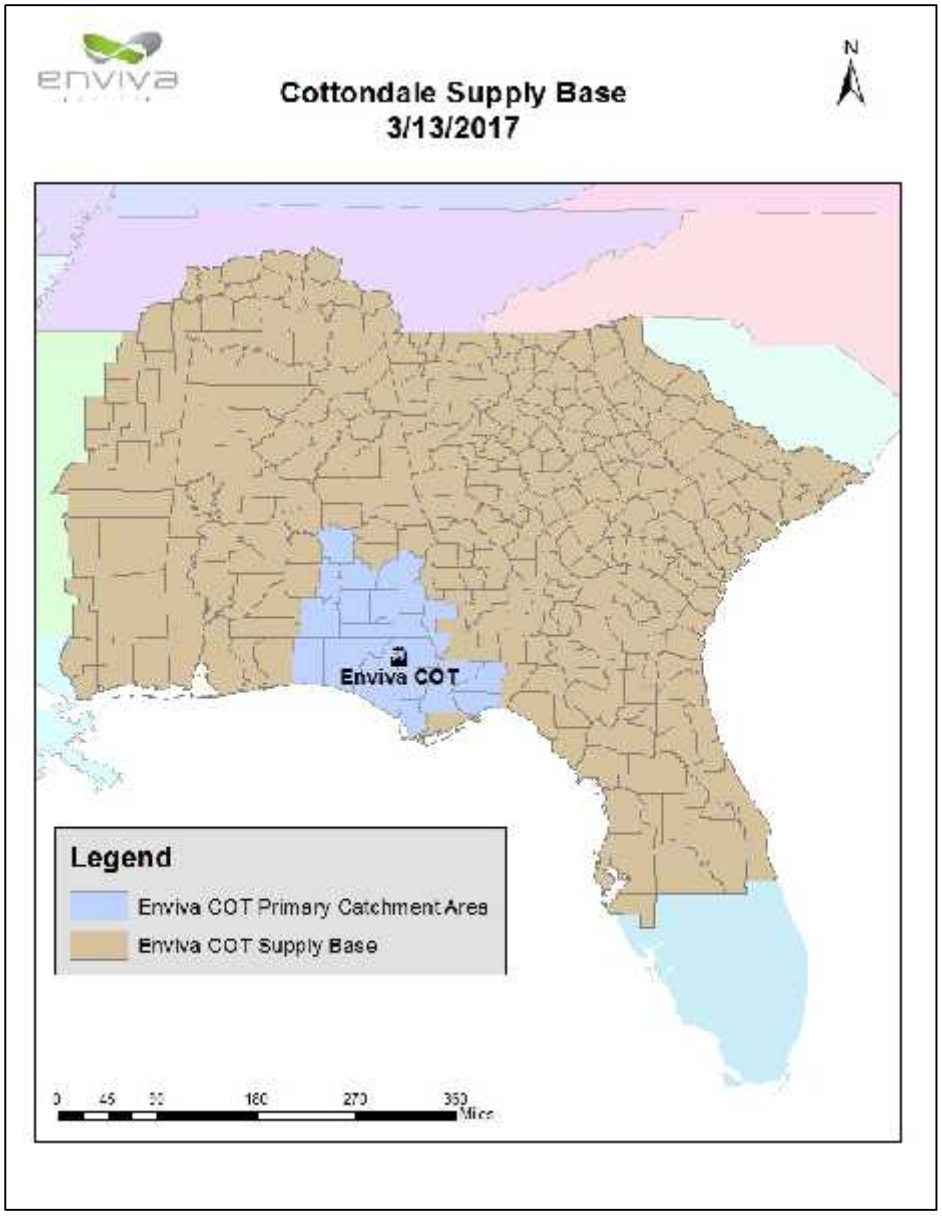


Table 1. Cottondale Supply Base by State, County, and Hectare

State	Counties	Hectares
Alabama	67	13,118,030
Florida	50	9,604,453
Georgia	159	14,999,916
Mississippi	41	5,341,850
South Carolina	25	4,367,238
Tennessee	20	2,576,520
	362	50,008,007

Ecoregions

The Cottondale supply base extends from the lower gulf coast, to the lower Atlantic coast, and north into the southern Appalachians and encompasses portions of the following TNC ecoregions: East Gulf Coastal Plain, Florida Peninsula, Interior Low Plateau, Mid-Atlantic Coastal Plain, Piedmont, Cumberlands and Southern Ridge and Valley, South Atlantic Coastal Plain, Southern Blue Ridge, and Upper East Gulf Coastal Plain (The Nature Conservancy, 2015).

Figure 2. TNC ecoregions in the Cottondale Supply Base

Forest cover-types and growth/drain ratios

The average primary feedstock catchment area radius for Cottondale is 104 km. This area contains 2.6 million hectares of forested land. The supply base for secondary feedstock has an average radius of 472 km. The entire supply base of 50 million hectares contains 31 million hectares of forested land, and has an annual growth to drain ratio of 1.49:1 for all species, 1.69:1 for hardwood, and 1.45:1 for pine (US Department of Agriculture Forest Service, 2016). A growth to drain ratio greater than 1 indicates that forest growth exceeds harvest removals.

In the Gulf region of the U.S. south, total pine inventory has increased 2.1% annually since 2000 (Forest2Market Inc., 2015). Based on the most recent data from the US Forest Service Forest Inventory Analysis (FIA), Table 3 shows the increase of timberland area across the states covered by the supply base in recent years (US Department of Agriculture Forest Service, 2016).

Table 2. U.S. South Gulf Region inventory 2000 – 2014

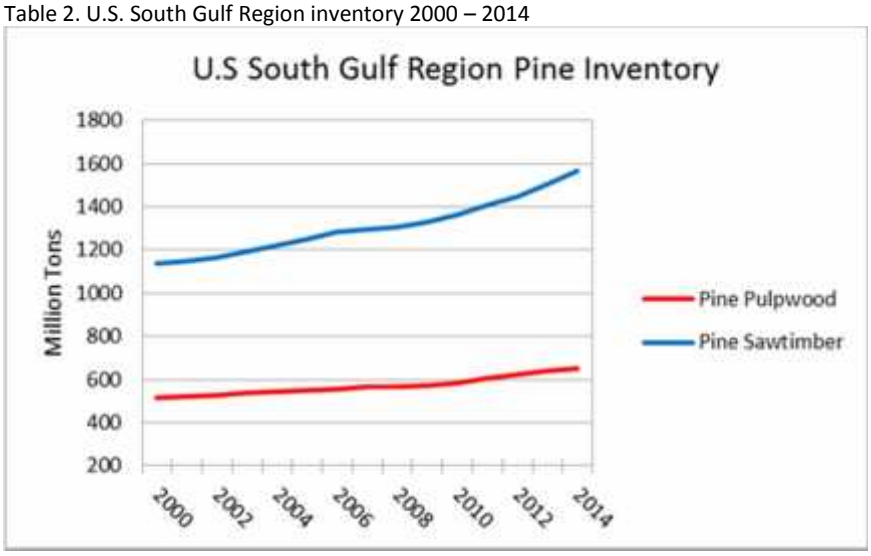
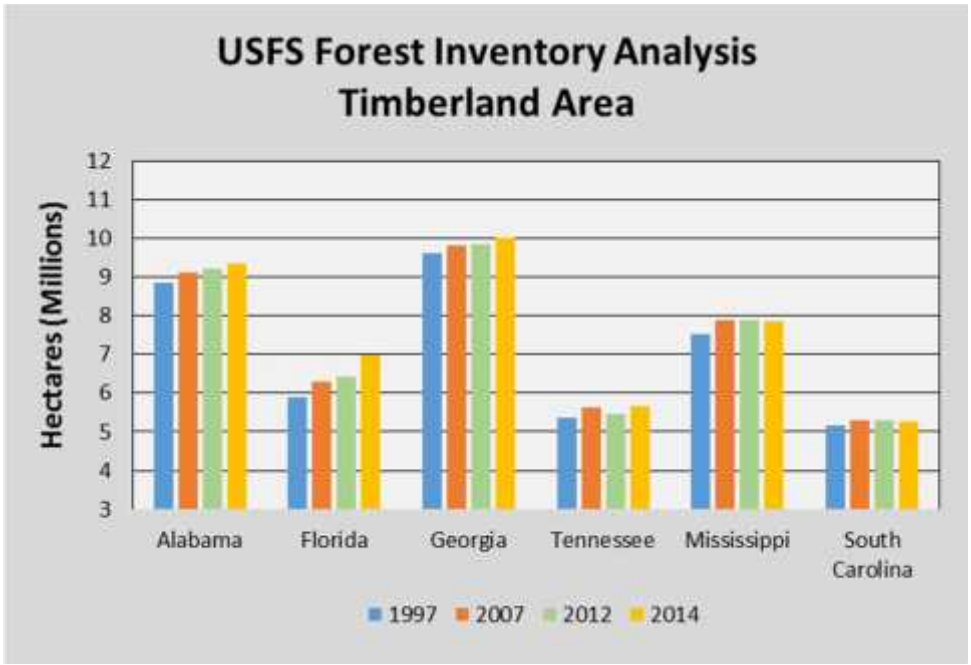


Table 3. US Forest Service Timberland area 1997-2014 (State-wide Basis)



The forest in the supply base consists primarily of southern yellow pine and mixed hardwood species. Forest species composition for each state within the supply base is described in Table 4 (US Department of Agriculture Forest Service, 2014).

