

SBP

Sustainable Biomass Partnership

SCS Global Services Evaluation of Enviva Pellets Sampson Compliance with the SBP Framework: Public Summary Report

First Surveillance Audit

www.sustainablebiomasspartnership.org



Completed in accordance with the CB Public Summary 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

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Report completion date: 28/Jul/2017; Update 05/Oct/2017

Report authors: Ellen Kincaid, Lead auditor; Kyle Meister, Sub auditor

Certificate Holder: Enviva Pellets Sampson, LLC, 5 Connector Road, US 117, Faison, NC 28341, USA

Producer contact for SBP: Don Grant, Raleigh, NC, USA, +1.919-678-3272, don.grant@envivabiomass.com

Certified Supply Base: Wilmington regional supply base, includes counties from the coastal plains to the piedmont regions of Norther Carolina, South Carolina and Virginia.

SBP Certificate Code: Current: SBP-04-06; Previous: SBP-03-04

Date of certificate issue: 31/Jan/2017

Date of certificate expiry: 30/Jan/2022

Indicate where the current audit fits within the certification cycle				
Main (Initial) Audit	First Surveillance Audit	Second Surveillance Audit	Third Surveillance Audit	Fourth Surveillance Audit
<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2 Scope of the evaluation and SBP certificate

Certification scope: Production of wood pellets, for use in energy production, at Enviva Pellets Sampson and transport to the North Carolina State Ports Authority for storage, aggregation and vessel loading. It also covers a Supply Base Evaluation for the sourcing of feedstock from the states of North Carolina, South Carolina, and Virginia.

SBP certificate transfer: SBP-04-06

Previous SBP certificate number: SBP-03-04

3 Specific objective

The objective of this surveillance audit was to:

- Confirm that the Biomass Producer's management system is implemented across the entire scope of certification (SBP ST 1, 2, 4, & 5).
- Collect assessment information
- Generate assessment findings

4 SBP Standards utilized

4.1 SBP Standards utilized

The following SBP Standards were utilized:

- SBP Standard 1: Feedstock Compliance Standard, Version 1.0, March 2015
- SBP Standard 2: Verification of SBP –Compliant Feedstock, Version 1.0, March 2015
- SBP Standard 4: Chain of Custody, Version 1.0, March 2015
- SBP Standard 5: Collection and Communication of Data, Version 1.0, March 2015
 - Including Instruction Documents V1.1 (SBP Instruction Document 5A: Collection and Communication of Data; SBP Instruction Document 5B: Energy and GHG Data; SBP Instruction Document 5C: Static Biomass Profiling Data)

The above standards can be accessed from SBP at the following website:

<https://sbp-cert.org/documents/standards-documents/standards>

4.2 SBP-endorsed Regional Risk Assessment

Not applicable: No SBP endorsed Regional Risk Assessment for supply area.

5 Description of Biomass Producer, Supply Base and Forest Management

5.1 Description of Biomass Producer

Enviva Holdings, LP (“Enviva”) Sampson is under the umbrella of Enviva Holdings LP, which encompasses six pellet mills in south eastern and eastern United States. Enviva produces approximately 2.3 million metric tons of wood pellets annually. Pellets are primarily delivered to power plants in the United Kingdom and Europe.

The Enviva Sampson pellet mill is located near Faison, NC in Sampson County. Manufacturing begun in mid-2016 and in the first year produced approximately 142,000 metric tonnes of pellets. The production capacity of the pellet mill is 500,000 metric tonnes of pellets per year. Pellets are transported by truck to the North Carolina State Ports Authority in Wilmington, NC for export to European utilities. In exceptional circumstances pellets may be transported to the Port of Chesapeake.

5.2 Description of Biomass Producer’s Supply Base

Enviva operates one pellet mill in Sampson County, North Carolina under the name Enviva Sampson. Its supply base includes 90 counties in North Carolina, 32 counties in South Carolina, and 53 counties in Virginia, encompassing a total area of 10.8 million hectares of timberland. Of that, 5.4 million hectares can be effectively sourced for the feedstock supply base. Currently, only primary material is sourced for Enviva Sampson, however, the supply base was defined to accommodate the known sawmills in the area that could potentially supply the mill with their residuals (secondary material).

100% of feedstock is sourced directly from the forest in the form of low-grade roundwood or woodchips, all of which are vetted and qualified prior to delivery. Suppliers must sign a contract with Enviva Sampson prior to first delivery. This contract requires suppliers to use duly-trained loggers during harvest, follow Best Management Practices (BMPs) for water and soil quality, and to avoid controversial sources of fiber, such as illegal logging, wood harvested in violation of traditional and civil rights, wood harvested in forests converted to plantations or non-forest use, and wood from forests in which genetically modified trees are planted.

