



Supply Base Report: Enviva Pellets Southampton, LLC

Re-assessment

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Completed in accordance with the Supply Base Report Template Version 1.3

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

Document history

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Contents

1	Overview	1
2	Description of the Supply Base	2
2.1	General description	2
2.2	Actions taken to promote certification amongst feedstock supplier	9
2.3	Final harvest sampling programme	9
2.4	Flow diagram of feedstock inputs showing feedstock type [optional]	10
2.5	Quantification of the Supply Base	10
3	Requirement for a Supply Base Evaluation	13
4	Supply Base Evaluation.....	14
4.1	Scope	14
4.2	Justification	14
4.3	Results of Risk Assessment.....	14
4.4	Results of Supplier Verification Programme	16
4.5	Conclusion.....	17
5	Supply Base Evaluation Process	19
6	Stakeholder Consultation	20
7	Overview of Initial Assessment of Risk	23
8	Supplier Verification Programme.....	24
8.1	Description of the Supplier Verification Programme	24
8.2	Site visits	24
8.3	Conclusions from the Supplier Verification Programme.....	24
9	Mitigation Measures.....	25
9.1	Mitigation measures	25
9.2	Monitoring and outcomes	27
10	Detailed Findings for Indicators.....	28
11	Review of Report.....	29
11.1	Peer review.....	29
11.2	Public or additional reviews	29
12	Approval of Report.....	30
13	Updates	31
13.1	Significant changes in the Supply Base	31
13.2	Effectiveness of previous mitigation measures	31
13.3	New risk rating and mitigation measures	32
13.4	Actual figures for feedstock over the past 12 months	38

13.5 Projected figures for feedstock over the next 12 months 41

14 **Appendix Listing of US Ratified ILO Conventions and Multi-lateral Environmental
Instruments 43**

15 **References 46**

Annex 1: Detailed Findings for Supply Base Evaluation Indicators..... 47

1 Overview

On the first page include the following information:

Producer name: Enviva Partners, LP

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

Geographic position: Enviva Pellets Southampton, LLC
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Date report finalised: 10/21/2020

Close of last CB audit: 19-Oct-2019 Southampton

Name of CB: SCS Global

Translations from English: N/A

SBP Standard(s) used: Standard 1v1.0, Standard 2v1.0, Standard 4v1.0 and Standard 5v1.0

Weblink to Standard(s) used: <https://sbp-cert.org/documents/standards-documents/standards>

SBP Endorsed Regional Risk Assessment: N/A

Weblink to SBE on Company website: <https://www.envivabiomass.com/sustainability/responsible-sourcing/third-party-certifications/>

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

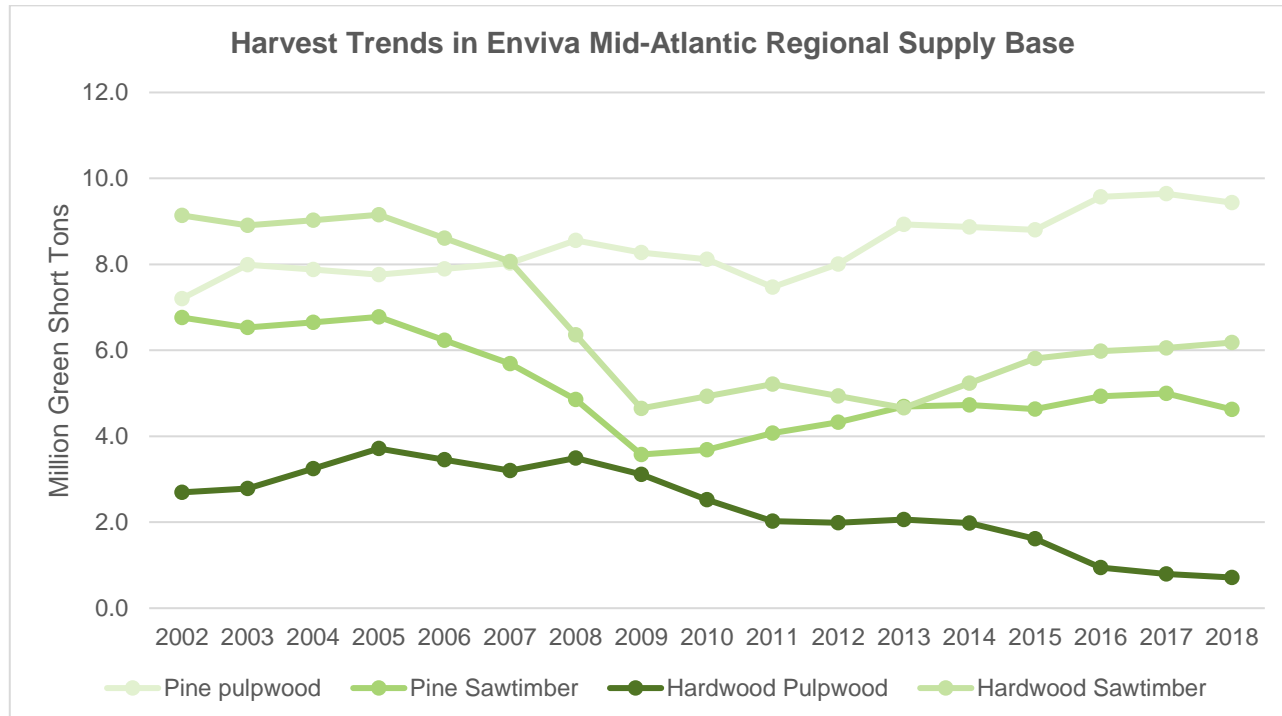
2 Description of the Supply Base

2.1 General description

Enviva Holdings LP (Enviva) operates 3 mills in its mid-Atlantic region: Enviva Pellets Southampton, VA, Enviva Pellets Northampton, NC and Enviva Pellets Ahoskie, NC. Enviva treats the supply regions for each mill as one large supply area, with the potential for each mill to obtain wood from any portion of the area. The mid-Atlantic regional supply base includes portions of the states of North Carolina, Virginia and portions of South Carolina. Hardwoods are the pre-dominant species group making up 70% of the forested hectares.

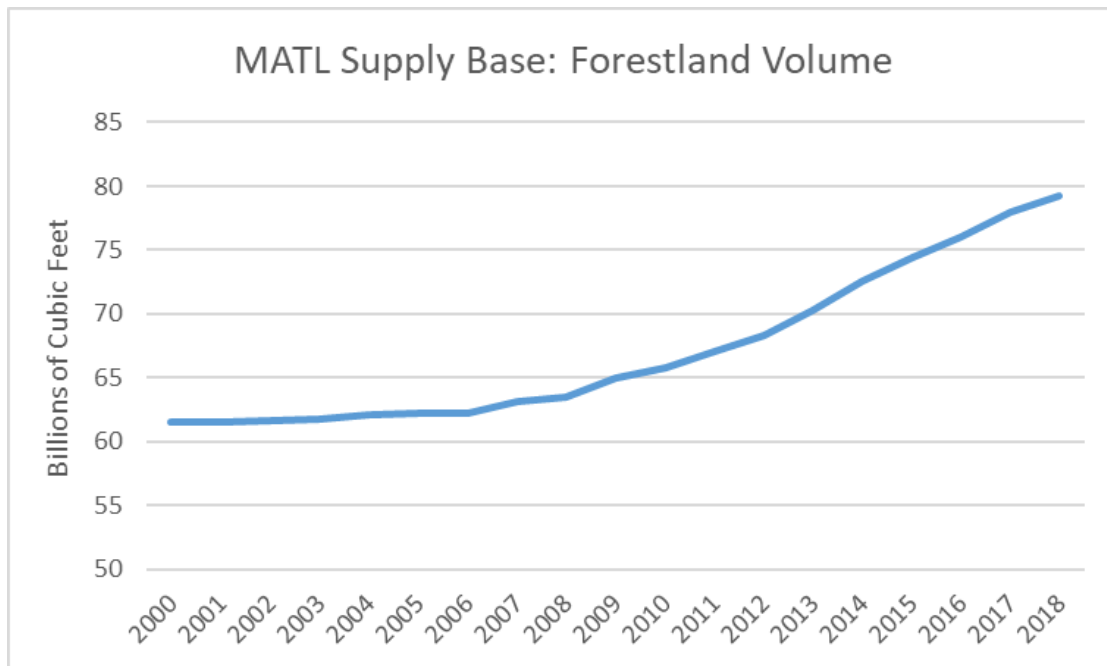
Figure 1 displays historic harvest volumes by product in the supply base, according to Forest2Market's comprehensive database (Forest2Market Inc., 2019). The graph shows the decline in demand for hardwood pulpwood starting 2006. Demand stabilized in 2011 coinciding with Enviva's entry in the region. Since 2014 hardwood pulpwood consumption has trended downward as other traditional users of hardwood pulpwood shift their operations to pine pulpwood. Moreover, the most recently available inventory data from the US Forest Service's Forest Inventory and Analysis program shows that the growth to drain ratio for hardwood in our Supply Base Area is 2.39:1, meaning that net hardwood inventories are increasing and current harvest levels for this product are sustainable. The growth to drain ratio for pine in the region is 1.65:1 (US Department of Agriculture Forest Service, 2018).

Figure 1. Harvest Trends by Product in the Mid-Atlantic Supply Base Area



The positive growth: drain value means that the regions forest standing stock has increased steadily since 2000 at an annualized rate of 1.6% (see Figure 2) (US Department of Agriculture Forest Service, 2017).

Figure 2. Standing Inventory in the Supply Base Area (USDA Forest Service, 2018)



Based on the most recently available inventory data from the US Forest Service's Forest Inventory and Analysis program, the combined hardwood and pine growth: drain ratio is 1.91:1. Due to the potential volume of sawtimber removals, the region also could generate up to 2.3 million green metric tons of low grade wood from the forest that could be used for pellet production (US Department of Agriculture Forest Service, 2018). Further, sawtimber users in the area generate about 1.8 million dry tons of mill residuals per year (US Department of Agriculture Forest Service, 2014).

Operating Scale

Enviva is just one of several industries and entities sourcing wood in its supply base area. According to Forest2Market's database and Enviva's wood delivery database, Enviva's three mills in the mid-Atlantic region source together about 15% of the total wood harvested in the area, while regional annual inventory growth exceeded the volume harvested. In the region, pine pulpwood is the only product for which demand has increased (4.0% annually) (Forest2Market Inc., 2019). 24% of Enviva's pellet feedstock in this region is made up of pine, 76% of wood used is hardwood. At the Southampton mill specifically, 9% of the feedstock is made up of pine and 91% is made up of hardwood.

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 in the supply base region (The IUCN Red List of Threatened Species, 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. Enviva's use of material from longleaf stand thinnings or other harvest residuals supports its commercial viability and encourages landowners to restore longleaf stands. Enviva will not procure wood from natural longleaf stands if they are going to be converted to non-forest or another forest type.

Further, Enviva maintains a third party audited Controlled Wood Risk Assessment which satisfies the Forest Stewardship Council™ (FSC), Programme for the Endorsement of Forest Certification™ (PEFC) and 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 appear in the Convention on International Trade in Endangered Species (CITES) Appendices (CITES, 2015).

General Forest Management Techniques

Forestry practices in the mid-Atlantic region can vary greatly due to landowner demographics and forest types. There are financial and tax incentives available to forest landowners to encourage management, replanting, and riparian zone buffer incentives (Virginia Department of Forestry, 2015), (North Carolina Forest Service, 2015), (South Carolina Forestry Commissions, 2018).

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.

Forest management in bottomland/ wetland hardwood systems

The majority of bottomland hardwood forest stands in the mid-Atlantic region have been harvested for sawtimber production for centuries. In terms of harvest techniques, as explained by the North Carolina Forest Service in its paper entitled *Managing and Regenerating Timber in Bottomland Swamps* (July 2012), “Implementing a carefully planned and executed swamp timber harvest in a manner that minimizes soil and water impacts has shown to be the practical and viable prescription for forest management in bottomland/cypress swamps.” In some instances, select cuts may be used for bottomland harvest, however clearcut harvest is the typical management method used in bottomland systems, as “nearly all swamp-adapted tree species require full sunlight to adequately regenerate, thus demanding a removal of the shading overstory” (North Carolina Forest Service, 2019). This harvest technique maximizes the likelihood of regeneration of desirable species post-harvest. Many of these existing bottomland hardwood stands have been poorly managed to date, such that appropriate silvicultural treatments such as clearcut embody restoration for these forests and are the best ecological outcome. For more information on bottomland hardwood forests and their silviculture, please see the excellent guide published by The Forest Guild, at <http://www.forestguild.org/node/263>.

Numerous state and Federal water quality regulations also govern forestry activities in swamps and wetlands. For example, the North Carolina and Virginia Departments of Forestry describes several forest management guidelines that should be followed when harvesting in bottomland systems. In addition to following best management practices (BMPs) for wetlands as described by the Department of Forestry in these forest types, streamside management zones (SMZs) are always established according to state guidelines. SMZ’s are intended to protect water quality, to provide a visual screen, to enhance wildlife/ bird corridors and to provide an additional source of tree seed to enhance regeneration (North Carolina Forest Service, 2012). Enviva audits its suppliers’ performance relative to state and Federal regulations and best management practices.