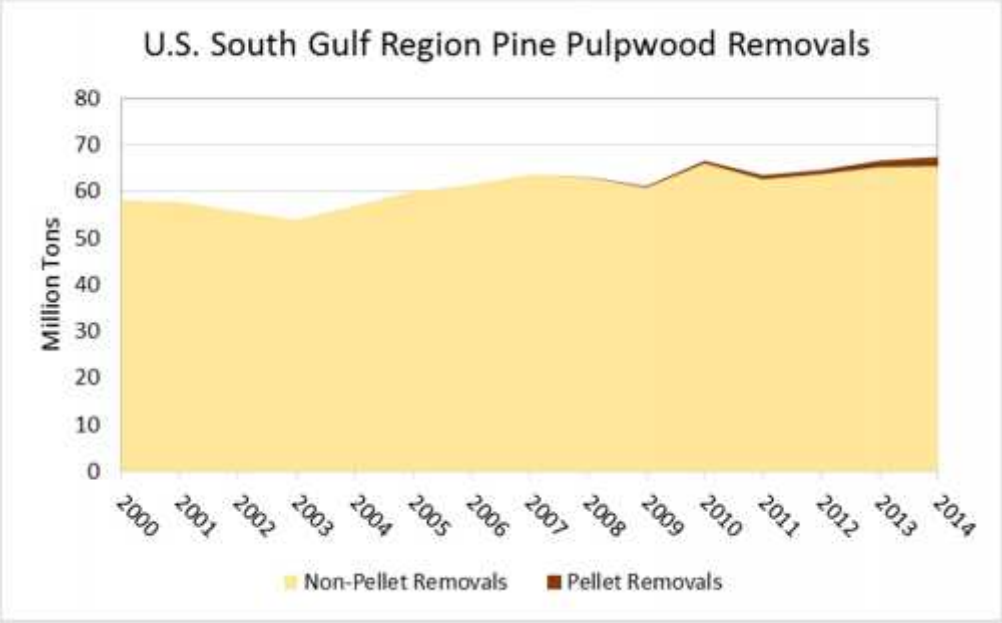
Table 4. Species Composition by State (State-wide Basis)

State	Forested Area (Ha)	Pine	Pine/Hwd	Hardwood	Other
Alabama	9,359,121	42%	13%	31%	14%
Florida	6,982,060	43%	9%	16%	32%
Georgia	10,007,244	45%	11%	26%	18%
Mississippi	7,863,376	42%	11%	26%	21%
South Carolina	5,250,450	48%	11%	22%	19%
Tennessee	5,652,301	8%	7%	72%	13%

Operating Scale

Enviva provides a market for low value forest products that are produced during harvests of higher-value timber. Removals of both pine and hardwood for pellet export in the region comprised 3.88% of total harvest volume during 2014 (Forest2Market Inc., 2015). In the same year, primary harvesting activity and wood consumption in the southern US is driven by saw-timber markets with a total estimate of removals for the pellet industry comprising only 0.09% of the total pine inventory and 0.06% of the total hardwood inventory (Forest2Market Inc., 2015). In 2014, total wood consumption by all markets in the south accounted for 3.3% of total forest inventory (Forest2Market Inc., 2015).

Table 5. U.S. South Gulf Region Pine Pulpwood Removals 2000 – 2014.



CITES, IUCN Species

The International Union for the Conservation of Nature (IUCN) Red List of Threatened Species includes *Pinus palustris* (Longleaf pine), which does occur within the supply base region (International Union for the Conservation of Nature, 2015). Longleaf pine is included in the IUCN list because its current extent is much

reduced from its historical dominance in the southeast US. However, conservation groups, such as the Longleaf Alliance, agree that creating commercial viability of longleaf pine is crucial to its restoration (Longleaf Alliance, 2016). Enviva's use of material from longleaf stand thinnings or other harvest residuals supports the commercial viability of the species and encourages landowners to restore and continue to manage longleaf stands. Enviva does not source from natural longleaf stands that are being converted to another forest type.

Further, Enviva maintains a third party certified risk assessment (due diligence system) which satisfies the Programme for the Endorsement of Forest Certification™ (PEFC) and the Sustainable Forestry Initiative® (SFI®) Chain of Custody requirements. These certifications address the controls needed to avoid the use of CITES and/ or IUCN species concerns. None of the species used for wood pellets at the Cottondale facility appear in the Convention on International Trade in Endangered Species (CITES) Appendices (Convention on International Trade in Endangered Species of Wild Fauna and Flora, 2015).

General Forest Management Techniques

General forest management practices vary by landowner and location within the supply base and are conducted on both pine and hardwood sites. Most hardwood stands are naturally regenerated after harvest with little additional management taking place until the next harvest. Typically, hardwood management relies on natural regeneration of stands where forest tracts are harvested and the natural processes of seedling establishment and sprout growth from the remaining stumps (called "coppice") produce the next forest. Pine stands can be either naturally regenerated or planted after harvest. Planted pine management includes various regimes designed to produce a variety of forest products. Typical management scenarios include a thinning between age 9 and 14, and a final harvest occurring between age 25 and 35. Pine management intensity depends on landowner objectives and resources, and could include additional treatments, and/or additional thinning. Overall, though many pine stands are established by planting they are not intensively managed plantations with little or no understory; instead, once established they are left to grow and routinely have a hardwood dominated understory. This non-merchantable hardwood understory may be used by Enviva Cottondale, if there is no other outlet for the material.

Ownership, Land Use and Certification

Forest ownership patterns within the supply base are typical for the southern US, with the highest percentage of the forest owned by private landowners. Based on data obtained from the United States Forest Service Forest Inventory and Analysis program, forest land ownership categories for each state in the supply base are presented in Table 6 (US Department of Agriculture Forest Service, 2014). The majority land use in the area is some form of agriculture or forestry. Land use data for the supply base was derived from the United States Department of Agriculture Major Land Use report, and is presented in Table 7 (US Department of Agriculture Economic Research Service, 2007). Major forest certification schemes such as the American Tree Farm System® (ATFS), Sustainable Forestry Initiative® (SFI®) and Forest Stewardship Council™ (FSC) have program participants within the supply base. From the states within the supply base 3.8 million hectares are SFI® certified, 4.2 million hectares are ATFS certified, and 0.15 million hectares are FSC certified (Forest2Market Inc., 2016).

Table 6. Forest Land Ownership by State (State-wide Basis)

State	Forested Area (Ha)	Federal	State/Local	Private
Alabama	9,359,121	4%	2%	94%
Florida	6,982,060	15%	20%	65%
Georgia	10,007,244	7%	3%	90%
Mississippi	7,863,376	9%	2%	89%
South Carolina	5,250,450	8%	4%	88%
Tennessee	5,652,301	10%	7%	83%

Table 7. Land Use by State (State-wide Basis)

State	Total Area (Ha)	Cropland	Pasture	Forest	Urban	Other
Alabama	13,142,571	10%	8%	69%	4%	9%
Florida	13,966,915	8%	16%	45%	12%	19%
Georgia	14,997,650	12%	3%	66%	7%	12%
Mississippi	12,148,663	19%	7%	65%	2%	7%
South Carolina	7,798,292	10%	4%	66%	6%	14%
Tennessee	10,675,202	23%	8%	53%	6%	10%

Regional Socio-economic Conditions

Annually the forest products industry in Florida generates over $16 billion in revenue impacts and provides over 80,000 jobs (Florida Forestry Association, 2016). The mean hourly wage for the farming, fishing and forestry occupational group in Florida in 2015 was $11.58, compared to the United States average of $12.67 for this same group (US Department of Labor, 2016). Forestry related industries are a leading economic driver in many rural counties in northern Florida, providing employment opportunities for loggers, foresters, consultants, truck drivers and mill workers. Enviva Cottondale provides opportunities for local residents to gain employment and currently employs approximately 90 people. As part of the wood procurement process, Enviva Cottondale accepts raw material deliveries from over 125 independent loggers and contract haulers, and purchases secondary feedstock in the form of sawdust and shavings from 25 mills within the region, which according to a recent study, creates almost 250 indirect jobs in the region. Further, employees at the Enviva COT plant, on average, earn wages that are almost 35% higher than other comparable jobs in the area. The same study found that Enviva Cottondale's total direct and indirect economic contribution to the region is over $240 million dollars (Chmura Economics and Analytics, 2016).

Pellet Feedstock Profile

Primary feedstock is sourced direct from the forest in the form of roundwood or wood chips from suppliers, all of whom are vetted and qualified prior to delivering. All suppliers must sign a contract with Enviva before fiber can be delivered to an Enviva mill. The contract requires suppliers to use trained loggers during harvest, to follow best management practices for water quality, and to avoid controversial sources of fiber, such as illegal logging. Enviva foresters confirm trained logger status and ensure that loggers delivering fiber maintain their continuing education as required. All suppliers and loggers must also adhere to posted safety requirements while on Enviva property.

Primary feedstock from forest residues, such as tree tops, limbs, deformed and low grade trees, and any other wood produced during harvest that is otherwise unacceptable to other wood users in the area is

delivered to an Enviva mill as woodchips. A single load of roundwood from the same harvest can contain tops, limbs, and/or small diameter or malformed understory trees that cannot be distinguished from one another through visual inspection. Enviva does not use sawlogs in the production of pellets, nor do we use any construction debris, treated wood, or post-consumer material.

Enviva also sources secondary feedstock from a variety of sawmill and wood industry suppliers. Sawmills source high-quality logs from the forest and mill them into products like two-by-fours. Wood industry suppliers use the products created by sawmills to produce products such as furniture or other assembled wood products. These feedstocks are most commonly in the form of sawdust or shavings and may be green or kiln-dried.