Enviva may use forest residues, such as tree tops, limbs, deformed trees and any other wood produced during harvest that is otherwise unacceptable to other wood users in the area. Enviva’s sourcing does not directly compete with other forest product industries since there are few economically viable options for low-grade material outside of pulp & paper. Due to structural changes in the pulp & paper industry and shifting demand for pulp & paper products, Enviva can accept low-grade hardwood material that used to be sold almost exclusively to local pulp mills. However, it warrants mention that pulp & paper still represents the dominant use of low-grade material with there being at least three mills within the procurement radius of Enviva Sampson. Enviva does not use sawlogs in the production of pellets, nor does the plant use any construction debris, treated wood, or post-consumer material.

Enviva's supply base includes regions with Longleaf pine (*Pinus palustris*). Longleaf pine is included in the IUCN Red List of Threatened Species because its current extent is much reduced from its historical range in the Southeastern US. However, conservation groups, such as the Longleaf Alliance, agree that establishing commercial viability for Longleaf pine products is crucial to its restoration. Enviva procures longleaf from stand thinnings or other harvest residuals that support its commercial viability, and encourages landowners to restore and continue to manage longleaf stands. Enviva will not procure fiber from natural longleaf pine stands if they are going to be converted to non-forest or another forest type.

Additional detail is provided in the Enviva Sampson Supply Base Report (SBR), which can be found on its website at the following address: <http://www.envivabiomass.com/sustainability/wood-sourcing/sustainable-biomass-partnership>

5.3 Detailed description of Supply Base

The supply base:

- Includes 399.2 million green metric tons of standing timber.
- Is approximately 52% mixed hardwoods and 48% conifer species.
- Currently only primary material is sourced as feedstock, but secondary sources may be used in the future.
- Enviva Sampson is still in ramping up production and it is expected to source less than 10% of the total fiber harvested in the primary supply area.
- Approximately 93% of the timberland is privately held
- employs approximately 100 local people, and its operations support an additional 50 various harvesting crews and saw mills.

A quantitative description of the Supply Base can be found in the Enviva Sampson's Supply Base Report (SBR).

5.4 Chain of Custody system

Enviva Sampson is a member of Enviva LP's PEFC multisite certificate, which it uses to track SBP compliant feedstock. Its management system and documented procedures are fully capable of determining feedstock compliance. All wood fiber is tracked from the district of origin through the mill and finally to the final bill of sale.

Enviva uses a database to gather and control information related to the feedstock such as supplier name, scale tickets, fibre type, certification, and district of origin. Enviva has appropriate control mechanisms to calculate output volumes, claims and trademark/logo approval. Additionally, Enviva conducts an annual Management Review of the commitments, programs and procedures to evaluate the overall effectiveness of the SBP management system.

6 Evaluation process

6.1 Timing of evaluation activities

Audit Activity	Date and Location	Persons Involved	Approx. Duration
SCS Voluntary Stakeholder Consultation	Monday, June 5, 2017, email	Julian Eldridge and identified stakeholders	2 hours
Document Review	June 9, 2017, off-site	Ellen Kincaid	8 hours
Annual Audit	June 12 – 14, 2017 Enviva Sampson Pellet Mill Port of Wilmington Field audits	<p>SCS</p> <p>Kyle Meister (sub-auditor)</p> <p>Ellen Kincaid (lead auditor)</p> <p>Enviva Sampson</p> <ul style="list-style-type: none"> • Jim Reavis (Wilmington Fiber Supply Manager) • Laura Hendrick (Conservation Forester) • Todd Watson (Fiber Supply Manager) • Dwight H Gerding (Fiber Supply Forester) • Kim Cesafsky (Senior Sustainability Analyst) • Don Grant (Mid-atlantic Regional Sustainability Manager) • Philip Nash (Fiber supply forester associate) <p><i>*Allison Gratz was not able to join due to conflict of schedule</i></p>	24 hours
Audit closure	June 14, 2017	<p>SCS</p> <p>Kyle Meister (sub-auditor)</p> <p>Ellen Kincaid (lead auditor)</p> <p>Enviva Sampson</p> <ul style="list-style-type: none"> • Jim Reavis (Wilmington Fiber Supply Manager) • Laura Hendrick (Conservation Forester) • Todd Watson (Fiber Supply Manager) • Dwight H Gerding (Fiber Supply Forester) • Kim Cesafsky (Senior Sustainability Analyst) • Don Grant (Mid-atlantic Regional Sustainability Manager) 	1 hour

		<ul style="list-style-type: none"> Philip Nash (Fiber supply forester associate) <p><i>*Allison Gratz was not able to join due to conflict of schedule</i></p>	
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6.2 Description of evaluation activities

Update for certificate transfer to SCS:

Certificate Transfer

The certificate transfer consisted of a review of the Supply Base Evaluation, Risk Assessment, and Documented Control System. Method of review consisted of a discussion of documentation, procedures, and interviews. Most time was spent on the Supply Base Evaluation.

Surveillance Audit

The onsite Surveillance Audit was conducted over the course of three days and included an audit of the Supply Base Evaluation, Documented Management System, Collection and Communication of Greenhouse Gas data, site tour, and procurement sites.