Forest management in pine systems

Pine plantations are managed under various regimes with the following typical management regime: planting, five years release spray, 15 year thinning and generally a final harvest between years 35 and 40. Other pine stands may be released after 5 years and left to grow as a mixed pine/ hardwood stand. Many pine stands are re-planted and are not intensively managed thereafter, which permits the growth of hardwood tree species within the stand, creating a mixed pine and hardwood forest.

Ownership, Land Use and Certification

The land ownership patterns in the Enviva mid-Atlantic supply base area are typical for the southern United States: approximately 85% of the forestland is privately held. Federal ownerships total 9% and state or local ownership are 5% of the forested hectares. As listed in Table 1, an estimated 54% of the region's total land area is forested, 22% is in agriculture, 10% is developed and 8% is wetlands. These four categories comprise 94% of the land cover (United States Department of the Interior Geological Survey, 2015).

Table 1. Land Cover in the Enviva Primary Fiber Sourcing Area

Cover/Land use	% of Supply Area
Water	2.2%
Developed	10.1%
Mechanically disturbed	3.3%
Mining	0.1%
Naturally barren	0.0%
Forest	54.5%
Grassland/ Shrubland	0.1%
Agriculture	21.8%
Wetlands	7.8%
Non-mechanically disturbed	0.0%

Major forest certification schemes such as the American Tree Farm System® (ATFS), SFI, and FSC, have program participants in the supply area. The FSC website indicates the program participants have certified 283,000 ha in the three states included in the supply base area. The SFI and ATFS Programs combined are nearly 2 million hectares in the three states. Companies in the supply base area active in certification are listed in Table 2.

Table 2. Companies Active in SFI or FSC in the Enviva Supply Area

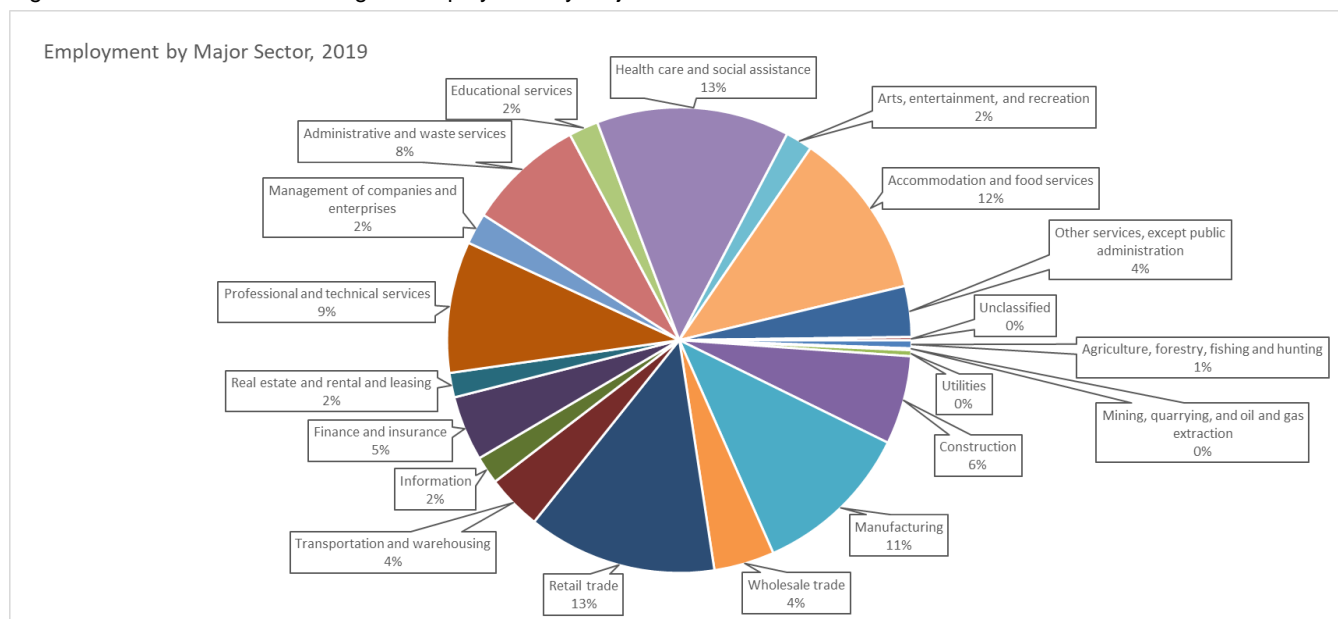
360 Forest Products, Inc.	Duke University	Mid Carolina Timber Company, Inc	Sonoco Products Company
Campbell Global, LLC - East & SE Regions	Forest Investment Associates	The Molpus Woodlands Group, LLC	South Carolina Forestry Commission
Certified Forest Management, LLC	GreenLink Forest Resources, LLC	Plum Creek Timber Company, Inc	Westervelt
Conservation Forestry, LLC	Hancock Natural Resource Group	Resource Management Services, LLC	Weyerhaeuser NR Company
The Conservation Fund	Johnson Company, Inc.	S & M Forest Management Group	Timberland Investment Resources, LLC
Crawley Timber Co	Kingstree Forest Products, Inc	SR Jones Jr Land & Timber	

Regional Socio-economic Conditions

Regional employment is graphed below and provides a snapshot of the social mixture of the region. Farming, fishing and forestry make up 0.2% of the total employment in the region. However, due to the nature of pellet production, it also supports other sectors such as transportation & material moving, production, installation, maintenance and repair, business and financial operations and office and administration occupations, which in total make up an additional 40% of the labor force. The mean income for the region is \$52,789 and mean income for the employment sector including Forestry is \$37,496 (United States Department of Labor, 2020). Enviva employs directly approximately 350 people in the region. Further, Enviva's operations supports an additional 280 +/- various harvesting crews and saw mills, along with forest managers, feedstock and pellet transport. Local contractors are used in maintaining the mills, providing

hundreds of spin-off jobs. Figure 3 illustrates employments by the major industrial groups for the two states included in the supply region (United States Department of Labor, 2020).

Figure 3. North Carolina and Virginia Employment by Major Sector



According to a report created for Enviva by Chmura Economics & Analytics, the total annual economic impact (direct, indirect, and induced impacts) of the ongoing operation of the Southampton wood pellet manufacturing plant in Virginia is estimated to be \$152.4 million (measured in 2013 dollars) which supports 261 state jobs. Aside from the direct impact, an additional indirect impact of \$61.0 million and 145 jobs will benefit other Virginia businesses that support the plant's operation, including local logging and trucking companies. The economic impact of the plant in North Carolina is smaller, derived entirely from the indirect and induced impact. The indirect impact in North Carolina is estimated to be \$21.1 million and 27 jobs per year in 2013, which benefits other North Carolina businesses that support the plant's operation, including local logging and trucking companies (Chmura Economics & Analytics, 2013).

Pellet Feedstock Profile

Primary feedstock is sourced direct from the forest in the form of round wood or chips from 126 +/- suppliers, all of whom are vetted and qualified prior to delivering. All suppliers must sign a contract with Enviva before wood can be delivered to an Enviva mill. The contract requires suppliers to use trained loggers during harvest, follow best management practices for water quality, and to avoid controversial sources of wood, such as illegal logging. Enviva foresters confirm trained logger status and ensures that loggers delivering wood maintain their continuing education as required. All suppliers and loggers must 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.

At the Southampton plant, the pellet feedstocks have the following characteristics:

- Primary Feedstock (roundwood and forest residues direct from the forest) comprise 97% of the feedstock. 3.6% of primary volume comes from SBP Controlled sources with the remaining 96.4% of primary volume as SBP-compliant Primary Feedstock. 41% of the volume is from certified sources.
- Secondary Feedstock (sawmill and wood industry residues) makes up 3% of the feedstock supplied by 22+/- mills, are a combination of SBP-Controlled Secondary Feedstock and SBP-Compliant Secondary Feedstock and none is from certified sources.
- Hardwoods make up 91% of the feedstock and softwood species are the remaining 9%.

Enviva's three mid-Atlantic mills received feedstocks from the following sources, by volume:

- 13.7% was made up of residues supplied by sawmills and wood industries.
- 41.2% 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.
- 34% 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.
- 6.1% 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 large-diameter oak, poplar, and hickory hardwood trees and a significant understory of small-diameter maple, oak, and sweetgum hardwood trees.
- 4.7% was made up of hardwood and pine chips and roundwood from bottomland hardwood forests. These are very low-intensity managed hardwood forests that are located in lowland areas and floodplains along rivers or other water bodies and which have soils that are saturated or flooded for at least part of the year. These forests contain overstories of large-diameter oak, gum, and cypress trees that originate from seedlings and sprouts arising out of stumps from previously harvested trees and a significant understory of small-diameter hardwood trees. When the landowner decides to harvest, the forest is clearcut and the stems of the large-diameter hardwood trees are sold to hardwood sawmills or furniture manufacturers, while the small diameter understory hardwood trees and tops and branches of sawtimber trees are sent to lower grade consumers like Enviva.

Enviva's Commitment to Responsible Fiber Sourcing

Track & Trace®(T&T®)

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, we maintain 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 Foresters must obtain this tract-level data and enter it into our database, which generates a unique tract ID. Then, upon delivery to an Enviva mill, each load is linked to that tract's ID number. As a result, Enviva knows the tract-level attributes for all the primary wood 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. Enviva only accepts wood from tracts in which the logger has completed and maintains training through an SFI-approved trained logger program.

Enviva monitors all incoming raw material to ensure that feedstock meets Enviva's sustainable sourcing policy. 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.

Identifying and protecting High Conservation Value (HCV) Areas:

While gathering Track & Trace data on specific tracts prior to purchase, Enviva's Foresters must evaluate whether there is a risk that the tract might be considered HCV or have an HCV area present. This assessment is conducted on a site-by-site basis in order to evaluate the condition of the stand and to maximize the likelihood of regeneration of desirable species post-harvest.

Overall, when deciding whether to purchase primary feedstock from a given tract, Enviva's goal is to determine whether that tract will, if harvested, produce a new tract with the same desirable species content that was present before harvest. Some indicators that are considered in this decision include forest type, location, species composition, hydrology and water flow, stand age and soil saturation. When assessing a tract for HCVs, Enviva evaluates all of these important characteristics. If there is evidence based on this first level of evaluation that the site may contain an HCV area, the Forester must perform a second level review which includes an on-site assessment, data collection and documentation prior to purchase.

At the landscape scale, we endeavour to contribute to a working forest landscape with a diversity of age classes representing various forest type assemblages which can, over the long and short term, provide wildlife habitat, recreation, buffers for climate change, and other ecosystem services, while still playing a pivotal role in conservation and working forests in the supply base area.

Minimizing risk from Secondary Feedstocks

Enviva purchases sawmill and wood industry residues in the form of sawdust, shavings, or other waste products from the milling process (Figure 4). 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 District of Origin 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 are accurate.

2.2 Actions taken to promote certification amongst feedstock supplier

Enviva is third party certified in the three major chain of custody systems (FSC, PEFC & SFI). Enviva also maintains certification under the SFI Fiber Sourcing Program. SFI Fiber Sourcing requires Enviva to promote responsible forestry activities and certification to our suppliers. Our staff are actively involved in the SFI Implementation Committees which are groups of SFI companies that work together to elevate forestry operations on-the-ground. In 2017 Enviva worked with two of its secondary feedstock supplier to achieve third party chain of custody certifications. In 2019, Enviva also contributed towards the certification of 10,000 FSC acres, in addition to our IMG.

Enviva actively pursues feedstock from certified sources to encourage those landowners to maintain and expand their certified holdings. Enviva also financially supports the American Tree Farm System and has an Independent Management Group (IMG) under ATFS which was created in 2015. Enviva has staff devoted to working with landowners to recruit them either into our group or the state program, by assisting them with writing management plans and preparing for audits. In 2019 Enviva's ATFS IMG included 518 separate tracts and 89,949 certified acres.

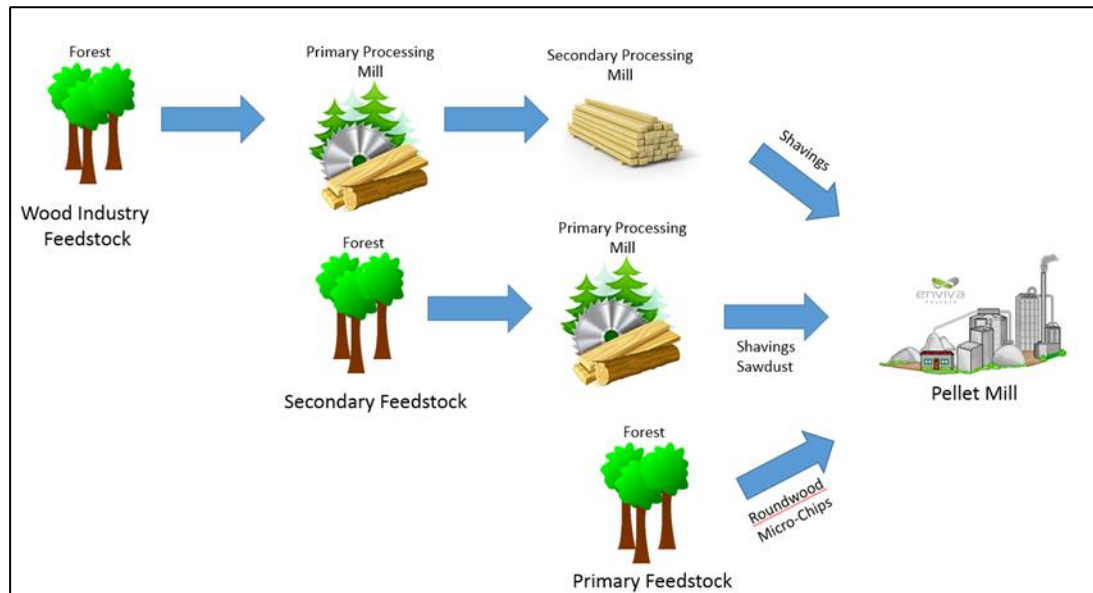
2.3 Final harvest sampling programme

Enviva's Track & Trace data show that currently about 34% of the primary volume purchased is from forest types that are typically managed on a 40 year or longer rotation. Importantly, most recently available Forest2Market data (2019)¹ indicates that 7% of the wood harvested in the Chesapeake supply basin was sold into biomass end uses.