As Enviva Cottondale's supply comes mainly from commercial pine operations, it does not receive a significant volume of wood from forests typically managed in 40-year or longer rotations. Table 8 specifies the characteristics of each feedstock type. SBP Compliant feedstock originates within the defined supply base and meets all relevant SBP standards as demonstrated by the Supply Base Evaluation (SBE).

Table 8. Cottondale Feedstock Profile

Feedstock Type	Receipts	SBP-Compliant	Certified Source	Pine	Hardwood	Suppliers
Primary	62%	100%	23%	63.20%	36.80%	109
Secondary	38%	100%	0%	99.80%	0.20%	36

As of June 2016, Enviva achieved 100% coverage of our primary feedstock through our Track & Trace monitoring program (see description of the program in the following "Track & Trace" section), meaning that we now have detailed information on the types of forests that provide our pellet feedstocks. During 2016, Enviva Cottondale received feedstocks from the following sources, by volume[1]:

- 38% was made up of residues supplied by sawmills and wood industries.
- 23% was made up of hardwood and pine chips and roundwood from mixed oak-pine forests. These forests are managed for the production of pine sawtimber at low-intensities and contain a mixture of hardwood and pine trees. These forests are either planted in pine or naturally seeded from adjacent stands or seed trees, and little to no fertilizers or herbicides are applied to them throughout their life cycle. This establishes an overstory of straight, large-diameter pine trees with an understory of crooked, small-diameter hardwood trees that cannot be made into solid wood products.
- 36% was made up of hardwood and pine chips and roundwood from southern yellow pine forests. These are forests that were planted in pine and either managed moderately with minimal effort to prevent hardwood trees from growing in the understory, or more intensively to suppress significant understory growth, thereby increasing the forest's growth rate and yield. These forests are generally thinned 1-2 times throughout their growth cycle, meaning that certain trees are removed to reduce density in the forest and create additional room for the remaining trees to grow to sawtimber size and quality. These thinned trees are sold to low-grade consumers like Enviva.
- 3% was made up of hardwood and pine chips and roundwood from upland hardwood forests. These are low-intensity managed hardwood forests that are naturally seeded with an overstory of

[1] During this time period, 20% of Enviva's delivered fiber was not covered by the Track & Trace program. This material was applied proportionately to all primary fiber sources (i.e. fiber from landscaping/ urban management and oak-pine, southern yellow pine, and upland hardwood).

large-diameter oak, poplar, and hickory hardwood trees and a significant understory of small-diameter maple, oak, and sweetgum hardwood trees.

- 1% was made up of hardwood and pine roundwood from bottomland hardwood forests. These are hardwood forests in lowland areas and floodplains containing mostly large-diameter oak, gum, and cypress sawtimber trees with smaller, crooked hardwood trees growing underneath. When the forest is harvested, the stems of sawtimber trees are sold to sawmills that make higher-grade solid wood products like furniture. The tops and branches of sawtimber trees and the crooked hardwood trees from below cannot be made into solid wood products, but need to be removed from the site so the next generation of the forest can begin growing. These harvest byproducts are sold to consumer of lower-grade wood like Enviva.

Enviva's Commitment to Responsible Fiber Sourcing

Track & Trace

Enviva has implemented management systems to ensure that the wood used to make wood pellets meets our strict sustainability requirements. Specifically, Enviva maintains a robust tracking and monitoring program to ensure that all our suppliers deliver wood that is sourced according to our expectations. First, Enviva uses our SFI® Fiber Sourcing verifiable monitoring program as a basis for monitoring tract harvests. In addition, in 2016 we implemented a third-party audited Track & Trace database which includes information at the tract level, including data on the forest type, age, GPS coordinates, acreage, and the percent of volume from that tract being sold to Enviva. Before agreeing to accept material from a certain tract, Enviva's Fiber Procurement Foresters must obtain this tract-level data and enter it into our database, which generates a unique tract ID. Then, upon delivery to the Cottondale mill, each load is linked to that tract's ID number. As a result, Enviva knows the tract-level attributes for all the primary fiber entering the mill.

The Track & Trace data collection is supported by tract audits performed by Enviva foresters. During tract audits, Enviva foresters validate data on the tract characteristics in addition to ensuring that best management practices (BMPs) for water quality are properly implemented, special sites are properly protected, and loggers are trained, along with other metrics for responsible harvesting. At the Cottondale mill, Enviva only accepts wood from tracts in which the logger has completed and maintains training through a SFI®-approved trained logger program. If any of these monitoring programs uncover issues with incoming raw material, Enviva will contact suppliers to notify them of the issue. If needed, Enviva will cease accepting deliveries from a supplier who does not perform to our sustainability standards. Enviva will not accept further deliveries from a poorly performing supplier until the supplier demonstrates the ability to adhere to Enviva's sustainability requirements.

Minimizing risk from Secondary Feedstock

Enviva purchases sawmill and wood industry residues in the form of sawdust, shavings, or other waste products from the milling process (Figure 5). Secondary feedstock suppliers receive an initial visit prior to beginning deliveries, to verify their operations and products. All sawmill and wood industry suppliers are required to complete a Residual Supplier Reporting Form, providing Enviva with information on the source of their wood as well as any certifications and species used. Enviva includes their supply areas in our supply base evaluation and provides each supplier with feedback on their supply area, noting any areas of risk that may be present. Enviva may choose to cease deliveries from a supplier which refuses to provide the necessary data for us to properly include their supply area in our risk assessment. Enviva contacts each

sawmill and wood industry supplier annually to ensure their data is accurate. An example of the reporting sheet is in Appendix I.

With this information, in addition to our internal expertise and knowledge of the location of the mill and the products it produces, Enviva can evaluate each supplier's ability to provide fiber that meets the SBP Feedstock Standard. Enviva works with its residual suppliers to ensure the data they have provided is complete and accurate, and will regularly check to ensure they are providing the material they have reported. In addition to an initial visit before signing a contract with a residual supplier to verify their operations and products are as-stated, Enviva can monitor the incoming products to ensure they are consistent with the data submitted annually in the Residual Supplier Data Sheet. Further, this data collection and monitoring process is now a part of Enviva's SBP implementation program, and thus is checked annually during audits. Currently, all of Enviva's residual suppliers have returned completed Residual Supplier Data Forms, and so Enviva has all the data to properly assess each suppliers supply chain, and to incorporate their source area into its SBE, to ensure it is SBP-Compliant.

2.2 Actions taken to promote certification amongst feedstock supplier

Enviva Cottondale is third party certified in two of the major chain of custody systems (PEFC™ & SFI) ®. Enviva also maintains certification under the SFI® Fiber Sourcing Program. SFI® Fiber Sourcing requires Enviva to promote sustainable forestry activities and forest certification to our suppliers and landowners. Our staff are actively involved in the Florida SFI ®Implementation Committee, which is a group of SFI® certified companies that work together to enhance on-the-ground forestry operations in Florida.

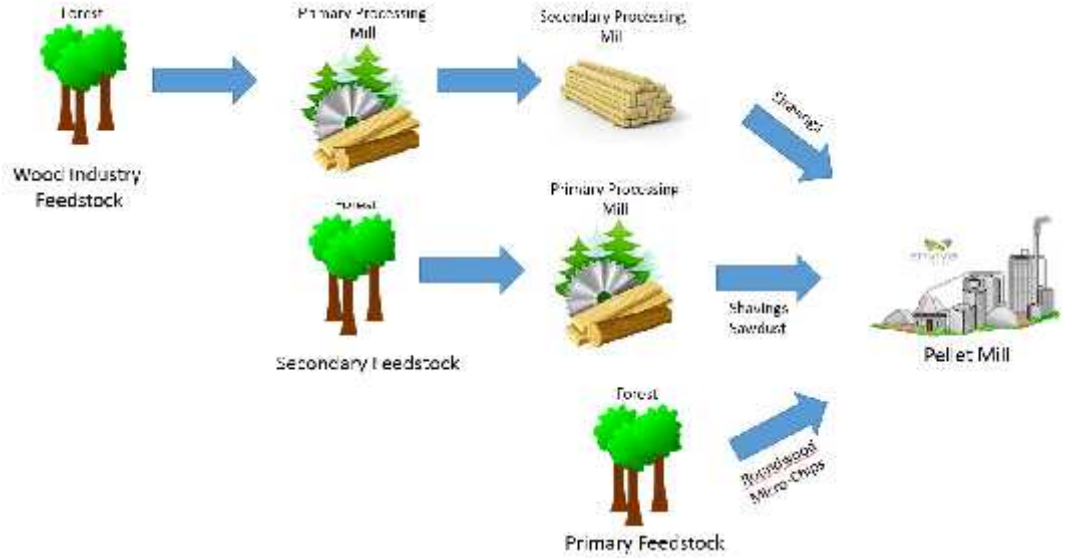
Enviva actively pursues feedstock from certified sources to encourage those landowners to maintain and expand their certified holdings. Enviva foresters are active in the Alabama and Florida Forestry Associations and the Florida committee of the American Tree Farm System, both of which promote forest sustainability and certification.

2.3 Final harvest sampling programme

As Enviva Cottondale's supply comes mainly from commercial pine operations, it does not receive a significant volume of wood from forests typically managed in 40-year or longer rotations.