Audit methods consisted of review of documentation, studies, assessments, surveys, websites, and staff interviews. The site tour and visits were evaluated by review of documentation, monitoring results, observations, and interviews. Most time was spent on the Supply Base Evaluation. Equal time was spend on the Documented Management System and Greenhouse Gases.

6.3 Process for consultation with stakeholders

Enviva’s stakeholder consultation process:

Enviva conducted its initial stakeholder consultation from May 6 to June 5, 2017. The stakeholder list included 54 stakeholders with a mix of post-secondary education institutions, 1 consultant, 23 ENGOs, 11 government agencies, 4 industry organizations, 3 landowners, 1 landowner association, 4 loggers, 2 trade associations, and 5 suppliers. The area of stakeholder consultation was identified from the supply base area of Virginia, North Carolina, and South Carolina. Enviva sent a stakeholder consultation email out to 130 local and potentially interested stakeholders. Enviva reported that they had received no feedback during their stakeholder consultation period for the Wilmington Supply Base Evaluation.

For the certificate transfer of Enviva Sampson, SCS Global Services conducted a stakeholder consultation:

Geographical area(s): The geographical area for the stakeholder consultation is the same as the supply areas identified in the company’s Supply Base. This stakeholder consultation included South Carolina, North Carolina, and Virginia in the USA.

List of Stakeholders invited: SCS relies on its Master Stakeholder List, which contains stakeholders that are identified by type, e.g. ENGO, Government/regulatory, Educational/Academic, Industry, Indigenous/Aboriginal/Tribal. This list is categorized by country and state/province at the very least, and for this consultation was filtered to omit any stakeholders that were not geographically relevant to the certificate-

holder/applicant's supply area(s). Relevant FSC Network Partners were also included in the invitation process.

SCS launched their stakeholder consultation for the Evaluation audit of the Sampson facility on June 5, 2017 from SCS's Emeryville office to stakeholders. Stakeholders had the opportunity to present their points of view to the auditor(s) in confidence.

SCS received no comments regarding Enviva Sampson's procurement operations / supply. Attached is the actual notification for Enviva Sampson. They were selected to geographical relevance to Enviva Sampson supply base:

This email is being sent to you because SCS Global Services (SCS) has identified you as a potential stakeholder able to provide relevant comments regarding Enviva Pellets Sampson's fiber sourcing program as a Biomass Producer (BP) within the Sustainable Biomass Program (SBP) framework.

Background – About SBP

SBP was formed in 2013 by European utilities that are using biomass, mostly in the form of wood pellets or chips, in large thermal generating plants. Biomass-fired power and heat generation is seen as an important technology for achieving the EU's 2020 renewable energy targets and EU member states are adopting their own national approaches to ensuring that the biomass used is legally and sustainably sourced.

SBP's objective is to develop the tools necessary to demonstrate that, as a minimum, solid biomass used for energy production meets these national requirements. The SBP Framework is designed as a clear statement of principles, standards and processes necessary to demonstrate such compliance. Wherever possible, the Framework takes into account and builds on existing regulatory mechanisms and on voluntary certification standards already applied to other forest product streams or to other biomass sources.

The SBP Framework provides a means to collect data describing the nature of the feedstock as well as data to be employed in the regulatory calculations of greenhouse gas (GHG) savings from its use. It also provides a means to demonstrate that risks to forest carbon stocks are managed and that forests' carbon sequestration capability is maintained.

Collectively, the six SBP Standards represent a certification framework, or scheme, against which organizations can be assessed for compliance by independent third-party Certification Bodies (CBs) such as SCS. An organization that satisfactorily demonstrates compliance receives a certificate and is entitled to make SBP claims in relation to its biomass.

For more information, and/or to obtain copies of the six SBP standards, please visit: <http://www.sustainablebiomasspartnership.org/>

Notification

SBP does not require that certification bodies such as SCS consult stakeholders during the annual surveillance audits of BP's. However, this BP is transferring their SBP certificate to SCS, so the upcoming audit represents SCS' first chance to engage with stakeholders in order to verify that the BP's management systems are working effectively and consistently across their entire supply base. At present, the company is sourcing inputs (feedstock) only from the state of NC. Their listing on the

SBP website, including their Supply Base Report can be found at: <https://sbp-cert.org/approvals-and-certifications/certificate-holders/enviva-pellets-sampson>

Consultation

With this email, SCS encourages interested stakeholders to submit relevant information and/or comments regarding the BP's forest management and fiber sourcing/procurement operations, in order to evaluate the BP's compliance with SBP requirements. SCS will:

- *review and record all submissions*
- *evaluate relevant submissions*
- *document actions taken in relation to relevant submissions, and*
- *document its conclusions regarding compliance of the BP with the Standards.*

If you have any questions/concerns regarding this notification, please email us back and we will follow up with you accordingly.

If you are not interested in participating or providing any comments for this organization, then you do not need to do anything at all in response to this email.