¹ Forest2Market. 2019. Purchased proprietary data from: <https://www.forest2market.com/>.

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

Figure 4. Typical Process Flow Chart



2.5 Quantification of the Supply Base

Supply Base

- Total Supply Base area (ha): 15.1 million ha
- Tenure by type (ha):

State	Federal	State + Local	Private	Total
NC	442,715	429,397	5,889,160	6,761,271
SC	86,700	128,276	1,750,520	1,965,496
VA	896,448	264,858	5,287,809	6,449,115
Total	1,425,863	822,531	12,927,489	15,175,882

c. Forest by type (ha): All of the supply base area is temperate forest

Forest Type Group	NC	SC	VA	Total
White/red/jack pine	31,791	0	68,455	100,246
Spruce/fir	2,503	0	3,120	5,623
Longleaf/slash pine	170,705	85,945	4,155	260,805
Loblolly/shortleaf pine	2,342,810	792,505	1,209,490	4,344,805
Other eastern softwoods	9,749	8,220	30,689	48,658
Exotic softwoods	0	0	1,664	1,664
Oak/pine	841,198	240,561	676,016	1,757,775
Oak/hickory	2,276,927	427,514	3,925,180	6,629,622
Oak/gum/cypress	733,555	294,480	143,201	1,171,236
Elm/ash/cottonwood	226,152	83,716	174,396	484,264
Maple/beech/birch	12,057	0	141,903	153,960
Aspen/birch	0	0	591	591
Other hardwoods	37,020	0	26,211	63,231
Exotic hardwoods	8,971	3,917	10,449	23,337
Nonstocked	67,835	28,636	33,596	130,068
Total	6,761,274	1,965,495	6,449,115	15,175,885

d. Forest by management type (ha):

- Hardwoods comprise 70% of the forested hectares. These forests are typically naturally managed.
- The remaining 30% of forests are softwood. 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.

e. Certified forest by scheme (ha):

- SFI: 1,163,000 ha
- FSC: 283,000 ha
- ATFS: 631,000 ha

Feedstock

f. Total volume of Feedstock: 915,568 metric tons

g. Volume of primary feedstock: 888,836 metric tons

h. List percentage of primary feedstock (g), Subdivide by SBP-approved Forest Management Schemes:

- Forest Stewardship Council: 0.5%
- Program for the Endorsement of Forest Certification: 41%
- Not certified to an SBP-approved Forest Management Scheme: 58%

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

Common name	Scientific name
American beech	<i>Fagus grandifolia</i>
American elm	<i>Ulmus americana</i>
Atlantic white cedar	<i>Chamaecyparis thyoides</i>
Black cherry	<i>Prunus serotina</i>
Black gum	<i>Nyssa sylvatica</i>
Black jack oak	<i>Quercus marilandica</i>
Black oak	<i>Quercus velutina</i>
Black walnut	<i>Juglans nigra</i>
Cherry bark oak	<i>Quercus pagoda</i>
Chinkapin oak	<i>Quercus muehlenbergii</i>
Green ash	<i>Fraxinus pennsylvanica</i>
Hackberry	<i>Celtis occidentalis</i>
Hickory	<i>Carya spp.</i>
Holly	<i>Ilex opaca</i>
Laurel oak	<i>Quercus laurifolia</i>

Common name	Scientific name
Live oak	<i>Quercus virginiana</i>
Loblolly pine	<i>Pinus taeda</i>
Longleaf pine	<i>Pinus palustris</i>
Northern red oak	<i>Quercus rubra</i>
Overcup oak	<i>Quercus lyrata</i>
Pecan	<i>Carya illinoensis</i>
Persimmon	<i>Diospyros virginiana</i>
Pond pine	<i>Pinus serotina</i>
Post oak	<i>Quercus stellata</i>
Red maple	<i>Acer rubrum</i>
River birch	<i>Betula nigra</i>
River oak	<i>Casuarina cunninghamiana</i>
Shortleaf pine	<i>Pinus echinata</i>
Shumard oak	<i>Quercus shumardii</i>

Common name	Scientific name
Slash pine	<i>Pinus elliotii</i>
Souther red oak	<i>Quercus falcata</i>
Sugar maple	<i>Acer saccharum</i>
Swamp chestnut oak	<i>Quercus michauxii</i>
Sweet gum	<i>Luquidambar styraciflua</i>
Sycamore	<i>Plantanus occidentalis</i>
Virginia pine	<i>Pinus virginiana</i>
Water oak	<i>Quercus nigra</i>
Water tupelo	<i>Nyssa aquatica</i>
White ash	<i>Fraxinus americana</i>
White gum	<i>Eucalyptus wandoo</i>
White oak	<i>Quercus alba</i>
Willow oak	<i>Quercus phellos</i>
Winged elm	<i>Ulmus alata</i>
Yellow poplar	<i>Liriodendron tulipifera</i>

- j. Volume of primary feedstock from primary forest: 0.0 metric tons
- 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 metric tons
 - Primary feedstock from primary forest not certified to an SBP-approved Forest Management Scheme: 0.0 metric tons
- l. Volume of secondary feedstock: 3% of the total feedstock sourced is delivered as sawdust or shavings.
- m. Volume of tertiary feedstock: 0.0%

3 Requirement for a Supply Base Evaluation

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

Enviva completed a SBE because there currently is no SBP-endorsed Regional Risk Assessment (RRA) in the United States. Annual reviews of the supply base evaluation have been conducted by Enviva and reviewed each year by its certifying body during annual audits.

4 Supply Base Evaluation

4.1 Scope

Enviva has implemented policies and procedures appropriate to the size and scale of its operations and no indicators were excluded. 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 is offered at the supply base level. The supply base evaluation includes all primary and secondary feedstocks and the sourcing area includes North Carolina, Virginia and part of northeastern South Carolina.

Enviva conducted a supply base evaluation 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 publicly available sources, in addition to the internal monitoring already described. Details on LAVs are in the sections below.

4.2 Justification

Only a small proportion of feedstocks 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 its risk determinations including:

- FSC US Controlled Wood National Risk Assessment V1-0 D3-0 (FSC US CWNRA)
- All applicable Federal & state laws, including environmental laws, and occupational health and safety laws
- BMP implementation reports
- Stakeholder engagement
- State Natural Heritage programs
- Maps and data regarding high conservation values
- Supplier contracts
- District of Origin

4.3 Results of Risk Assessment

Each criterion was evaluated and measured against Enviva's existing forest certification and chain of custody programs and the listed LAV's. Information from the FSC US CWNRA was used as a baseline to determine if areas of high conservation value, biodiversity and conversion exist in Enviva's supply base area. Additionally, Enviva works with organizations like the US Endowment for Forestry and Communities, The Long Leaf Alliance, The Nature Conservancy and the American Forest Foundation and others to better understand our sourcing areas, habitats and species of concern. Based on this work and local knowledge Enviva determined a rating of "low risk" for each indicator with the exception of 2.1.1, 2.1.2, 2.2.3, 2.2.4 and 2.4.1.

Table 3. Indicators with Specified Risk Ratings

Indicator	Risk Assessment	Management system
2.1.1 The BP 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.	The US does not have an SBP approved regional risk assessment that fully considers all of the indicators.	Enviva is using the FSC US CWNRA as the baseline for determining potential areas of high conservation value. Additional work with interested and engaged stakeholders (see Section 6) has been incorporated into the supply base evaluation to supplement Enviva's ability to accurately map areas of high conservation value.
2.1.2 The BP 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.	Related to 2.1.1 If areas of high conservation value cannot be adequately identified the management systems or mitigation measures cannot be implemented to reduce risk.	Related to 2.1.1 Enviva's use of the FSC US CWNRA and stakeholder engagement has adequately identified areas of high conservation value. Enviva has robust management systems that can address these areas of specified risk and manage the outcome to low risk.
2.2.3 The BP has implemented appropriate control systems and procedures to ensure that key ecosystems and habitats are conserved or set aside in their natural state (CPET S8b).	Related to 2.1.1 Identification of key ecosystems and habitats is necessary to begin the process of identifying if they are properly conserved or set aside.	Related to 2.1.1 Enviva's use of the FSC US CWNRA and stakeholder engagement has adequately identified areas of key ecosystems and habitats. Additionally, Enviva's Forest Conservation Fund provides grant monies to successful applicant to help them set aside or conserve forests containing high conservation values, key ecosystems and habitats. Further, Enviva's ongoing engagement with interested stakeholders has extended our reach into additional areas of conservation (See section 6). Enviva has robust management systems that can address these areas of specified risk and manage the outcome to low risk.

2.2.4 The BP has implemented appropriate control systems and procedures to ensure that biodiversity is protected (CPET S5b).	Related to 2.1.1 Identification of areas with biodiversity concerns is necessary to begin the process of identifying if they are properly protected.	Related to 2.1.1 Enviva's use of the FSC US CWNRA and stakeholder engagement has adequately identified areas of key ecosystems and habitats. Additionally, Enviva's Forest Conservation Fund provides grant monies to successful applicant to help them set aside or conserve forests containing high conservation values, key ecosystems and habitats. Further, Enviva's ongoing engagement with interested stakeholders has extended our reach into additional areas of conservation (See section 6). Enviva has robust management systems that can address these areas of specified risk and manage the outcome to low risk.
2.4.1 The BP has implemented appropriate control systems and procedures for verifying that the health, vitality and other services provided by forest ecosystems are maintained or improved (CPET S7a).	Related to 2.1.1 Identification of forest ecosystems that provide key services is necessary to ensure proper control systems are employed to ensure forest health, vitality and other services are maintained.	Related to 2.1.1 Enviva's use of the FSC US CWNRA and stakeholder engagement has adequately identified key forest ecosystems. Additionally, Enviva's Forest Conservation Fund provides grant monies to successful applicant to help them set aside or conserve forests containing high conservation values, key ecosystems and habitats. Further, Enviva's ongoing engagement with interested stakeholders has extended our reach into additional areas of conservation (See section 6) Enviva has robust management systems that can address these areas of specified risk and manage the outcome to low risk.

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 of the 6 indicators with specified risk to low risk. As described above, Enviva has an extremely sophisticated data collection and monitoring program which supports the conclusions and actions in the risk assessment. Enviva's has well established and industry recognized best practices which are described in our commitment to responsible wood sourcing.

Enviva's Commitment to Responsible Wood Sourcing

Track & Trace®(T&T®)

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, we maintain a 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 foresters must obtain this tract-level data and enter it into our database, which generates a unique tract ID. Then, upon delivery to the mill, each load is linked to that tract's ID number. As a result, Enviva knows the tract-level attributes for all the primary wood 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. Enviva only accepts wood from tracts in which the logger has completed and maintains training through a SFI-approved trained logger program.

Enviva monitors all incoming raw material, to ensure that feedstock meets Enviva's sustainable sourcing policy. 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.

Overall, when deciding whether to purchase primary feedstock from a given tract, Enviva's goal is to determine whether that tract will, if harvested, produce a new tract with the same desirable species content that was present before harvest. Indicators that should be considered in this decision include forest type, location, species composition, hydrology and water flow, stand age and soil saturation. When assessing a tract for HCVs, Enviva evaluates all of these important characteristics. If there is evidence based on this first level of evaluation that the site may be an HCV area on the tract, then the forester must perform a second level review which includes an on-site assessment, data collection and documentation prior to purchase.

At the landscape scale, we endeavour to contribute to a working forest landscape with a diversity of age classes representing various forest type assemblages which can, over the long and short term, provide

wildlife habitat, recreation, buffers for climate change, and other ecosystem services, while still playing a pivotal role in conservation and working forests in the Southampton supply base area.

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 4). 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 District of Origin 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 are accurate.

Senior management is fully engaged and involved in the success of SBP Standard conformance. Enviva has a well-qualified and knowledgeable staff whom are 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.

5 Supply Base Evaluation Process

Enviva has a well-rounded competent staff of professionals with many years of experience in forest certification programs, policy and procedure development and natural resource management. These collective experiences and talents provided Enviva the ability to conduct its own supply base evaluation and risk assessment.

The mid-Atlantic region mills supply base area includes counties in all or part of North Carolina, South Carolina and Virginia. Data from Enviva's internal Track & Trace and other monitoring programs are 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 following the process outlined in the SBP Standards. Using all these data sources, Enviva has mapped its supply base for primary and secondary feedstock inputs for all facilities. According the USFS FIA database the total forested mid-Atlantic supply area is 15,175,885 ha and all are considered temperate forest.