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

Figure 3. Cottondale Feedstock Flow Chart



2.5 Quantification of the Supply Base

Supply Base

a. Total Supply Base area (ha): 50,008,007 with 62% of that area forested.

b. Tenure by type (ha): (From averages presented in Table 4) (US Department of Agriculture Forest Service, 2014)

Table 9. Forest Land Ownership Summary (Supply Base Basis)

Supply Base Hectares	Federal	State/Local	Private
50,008,007	4,103,181	3,095,132	42,809,695
	8%	6%	86%

c. Forest by type (ha): Temperate forest type comprise the entire 50,008,007 ha

d. Forest by management type (ha): (US Department of Agriculture Forest Service, 2014)
Overall, although many pine stands are “planted” they are not intensively managed plantations with little or no understory; instead, once established they are left to grow and routinely have a hardwood dominated understory. Therefore, it is difficult to determine the exact percentage of true plantations in the region.

Table 10. Species Composition Summary (Supply Base Basis)

Supply Base Hectares	Pine	Pine/Hwd	Hardwood	Other
50,008,007	20,935,422	5,468,092	13,708,048	9,896,445
	42%	11%	27%	20%

e. Certified forest by scheme (ha): (e.g. hectares of FSC or PEFC-certified forest) (Forest2Market Inc., 2016).

Table 11. FSC, SFI®, ATFS Hectares by State (State-wide Basis)*

State	FSC	SFI®	ATFS
Alabama	2,458	1,169,488	1,250,834
Florida	49	453,780	425,713
Georgia	0	1,005,259	1,208,351
Mississippi	140,037	779,233	768,903
South Carolina	2,952	439,806	539,283
Tennessee	6,487	93,834	86,545

**Some areas may be double-counted due to dual certifications*

Feedstock

f. Total volume of Feedstock: 1,288,471 metric tonnes

g. Volume of primary feedstock: 798,956 metric tonnes

h. List percentage of primary feedstock (g), by the following categories. Subdivide by SBP-approved Forest Management Schemes:
   - Forest Stewardship Council: 0.0%
   - American Tree Farm System (Program for the Endorsement of Forest Certification): 10.4%
   - Sustainable Forestry Initiative®: 12.6%
   - Not certified to an SBP-approved Forest Management Scheme: 77.0%

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

Species of Origin	
Common and Scientific Names	
Softwood	
Loblolly pine (*Pinus taeda*)	
Longleaf pine (*Pinus palustris*)	
Pond Pine (Pinus serotina)	
Slash Pine (*Pinus elliottii)*	
Sand Pine (Pinus clausa)	
Hardwood	
Black Cherry (Prunus serotina)	Red Bay *(Persea borbonia)*
Black Gum *(Nyssa sylvatica)*	Red Maple (Acer rubrum)
Blackjack Oak (Quercus marilandica)	River Birch (Betula nigra)
Black Oak (Quercus velutina)	River Oak (Casuarina cunninghamiana)
Black Walnut (Juglans nigra)	Shumard Oak (Quercus shumardii)
Cherry Bark Oak (Quercus pagoda)	Southern Magnolia *(Magnolia grandiflora)*
Chinkapin Oak (Quercus muehlenbergii)	Southern Red Oak *(Quercus flacata)*
Hackberry (Celtis occidentalis)	Sugar Maple (Acer saccharum)
Hickory (Carya spp.)	Swamp Bay *(Persea palustris)*
Holly (Ilex opaca)	Swamp Chestnut Oal (Quercus michauxii)
Laurel Oak *(Quercus laurifolia)*	Sweet Bay *(Magnolia virginia)*
Live Oak (Quercus virginiana)	Sweet Gum *(Liqaidambar styraciflua)*
Northern Red Oak (Quercus rubra)	Sycamore (Plantanus occidentalis)
Overcup Oak (Quercus lyrata)	Water Oak *(Quercus nigra)*
Pecan (Carya illinoensis)	Water Tupelo *(Nyssa aquatic)*
Persimmon (Diospyros virginiana)	White Oak *(Quercus alba)*
Pond Cypress (Taxodium ascendens)	Willow Oak (Quercus phellos)
Post Oak (Quercus stellata)	Yellow Poplar (Liridendron tulipifera)

j. Volume of primary feedstock from primary forest: 0.0 metric tonnes

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: 0.0
   - Primary feedstock from primary forest not certified to an SBP-approved Forest Management Scheme: 0.0

l. Volume of secondary feedstock: 38% of the total feedstock sourced is delivered as sawdust or shavings, with 99.8% being pine. The feedstock is delivered from within the defined supply base as mapped in section 2.1.

m. Volume of tertiary feedstock: 0%.

3 Requirement for a Supply Base Evaluation

SBE completed	SBE not completed
X	☐

Enviva has chosen to complete an SBE to ensure all of the raw material purchased by its facilities is SBP-compliant feedstock. Enviva has implemented procedures to address determination of origin, Supply Base Report (SBR) development and credibility, management systems and operations as well as procedures for handling comments or complaints. There currently is no SBP-endorsed Regional Risk Assessment (RRA) in the United States. The Cottondale SBE was independently reviewed by R.S. Berg and Associates, an expert consultant who has decades of experience in the forestry industry and provides services to numerous forest companies in meeting sustainability requirements.

4 Supply Base Evaluation

4.1 Scope

Enviva completed a SBE in order to ensure that all material is SBP-compliant. Enviva's SBE includes the sources of primary material, in addition to secondary material as well. The Enviva SBE in conjunction with conformance to the SBP Chain of Custody Standard provides confidence that the products produced by Enviva are SBP-compliant.

Enviva has implemented policies and procedures appropriate to the size and scale of its operations to satisfy the requirements of SBP-compliant feedstock. The definitions of legal and sustainable as used in Standard 1 have been reviewed and met as substantiated in the supply base evaluations. Evidence to support this conclusion is offered at the supply base level.

Because there is no SBP approved risk assessment in the US, Enviva developed a set of Locally Applicable Verifiers (LAVs), which include a number of publically available sources, in addition to the internal monitoring process already described. Details on LAVs are in the sections below.

4.2 Justification

Only a small proportion of feedstock is sourced from SBP-approved certification programs; therefore, Enviva completed a SBE to justify its rationale for SBP-compliant feedstock. Enviva did not modify any indicators. For the indicators which are not already covered by our existing certifications, Enviva used a number of LAVs to support either risk determinations or mitigation measures, including:

- Draft FSC US National Risk Assessment
- All applicable Federal & state laws, including environmental laws, and occupational health and safety laws
- BMP implementation reports
- State Natural Heritage programs
- Maps and data regarding high conservation values
- Supplier contracts
- Residual Supplier Data Sheet

4.3 Results of Risk Assessment

Each criterion was evaluated and measured against Enviva's existing forest certification and chain of custody programs, the DRAFT FSC NRA (1.0) and the SBP Criteria and associated LAVs. The supply base evaluation was peer reviewed by R.S. Berg & Associates. The Cottondale Supply Base Evaluation identified one criterion as a "specified risk"; however, via associated mitigation measures Enviva can subsequently designate all indicators as "low risk" for the Cottondale facility.

4.4 Results of Supplier Verification Programme

No indicators were defined as unspecified risk so therefore a Supplier Verification Program is not required.

4.5 Conclusion

Enviva has completed a robust supply base evaluation and fully meets the SBP requirements. All criterion have been fully evaluated and appropriate procedures and controls are in place to ensure successful management. As described above, Enviva has an extremely sophisticated data collection and monitoring program which supports the conclusions and actions in the risk assessment. Senior management is fully engaged and involved in the success of SBP Standard conformance. Enviva has a well-qualified and knowledgeable staff fully capable of maintaining process control to achieve conformance to the SBP Standards. Each criterion has specific controls (e.g. contractual, field verification, supplier data requests) to provide Enviva with the best level of confidence to ensure conformance to the criteria included in the SBP Standard. Thus, with implementation of all programs and procedures Enviva has in place, all feedstocks are considered SBP-compliant.

5 Supply Base Evaluation Process

The entire Cottondale supply base for all feedstock sources (primary and secondary) was assessed as part of the Supply Base Evaluation. This area consists of 50,008,007 ha and includes 362 counties located in Alabama, Mississippi, Florida, Georgia, South Carolina, and Tennessee. Data from Enviva's internal monitoring programs is reviewed annually to ensure the appropriate area is included in the risk assessment. When needed, Enviva will scope in additional counties based on information from its suppliers. Using all these data sources, Enviva has developed a comprehensive map of its supply base by county (See figure 1).

Enviva used the Draft FSC US Controlled Wood National Risk Assessment (NRA) (v0.1) along with its third party certified PEFC/SFI Due Diligence System as the basis for the SBE. The FSC NRA is being developed as a collaborative process between conservation groups, forestry companies and scientific organizations. Enviva believes this is the best and most comprehensive source of information to identify where the highest risk to high conservation values exist. Various third party data sources were also used for research in the region such as; FSC High Conservation Area Mapping tool, The Nature Conservancy website and various shapefiles, and the Databasin web mapping tool. Results from the stakeholder consultation were considered and incorporated if relevant to the SBE. The supply base evaluations were completed internally by qualified individuals and peer reviewed by R.S. Berg and Associates. These findings along with the corresponding mitigation measures were part of the risk assessment and evaluation process used by Enviva in completing the SBE.

Enviva uses the third party certified SFI Fiber Sourcing and Track and Trace programs to facilitate field sampling in order to ensure on the ground BMP conformance, responsible harvesting and credible data collection of the attributes of source forests. As described earlier, Enviva used the DOO data provided by its secondary suppliers to ensure their raw materials were also incorporated into the SBE and that their material meets the SBP Feedstock Standard.