If you would like to be permanently removed from our stakeholder list (and thus not receive any future notifications in regards to this, or any other company), please reply with 'remove'.

Best regards,

There was no response to SCS Global Service's stakeholder consultation.

7 Results

7.1 Main strengths and weaknesses

The rigour of the Greenhouse Gas data collection and calculations are a strength for Enviva Sampson. The information is detailed and laid out in an easily understood manner.

For weaknesses, please review the Surveillance audit update section where new nonconformities are listed.

7.2 Rigour of Supply Base Evaluation

Enviva has developed a detailed SBE including a clear description of the Supply Base Area. The geographical scope of the SBE for the Wilmington supply base includes counties from the coastal plains to the piedmont regions of North Carolina, South Carolina and Virginia of the United States of America for primary and secondary feedstock. A sample of purchase orders (contracts) and Enviva Track & Trace data was reviewed to ensure that fiber is sourced from within the SBE scope. The SBE was developed internally by qualified personnel using credible third-party data sources (e.g., USDA Forest Service FIA data), as well as existing management and monitoring systems implemented to meet other voluntary standards and designed to ensure compliance with applicable laws and regulations.

Risk was designated low for all core Indicators, except for 3 indicators which were designated as specified risk related to HCV and/or biodiversity. Enviva developed controls and mitigation measures to reduce these indicators to low risk as described in the SBE and SBR. The primary method of determining the need for these mitigation measures is through the HCV Tract Approval Process. The first step involves comparing GIS data of wetlands, natural heritage information, soil series, and other publicly available data layers to maps of each proposed harvest site. If risk is specified, then Enviva completes an HCV Tract Approval form, which frequently involves a site-level visit to determine the extent of the identified HCV. Enviva's Trace & Trace System is used to evaluate and monitor a sample of active and completed harvest operations, which also may result in the recommendation of HCV mitigation measures.

SCS reviewed the SBE process and concludes that it meets SBP requirements.

7.3 Compilation of data on Greenhouse Gas emissions

Enviva Pellets Sampson has a sophisticated excel database where all Greenhouse Gas data is compiled. All compilation is conducted by one individual at Enviva, Kim Cesafsky, from the Enviva Holdings main office in Bethesda. She appropriately keeps the data for each pellet mill under the Enviva umbrella separate from the other pellet mills. For Enviva Pellets Sampson, most energy use is invoiced by the month and requires no adjustment to match the reporting period, however due to commissioning, the electricity use has fluctuated widely. In order to make a more accurate statement for the Reporting Period, the invoice (with 15-day adjustment) from March, 2017 was used and adjusted to reference the entire Reporting Period.

7.4 Competency of involved personnel

The SBE was completed by Enviva's in-house fiber procurement group who has local forestry experience and knowledge of ecological and social values associated with the supply base, applicable laws and regulations, business management practices, operation of suppliers, and the local forest resource.

Enviva's management and control systems for SBP are the same as those used to meet the SFI/PEFC CoC, which have been in place since 2012. Key personnel tasked with implementing and maintaining the management and control systems relating to SBP compliance are well trained and competent. Enviva assigned management with appropriate skills and competency to implement and execute the management and control systems relating to SBP compliance. Management interviewed during the assessment were found to be knowledgeable of the SBP requirements.

Enviva engaged a qualified third party auditor, Scott Berg, President, R.S. Berg & Associates, Inc. to review the SBE. Scott Berg has many years of experience in auditing forestry certification programs and in the creation of supply base evaluations/risk assessments for chain of custody systems. Scott Berg also attended an SBP training session in January 2015.

7.5 Stakeholder feedback

PwC conducted the initial stakeholder consultation for Enviva Pellets Sampson's main evaluation. An update to the stakeholder consultation conducted by SCS Global Services is in the Updates section (12.5) below.

7.6 Preconditions

Not applicable

8 Review of Biomass Producer’s Risk Assessments

Table 1. Final risk ratings of Indicators as determined after the SVP and any mitigation measures.

Indicator	Risk rating (Low or Specified)	
	Producer	CB
1.1.1	Low	Low
1.1.2	Low	Low
1.1.3	Low	Low
1.2.1	Low	Low
1.3.1	Low	Low
1.4.1	Low	Low
1.5.1	Low	Low
1.6.1	Low	Low
2.1.1	Low	Low
2.1.2	Low	Low
2.1.3	Low	Low
2.2.1	Low	Low
2.2.2	Low	Low
2.2.3	Low	Low
2.2.4	Low	Low
2.2.5	Low	Low
2.2.6	Low	Low
2.2.7	Low	Low
2.2.8	Low	Low
2.2.9	Low	Low
2.3.1	Low	Low
2.3.2	Low	Low

Indicator	Risk rating (Low or Specified)	
	Producer	CB
2.3.3	Low	Low
2.4.1	Low	Low
2.4.2	Low	Low
2.4.3	Low	Low
2.5.1	Low	Low
2.5.2	Low	Low
2.6.1	Low	Low
2.7.1	Low	Low
2.7.2	Low	Low
2.7.3	Low	Low
2.7.4	Low	Low
2.7.5	Low	Low
2.8.1	Low	Low
2.9.1	Low	Low
2.9.2	Low	Low
2.10.1	Low	Low

9 Review of Biomass Producer's mitigation measures

The following mitigation measures were taken to address the specified risks in the updated SBE:

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.