Enviva used the FSC US Controlled Wood National Risk Assessment V1-0 D3-0, stakeholder engagement, its third party certified PEFC/SFI Due Diligence System and FSC Controlled Wood Risk Assessment to continually improve the SBE. Various third party data sources were also used for research in the region such as; Forest Stewardship Council, The Nature Conservancy, United States Forest Service, United States Department of Labor, United States Department of Environmental Protection, State Forest Service Divisions, National Council for Air and Stream Improvement, World Wildlife Fund, World Bank Governance Index, Illegal Logging Portal, Transparency International, Green Peace, Conservation International, World Resources Institute, Convention on International Trade in Endangered Species, International Union for Conservation of Nature and the Databasin web mapping tool.

As part of its stakeholder engagement, Enviva worked with The US Endowment for Forestry and Communities to evaluate the mid-Atlantic catchment area to determine other areas of high conservation value. The Endowment consulted with leading independent academics and environmental organizations and identified four specific bottomland priority forest types; cypress-tupelo swamps, Atlantic white cedar stands, Pocosins and Carolina bays.

Continued stakeholder engagement has helped Enviva identify forest types and habitats that can benefit from forest management. Section 6 contains additional information.

6 Stakeholder Consultation

On May 15, 2020 Enviva emailed its stakeholder consultation to the recipients listed in the table below. The stakeholder consultation was also promoted through various social media programs. The consultation was open for 60 days. There were no comments.

Table of Stakeholders

25 X 25	US Endowment For Forestry & Communities	NC Native Plant Soc	Southeast Fiber Supply
ABC	Forest Investment Associates	NC SAF	Swain & Temple, Inc.
AF&PA	Forest Landowners Assoc	NC State	T L Bain
American Forests	Franklin Lumber	NC TNC	The Conservation Fund
American Forests	Longleaf Alliance	NC Wildlife Fed	Timber Investment Resources
App State	Meherrin River	NC/ VA CF	VA ATFS
Appalachian State University	Mid-ATL National Wildlife Fed	NCASI	VA Conservation Network (NWF VA Affiliate)
Calhoun Timber Co	Mid-South Woodland Owners Assoc	NCSU	VA Forestry Assoc
Carolina Pine & Hardwoods	NAFO	NCSU Duke	VA Landowners Assoc
Christopher University	NASF	NRDC	VA Native Plant Soc
Darden Logging	NC ATFS	NWTF	VA SAF
Davis Logging of VA.	NC Bioenergy Council	ProLogger/NC Forestry Association	VA TNC
Dogwood	NC Coastal Land Trust	PSFC	VA/ NC CF
DU	NC Forest Service D10	RSB/NWF	Virginia Tech
Duke	NC Forest Service D11	RTI	Weyerhaeuser
Duke University	NC Forest Service D13	S & M Forest Management Group	WMI
E.O. Wilson Biophilia Center	NC Forest Service D5	Seaboard Timber Co, Inc	Woodridge Timber Co
East Carolina University	NC Forest Service D6	SELC	WWF
Eastern Band of Cherokee Indians	NC Forest Service D7	SCS Global	
EDF	NC Landowners Assoc	Sharp Logger	

2020 Update

The Longleaf Alliance and Enviva just formed a five-year partnership, focusing on increasing restoration-oriented biomass sourcing from longleaf stands on public and private land as well as the implementation of the longleaf component of Enviva's expanded HCV program. As part of our expanded HCV policy and procedures that Enviva will implement in 2020, Enviva will not source from identified, mapped longleaf stands that are being converted to another forest type.

On August 5th, we held our first call with our new Atlantic Coast Conservation Team. In 2019, Enviva started a similar Conservation Team in our Gulf states. The main priorities with the Atlantic Conservation Team are to get their technical and strategic feedback on our following draft plans for our 2021 RSP Implementation Plans:

- HCVs—expanding our high conservation value forest policy and procedures
- Ecological forest restoration (two new partnerships with The Longleaf Alliance and the Forest Stewards Guild on wildlife-oriented bottomland forest management)
- Certification (sustainable forest management)
- Forest-type change

Members as of August 2020 include representatives from the following organizations: National Wild Turkey Federation, VA Natural Heritage Program, VA Department of Forestry, VA Hardwood Initiative, North Carolina Forest Service, NC Natural Heritage Program, North Carolina State University.

2019 Update:

In February, Enviva and NatureServe convened a meeting in Raleigh with Natural Heritage program staff in many of the states from which we source, including NC and VA. The meeting was a kickoff of our year-long project to obtain from NatureServe and Natural Heritage Programs prioritized biodiversity geospatial data that we will use as the basis for an expansion and update of our High Conservation Value (HCV) policy and procedures. Conceptually, the NatureServe data will focus on stands where biomass sourcing may not be appropriate for biodiversity conservation, and where certain kinds of biomass sourcing could be appropriate for the maintenance and improvement of the stands and habitat conditions, such as longleaf stands. In late 2019, Enviva will decide which specific delineation of the biodiversity data we will adopt in our expanded and updated HCV policy. In June, Enviva received the first dataset, which was from the VA Dept of Conservation and Recreation (DCR), based on methodology that VA DCR developed for their Conservation Sites program. NatureServe then worked with other states Natural Heritage programs to replicate the conservation sites methodology with their data. In August, Enviva received the prioritized data from NC, SC, GA, FL and AL, and will work with MS to obtain relevant data. In September, Enviva wood procurement staff and our partner at Earthworm Foundation began testing, in a pilot project in NE NC and VA, our new procedures to use biodiversity-focused GIS data in our sourcing. After the procedures pilot this Fall, and after Enviva decides on the delineation of our expanded HCVs, we will implement our new HCV policy and procedures company-wide in January 2020.

2018 Update:

In 2018, Enviva worked with Rainforest Alliance on improvements to our Track & Trace program, including improving our processes so that Track & Trace can be audited. Now, in 2019, we are working with NEPCon to develop a Track & Trace Standard and procedures for auditing to that standard.

In 2018 Enviva's Forest Conservation Fund has help secure conservation easements on over 5,000 acres. To date the program has helped landowners secure conservation easements covering over 17,000 acres of sensitive forestland.

2017 Update

In late summer of 2017, as part of our plan to improve our Responsible Sourcing Policy, we solicited and received detailed feedback on the limitations in our current policy and suggestions for how to improve it from the following non-profit and agencies:

- The Association of Fish and Wildlife Agencies and The National Wildlife Federation
- The Nature Conservancy
- Audubon
- World Wildlife Fund
- National Council for Air and Stream Improvement
- The Conservation Fund
- The Forest Trust
- And others

We integrated many suggestions we received into our draft policy and the associated plans through which we will implement our policy, including: adding more robust protections of upland as well as bottomland forests, supporting restoration of longleaf and other critical forest types, driving FSC forest management certification, scoping the development of a broader sustainability policy, among others. We anticipate releasing our revised responsible sourcing policy in late 2018 or early 2019.

We are also working closely with Rainforest Alliance on improvements to our Track & Trace program, including improving our processes so that Track & Trace can be audited.

Bottomland Hardwood (BLHW) Task Force

We had numerous calls and held the last in-person meeting of our BLHW Task Force in June 2018, which provided detailed, constructive feedback on ways we could expand our BLHW HCV policy.

Longleaf Restoration

Building on our project with AFF and TNC to certify and restore longleaf in the FL panhandle, we consulted with Longleaf Alliance as we developed our thinking of how we could support longleaf restoration more broadly. In June, we presented our interest to support longleaf restoration around our new plant at Hamlet, NC to the NC Sandhills Conservation Partnership

In 2017 Enviva's Forest Conservation Fund has help secure conservation easements on over 8,000 acres. To date the program has helped landowners secure conservation easements covering over 13,200 acres of sensitive forestland.

7 Overview of Initial Assessment of Risk

Table 5. Overview of results from the risk assessment of all Indicators (prior to SVP)

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

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

8 Supplier Verification Programme

8.1 Description of the Supplier Verification Programme

No SVP is required.

8.2 Site visits

N/A

8.3 Conclusions from the Supplier Verification Programme

N/A

9 Mitigation Measures

9.1 Mitigation measures

To read full details for each indicator please see Annex 1.

Table 5. 2018 Report Findings

Indicator	Management System	Means of Verification
2.1.1 2.1.2	<p>Use of FSC US CWNRA and stakeholder engagement to develop appropriate maps of high conservation value areas</p> <p>Control system/Procedures Enviva uses contractual language in its Master Wood Purchase Agreement requiring supplier to abide by all relevant laws and regulations. The contract includes the requirement to avoid the following unacceptable sources wood:</p> <ul style="list-style-type: none"> • Illegally harvest wood; • Wood harvested in violation of traditional and civil rights; • Wood harvested from forests where high conservation values are threatened by management activities; • Wood harvested from old growth or semi-natural forests being converted to plantations or non-forest use; • Wood from forests where genetically modified trees are planted; • Wood in which there was a violation of the ILO Declarations on fundamental principle and rights at work. <p>Enviva requires all suppliers to sign an annual Master Wood Supply Agreement. The Agreement requires suppliers to abide by forest management activities regulations.</p> <p>Enviva requires all suppliers to sign an annual Master Wood Supply Agreement. The Agreement requires suppliers to avoid feedstock sources from land use change.</p> <p>Enviva uses its Tract Approval process and District of Origin process to assess feedstock purchases conformance to these indicators</p>	<ul style="list-style-type: none"> • ENV-SFIS-01 SFI Certified Sourcing Implementation Manual • ENV-PEFCCOC-01 PEFC Chain of Custody Procedures • ENV-FSCCOC-01 FSC Chain of Custody Procedures • ENV-COC-03 Controlled Wood/Controlled Sources Risk Assessment • FSC US Controlled Wood National Risk Assessment • Stakeholder engagement • Master Wood Purchase Agreement • State BMP Manuals • Track & Trace® • HCV Tract Approval Process • District of Origin Process

<p>2.2.3</p> <p>2.2.4</p> <p>2.4.1</p>	<p>Control system/Procedures</p> <p>Enviva uses contractual language in its Master Wood Purchase Agreement requiring supplier to abide by all relevant laws and regulations. The contract includes the requirement to avoid the following unacceptable sources wood: (items related to this indicator are underlined)</p> <ul style="list-style-type: none"> • Illegally harvest wood; • Wood harvested in violation of traditional and civil rights; • Wood harvested from forests where high conservation values are threatened by management activities; • Wood harvested from old growth or semi-natural forests being converted to plantations or non-forest use; • Wood from forests where genetically modified trees are planted; • Wood in which there was a violation of the ILO Declarations on fundamental principle and rights at work. <p>The Master Wood Purchase Agreement requires suppliers to avoid key ecosystems and habitats such as old growth forests and forest that could be threatened by forest management activities.</p> <p>The Enviva Forest Conservation Fund, a \$5 million, 10-year program sponsored by Enviva and administered by the U.S. Endowment for Forestry and Communities, is designed to protect tens of thousands of acres of sensitive bottomland forests in the Virginia-North Carolina coastal plain. The Enviva Forest Conservation Fund will award matching-fund grants to non-profit organizations to permanently protect ecologically sensitive areas and preserve working forests. (http://envivaforestfund.org/)</p> <p>Enviva uses its Tract Approval process and District of Origin process to assess feedstock purchases conformance to these indicators.</p>	<ul style="list-style-type: none"> a. Preamble citations b. ENV-SFIS-01 Certified Sourcing Implementation Manual c. Track & Trace® Program d. ENV-PEFCCOC-01 PEFC Chain of Custody Procedures e. ENV-FSCCOC-01 FSC Chain of Custody Procedures f. ENV-COC-02 Controlled Wood/Controlled Sources Procedure g. ENV-COC-03 Controlled Wood/Controlled Sources Risk Assessment h. Master Wood Purchase Agreement i. Track & Trace® j. District of Origin Process k. HCV Tract Approval Process l. State BMP Manuals and BMP monitoring data
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9.2 Monitoring and outcomes

In 2019 Enviva conducted 150 field site inspections in Enviva's mid-Atlantic region which include the Southampton mill as well as Enviva's Northampton, NC and Ahoskie, NC pellet mills. Field inspection to monitor program implementation such as forestry BMP implementation adherence and adherence to Enviva HCV Tract Approval process. No instances of program violations related to high conservation values, biodiversity or negative impact to health or vitality of key ecosystems were recorded. No tracts were out of compliance for state water quality according state BMP guidelines.

Enviva's District of Origin process requires secondary feedstock suppliers to annually complete a Data Request Form. These forms are used to assess changes in a secondary feedstock suppliers sourcing practices and to determine if the feedstock provided by the supplier is SBP-compliant or SBP-controlled. In 2019 Northampton received secondary feedstock from 44 suppliers, 11 are SBP-controlled based on their responses to Enviva Data Request Form and known high conservation value areas representing 3% of the mill's feedstock. Enviva audited 8 of its secondary feedstock suppliers in 2020 and there were no findings.

10 Detailed Findings for Indicators

Detailed findings for each Indicator are given in Annex 1.

11 Review of Report

11.1 Peer review

The supply base evaluation is reviewed annually and revised to include credible third-party information and internally generated information developed through Enviva's robust suite of programs and processes.