6 Stakeholder Consultation

Because the supply base area for Cottondale changed slightly in 2016, Enviva performed another stakeholder consultation from December 16, 2016 through February 3, 2017 to ensure all available data were considered in the SBE process. Enviva gathered contact information for 130 of local, potentially interested stakeholders and conducted the consultation via email. Each individual received a copy of the current SBE and a comment form, with instructions on how to comment. Enviva also set up a separate webpage on its website for each consultation as well that contained all the same information as the email and had a downloadable SBE and comment form.

6.1 Response to stakeholder comments

Enviva received 2 comments during this consultation, both from the Florida Fish and Wildlife Conservation Commission (FFWCC).

Comment #1

Indicator Number (i.e. 1.1.1)	Indicator Description (i.e. The BP Supply Base is defined and mapped)
2.1.1	The Biomass Producer has implemented appropriate control systems and procedures for verifying that forests and other areas with high conservation value in the Supply Base are identified and mapped
Relevant SBE Area(s) (Incl. Mill Location(s))	All Florida counties (Cottondale)
Comment(s) on LAV(s)	Enviva's Cottondale Supply Base Evaluation (Document # ENV-SBP-03, p 11) mentions Florida's Forestry Wildlife Best Management Practices (FWBMPs) for State Imperiled Species and states that they "…offer additional protection for the Gopher Tortoise during silvicultural operations in the state of Florida." It should be noted that these practices are voluntary and are therefore only effective where they have been implemented by Enviva's suppliers. These practical guidelines were designed to protect the 16 state-listed species that are expected to be impacted by silvicultural activities in Florida (FDACS 2014). The Florida Fish and Wildlife Conservation Commission (FWC) is the state agency responsible for state-listed fish and wildlife resources pursuant to its authorities under Chapter 379 Florida Statutes and Chapter 68A-27 of the Florida Administrative Code. FWC staff appreciates that purchased stumpage tracts are assessed for the presence of the Natural Heritage Program's Globally Ranked G-1 or G-2 species or communities (Document # ENV-SBP-03, p 11). This assessment has the potential to protect several state listed species, such as the Florida bog frog (*Lithobates okaloosae*, State Species of Special Concern, G-2). However, many state-listed species do not fall into either of these rankings. For example, the Southeastern American kestrel (*Falco sparverius paulus*, State Threatened) is ranked G-5 by the Natural Heritage Program. However, Southeastern American kestrels have gone through large population declines over the last several decades that are continuing today (Hoffman and Collopy 1988, Sauer et al. 2007, Smallwood and Collopy 2009, Smallwood et al., 2009). Partly due to their small geographic range and declining population, this species has been classified as State-designated Threatened in Florida (FFWCC 2011). Florida's FWBMPs specifically address this species and others that may not be ranked as G-1 or G-2, but still are considered imperiled in the state of Florida. The FWBMPs are intended to be a practical approach to balancing natural resource conservation and forest resource utilization (FDACS 2014). FWC staff and the Florida Forest Service are responsible for monitoring the operations of landowners who have submitted Notices of Intent for the FWBMP program. FWC staff recognize and appreciate Enviva's previous efforts to promote FWMBPs in Florida. Should Enviva wish to have further conversation about FWBMPs for this effort, please contact FWC staff at 850-617-9380 or FFS staff at 850-681-5820.
Supporting Evidence	Florida Department of Agriculture and Consumer Services. (2014). Florida Forestry Wildlife Best Management Practices for State Imperiled Species (FDACS-01869). http://www.floridaforestservice.com/Gateway/reference.asp?NoFrill=1&3 [illegible] Florida Fish and Wildlife Conservation Commission. (2011). Biological Status Review for the Southeastern American Kestrel (*Falco sparverius paulus*). Hoffman, M.L., and M.W. Collopy. 1988. Historical status of the American kestrel (Falco sparverius paulus) in Florida. Wilson Bulletin 100: 91 – 107. Sauer, J. R., J. E. Hines, and J. Fallon. 2007. The North American Breeding Bird Survey, Results and Analysis 1966-2006. Version 10.13.2007, USGS Patuxent Wildlife Research Center, Laurel, Maryland. http://www.mbr-pwrc.usgs.gov/bbs/bbs.html Smallwood, J.A., M.F. Causey, D.H. Mossop, J.R. Klucsarits, B. Robertson, S. Robertson, J. Mason, M.J. Maurer, R.J. Melvin, R.D. Dawson, G.R. Bortolotti, J.W. Parrish, Jr., T.F. Breen, and K. Boyd. 2009. Why are American kestrel (Falco sparverius) populations declining in North America? Evidence from nest-box programs. Journal of Raptor Research 43: 274 – 282. Smallwood, J.A., and M.W. Collopy. 2009. Southeastern American kestrels respond to an increase in the availability of nest cavities in north-central Florida. *Journal of Raptor Research* 43: 291 – 300.

Enviva Response:

Enviva appreciated the time the FFWCC took to reply to our consultation. We agree with the comment and changed the wording in the SBE to include that FWBMP's are voluntary and only effective when implemented. Enviva foresters are trained in FWBMP's and can and will assist landowners in identifying and protecting the 16 species listed in the guidelines. Stumpage landowners will now receive information on the Notice of Intent process and how to implement FWBMP's.

Comment #2

Indicator Number (i.e. 1.1.1)	Indicator Description (i.e. The BP Supply Base is defined and mapped)
2.2.1	The BP 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 minimize them.
Relevant SBE Area(s) (list Mill Location(s))	All Florida counties (Cottendale)
Comment(s) on LAV(s)	Enviva's Cottendale Supply Base Evaluation (Document # ENV-SBP-03, p 21) states that Enviva requires, through its contracts, that raw material suppliers employ silviculture Best Management Practices (referred to as "forestry Best Management Practices" in the document) during harvest. These practices were primarily designed to protect water quality, but can help protect certain wildlife habitats, particularly aquatic habitats (FDACS 2008). Florida Fish and Wildlife Conservation Commission (FWC) staff encourage Enviva to also continue promoting the adoption of Florida's Forestry Wildlife Best Management Practices (FWBMPs) for State Imperiled Species among their direct and indirect suppliers. The FWC is the state agency responsible for state-listed fish and wildlife resources pursuant to its authorities under Chapter 379 Florida Statutes and Chapter 68A-27 of the Florida Administrative Code. The FWBMPs were developed to enhance the contribution of silviculture to the conservation and management of wildlife in the state (FDACS 2014). The FWBMPs were designed to protect 16 of Florida's state-listed (protected) species expected to occur in areas where silviculture may cause impacts. For example, burrowing owls (*Athene cunicularia*, State Species of Special Concern), gopher tortoises (*Gopherus polyphemus*, State Threatened), and Florida sandhill cranes (*Grus canadensis pratensis*, State Threatened) are all state-Listed species that may be protected by FWBMPs where they have been adopted and implemented (FDACS 2014). The FWBMPs are intended to be a practical approach to balancing natural resource conservation and forest resource utilization (FDACS 2014). FWC staff and the Florida Forest Service are responsible for monitoring the operations of landowners who have submitted Notices of Intent for the FWBMP program. FWC staff recognize and appreciate Enviva's previous efforts to promote FWMBPs in Florida. Should Enviva wish to have further conversation about FWBMPs for this effort, please contact FWC staff at 850-617-9380 or FFS staff at 850-681-5820.
Supporting Evidence	Florida Department of Agriculture and Consumer Services. (2014). Florida Forestry Wildlife Best Management Practices for State Imperiled Species (FDACS-01809). http://www.flrules.org/Gateway/reference.asp?No=Ref-04503 Florida Department of Agriculture and Consumer Services. (Revised 2008). Silviculture Best Management Practices. http://www.freshfromflorida.com/Divisions-Offices/Florida-Forest-Service/For-Landowners/Best-Management-Practices-BMP

Enviva Response:

Enviva agrees that we can assist the FFWCC in expanding the use of wildlife BMPs and will do so. We now state in our SBE that Enviva promotes wildlife BMP's to our primary suppliers, secondary suppliers, and stumpage landowners via the FWBMP fact sheet.

7 Overview of Initial Assessment of Risk

Enviva maintains third party certified chains of custody in two of the major forestry certification systems (PEFC & SFI®) which sufficiently support of the SBP criteria. The company also maintains a third party certified SFI® Fiber Sourcing Program that addresses many concerns such as conservation of biodiversity, contractual requirements for the use of forestry Best Management Practices (BMP's), logger training, legal and regulatory compliance, research support, community and landowner outreach, public communication and management review. Further, our Track & Trace program is third-party certified to ensure credibility in our data collection. Cottondale is located within the United States where there is a strong legal system with federal & state laws and regulations that are well enforced. Enviva also included additional LAV's described previously to ultimately lead to "low risk" designations on all legality aspects of the risk assessment. As described in section 5, Enviva used various credible third party data sources to determine the risk level for the criterion beyond the scope of the HCV portions of its Chain of Custody (CoC) systems such as the FSC US Controlled Wood Risk Assessment – DRAFT (v 0.1), FSC's High Conservation Area Mapping tool, The Nature Conservancy website and various GIS data shapefiles and the Databasin web mapping tool to support compliance with the SBP criteria.

Table 12. Overview of results from the risk assessment of all Indicators (prior to implementation of mitigation measures).