Suppliers are required to have an employee on each harvest site trained in the use of state BMP's and harvest sites are monitored for implementation and contractually bound to support Enviva's sustainability efforts on harvest sites. All supplier tracts are GPS located and vetted for HCV areas in advance of agreement to purchase fiber from the location. Suppliers understand Enviva's commitment to HCV protection and in areas identified by the US Endowment tracts are assessed using the Enviva Forest Conservation Program HCV Tract Approval process to ensure conformance to the Enviva Forest Conservation High Conservation Value policy.

Specified Risk

The FSC NRA designates certain control systems and procedures to identify and address potential threats to forests and high conservation value areas which are incorporated in Enviva's SBE/RA. Enviva's PEFC Chain of Custody Due Diligence System establishes the entire supply area contains no controversial sources so all of the fiber supply is SBP-controlled at a minimum. However, Enviva has knowledge that some bottomland hardwood areas in the supply region could be HCV forests. Since Enviva is striving to achieve SBP-compliant feedstock is has implemented additional controls around certain forest types. Enviva's consultation with The US Endowment for Forests and Communities identified four specific bottomland priority forest types; Cypress-tupelo swamps, Atlantic white cedar stands, Pocosins and Carolina bays. These areas were identified and mapped during the SBE/RA process as well. Enviva developed robust procedures to address potential negative impacts due to Enviva's fiber sourcing activities in the supply region.

Enviva purchases primary feedstock through supplier/vendor purchased tracts where the supplier/vendor has a harvesting agreement with the landowner. Enviva maintains a contract with the supplier/vendor which defines Enviva's expectations for how harvesting is to be conducted. Enviva's Track & Trace Program requires data collection such as species composition, stand age, harvest type, tract size, and GPS locations for all primary feedstock tracts prior to delivery. If the GPS location places the tract in one of three specific US Fish and Wildlife Wetlands Mapper water regime codes, meets the definition of a mature bottomland hardwood stand or contains a significant percentage of cypress the tract must be evaluated using the HCV Tract Approval process to determine if harvesting is the best outcome for the tract. If Enviva determines harvesting is not the best outcome for the tract then Enviva will not purchase fiber from that location.

Supplier/vendor purchased tracts, where the supplier/vendor who has a harvesting agreement with the landowner, make up the majority of primary feedstock purchases. Enviva maintains a contract with the

supplier/vendor which defines Enviva's expectations for how harvesting is to be conducted. Harvesting contractors are trained in the use of state BMP's and harvest sites are monitored for BMP implementation, conformance to the harvest plan and any other tract-specific considerations.

Enviva partnered with the US Endowment for Forestry and Communities to determine if the Wilmington supply base area contains high conservation value bottomland forest types. This work identified four specific forest types of concern: Cypress tupelo swamps, Carolina bays, Pocosins and Atlantic white cedar stands. Enviva evaluated these forest types and developed the Enviva Forest Conservation Program HCV Tract Approval process. Enviva's Track & Trace requires data collection such as species composition, stand age, harvest type, tract size, and GPS locations for all primary feedstock tracts prior to delivery. If the GPS location places the tract in one of three specific US Fish and Wildlife Wetlands Mapper water regime codes, meets the definition of a mature bottomland hardwood stand or contains a significant percentage of cypress the tract must be evaluated using the HCV Tract Approval process to determine if harvesting is the best outcome for the tract. Harvesting may be a best outcome for various reasons such as; poor forest health, insect infestations, or the adverse effects of previous high grading. If Enviva determines harvesting is not the best outcome for the tract then Enviva will not purchase fiber from that location.

Mitigation Measures

Primary Material

All vendor/producer tracts in bottomland areas are assessed using the Enviva Forest Conservation Program High Conservation Value Tract Approval process to ensure Enviva's procurement is not negatively affecting potential HCV sites. This process requires a site visit to conduct a field assessment to any potential source tract that meets the criteria described above. After the site assessment, Enviva will only agree to accept fiber from that source tract if it is determined that harvesting is the best possible outcome for that tract. This policy exceeds the minimum requirements for any CoC or DDS certification Enviva operates.

Vendors/producers are contractually required to implement appropriate BMP's. Enviva utilizes a proprietary Track & Trace Program to monitor tract information such as: BMP implementation rates, age, forest type, remaining woody ground cover, forest direct district of origin compliance and other valuable information concerning its wood supply. North Carolina, South Carolina and Virginia have active Divisions of Forestry that inspect harvesting sites to assist operators in implementing proper controls as well. Logger training programs also educate in the identification and protection of certain HCV areas.