11.2 Public or additional reviews

The supply base evaluation was reviewed by the certifying body during audit.

12 Approval of Report

Approval of Supply Base Report by senior management			
Report Prepared by:	Don Grant	Manager, Sustainability Standards	09/08/2020
	Name	Title	Date
The undersigned persons confirm that I/we are members of the organization's senior management and do hereby affirm that the contents of this evaluation report were duly acknowledged by senior management as being accurate prior to approval and finalization of the report.			
Report approved by:	Jennifer Jenkins	Vice President and Chief Sustainability Officer	10/07/2020
	Name	Title	Date
Report approved by:	Thomas Meth	Executive Vice President Sales and Marketing	10/21/2020
	Name	Title	Date

13 Updates

13.1 Significant changes in the Supply Base

There were no changes to the supply base area.

13.2 Effectiveness of previous mitigation measures

2020 Report Findings:

In 2019 Enviva conducted 150+/- field site inspections in Enviva's mid-Atlantic region which include the Northampton mill as well as Enviva's Ahoskie, NC and Southampton, VA pellet mills. Field inspection to monitor program implementation such as forestry BMP implementation adherence and adherence to Enviva HCV Tract Approval process. No instances of program violations related to high conservation values, biodiversity or negative impact to health or vitality of key ecosystems were recorded. No tracts were out of compliance for state water quality according state BMP guidelines.

Enviva's District of Origin process requires secondary feedstock suppliers to annually complete a Data Request Form. These forms are used to assess changes in a secondary feedstock suppliers sourcing practices and to determine if the feedstock provided by the supplier is SBP-compliant or SBP-controlled. In 2019 Northampton received secondary feedstock from 44 suppliers, 11 are SBP-controlled based on their responses to Enviva Data Request Form and known high conservation value areas representing 3% of the mill's feedstock. Enviva audited 8 of its secondary feedstock suppliers in 2020 and there were no findings.

2019 Report Findings:

Management System

In 2018 Enviva conducted 260 field site inspections in Enviva's mid-Atlantic region which include the Ahoskie mill as well as Enviva's Northampton, NC and Southampton, VA pellet mills. Field inspection to monitor program implementation such as forestry BMP implementation adherence and adherence to Enviva HCV Tract Approval process. No instances of program violations related to high conservation values, biodiversity or negative impact to health or vitality of key ecosystems were recorded. No tracts were found to be out of compliance for state BMP water quality guidelines.

Enviva's District of Origin process requires secondary feedstock suppliers to annually complete a Data Request Form. These forms are used to assess changes in a secondary feedstock suppliers sourcing practices and to determine if the feedstock provided by the supplier is SBP-compliant or SBP-controlled. In 2018 Southampton received secondary feedstock from 45 suppliers, 15 are SBP-controlled based on their responses to Enviva Data Request Form and known high conservation value areas representing 4% of the mill's feedstock.

In 2018 Enviva's Forest Conservation Fund has help secure conservation easements on over 5,000 acres. To date the program has helped landowners secure conservation easements covering over 17,000 acres of sensitive forestland.

2.1.2, 2.2.4 Enviva's High Conservation Tract Approval process and secondary feedstock procedures are effective.

2.2.3 Enviva's Forest Conservation Fund continues to provide an avenue to assist forest landowners in conserving forests.

2018 Report Findings:

Management System

In 2017 Enviva conducted 116 field site inspections in Enviva's mid-Atlantic region which include the Southampton mill as well as Enviva's Northampton, NC and Ahoskie, NC pellet mills. Field inspection to monitor program implementation such as forestry BMP implementation adherence and adherence to Enviva HCV Tract Approval process. No instances of program violations related to high conservation values, biodiversity or negative impact to health or vitality of key ecosystems were recorded. One tract was found to be out of compliance for state water quality according to Enviva's guidelines but not according state BMP guidelines.

Enviva's District of Origin process requires secondary feedstock suppliers to annually complete a Data Request Form. These forms are used to assess changes in a secondary feedstock suppliers sourcing practices and to determine if the feedstock provided by the supplier is SBP-compliant or SBP-controlled. In 2017 Southampton received secondary feedstock from 22 suppliers, 8 are SBP-controlled based on their responses to Enviva Data Request Form and known high conservation value areas representing 0.9% of the mills feedstock.

In 2017 Enviva's Forest Conservation Fund has help secure conservation easements on over 8,000 acres. To date the program has helped landowners secure conservation easements covering over 13,200 acres of sensitive.

2017 Report Findings:

2.1..2 Enviva's High Conservation Tract Approval process and secondary feedstock procedures are business as usual controls.

2.2.3 Enviva's Forest Conservation Fund has already helped conserve seven high conservation forest tracts in the mid-Atlantic region protecting more than 5,200 acres of sensitive forestland.

2.2.4 Enviva's High Conservation Tract Approval process and secondary feedstock procedures are business as usual controls.

13.3 New risk rating and mitigation measures

2020 Report Findings:

There were no adjusted or new risk ratings or mitigation measures.

2019 Report Findings:

Indicator	Risk Assessment	Management system
2.1.1 The BP has implemented appropriate control systems and procedures for verifying that forests and other areas with high	The US does not have an SBP approved regional risk assessment that fully considers all of the indicators.	Enviva is using the FSC US CWNRA as the baseline for determining potential areas of high conservation value.

conservation value in the Supply Base are identified and mapped.		Additional work with interested and engaged stakeholders (see Section 6) has been incorporated into the supply base evaluation to supplement Enviva's ability to accurately map areas of high conservation value.
2.1.2 The BP 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.	Related to 2.1.1 If areas of high conservation value cannot be adequately identified the management systems or mitigation measures cannot be implemented to reduce risk.	Related to 2.1.1 Enviva's use of the FSC US CWNRA and stakeholder engagement has adequately identified areas of high conservation value. Enviva has robust management systems that can address these areas of specified risk and manage the outcome to low risk.

<p>2.2.3 The BP has implemented appropriate control systems and procedures to ensure that key ecosystems and habitats are conserved or set aside in their natural state (CPET S8b).</p>	<p>Related to 2.1.1 Identification of key ecosystems and habitats is necessary to begin the process of identifying if they are properly conserved or set aside.</p>	<p>Related to 2.1.1 Enviva's use of the FSC US CWNRA and stakeholder engagement has adequately identified areas of key ecosystems and habitats. Additionally, Enviva's Forest Conservation Fund provides grant monies to successful applicant to help them set aside or conserve forests containing high conservation values, key ecosystems and habitats. Further, Enviva's ongoing engagement with interested stakeholders has extended our reach into additional areas of conservation (See section 6). Enviva has robust management systems that can address these areas of specified risk and manage the outcome to low risk.</p>
<p>2.2.4 The BP has implemented appropriate control systems and procedures to ensure that biodiversity is protected (CPET S5b).</p>	<p>Related to 2.1.1 Identification of areas with biodiversity concerns is necessary to begin the process of identifying if they are properly protected.</p>	<p>Related to 2.1.1 Enviva's use of the FSC US CWNRA and stakeholder engagement has adequately identified areas of key ecosystems and habitats. Additionally, Enviva's Forest Conservation Fund provides grant monies to successful applicant to help them set aside or conserve forests containing high conservation values, key ecosystems and habitats. Further, Enviva's ongoing engagement with interested stakeholders has extended our reach into additional areas of conservation (See section 6). Enviva has robust management systems that can address these areas of specified risk and manage the outcome to low risk.</p>

2.4.1 The BP has implemented appropriate control systems and procedures for verifying that the health, vitality and other services provided by forest ecosystems are maintained or improved (CPET S7a).	Related to 2.1.1 Identification of forest ecosystems that provide key services is necessary to ensure proper control systems are employed to ensure forest health, vitality and other services are maintained.	Related to 2.1.1 Enviva's use of the FSC US CWNRA and stakeholder engagement has adequately identified key forest ecosystems. Additionally, Enviva's Forest Conservation Fund provides grant monies to successful applicant to help them set aside or conserve forests containing high conservation values, key ecosystems and habitats. Further, Enviva's ongoing engagement with interested stakeholders has extended our reach into additional areas of conservation (See section 6) Enviva has robust management systems that can address these areas of specified risk and manage the outcome to low risk.
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2018 Report Findings:

Risk designation changes are as described in Sections 4 and 9.

Indicator	Risk Assessment	Management system
2.1.1 The BP 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.	The US does not have an SBP approved regional risk assessment that fully considers all of the indicators.	Enviva is using the FSC US CWNRA as the baseline for determining potential areas of high conservation value. Additional work with interested and engaged stakeholders (see Section 6) has been incorporated into the supply base evaluation to supplement Enviva's ability to accurately map areas of high conservation value.
2.1.2 The BP 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.	Related to 2.1.1 If areas of high conservation value cannot be adequately identified the management systems or mitigation measures cannot be implemented to reduce risk.	Related to 2.1.1 Enviva's use of the FSC US CWNRA and stakeholder engagement has adequately identified areas of high conservation value. Enviva has robust management systems that can address these areas of specified risk and manage the outcome to low risk.

2.1.3 The BP has implemented appropriate control systems and procedures for verifying that feedstock is not sourced from forests converted to production plantation forest or non-forest lands after January 2008.	Related to 2.1.1 Areas of conversion to production plantation (as defined by SBP) is low in Enviva's supply base area. Conversion to non-forest after January 2008 may occur in the supply base area.	Related to 2.1.1 Enviva's use of the FSC US CWNRA and local knowledge provide Enviva the ability identified areas of conversion after January 2008 Enviva has robust management systems that can address these areas of specified risk and manage the outcome to low risk.
2.2.3 The BP has implemented appropriate control systems and procedures to ensure that key ecosystems and habitats are conserved or set aside in their natural state (CPET S8b).	Related to 2.1.1 Identification of key ecosystems and habitats is necessary to begin the process of identifying if they are properly conserved or set aside.	Related to 2.1.1 Enviva's use of the FSC US CWNRA and stakeholder engagement has adequately identified areas of key ecosystems and habitats. Additionally, Enviva's Forest Conservation Fund provides grant monies to successful applicant to help them set aside or conserve forests containing high conservation values, key ecosystems and habitats. Further, Enviva's ongoing engagement with interested stakeholders has extended our reach into additional areas of conservation (See section 6). Enviva has robust management systems that can address these areas of specified risk and manage the outcome to low risk.
2.2.4 The BP has implemented appropriate control systems and procedures to ensure that biodiversity is protected (CPET S5b).	Related to 2.1.1 Identification of areas with biodiversity concerns is necessary to begin the process of identifying if they are properly protected	Related to 2.1.1 Enviva's use of the FSC US CWNRA and stakeholder engagement has adequately identified areas of key ecosystems and habitats. Additionally, Enviva's Forest Conservation Fund provides grant monies to successful applicant to help them set aside or conserve forests containing high conservation values, key ecosystems and habitats. Further, Enviva's ongoing engagement with interested stakeholders has extended our reach into additional areas of conservation (See section 6). Enviva has robust management systems that can address these areas of specified risk and manage the outcome to low risk.

2.4.1 The BP has implemented appropriate control systems and procedures for verifying that the health, vitality and other services provided by forest ecosystems are maintained or improved (CPET S7a).	Related to 2.1.1 Identification of forest ecosystems that provide key services is necessary to ensure proper control systems are employed to ensure forest health, vitality and other services are maintained.	Related to 2.1.1 Enviva's use of the FSC US CWNRA and stakeholder engagement has adequately identified key forest ecosystems. Additionally, Enviva's Forest Conservation Fund provides grant monies to successful applicant to help them set aside or conserve forests containing high conservation values, key ecosystems and habitats. Further, Enviva's ongoing engagement with interested stakeholders has extended our reach into additional areas of conservation (See section 6) Enviva has robust management systems that can address these areas of specified risk and manage the outcome to low risk.
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2017 Report Findings:

2.1.2 Enviva's annual District of Origin and Supplier Data Request Form process meets the requirements described in SBP's Normative Interpretations Document dated December 2017. The guidance found in Standard 2 Section 8.4 describes the procedures a Biomass Producer may use to ensure secondary feedstock sources can be proven SBP-compliant. The evidence collected and evaluated by Enviva to determine the risk of a supplier sourcing practices and supply area are low risk for all indicators.

This approach is also in alignment with SBP Guidance Document: Meeting SBP Criteria in relation to protecting exceptional conservation values in the southern US.

The process Enviva employ's through its District of Origin Process and annual Supplier Data Request process ensures Enviva can meet and exceed the guidance provided in the document therefore providing conformance to indicators 2.1.1 and 2.1.2 and confirming low risk.

2.2.3 The Enviva Forest Conservation Fund, a \$5 million, 10-year program sponsored by Enviva and administered by the U.S. Endowment for Forestry and Communities, is designed to protect tens of thousands of acres of sensitive bottomland forests in the Virginia-North Carolina coastal plain. The Enviva Forest Conservation Fund will award matching-fund grants to non-profit organizations to permanently protect ecologically sensitive areas and preserve working forests. (<http://envivaforestfund.org/>)

2.2.4 Enviva's annual District of Origin and Supplier Data Request Form process allows meets the requirements described in SBP's Normative Interpretations Document dated December 2017. The guidance found in Standard 2 Section 8.4 describes the procedures a Biomass Producer may use to ensure secondary feedstock sources can be proven SBP-compliant. The evidence collected and evaluated by Enviva to determine the risk of a supplier sourcing practices and supply area are low risk for all indicators.