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	

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	

2.2.4	X		
2.2.5		X	
2.2.6		X	
2.2.7		X	
2.2.8		X	
2.2.9		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

Enviva has implemented a robust supply base evaluation including risk assessment and when necessary mitigation measures. Each criteria has been evaluated against the FSC US Controlled Wood Risk Assessment – DRAFT (v0.1) ("NRA") and other appropriate locally available verifiers. Enviva maintains third party certified SFI ®Fiber Sourcing Program and a PEFC Chain of Custody including a Due Diligence System (DDS) which supplements the supply base evaluation findings. Given the depth of detail of these documents no indicators are considered to be "unspecified risk" and therefore, a supplier verification programme is not required.

8.2 Site visits

The evidence from the NRA, Enviva's SFI® Fiber Sourcing Program, PEFC Chain of Custody Due Diligence System, and robust District of Origin processes ensures all indicators can be categorized as "low risk" or "specified risk". There is no need for supplier site visits to determine risk levels for any indicator.

8.3 Conclusions from the Supplier Verification Programme

NA

9 Mitigation Measures

Enviva identified one indicator that had "specified risk" and required mitigation measures. As a result of implementation of the mitigation measures, all indicators are considered "low risk." The results are detailed below.

9.1 Mitigation measures

Indicator:

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

Risk Designation: "Specified Risk"

Reason for risk designation: Primary feedstock is sourced from the Florida Panhandle HCV1 critical biodiversity area located in southeast Alabama, southwest Georgia, and northwest Florida. Secondary feedstock is sourced from 3 HCV1 critical biodiversity areas in the Southeast U.S. All of these areas have been defined as "specified risk" for High Conservation Values within the FSC US Controlled Wood National Risk Assessment – DRAFT (v0.1). These areas include the Southern Appalachians in central Alabama, Central Florida in north central Florida, and the Florida Panhandle in northwest Florida, southwest Georgia and southeast Alabama. Additionally the Gopher Tortoise is federally protected through the U.S. Endangered Species Act in certain areas of southern Mississippi, Alabama, and Louisiana (Figure 4).

Mitigation Measures:

Within the 21 counties in the Florida Panhandle critical biodiversity area where Enviva sources fiber, the following habitats are defined as specified risk: Longleaf Pine Habitats, Apalachicola Bay/River System, and Steephead Ravines.

Longleaf Pine Habitat Specified Risk

The Florida Panhandle where the Enviva Cottondale catchment area lies is within the natural range of Longleaf Pine. This area has been defined by the Nature Conservancy as an area of specified risk for biodiversity within the draft FSC US Controlled Wood National Risk Assessment. The rich biodiversity associated with the Longleaf Pine ecosystem is a key component of this assessment of high conservation value. The open stands and abundant native groundcover present in the Longleaf ecosystem provide optimal habitat for the Red-Cockaded Woodpecker and the Gopher Tortoise. The historical presence of fire in this area defined the range of Longleaf Pine and created the Longleaf ecosystem. As the population of this area increased and fire was withheld from the forest, the Longleaf ecosystem began a sharp decline to 3% of its original range. Further loss of this habitat could harm the species that depend upon this ecosystem.

Landscape Level Mitigation Measures: A variety of federal, state, and private entities have led the push for Longleaf reforestation and ecosystem restoration in the Florida panhandle. In order for Longleaf restoration efforts to be successful, private landowners must be assured that planting Longleaf Pine is a sensible investment. A strong market for Longleaf Pine products is an essential component of any

successful Longleaf reforestation effort. The Longleaf Alliance is the regional leader in Longleaf Pine management and restoration and they recognize that markets are an important catalyst for their objectives "Current markets make longleaf management more attractive than ever." (http://www.longleafalliance.org). By accepting Longleaf Pine, Enviva Cottondale and other local mills provide the financial incentive needed to fuel Longleaf reforestation. Occasionally Longleaf Pine is planted beyond its previously defined range and in soils that are not optimal for survival and growth. Landowners that are faced with this situation may opt to replace the Longleaf with a more ecologically suited species without impacting the overall Longleaf ecosystem. Enviva will not source from natural longleaf stands that are being converted to another forest type. Enviva is a Corporate Conservation Partner of the Longleaf Alliance.

Many of the southern yellow pine sawmills that Enviva Cottondale sources residual material from accept Longleaf Pine at their facilities and the natural range of Longleaf Pine lies within the Cottondale supply base. A variety of federal, state, and private entities have led the push for Longleaf reforestation and ecosystem restoration in this area. In order for Longleaf restoration efforts to be successful, private landowners must be assured that planting Longleaf Pine is a sensible investment. A strong market for Longleaf Pine products is an essential component of any successful Longleaf reforestation effort. The Longleaf Alliance is the regional leader in Longleaf Pine management and restoration and they recognize that markets are an important catalyst for their objectives "Current markets make longleaf management more attractive than ever."(http://www.longleafalliance.org). By accepting Longleaf Pine, Enviva Cottondale and other local sawmills provide the financial incentive needed to fuel Longleaf reforestation.

There several large landowners within the Cottondale catchment area that have focused their management efforts on Longleaf Pine ecosystem restoration. The Apalachicola National Forest located in Liberty and Leon counties contains over 470,000 acres that are managed primarily to foster Longleaf growth. There are 4 state forest in the area totaling over 250,000 acres that include longleaf restoration among their multi use objectives. The Nature Conservancy is currently restoring longleaf on over 6,000 acres in Liberty County on the Apalachicola Bluffs and Ravines Preserve. The Gulf Coastal Plain Ecosystem Partnership (GCPEP) is a partnership of 11 landowners in the Western Florida Panhandle and South Central Alabama developed to restore longleaf ecosystems on over 1 million acres. In addition to these specific efforts, the U.S. government Conservation Reserve Program (CRP) is a cost share program that encourages private landowners to plant Longleaf Pine.

Tract Level Mitigation Measures: When harvesting operations occur in and around Longleaf ecosystems, procedures are in place to protect those species closely associated with this habitat. Protection of the Red-Cockaded Woodpecker exist in the form of the U.S. Endangered Species Act, and in 2014 Florida adopted the Forestry Wildlife Best Management Practices for State Imperiled Species that includes guidelines for protecting the gopher tortoise. Tracts where Enviva purchases stumpage directly from the landowner are assessed prior to purchase in order to identify any areas of concern. Monitoring audits are performed on all purchased stumpage tracts. Enviva maintains maps and uses the Natural Heritage databases to ID any areas of potential concern. Enviva accesses the State Natural Heritage Databases for the wood supply areas where purchased stumpage tracts are located. Where the Natural Heritage Database indicates that a G-1 or G-2 species or community is known to exist in close proximity to the tract, company foresters will assess whether the species or community is actually present on the tract and notify the landowner prior to harvesting. Harvesting contractors are trained in the use of state BMP's and harvest sites are monitored for implementation. Vendors/producers are contractually required to implement appropriate BMP's. Logger training programs also educate producers in the identification and protection of HCV areas. Gatewood or indirect purchases rely on BMP's, contractual requirements, and logger training to insure protection of HCV areas.

Monitoring: In addition to tract monitoring audits conducted during harvest operations, Enviva monitors Longleaf Pine habitats at the landscape level. The Longleaf Alliance web site (http://www.longleafalliance.org/) contains a variety of publications useful for monitoring Longleaf Pine restoration efforts in this area. One of the most comprehensive sources for information about on-the-ground restoration activities is the Longleaf Partnership Council annual Range-wide Accomplishment Report 2014 Accomplishment Report. Information from these locations will be monitored annually to determine any changes to Enviva's risk rating for HCV values within Longleaf Pine ecosystems. Cottondale's Risk Assessments and Supply Base Evaluation will be updated as needed.

Conclusion: Based on the mitigation measures presented here, the risk associated with HCV values in the Longleaf Pine Habitat can be considered "low risk".

Apalachicola Bay/River System Specified Risk

Biodiversity for this area is driven by aquatic species such as reptiles, amphibians, and mussels. The main threat from forest management activities are sedimentation of the river system.

Tract Level Mitigation Measures: BMP's designed to protect water quality also protect the species associated with aquatic habitats. BMP compliance is required by contract for all Enviva suppliers, and BMP training is a key element in logger training programs.

Monitoring: BMP's are the mechanism by which loggers and suppliers who harvest primary material comply with the Federal Clean Water Act (CWA). BMP monitoring audits are conducted by Enviva on all direct purchase stumpage tracts, and a sampling of all other primary fiber source tracts through the Enviva Track and Trace Program. Local and statewide BMP compliance is monitored annually to ensure there is low risk that Enviva is sourcing fiber from areas where BMPs are not properly implemented Supply base wide BMP compliance rates indicate BMP compliance by residual suppliers.

Conclusion: Based on the mitigation measures presented here, the risk associated with HCV values in the Apalachicola Bay/River System can be considered "low risk".

Steephead Ravines Specified Risk

There is a wide diversity of species including RTE species associated with the Steephead Ravines located along the Apalachicola River system due to the heterogeneity of the site conditions and the microclimates found there. This area contains the southernmost range of many northern species.

Landscape Level Mitigation Measures: In Liberty County, the Apalachicola Bluffs and Ravines Preserve is a 6,000 acre area that has been established especially for protecting these areas.

Tract Level Mitigation Measures: These areas are associated with the Apalachicola River System and protected by existing BMPs. Given the extreme slope of these ravines, calculation of primary and secondary zones provides extended protection to these special areas. Harvesting of these areas is impractical and common practice is to measure the Streamside Management Zone from the break of the ravine and not the edge of the stream.BMP compliance is required by contract for all Enviva suppliers, and BMP training is a key element in logger training programs.