Secondary Fiber

While the Sampson mill does not currently purchase secondary feedstocks, Enviva maintains a process for gathering data about the supply base of suppliers of this material. If the Sampson mill intends to purchase secondary feedstock in the future, the procurement staff will implement the process as described here.

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 fiber as well as any certifications and species used. Enviva includes their supply areas in their 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 to properly include their supply area in the risk assessment. Enviva contacts each sawmill and wood industry supplier annually to ensure their data is accurate.

With this information, in addition to the organization's 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. Enviva will work proactively with its suppliers that fall into the "Controlled" category to achieve SBP-Compliant status via outreach, its Enviva Forest Conservation Program, mitigation measures when appropriate, and other measures as identified. Further, if a supplier is unwilling to provide Enviva with the data required to properly assess the risk of their supply chain, then Enviva may cease to purchase fiber from those sawmills in the future.

Considering the mitigation measure for the identified specific risks the risk of purchasing wood fiber with the potential to damage HCV areas is "low".

Indicator 2.2.3

The Biomass Producer has implemented appropriate control systems and procedures to ensure that there are key ecosystems and habitats are conserved or set aside in their natural state (CPET S8b). (HVC-2 & 3)

The FSC US National Controlled Wood Risk Assessment DRAFT identified Intact Forest Landscapes as a specified risk west of the Mississippi River. These areas are defined as 500 acres or larger road less areas or large areas containing unique attributes. Three of these regions are identified east of the Mississippi with none included in the Wilmington region supply base.

The US has a strong network of protected areas through its National Park System, National & State forests, designated wildlife refuges, and the US Fish and Wildlife Service. The identification of large road less areas and all of the known large road less areas are under protection by the national or a state agency. And potential damage to these regions is a low risk.

There are no know primary forests in the Wilmington procurement region. There has been logging activity in the region starting in the 1600's producing lumber and masts for the English fleet (North Carolina Digital History, 2016). Around 1720 naval stores businesses moved into the Cape Fear region because of the abundant Longleaf pine stands (North Carolina Digital History, 2016) . Product such as turpentine, pitch and tar were used as wood preservatives for the wood ships of the period (North Carolina Digital History, 2016). The likelihood of finding Type 1 or Type 2 old growth forests in the Wilmington procurement region is low.

Native longleaf pine savannas are identified as Priority Forest Types (PFT), particularly for Central Alabama, Florida Panhandle and Cape Fear Arch critical biodiversity areas. With respect to longleaf pine savannas that may fall within Enviva's supply base, the State of North and South Carolina have active programs to restore longleaf pine ecosystems, in conjunction with private conservation organizations such as the Nature Conservancy and the Conservation Fund. Organizations like the Longleaf Alliance report that the acreage in longleaf forest has increased across the Southeast region from 2.8 million acres in the 1990's to

approximately 3.2 million acres. More information on the Longleaf Alliance and the status of recovery efforts are available at The Longleaf Alliance website (The Longleaf Alliance, 2016).

Mesophytic cove sites: Mesophytic cove sites are diverse closed canopy hardwood forest occurring on mesic, sheltered sites (coves). In addition to a very diverse flora, mesophytic coves provide habitat for rare animal species with limited ranges like the cerulean warbler and crevice salamander. The major threat to mesophytic cove sites is conversion to non-forest uses or other forest types (e.g. white pine).

Specified risk:

In the Wilmington procurement region these sites are largely controlled by national and state agencies and are on the fringe of the western fringe supply area and generally fall outside of an economic hauling radius. The likelihood of a raw material delivery from a mesic site reaching an Enviva Wilmington region facility is low. Thus, there is low risk that Enviva's procurement could negatively impact these sites.

Mitigation Measure

Enviva will provide education and assistance to any supplier harvesting on a mesic site. In either case state forest BMP's will be followed.

Native Spruce-Fir Forests: Comprised of native Red spruce and Frasier fir, these habitats occur on Appalachian mountaintops, generally above 4,500 feet in elevation. They are a rare boreal forest type that is isolated from other boreal forests types, and provide necessary habitat to endemic high-elevation species.

Specified risk:

As with mesic sites, Native Spruce-Fir Forests exist in the far western region of the Wilmington procurement region and generally fall outside an economic hauling radius. The sites are generally owned or controlled by national and state agencies. The likelihood of a raw material delivery from a Native Spruce-Fir site reaching an Enviva Wilmington facility is low. Thus, there is low risk that Enviva's procurement could negatively impact these sites.

Mitigation Measure

Enviva will provide education and assistance to any supplier harvesting on a mesic site. In either case state forest BMP's will be followed.

Late successional bottomland hardwoods: Stand conditions of late successional bottomland hardwoods are extremely diverse and variable, and can be affected by minor changes in hydrology. Woody species diversity is comparable to the most diverse upland forests in the US. Several species groupings are considered bottomland hardwoods including mixed hardwoods and cypress-tupelo. Much of the original bottomland hardwood in the US has been cleared for agriculture, particularly in the Mississippi valley.