This approach is also in alignment with SBP Guidance Document: Meeting SBP Criteria in relation to protecting exceptional conservation values in the southern US.

13.4 Actual figures for feedstock over the past 12 months

2020 Report (2019 Actual Feedstock Data)

- n. Total volume of Feedstock: 915,568 metric tons
- o. Volume of primary feedstock: 888,836 metric tons
- p. List percentage of primary feedstock (g), Subdivide by SBP-approved Forest Management Schemes:
 - Forest Stewardship Council: 0.5%
 - Program for the Endorsement of Forest Certification: 41%
 - Not certified to an SBP-approved Forest Management Scheme: 58%
- q. List all species in primary feedstock, including scientific name

Common name	Scientific name
American beech	Fagus grandifolia
American elm	Ulmus americana
Atlantic white cedar	Chamaecyparis thyoides
Black cherry	Prunus serotina
Black gum	Nyssa sylvatica
Black jack oak	Quercus marilandica
Black oak	Quercus velutina
Black walnut	Juglans nigra
Cherry bark oak	Quercus pagoda
Chinkapin oak	Quercus muehlenbergii
Green ash	Fraxinus pennsylvanica
Hackberry	Celtis occidentalis
Hickory	Carya spp.
Holly	Ilex opaca
Laurel oak	Quercus laurifolia

Common name	Scientific name
Live oak	Quercus virginiana
Loblolly pine	Pinus taeda
Longleaf pine	Pinus palustris
Northern red oak	Quercus rubra
Overcup oak	Quercus lyrata
Pecan	Carya illinoensis
Persimmon	Diospyros virginiana
Pond pine	Pinus serotina
Post oak	Quercus stellata
Red maple	Acer rubrum
River birch	Betula nigra
River oak	Casuarina cunninghamiana
Shortleaf pine	Pinus echinata
Shumard oak	Quercus shumardii

Common name	Scientific name
Slash pine	Pinus elliotii
Souther red oak	Quercus falcata
Sugar maple	Acer saccharum
Swamp chestnut oak	Quercus michauxii
Sweet gum	Luquidambar styraciflua
Sycamore	Plantanus occidentalis
Virginia pine	Pinus virginiana
Water oak	Quercus nigra
Water tupelo	Nyssa aquatica
White ash	Fraxinus americana
White gum	Eucalyptus wandoo
White oak	Quercus alba
Willow oak	Quercus phellos
Winged elm	Ulmus alata
Yellow poplar	Liriodendron tulipifera

- r. Volume of primary feedstock from primary forest: 0.0 metric tons
- s. 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 metric tons

- Primary feedstock from primary forest not certified to an SBP-approved Forest Management Scheme: 0.0 metric tons
- t. Volume of secondary feedstock: 3% of the total feedstock sourced is delivered as sawdust or shavings.

Volume of tertiary feedstock: 0.0%

2019 Report (2018 Actual Feedstock Data)

Feedstock

- f. Total volume of Feedstock: 814,632 metric tons
- g. Volume of primary feedstock: 771,064 metric tons
- h. List percentage of primary feedstock (g), Subdivide by SBP-approved Forest Management Schemes:
 - a. Forest Stewardship Council: 0.0%
 - b. Program for the Endorsement of Forest Certification: 43.7%
 - c. Not certified to an SBP-approved Forest Management Scheme: 65.6%
- i. List all species in primary feedstock, including scientific name

Common name	Scientific name
American beech	Fagus grandifolia
American elm	Ulmus americana
Atlantic white cedar	Chamaecyparis thyoides
Black cherry	Prunus serotina
Black gum	Nyssa sylvatica
Black jack oak	Quercus marilandica
Black oak	Quercus velutina
Black walnut	Juglans nigra
Cherry bark oak	Quercus pagoda
Chinkapin oak	Quercus muehlenbergii
Green ash	Fraxinus pennsylvanica
Hackberry	Celtis occidentalis
Hickory	Carya spp.
Holly	Ilex opaca
Laurel oak	Quercus laurifolia

Common name	Scientific name
Live oak	Quercus virginiana
Loblolly pine	Pinus taeda
Longleaf pine	Pinus palustris
Northern red oak	Quercus rubra
Overcup oak	Quercus lyrata
Pecan	Carya illinoensis
Persimmon	Diospyros virginiana
Pond pine	Pinus serotina
Post oak	Quercus stellata
Red maple	Acer rubrum
River birch	Betula nigra
River oak	Casuarina cunninghamiana
Shortleaf pine	Pinus echinata
Shumard oak	Quercus shumardii

Common name	Scientific name
Slash pine	Pinus elliottii
Southern red oak	Quercus falcata
Sugar maple	Acer saccharum
Swamp chestnut oak	Quercus michauxii
Sweet gum	Luquidambar styraciflua
Sycamore	Plantanus occidentalis
Virginia pine	Pinus virginiana
Water oak	Quercus nigra
Water tupelo	Nyssa aquatica
White ash	Fraxinus americana
White gum	Eucalyptus wandoo
White oak	Quercus alba
Willow oak	Quercus phellos
Winged elm	Ulmus alata
Yellow poplar	Liriodendron tulipifera

- j. Volume of primary feedstock from primary forest: 0.0 metric tons

- 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 metric tons
 - Primary feedstock from primary forest not certified to an SBP-approved Forest Management Scheme: 0.0 metric tons
- l. Volume of secondary feedstock: 4.9% of the total feedstock sourced is delivered as sawdust or shavings.
- m. Volume of tertiary feedstock: 0.0%

2018 Report (2017 Actual Feedstock Data)

Feedstock

- f. Total volume of Feedstock: 862,567 metric tons
- g. Volume of primary feedstock: 853,444 metric tons
- h. List percentage of primary feedstock (g), Subdivide by SBP-approved Forest Management Schemes:
- Forest Stewardship Council: 1.4%
 - Program for the Endorsement of Forest Certification: 33.0%
 - Not certified to an SBP-approved Forest Management Scheme: 65.6%
- i. List all species in primary feedstock, including scientific name

Common name	Scientific name
American beech	Fagus grandifolia
American elm	Ulmus americana
Atlantic white cedar	Chamaecyparis thyoides
Black cherry	Prunus serotina
Black gum	Nyssa sylvatica
Black jack oak	Quercus marilandica
Black oak	Quercus velutina
Black walnut	Juglans nigra
Cherry bark oak	Quercus pagoda
Chinkapin oak	Quercus muehlenbergii
Green ash	Fraxinus pennsylvanica
Hackberry	Celtis occidentalis
Hickory	Carya spp.
Holly	Ilex opaca
Laurel oak	Quercus laurifolia

Common name	Scientific name
Live oak	Quercus virginiana
Loblolly pine	Pinus taeda
Longleaf pine	Pinus palustris
Northern red oak	Quercus rubra
Overcup oak	Quercus lyrata
Pecan	Carya illinoensis
Persimmon	Diospyros virginiana
Pond pine	Pinus serotina
Post oak	Quercus stellata
Red maple	Acer rubrum
River birch	Betula nigra
River oak	Casuarina cunninghamiana
Shortleaf pine	Pinus echinata
Shumard oak	Quercus shumardii

Common name	Scientific name
Slash pine	Pinus elliotii
Southern red oak	Quercus falcata
Sugar maple	Acer saccharum
Swamp chestnut oak	Quercus michauxii
Sweet gum	Luquidambar styraciflua
Sycamore	Plantanus occidentalis
Virginia pine	Pinus virginiana
Water oak	Quercus nigra
Water tupelo	Nyssa aquatica
White ash	Fraxinus americana
White gum	Eucalyptus wandoo
White oak	Quercus alba

Willow oak	Quercus phellos
Winged elm	Ulmus alata
Yellow poplar	Liriodendron tulipifera

- j. Volume of primary feedstock from primary forest: 0.0 metric tons
- k. List percentage of primary feedstock from primary forest (j), by the following categories. Subdivide by SBP-approved Forest Management Schemes:
 - c. Primary feedstock from primary forest certified to an SBP-approved Forest Management Scheme: 0.0 metric tons
 - d. Primary feedstock from primary forest not certified to an SBP-approved Forest Management Scheme: 0.0 metric tons
- l. Volume of secondary feedstock: 1.1% of the total feedstock sourced is delivered as sawdust or shavings.
- m. Volume of tertiary feedstock: 0.0%

13.5 Projected figures for feedstock over the next 12 months

2020 Estimate

Feedstock

- f. Total volume of Feedstock: 915,568 metric tons
- g. Volume of primary feedstock: 888,836 metric tons
- h. List percentage of primary feedstock (g), Subdivide by SBP-approved Forest Management Schemes:
 - a. Forest Stewardship Council: 0.5%
 - b. Program for the Endorsement of Forest Certification: 41%
 - c. Not certified to an SBP-approved Forest Management Scheme: 58%
- i. List all species in primary feedstock, including scientific name

Common name	Scientific name
American beech	Fagus grandifolia
American elm	Ulmus americana
Atlantic white cedar	Chamaecyparis thyoides
Black cherry	Prunus serotina
Black gum	nyssa sylvatica
Black jack oak	Quercus marilandica
Black oak	Quercus velutina
Black walnut	Juglans nigra
Cherry bark oak	Qurecus pagoda
Chinkapin oak	Qurecus muehlenbergii
Green ash	Fraxinus pennsylvanica
Hackberry	Celtis occidentalis
Hickory	Carya spp.
Holly	Ilex opaca
Laurel oak	Quercus laurifolia

Common name	Scientific name
Live oak	Quercus virginiana
Loblolly pine	Pinus taeda
Longleaf pine	Pinus palustris
Northern red oak	Quercus rubra
Overcup oak	Quercus lyrata
Pecan	Cayra illinoensis
Persimmon	Diospyros virginiana
Pond pine	Pinus serotina
Post oak	Quercus stellata
Red maple	Acer rubrum
River birch	Betula nigra
River oak	Casuarina cunninghamiana
Shortleaf pine	Pinus echinata
Shumard oak	Quercus shumardii

Common name	Scientific name
Slash pine	Pinus elliottii
Souther red oak	Quercus falcata
Sugar maple	Acer saccharum
Swamp chestnut oak	Quercus michauxii
Sweet gum	Luquidambar styraciflua

Sycamore	Plantanus occidentalis
Virginia pine	Pinus virginiana
Water oak	Qurecus nigra
Water tupelo	Nyssa aquatica
White ash	Fraxinus americana
White gum	Eucalyptus wandoo
White oak	Quercus alba
Willow oak	Quercus phellos
Winged elm	Ulmus alata
Yellow poplar	Liridendron tulipifera

- j. Volume of primary feedstock from primary forest: 0.0 metric tons
- k. List percentage of primary feedstock from primary forest (j), by the following categories. Subdivide by SBP-approved Forest Management Schemes:
 - e. Primary feedstock from primary forest certified to an SBP-approved Forest Management Scheme: 0.0 metric tons
 - f. Primary feedstock from primary forest not certified to an SBP-approved Forest Management Scheme: 0.0 metric tons
- l. Volume of secondary feedstock: 3% of the total feedstock sourced is delivered as sawdust or shavings.
- m. Volume of tertiary feedstock: 0.0%

14 Appendix Listing of US Ratified ILO Conventions and Multi-lateral Environmental Instruments

US Ratified ILO Conventions:

- C053 Officers Competency Certificates Convention, 1936
- C055 Shipowners' Liability (Sick and Injured Seamen) Convention, 1936
- C058 Minimum Age (Sea) Convention (Revised), 1936
- C074 Certification of Able Seamen Convention, 1946
- C080 Final Articles Revision Convention, 1946
- C105 Abolition of Forced Labour Convention, 1957
- C147 Merchant Shipping (Minimum Standards) Convention, 1976
- C150 Labour Administration Convention, 1978
- C160 Labour Statistics Convention, 1985
- C176 Safety and Health in Mines Convention, 1995
- C182 Worst Forms of Child Labour Convention, 1999

US Ratified Multi-Lateral Environmental Instruments:

- Convention for the Long-range Transboundary Air Pollution
- Vienna Convention for the Protection of the Ozone Layer
- United Nations Framework Convention on Climate Change
- Convention for the Protection and Development of Marine Environment of the Wider Caribbean Region
- London Convention
- International Convention for the Prevention of Pollution from Ships, 1973 and subsequent six Protocols
- Protocol on Environmental Protection to the Antarctic Treaty
- The North American Agreement on Environmental Cooperation

Federal and state forestry laws can be found: <https://nationalaglawcenter.org/research-by-topic/forestry/>

Threaten and Endangered species information is located: <https://www.fws.gov/endangered/>

Counties in the Supply Base Area

North Carolina (91)					
Alamance	Catawba	Gaston	Lincoln	Perquimans	Union
Alexander	Chatham	Gates	McDowell	Person	Vance
Alleghany	Chowan	Granville	Madison	Pitt	Wake
Anson	Cleveland	Greene	Martin	Polk	Warren
Ashe	Columbus	Guilford	Mecklenburg	Randolph	Washington
Avery	Craven	Halifax	Mitchell	Richmond	Watauga
Beaufort	Cumberland	Harnett	Montgomery	Robeson	Wayne
Bertie	Currituck	Henderson	Moore	Rockingham	Wilkes
Bladen	Dare	Hertford	Nash	Rowan	Wilson
Brunswick	Davidson	Hoke	New Hanover	Rutherford	Yadkin
Buncombe	Davie	Hyde	Northampton	Sampson	Yancey
Burke	Duplin	Iredell	Onslow	Scotland	
Cabarrus	Durham	Johnston	Orange	Stanly	
Caldwell	Edgecombe	Jones	Pamlico	Stokes	
Camden	Forsyth	Lee	Pasquotank	Surry	
Caswell	Franklin	Lenoir	Pender	Tyrrell	