Monitoring: BMP's are the mechanism by which loggers and suppliers who harvest primary material comply with the Federal Clean Water Act (CWA). BMP monitoring audits are conducted by Enviva on all direct purchase stumpage tracts, and a sampling of all other primary fiber source tracts through the Enviva Track and Trace Program. Local and statewide BMP compliance is monitored annually to ensure there is

low risk that Enviva is sourcing fiber from areas where BMPs are not properly implemented Supply base wide BMP compliance rates indicate BMP compliance by residual suppliers.

Conclusion: Based on the mitigation measures presented here, the risk associated with HCV values in the Steephead Ravines along the Apalachicola River System can be considered “low risk”.

Secondary feedstock is sourced from 8 counties in the Central Florida critical biodiversity area containing the Pine Flatwoods habitat that is defined as “specified risk” for High Conservation Values within the draft FSC US Controlled Wood National Risk Assessment.

Pine Flatwoods Specified Risk

This area is similar to other native pine ecosystems such as longleaf Pine that provide a wide range of biodiversity values closely associated with native plant diversity.

Mitigation Measures: When harvesting occurs in and around this habitat, consideration of biodiversity values should be made prior to placing landings or ramps in xeric uplands. Protection for the Red-Cockaded Woodpecker, which inhabit these forests exist in the form of the U.S. Endangered Species Act, which prevents destruction of habitat for threatened and endangered species. In 2014 Florida adopted the Forestry Wildlife Best Management Practices for State Imperiled Species that includes guidelines for protecting the gopher tortoise. Components of Logger training classes include BMP’s, threatened and endangered species, and identification of special sites.

Conclusion: Based on the mitigation measures presented here the risk associated with High Conservation Values in the Pine Flatwoods habitat can be considered “low risk”.

Secondary feedstock is sourced from 41 counties in the Southern Appalachians critical biodiversity area containing Aquatic habitats, the Glades and Montane Longleaf Pine habitats that are defined as “specified risk” for High Conservation Values within the draft FSC US Controlled Wood National Risk Assessment.

Aquatic Habitats Specified Risk

Exceptional aquatic biodiversity including fish, mussels, snails, crayfish, and amphibians are abundant in the Southern Appalachians. The Cahaba River watershed is the focal point of this habitat, but the richness of biodiversity extends out to the numerous smaller watercourses in the area as well. Sedimentation from roads during forest operations is a threat to biodiversity in this area.

Mitigation Measures: Silvicultural BMP’s provide protection to waterbodies during road construction and maintenance, and other aspects of forestry operations. BMP compliance reports are available for each state within this area. Components of Logger training classes include BMP’s, threatened and endangered species, and identification of special sites. Supply base wide BMP compliance rates indicate BMP compliance by residual suppliers.

Monitoring: BMP’s are the mechanism by which loggers and suppliers who harvest primary material comply with the Federal Clean Water Act (CWA). BMP monitoring audits are conducted by Enviva on all direct purchase stumpage tracts, and a sampling of all other primary fiber source tracts through the Enviva Track and Trace Program. Local and statewide BMP compliance is monitored annually to ensure there is low risk that Enviva is sourcing fiber from areas where BMPs are not properly implemented Supply base wide BMP compliance rates indicate BMP compliance by residual suppliers.

Conclusion: Based on the mitigation measures presented here and the degrees of separation that exist between Enviva and the source forest, the risk associated with High Conservation Values in the Aquatic Habitats associated with the Southern Appalachians can be considered “low risk”.

Glades Habitat Specified Risk

The Glades consist of limestone and sandstone outcrops in Central Alabama that have a high density of rare plant species. These biodiversity values of areas are potentially harmed when the value of the Glades is not recognized during harvest activities.

Mitigation Measures: The biodiversity values associated with the Glades should be considered when planning ramps and skid trails prior to harvest. Components of Logger training classes include BMP’s, threatened and endangered species, and identification of special sites. Supply base wide BMP compliance rates indicate BMP compliance by residual suppliers.

Conclusion: Based on the mitigation measures presented here and the degrees of separation that exist between Enviva and the source forest, the risk associated with High Conservation Values in the Glades Habitat associated with the Southern Appalachians can be considered “low risk”.

Montane Longleaf Pine Specified Risk

This area occurs in the rolling topography on the outside edge of the Coastal Plain and is similar to other Longleaf Pine ecosystems that provide a wide range of biodiversity values closely associated with native plant diversity. These open stands with abundant native groundcover provide optimal habitat for the Red-Cockaded Woodpecker and the Gopher Tortoise. The historical presence of fire in this area defined the range of Longleaf Pine and created the Montane Longleaf Pine ecosystem. As the population of this area increased and fire was withheld from the forest, the Longleaf ecosystem began a sharp decline to 3% of its original range. Further loss of this habitat could harm the species that depend upon this ecosystem.

Landscape Level Mitigation Measures: A variety of federal, state, and private entities have led the push for Longleaf reforestation and ecosystem restoration in the Southeast United States. In order for Longleaf restoration efforts to be successful, private landowners must be assured that planting Longleaf Pine is a sensible investment. A strong market for Longleaf Pine products is an essential component of any successful Longleaf reforestation effort. The Longleaf Alliance is the regional leader in Longleaf Pine management and restoration and they recognize that markets are an important catalyst for their objectives “Current markets make longleaf management more attractive than ever.” (http://www.longleafalliance.org). By accepting Longleaf Pine, local mills provide the financial incentive needed to fuel Longleaf reforestation.

Mitigation Measures: When harvesting operations occur in and around Longleaf ecosystems, procedures are in place to protect those species closely associated with this habitat. Protection of the Red-Cockaded Woodpecker exist in the form of the U.S. Endangered Species Act. Logger training programs also educate producers in the identification and protection of threatened and endangered species and HCV areas.

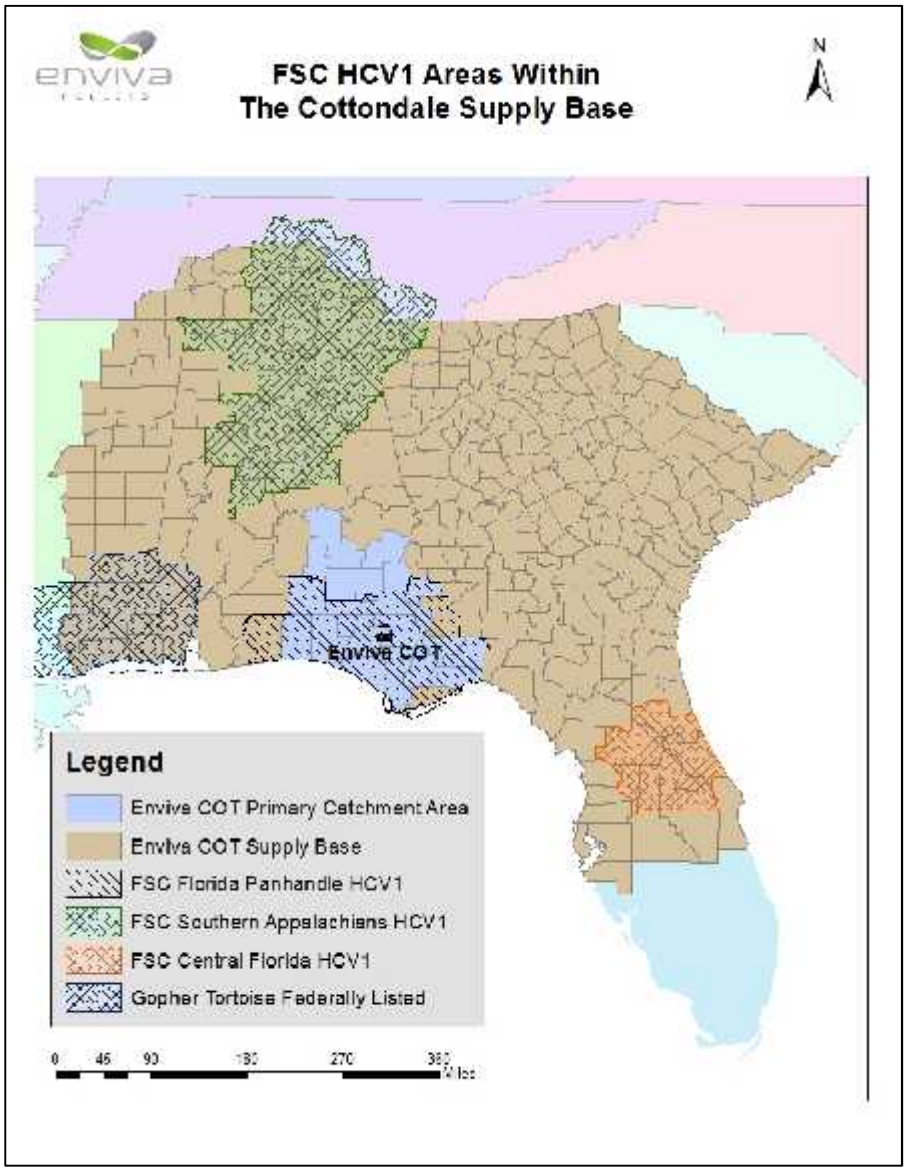
Many of the southern yellow pine sawmills that Enviva Cottondale sources residual material from accept Longleaf Pine at their facilities and the natural range of Longleaf Pine lies within the Cottondale supply base. A variety of federal, state, and private entities have led the push for Longleaf reforestation and ecosystem restoration in this area. In order for Longleaf restoration efforts to be successful, private landowners must be assured that planting Longleaf Pine is a sensible investment. A strong market for Longleaf Pine products is an essential component of any successful Longleaf reforestation effort. The Longleaf Alliance is the regional leader in Longleaf Pine management and restoration and they recognize

that markets are an important catalyst for their objectives “Current markets make longleaf management more attractive than ever.”(http://www.longleafalliance.org). By accepting Longleaf Pine, Enviva Cottondale and other local sawmills provide the financial incentive needed to fuel Longleaf reforestation.