Specified risk:

These sites may exist in the Wilmington procurement region. The potential impact of a poorly executed harvest could be high. Given the timber harvesting history of the region the likelihood of Enviva receiving raw material from a stand meeting the definition of late successional is moderate. Many older stands of bottomland hardwood are under protection by the state and federal government, private ownerships and easements such as with The Nature Conservancy.

Mitigation Measure

All tracts will be assessed using the Enviva Forest Conservation Program High Conservation Value Tract Approval process to ensure conformance with Enviva's commitment to protect these special forest types. Due to the combination of the efforts of outside groups to protect these sites, and Enviva's HCV assessment process as described previously, the risk of Enviva's procurement negatively impacting these sites is low.

Native Longleaf pine savanna: Once one of the most widespread forest types in the US, longleaf pine savanna has been reduced to 3% of its original range. Associated with particularly high animal and plant diversity, including RTE species, longleaf pine savanna is responsible in part for the high biodiversity associated with the central Alabama, Florida panhandle and Cape Fear Arch critical biodiversity areas. Longleaf pine savanna is also directly associated with Red Cockaded Woodpecker and Gopher Tortoise priority T & E species.

Specified risk:

These sites are known to exist in the Wilmington procurement region. Native longleaf pine stands or savannas as defined in the FSC US Controlled Wood National Risk Assessment DRAFT are rare. The likelihood of Enviva receiving raw material from a longleaf sites is moderate given the nature of such stands having little to no hardwood understory and the higher value use of the pine for lumber. All of the Southeastern States have Forestry Assessments and Strategies, as well as Wildlife Action Plans. Federal and State legislation such as the Endangered Species Act and the Clean Water Act are policed effectively.

Mitigation Measure

Enviva, requires all suppliers of raw material adhere to all applicable laws and regulations and employ BMPs during harvest. Enviva also requires the use of trained loggers, which have completed training on BMPs, T&E species, identification of special sites, and more. Enviva will not contract with companies exhibiting poor performance, nor will Enviva purchase from a natural longleaf stand that is being converted to another forest type or to non-forest. The risk of Enviva's procurement will negatively impact these sites is low.

Considering the mitigation measures for the identified specific risks the risk of purchasing wood fiber from key eco-systems and habitats "low".

Indicator 2.2.4

The Biomass Producer has implemented appropriate control systems and procedures to ensure that biodiversity is protected (CPET S5b). (HVC 1)

According to the FSC US Controlled Wood National Risk Assessment – DRAFT (v0.1) the following biodiversity concerns exist in the supply region;

Montane Longleaf Pine & Longleaf Pine Habitat Specified Risk

Montane longleaf pine 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.

Enviva Sampson supply base area lies 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 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 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 Sampson 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.

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 Sampson and other local sawmills 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.

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 many states have guidelines for protecting the gopher tortoise. Given the gopher tortoise natural range the likelihood of Enviva Sampson receiving fiber from a tract with a gopher tortoise burrow is low.

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. The Wilmington Risk Assessments and Supply Base Evaluation will be updated as needed.

Karst Habitat: There are numerous areas of high aquatic and terrestrial biodiversity in the karst habitats of the Appalachians. The aquatic resources include fresh water mussels, fish and insects. The karst systems are rich with endemic and globally rare fishes, insects and cave invertebrates. The Clinch, Powell and Duck rivers are just a few of the nationally important river systems in the region. Sediment from poor logging practices and improperly constructed and maintained roads are the primary potential forestry related threats.

Specified risk: In the Wilmington supply base area these sites are largely controlled by national and state agencies and are on the fringe of the western fringe supply area and generally fall outside of an economic hauling radius. The potential impact of a poorly executed harvest could be high but the likelihood of a raw material delivery from a karst site reaching an Enviva Sampson facility is low.

Focusing on sustainable sourcing solutions

Mitigation measures: Stands that are harvested under the control of Enviva will be managed to preserve diversity and structure. A portion will left protected to preserve late successional elements. Enviva will provide education and assistance to any supplier harvesting on a mesic site. In either case state forest BMP's will be followed. There are known Karst habitats outside of the Appalachian Eco region and in the Wilmington supply base area. Proper forestry BMP's are required by contract and these areas are considered low risk.

Considering the mitigation measures for the identified specific risks the risk of purchasing wood fiber from areas without appropriate controls to protect biodiversity is "low".

10 Non-conformities and observations

No nonconformities were issued at the Evaluation audit. See surveillance update section 12.4 for details on new nonconformities.

11 Certification decision

Surveillance audit certification decision

Enviva Pellets Sampson, LLC conforms to SBP ST 1 V1.0, SBP ST 2 V1.0, SBP ST 4 V1.0, and SBP ST 5 V1.0 (including Instruction Documents 5A, 5B, & 5C V1.1) with one major nonconformity, two minor nonconformities, and two observations issued. The major and one minor CAR were closed prior to report finalization. Continued certification is approved.