South Carolina (18)					
Cherokee	Darlington	Florence	Lancaster	Marlboro	Sumter
Chester	Dillon	Horry	Lee	Richland	Union
Chesterfield	Fairfield	Kershaw	Marion	Spartanburg	York

Virginia (130)					
Albemarle	Chesapeake*	Fredericksburg*	Lee	Page	Shenandoah
Alleghany	Chesterfield	Galax*	Lexington*	Patrick	Smyth
Amelia	Clarke	Giles	Loudoun	Petersburg*	Southampton
Amherst	Colonial Heights, City	Gloucester	Louisa	Pittsylvania	Spotsylvania
Appomattox	Covington*	Goochland	Lunenburg	Poquoson*	Stafford
Arlington	Craig	Grayson	Lynchburg*	Portsmouth*	Staunton*
Augusta	Culpeper	Greene	Madison	Powhatan	Suffolk*
Bath	Cumberland	Greensville	Manassas Park*	Prince Edward	Surry
Bedford	Danville*	Halifax	Manassas*	Prince George	Sussex
Bland	Dickenson	Hampton*	Martinsville*	Prince William	Tazewell
Botetourt	Dinwiddie	Hanover	Mathews	Pulaski	Virginia Beach*
Bristol*	Emporia*	Harrisonburg*	Mecklenburg	Radford*	Warren
Brunswick	Essex	Henrico	Middlesex	Rappahannock	Washington
Buchanan	Fairfax	Henry	Montgomery	Richmond	Waynesboro*
Buckingham	Fairfax*	Highland	Nelson	Richmond*	Westmoreland
Buena Vista*	Falls Church*	Hopewell*	New Kent	Roanoke	Williamsburg*
Campbell	Fauquier	Isle of Wight	Newport News*	Roanoke*	Winchester*

Caroline	Floyd	James City	Norfolk*	Rockbridge	Wise
Carroll	Fluvanna	King and Queen	Northumberland	Rockingham	Wythe
Charles City	Franklin	King George	Norton*	Russell	York
Charlotte	Franklin*	King William	Nottoway	Salem*	
Charlottesville*	Frederick	Lancaster	Orange	Scott	

* City Areas

15 References

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Annex 1: Detailed Findings for Supply Base Evaluation Indicators

Preamble

Enviva's Enviva Pellet mill is located in the United States. The country has a robust legal system developed using democratic processes. The "rule of law" social system is acknowledged by the World Bank as ranking in *Government Effectiveness* (92%) and *Rule of Law* (89%) and *Regulatory Quality* (92%), indicating that the United States has proven that it possesses effective means to ensure all laws and regulatory requirements are met or addressed if lacking through legal recourse. All verifiers were reviewed by third party auditors.

Internal verifiers (identified in bold text) may contain sensitive information that cannot be made publicly available. External verifiers are publicly available.

Enviva used the FSC US Controlled Wood Risk Assessment V1.0 D3.0 (FSC US CWNRA) as the basis for its risk assessment and supply base evaluation. SBP has yet to receive a Regional Risk Assessment (RRA) for the US to evaluate and approve thus considers all the currently available assessment resources in and of themselves to be only partially adequate in assessing high conservation value and conversion indicators. If a BP is referencing a publicly available third-party multi-stakeholder risk assessment such as the FSC US CWNRA, and where the nature and location of the specified risk are located within the BP's Supply Base, and the assessment of risk has been completed, the risk rating assigned by the authors should be used unless the BP can provide additional new verification data to prove low risk. For indicators not addressed by the FSC US CWNRA Enviva developed additional Locally Applicable Verifiers that followed the SBP stakeholder consultation approval process.

Enviva's forestry certifications

Enviva maintains a number of third party audited forestry certifications. These certification and underlying systems are audited annually by an accredited third-party certifying body. These standards and their requirements are robust and help their certificate holders demonstrate supply chain transparency in a uniform, auditable process. These internal documents are referenced throughout the Annex:

- ENV-COC-02 Controlled Wood/Controlled Sources Procedure
- ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment
- ENV-SFIS-01 Certified Sourcing Implementation Manual
- ENV-PEFCCOC-01 PEFC Chain of Custody Procedure
-

These internal work documents are based on the following Standards:

- ©Sustainable Biomass Program
- American Tree Farm System™ Independently Managed Group
- Forest Stewardship Council® (FSC) Chain of Custody and Controlled Wood Standard
- Program for the Endorsement of Forest Certifications™ (PEFC) Chain of Custody
- Sustainable Forestry Initiative® (SFI) Fiber Sourcing
- Sustainable Forestry Initiative® (SFI) Chain of Custody

Tools used to develop the Supply Base Evaluation

Enviva developed this supply base evaluation using the FSC US CWNRA and its PEFC Chain of Custody as a basis for its supply base evaluation. Enviva also used a report prepared for the American Hardwood Export Council (AHEC) entitled, *Assessment of Lawful Harvesting & Sustainability of US Hardwood Exports*. Other sources of information include but are not limited to:

- Enviva PEFC Due Diligence System,
- FSC High Conservation Area Mapping tool,
- The Nature Conservancy website and various shapefiles,

- World Wildlife Fund,
- World Bank Worldwide Governance Indicators,
- Forest Legality Initiative,
- Transparency International,
- Conservation International,
- World Resources Institute,
- Convention on International Trade in Endangered Species,
- International Union for Conservation of Nature and the
- Databasin web mapping tool.

Supplier level assessment

Primary feedstock

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. We have developed a robust Track & Trace database which includes information at the tract level, including data on the forest type, age, GPS coordinates, acreage, and estimates on the percent of volume from that tract being sold to Enviva. Before agreeing to accept material from a certain tract, Enviva's Foresters must obtain and review this tract-level data and enter it into our database, which generates a unique tract ID. Then, upon delivery to an Enviva mill, each load is linked to that tract's ID number. As a result, Enviva knows the tract-level attributes for all the primary wood entering the mill.

We implement monitoring of our Track & Trace data, including a desktop remote-sensing based monitoring program, and field audits. During our desktop monitoring, we use Geographic Information Systems (GIS) to review tract details like location, tract acreage, and forest cover type. 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. 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.

Identifying and protecting High Conservation Value (HCV) Areas

While gathering Track & Trace data on specific tracts prior to purchase, Enviva's Foresters must evaluate whether there is a risk that the tract might be considered HCV. This assessment is conducted on a site-by-site basis to evaluate the condition of the stand and to maximize the likelihood of regeneration of desirable species post-harvest.

Overall, when deciding whether to purchase primary feedstock from a given tract, Enviva's goal is to determine whether that tract will, if harvested, produce a new tract with the same desirable species content that was present before harvest. Indicators that should be considered in this decision include forest type (i.e. whether it is a priority forest types), location, species composition, hydrology and water flow, stand age and

soil saturation. When assessing a tract for HCVs, Enviva evaluates all of these important characteristics. If there is evidence based on this first level of evaluation that the site may contain an HCV, then the Forester must perform a second level review which includes an on-site assessment, data collection and documentation and management approval prior to purchase.

Secondary feedstock

Enviva's annual District of Origin Process allows secondary feedstock suppliers to meet the requirements described in SBP's Normative Interpretations Document. The process collects information about the suppliers sourcing area, species processed at the mill, the types of information collected about the landowner and other pertinent information as described in the guidance found in Standard 2 Section 8.4 of the Interpretations. This information is mapped and compared to Enviva's supply base area and against known areas with potential high conservation value to ensure that any risk to HCV values associated with suppliers of secondary feedstocks is appropriately included in the SBP supply base evaluation process to ensure the suppliers' sourcing practices do not pose a threat to these areas. Enviva purchases primary feedstock from many of the same timber harvesting crews as its secondary feedstock suppliers. Since Enviva uses its proprietary Track & Trace program to purchase primary feedstock it, by extension, has quite a bit of information about the source tracts of its secondary feedstock suppliers.

Enviva's District of Origin approach is also in alignment with SBP Guidance Document: Meeting SBP Criteria in relation to protecting exceptional conservation values in the southern US. The process Enviva employs through its District of Origin Process and annual District of Origin update process ensures Enviva can meet and exceed the guidance provided in the document therefore providing conformance to indicators 2.1.1 and 2.1.2.

The system has been verified effective by an independent third-party Certifying Body (CB), who reviewed both internal and external sources of information. The CB conducted the required secondary supplier site visits, interviews and analysis and confirmed that the information supplied by the secondary suppliers was accurate, and that Enviva's DOO process is sound and is operating consistently with SBP Interpretation and Guidance.

Forestry best management practices

Many of the indicators contain references to forestry BMP's (BMP). BMP guidelines were developed at the state level in response to the federal Clean Water Act requirement pertaining to non-point source water quality. Most states have monitoring programs to evaluate BMP effectiveness and compliance rates, and some states require their use. Enviva and many other wood industry companies, however, require the use of forestry BMP's regardless of the state's stance. Table 1 below* shows the high rate of BMP compliance across Enviva's supply base area. Though forestry BMP's are not a complete solution to many of the criteria they do serve as a measure of sound forestry practices.

Table 1. Selected Percent Forestry Best Management Compliance Rates by State¹

State	Timber Harvesting	Forest Roads	Skid Trails	Log Landings	Stream Crossings	SMZ ²	Wetlands	Reforestation	State Average
NC		84	82		72	91			85
SC	94	98			81	92		100	91
VA		94	84	70	68	86	91		90

1. Not all categories are ranked in every state
2. Streamside Management Zone

The National Association of State Forester (NASF) recently released publication, *Protecting The Nation's Water: State Forestry Agencies and Best Management Practices*. The publication covers all 50 US States and eight of its territories. The state forestry BMP implementation rates for the Enviva supply base area are listed in the appendix and the NASF publication concluded.

"Across the country, BMP's are implemented appropriately, when and where they are needed, 92% of the time. This is a figure not only one state forestry agency can be proud of: it serves as strong evidence in support of a silvicultural exemption to Clean Water Act permitting requirements".

Links to each state's forestry BMP's is below.

- North Carolina – https://www.ncforestservice.gov/water_quality/bmp_manual.htm
-
- South Carolina – <https://www.state.sc.us/forest/refbmp.htm>
- Virginia – <http://dof.virginia.gov/water/index.htm>

Means of Verification

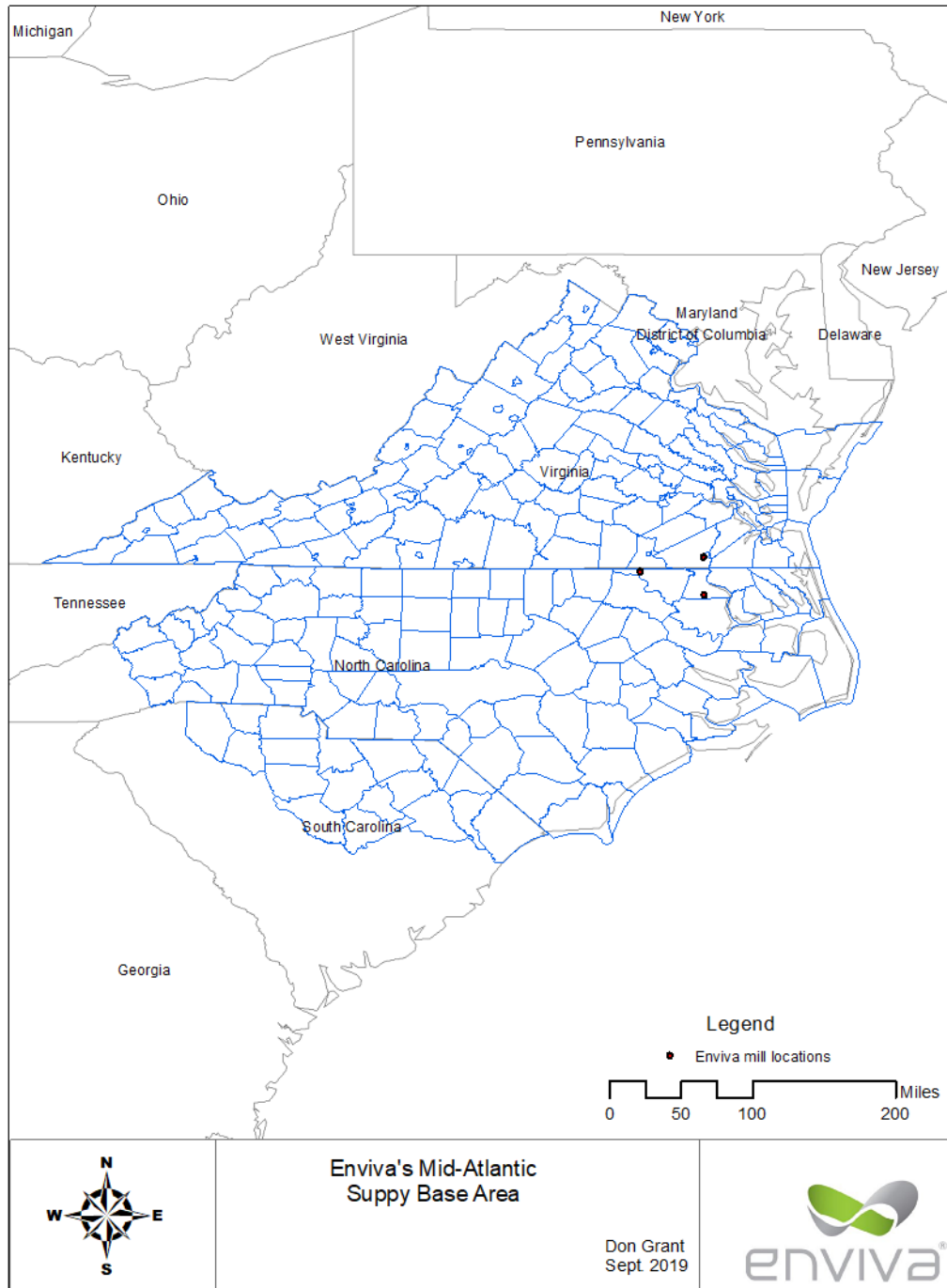
SBP's definition of means of verification: A systematic collection and review of objective evidence to verify compliance with a specified criterion. Evidence may include legislation, delivery and other records, supplier contracts, statements of fact or other information which are verifiable.