Conclusion: Based on the mitigation measures presented here the risk associated with High Conservation Values in the Montane Longleaf Pine habitat can be considered “low risk”.

Existing procurement policies, supply base wide BMP compliance rates, extensive levels of logger training, and landscape level protections all provide evidence to justify lowering the FSC risk level associated with HCV1 habitats in the Florida Panhandle, Central Florida and Southern Appalachians Critical Biodiversity Areas to a SBP “low risk” level for both primary and secondary suppliers

Figure 4: Cottondale FSC HCV1 map



9.2 Monitoring and outcomes

Enviva has issued a policy statement to all suppliers in order to ensure that feedstock delivered to our mill meets our expectations with regards to sustainability and the SBP requirements. Enviva employs contractual mechanisms, an SFI® Fiber Sourcing Program, and PEFC and SFI® Chains of Custody Programs, to ensure conformance and monitoring. All States within the supply base have BMP compliance reports readily available to monitor compliance.

Enviva maintains a rigorous district of origin process for all suppliers of secondary feedstock that collects catchment radius, raw material species, certification status and other specific information related to the source of their fiber. The supplier's responses are mapped and compared to Enviva's Cottondale Supply Base Evaluation to ensure Enviva has included the area within its supply base. Each supplier will receive a map depicting the counties within their catchment area that may contain high conservation value areas, feedback on any areas of risk that are identified, and a list of mitigation measures appropriate to their operations. Enviva suppliers are encouraged to share this educational information with their suppliers.

Enviva monitors Longleaf Pine habitats at the landscape level from a variety of sources. The Longleaf Alliance maintains a variety of publications useful for monitoring Longleaf Pine restoration efforts in this area. One of the most comprehensive sources for information about on-the-ground restoration activities is the Longleaf Partnership Council's annual Range-wide Accomplishment Report (Longleaf Partnership Council, 2014). Information from these sources will be monitored annually to determine if any changes to Enviva's risk rating for HCV values within Longleaf Pine ecosystems are necessary.

Existing procurement policies, BMP's, and landscape level protections all provide evidence to justify lowering the FSC risk level associated with HCV1 habitats in the Southern Appalachians, Central Florida, and Florida Panhandle areas to a SBP "low risk" level.

10 Detailed Findings for Indicators

See Annex 1

11 Review of Report

11.1 Peer review

As stated previously, the Cottondale SBE was independently peer-reviewed by R.S. Berg and Associates. . R. S. Berg & Associates, Inc. has more than thirty five years of experience in the forest, paper and bio-energy industries and has worked with over 220 organizations in understanding their options and achieving certification to the Standard(s) of their choice. Scott Berg is a trained ISO 14001 EMS Lead Auditor and has over thirty five years in the forest and paper industry working for national and regional trade associations. As the data compiled for this report is generated by the SBE process, further peer review is not required.

11.2 Public or additional reviews

Enviva maintains a third party certified SFI® Fiber Sourcing Program and PEFC and SFI® Chain of Custody programs. All of these programs are reviewed internally and by our third party certifying bodies on an annual basis. The Supply Base Evaluation was developed internally by qualified personnel using credible third party data sources such as; Forest Stewardship Council, The Nature Conservancy, United Stated Forest Service, United States Department of Labor, United Stated Department of Environmental Protection, State Forest Service Divisions, National Council for Air and Stream Improvement among others. Last, the draft SBE was included in the most recent stakeholder consultation, so anyone who was interested had the ability to review and comment on the document.

12 Approval of Report

Approval of Supply Base Report by senior management			
Report Prepared by:	***Shawn Cook***	***Sustainability Forester***	***April 6, 2017***
	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:	***Jennifer Jenkins***	***Vice President and Chief Sustainability Officer***	***April 7, 2017***
	Name	**Title**	**Date**
Report approved by:	***Thomas Meth***	***Executive Vice President for Sales and Marketing***	***April 13, 2017***
	Name	**Title**	**Date**
Report approved by:	***John Keppler***	***Chief Executive Officer***	***April 14, 2017***
	Name	**Title**	**Date**

13 Updates

13.1 Significant changes in the Supply Base

The gathering of district of origin data that began in 2015 was completed early in 2016 and this was incorporated into the Enviva Cottondale supply base. Based on local knowledge of our suppliers, we projected areas where future expansion of the supply base was likely to occur and expanded our supply base accordingly. These changes resulted in an increase in supply base counties from 295 to 362 and an increase in supply base area from 41.7 million hectares to 50 million hectares. These changes to the supply base were in place prior to the stakeholder consultation.

13.2 Effectiveness of previous mitigation measures

One of the foremost mitigation measures for HCV1 areas within the Enviva Cottondale supply base is compliance with Best Management practices. State wide BMP compliance rates are a strong indicator of how forest harvesting activities are conducted within the supply bases of our residual suppliers. Florida reported a .4% increase in BMP compliance and Georgia reported an increase of 1.2% from their last state wide surveys. The other states within the supply base have not released survey updates at this time. BMP implementation and effectiveness are both linked to logger training and in 2016 SFI® reported that over 10,000 harvesting and resource professionals participated training courses. The Longleaf Partnership Council in conjunction with the Longleaf Alliance conducts regular monitoring of longleaf restoration efforts within the natural range of longleaf pine. In the 2015 Range-Wide Accomplishment Report published in 2016, the council reported longleaf restoration efforts on 520,217 acres, which was an increase in over 200,000 acres from 2014.

13.3 New risk ratings and mitigation measures

NA

13.4 Actual figures for feedstock over the previous 12 months

Section 2.5 shows the actual figures for Cottondale's feedstocks for the audit year.

13.5 Projected figures for feedstock over the next 12 months

Enviva does not expect a significant change in the use or breakdown of feedstocks over the next 12 months.

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Appendix I: District of Origin documentation

Dear Valued Supplier:

As part of Enviva's continued commitment to the practice of sustainable forestry, and in conjunction with our existing forestry certifications, we are reaching out to you to request your assistance in ensuring we have the most accurate data available regarding the extent of our fiber supply.

Enviva maintains chain-of-custody (CoC) under the Programme for the Endorsement of Forest Certification (PEFC) program and the Sustainable Forestry Initiative® (SFI) program. Enviva is also seeking certification under the Sustainable Biomass Partnership (SBP) program.

All these programs require Enviva to know the "district of origin" of all its wood fiber, including those that come from secondary sources, such as sawmills, in order to complete a detailed risk assessment of our entire fiber supply region. Enviva defines the district of origin at the county level.

As part of this process, we are seeking general information on your catchment area and the district of origin for your raw materials. This information will be used as evidence of Enviva's knowledge of our existing supply base and the district of origin of our residual inputs. Therefore, we respectfully ask you to take a few minutes to complete the attached form, which will provide us with the information we need from your facility.

As a part of this process, we will use the data you provide us to fill in any gaps in our risk assessment. While you are not required to alter your operations at all, if we find your supply area may overlap with identified areas of risk (as defined by our certification programs), we will provide you with the outcomes of the risk assessment for your records. Should you wish to implement any mitigation measures suggested, please do let us know.

Further, we would like to make you aware that for as long as you supply material to Enviva, we will be contacting you annually to ensure we maintain accurate records of your supply area. If needed, a forester may also reach out to you by phone or email to verify the data you submitted.

Enviva assures you that the information you provide will be kept confidential and only shared with our contracted auditors, with whom we have confidentiality agreements. Your company name will never appear in connection with any conclusions in our risk assessment, nor in any public documents.

If you have any questions or concerns, please do not hesitate to contact me directly at the phone or email address below.

Thank You for your time and cooperation with this process.

Sincerely,

FORESTER

Phone:

Email:

Secondary Supplier District of Origin Data Request

Supplier Name: _____ Date: _____

Contact: _____

What is the catchment radius for your mill? (miles) _____

Do you source wood from outside the U.S.? Yes _____ No _____ If yes, please explain _____
_____

Do you maintain certification under any CoC or SFI® Fiber Sourcing programs? Yes ____ No ____ If yes, please list the type and certificate number(s) below:

Note: If you have a valid FSC, PEFC or SFI® CoC you do not have to complete the rest of this form.

What species do you accept at your mill? (Attach list if necessary) _____
_____
_____
_____

Are any non-native species accepted at your mill? Yes ____ No ____ If yes, please explain _____
_____

At what level is the location of harvest documented for your raw material receipts? (check all that apply)
County _____ Landowner _____ No Documentation _____

Other (Explain) _____
_____

Do you require producers delivering to your mill to have valid logger training? Yes _____ No_____

Is there evidence of illegal logging within your procurement area? Yes ___ No ____ Unknown _____

Is there evidence of significant land conversion within your procurement area? Yes _____ No_____
Unknown _____

Is any of your primary fiber sourced from areas where High Conservation Values are threatened by forestry activities? Yes ___ No ____ Unknown ____ If yes, please explain _____
_____
_____
_____

Do you have a Sustainability Policy? Yes ____ No ____ (Please provide a copy)