Evaluation audit certification decision

PwC has concluded that the Enviva Pellets Sampson has the organizational capability to systematically meet the performance objectives and the requirements of the Standards based on the evaluation process described in Section 6 of this public summary. PwC's Practice Leader recommends certification of Enviva Pellets Sampson as of August 3, 2016. The next assessment should be completed prior to June 15, 2017.

12 Surveillance updates

12.1 Evaluation details

Date of surveillance evaluation was June 12 through June 14, 2017.

Sites Visited:

- Pellet Plant: 1 ½ days at this location
- Wilmington Port: ½ day at this location
- 4 field visits: 1 day at various tracts

See section 6.2 for further details.

12.2 Significant changes

The risk rating for indicator 2.1.1 changed from “specified risk” to “low risk”. Before sourcing from an area, the organization enlists suppliers to identify priority forest types and to create dynamic GIS maps to assist the BP in understanding where those priority types are most likely to exist. The BP also uses NaturServe created GIS maps of areas with high conservation values and implement their Enviva Forest Conservation Program High Conservation Value Tract Approval process (HCV Tract Approval Process). This process helps ensuring conformance to the bottomland forest type policy. Where data indicate that a sensitive bottomland forest is known to exist in close proximity to the tract, company foresters will assess whether the HCV condition is actually present on the tract prior to committing to purchase fiber. If the HCV is present the tract must be approved through the HCV Tract Approval Process prior to agreeing to purchase fiber from that specific location. Based on those procedures and processes the BP has demonstrated that it 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.

12.3 Follow-up on outstanding non-conformities

Not applicable: no non-conformities were identified at the initial evaluation.

12.4 New non-conformities

Requirement	Type & Grade of Finding	Deadline	Description	Status
ID 5B, 5.4.2	Minor	Closed	Feedstock moisture content SAR contained the fuel inputs which should not be included. Also had a typo. Not a significant effect on GHG balances, so rated as a Minor.	The SAR was corrected during the audit to remove fuel inputs from the feedstock moisture content. The correction

				resulted in no change in calculation. The number written in SAR was changed from 45.2% to 45.3% due to the typo. CAR is closed.
ID 5C, 3.2.2	Major	Closed	Only half of the Static Biomass Profiling Data sheet has been filled out and the SBP Feedstock Description is missing.	During the audit Kim filled this document out correctly. CAR is closed.
ST 1, indicator 2.7.4 & 2.7.5	Observation	N/A	For contractors and their employees, the BP establishes a contract that stipulates compliance to national and local laws, including employment non-discrimination practices and minimum wage. BP's HR staff interviewed states processes and procedures used to ensure non-discrimination and minimum wage. The BP's SBE does not reflect these actions implemented to ensure compliance to indicators 2.7.4 and 2.7.5. The SBE is currently using boiler plate language that doesn't show the depth of what the client is actually doing and could lead to confusion about how Enviva is meeting these indicators.	[Update 8/4/17]: The organization added language to the respective indicators to put emphasis on their actions to ensure the requirements in the indicators are met. Reviewed ENV-SBE-03 WILSBE FINAL; Enviva took appropriate action to address the observation.
ST 1, 6.1 b & c	Minor	closed	ENV-COC-03 contains a description and links to relevant national and local laws. Appendix III of the SBE includes a list of weblinks to national and local forest laws and administrative requirements, as well as to lists of endangered species at the state and federal level. Ten link of approximately 80 links provided in Appendix II were checked (10 > 0.6*√80). However, the link to North Carolina Forestry Laws was nonfunctional, indicating that the path may have changed. There is no list of ratified and relevant multilateral environmental agreements and ILO Conventions in relevant document included in the BP's SBP system (e.g., Appendix III of SBE, SBR, ENV-COC-03, etc.).	[Update 8/4/17]: Closed: Certificate holder added a list of ILO conventions and multilateral environmental agreements to respective section in SBE. CH updated broken link to North Carolina state forestry laws. Corrective actions taken by the certificate holder sufficiently address the nonconformity. CAR is closed
ST 5, ID 5B, 3.1.1	Observation	N/A	If the SAR covering the reporting period June 1, 2016 to March 31,	[Update 8/4/17]: Certificate holder added

			2017 is to be sent to customers, the organization needs to ensure that the SAR section contact details is filled out and that a company representative has signed the document.	signature of company representative. Enviva took appropriate action to address the observation.
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12.5 Stakeholder feedback

Not applicable: no stakeholder feedback

12.6 Conditions for continuing certification

Not applicable: no conditional non-conformities

12.7 Certification recommendation

Enviva Pellets Sampson conforms to SBP ST 1, 2, 4, & 5 with 1 Major CAR (closed before end of audit), 2 Minor CARs (1 closed before end of audit), and 1 Observation identified. Continued certification is recommended.