In some indicators this can be achieved with accessible third-party information. For instance, indicator 2.1.1 the identification of areas with high conservation values can be accomplished using publicly available third-party sources of information though Enviva goes farther by continually engaging with willing stakeholders like The Nature Conservancy, Earthworm, NatureServe and other's listed in Section 6 of the SBR. We do this to ensure we have the most up to date information and some of that work is proprietary.

*Source National Association of State Foresters publication, *Protecting The Nations Water: State Forestry Agencies and Best Management Practices* (<https://www.stateforesters.org/newsroom/protecting-the-nations-water-state-forestry-agencies-and-best-management-practices/>)

In some indicators the Biomass Producer is required to demonstrate they have processes and/or procedures to verify their sourcing practices can address the topic(s) of the indicator. And other might require a combination of the two approaches.

Proof of implementation of appropriate controls and procedures to identify and address potential threats (2.1.2) requires signed contract, internal audit forms, assessment processes. Many if these documents contain sensitive information about our suppliers, where and how they purchase wood and performance information necessary to conform to the SBP Standards. Some of the documents are internal working and procedures documents Enviva staff use to ensure we consistently perform our tasks in a manner that can be verified through third-party audits. The approach aligns with SBP Guidance Document: Assessment of risk, means of verification and mitigation measures in the southeast US.



	Indicator
1.1.1	The Biomass Producer's Supply Base is defined and mapped.
Finding	<p>Supplier sourcing areas are tracked through Enviva's proprietary Track & Trace Program and a robust District of Origin process. Tract level information from primary feedstock suppliers include the GPS location of each source tract. Secondary feedstock suppliers provide specific information about their supply base area and its location such as its radius or county list. Both sets of location information are used to ensure Enviva can identify the geographic location of its feedstock supply. Enviva's supply base area includes counties in North Carolina, South Carolina and Virginia. Data is entered into computer programs and reviewed annually to ensure appropriateness. This information is used to define the supply area and create maps</p> <p>ENV-COC-02 Controlled Wood/Controlled Sources Procedure is an internal document describing the process Enviva follows to ensure it knows where feedstocks originate.</p> <p>ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment is Enviva's FSC Controlled Wood Risk Assessment/PEFC Due Diligence System document that defines how the supply area is assessed for risk to satisfy FSC and PEFC requirements, the basis of an SBP system.</p> <p>ENV-PEFCCOC-01 PEFC Chain of Custody Procedure and ENV-COC-02 Controlled Wood/Controlled Sources Procedure are internal documents describing the process Enviva follows to ensure it knows where feedstocks originate.</p> <p><u>Conclusion</u> Enviva's Chain of Custody certifications require the company to develop and maintain a Controlled Wood Risk Assessment/Due Diligence System that ensure Enviva annually reviews its supply base area for accuracy. The risk of wood from un-known regions entering Enviva supply is low</p>
Means of Verification	<ul style="list-style-type: none"> a. Preamble citations b. Track & Trace c. ENV-COC-02 Controlled Wood/Controlled Sources Procedure d. District of Origin Process e. ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment f. ENV-PEFCCOC-01 PEFC Chain of Custody Procedure
Evidence Reviewed	All means of verification reviewed
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA

	Indicator
1.1.2	Feedstock can be traced back to the defined Supply Base.
Finding	Supplier sourcing areas are tracked through Enviva's proprietary Track & Trace Program and a robust District of Origin Process. Tract level information from primary feedstock suppliers include the GPS location of each source tract. Secondary feedstock suppliers

	<p>provide specific information about their supply base area and its location. Both sets of location information are used to ensure Enviva can identify the geographic location of its feedstock supply. Enviva's supply base area includes counties in North Carolina, South Carolina and Virginia. Data is entered into computer programs and reviewed annually to ensure appropriateness. Enviva maintains a PEFC CoC certification for all Enviva pellet mills. The certification track wood through the supply chain, while also ensuring unwanted sources of wood do not enter the supply chain.</p> <p>Master Wood Purchase Agreements contain recital requiring the supplier to agree to abide by Enviva's legal and sustainability commitments including a provision to allow Enviva to periodically audit suppliers to ensure conformance.</p> <p>ENV-SFIS-01 Certified Sourcing Implementation Manual is Enviva's SFI feedstock sourcing manual. Indicator 2.1.2 requires the use of written agreements (Master Wood Purchase Agreement) for all feedstocks sourced from the forest. This means Enviva will only purchase feedstocks from companies where we have an existing business relationship.</p> <p>ENV-PEFCCOC-01 PEFC Chain of Custody Procedure and ENV-COC-02 Controlled Wood/Controlled Sources Procedure describe the workflow for ensuring Enviva satisfies the chain of custody requirements.</p> <p>Enviva maintains three chain of custody systems; FSC, PEFC and SFI. These systems are designed to follow both certified feedstocks and Controlled Wood/Controlled Source feedstocks to their county of origin, at a minimum.</p> <p><u>Conclusion</u> Enviva's Chain of Custody certifications require the company to develop and maintain a Controlled Wood Risk Assessment/ Due Diligence System that ensures that the origin of all feedstocks is known.</p>
Means of Verification	<ul style="list-style-type: none"> a. Preamble citations b. ENV-SFIS-01 Certified Sourcing Implementation Manual c. Track & Trace d. ENV-COC-01 PEFCCOC-01 PEFC Chain of Custody Procedure e. ENV-COC-02 Controlled Wood/Controlled Sources Procedure f. District of Origin Process g. Master Wood Purchase Agreement
Evidence Reviewed	All means of verification reviewed
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA

	Indicator
1.1.3	The feedstock input profile is described and categorised by the mix of inputs.
Finding	Enviva tracks purchased and consumed material by product type (roundwood, wood chips, residuals, etc.) and general species groupings of softwood or hardwood. Wood is stored at the mill site by product/species and input verified by monthly inventory processes. Certified wood inputs coming into the mill site are mingled with other wood and all non-certified inputs are considered "controlled".

	<p>ENV-PEFCCOC-01 PEFC Chain of Custody Procedure requires a PEFC certificate holder to develop a process to describe feedstock profiles for the purpose of tracking through processing. ENV-COC-02 Controlled Wood/Controlled Sources Procedure describes how feedstock purchases are categorized before purchase.</p> <p>The Monthly Wood Excel is a mill site-specific workbook used to track tons of each feedstock type into and through the process from raw material to final product.</p> <p><u>Conclusion</u> These certifications track feedstock through the supply chain, while also ensuring unwanted sources of wood do not enter the supply chain</p>
Means of Verification	<p>a. Preamble citations</p> <p>b. ENV-PEFCCOC-01 PEFC Chain of Custody Procedure</p> <p>c. ENV-COC-02 Controlled Wood/Controlled Sources Procedure</p> <p>d. Monthly Wood Excel</p>
Evidence Reviewed	All means of verification reviewed
Risk Rating	<p>X Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA</p>

	Indicator
1.2.1	<p>The Biomass Producer has implemented appropriate control systems and procedures to ensure that legality of ownership and land use can be demonstrated for the Supply Base.</p>
Finding	<p>Some relevant findings from the FSC US CWNRA:</p> <p>1.1 Land tenure and management rights finds the US legality of ownership to be a low risk citing landownership records in the US are highly reliable and frequently used by banking institutions to issue mortgages generally requiring title clearances.</p> <p>The FSC US CWNRA cited the Seneca Creek Associates, LLC report entitled, <i>Assessment of Lawful Harvesting & Sustainability of US Hardwood Exports</i>, "The vast majority of private landowners own small family forests that average less than 10 hectares in size. Numerous legal processes are available to landowners to resolve disputes involving proper title and/or the unauthorized taking or sale of timber property." Seneca Creek Report 2008, p ii.</p> <p>Further, "Comparisons of international governance indicators, such as those compiled by the World Bank, strongly indicate that the US is perceived as a country with a high regard for the rule of law, an effective environmental, labor and public welfare regulatory environment, and a low level of corruption." Seneca Creek Report 2008, p iii.</p> <p><u>Additional evidence:</u> Enviva uses contractual language in its Master Wood Purchase Agreement requiring supplier to abide by all relevant laws and regulations. The contract includes the requirement to avoid the following unacceptable sources wood including illegally harvested wood:</p> <ul style="list-style-type: none"> - Illegally harvest wood; - Wood harvested in violation of traditional and civil rights;

- Wood harvested from forests where high conservation values are threatened by management activities;
- Wood harvested from old growth or semi-natural forests being converted to plantations or non-forest use;
- Wood from forests where genetically modified trees are planted;
- Wood in which there was a violation of the ILO Declarations on fundamental principle and rights at work.

Enviva requires all suppliers to sign a Master Wood Supply Agreement. Master Wood Purchase Agreements contain recital requiring the supplier to agree to abide by Enviva's legal and sustainability commitments including a provision to allow Enviva to periodically audit suppliers to ensure conformance. Enviva will only purchase feedstocks from suppliers who it has an established business relationship and a signed agreement. The Master Wood Purchase Agreement has among its many recitals requirements for feedstock supplier to ensure legality of ownership.

ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment contains the work done to determine if illegal logging and timber theft are a risk in the supply area. This document uses many of the same sources as the FSC US CWNRA. Both conclude illegal logging is a low risk in the Enviva supply area. Further evidence indicates that the rule of law and public agency governance are upheld so illegality is considered low risk. Enviva has implemented procedures to conform to EUTR.

Enviva's Responsible Sourcing Policy publicly describes Enviva's commitment to avoid illegal sources of wood.

Enviva's Track & Trace Program requires suppliers to provide GPS coordinates, landowner name and other pertinent information for each track they harvest and send feedstock to Enviva which enables Enviva to use tax maps to verify ownership if needed.

SFI Fiber Sourcing Standard Objective 4 requires a certificate holder to comply with all applicable federal, provincial and local laws and regulations. ENV-SFIS-01 Certified Sourcing Implementation Manual describes processes and internal documents Enviva uses to meet the Objective. Specifically, indicators 4.1.4 and 4.1.5 requires the Program Participant to demonstrate it assessed if wood is legally sourced and put in programs to address risks of illegal sourcing if any exist. The 4.1.4 assessment found no significant risk of buying wood from illegal sources.

The PEFC Chain of Custody Standard requires the certificate holder to ensure it knows where feedstocks originate and ensure wood is legally sourced. ENV-PEFCCOC-01 PEFC Chain of Custody Procedure and ENV-COC-02 Controlled Wood/Controlled Sources Procedure are Enviva documents describing the workflow to ensure feedstock are legally and sustainably sourced.

US ranks in the top 92 percentile in Regulatory Quality in the World Bank, Worldwide Governance Indicators and in the top 89 percentile in Rule of Law. Evidence of the effectiveness of law enforcement is evident in news reporting and reveals no widespread or systematic abuse of traditional or civil rights in the Enviva supply base area.

Conclusion

The risk of illegally harvested wood or wood from land use change entering Enviva's supply chain is low

Means of Verification	a. Preamble citations b. FSC US CWNRA c. ENV-SFI-01 SFI Certified Sourcing Implementation Manual d. ENV-PEFCCOC-01 PEFC Chain of Custody Procedure e. ENV-COC-02 Controlled Wood/Controlled Sources Procedure f. ENV-COC-03 Controlled Wood/Controlled Sources Risk Assessment g. Master Wood Purchase Agreement h. Enviva Responsible Sourcing Policy i. World Bank Worldwide Governance Indicators j. State laws
Evidence Reviewed	All means of verification reviewed
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA
Comment or Mitigation Measure	

	Indicator
1.3.1	The BP has implemented appropriate control systems and procedures to ensure that feedstock is legally harvested and supplied and is in compliance with EUTR legality requirements.
Finding	<p>Some relevant FSC US CWNRA indicators:</p> <p>1.2 Concessions on licenses determined a low risk rating in the US for legality of harvest in determining, “On the whole, the risk of illegality in entering into contracts, public or private, is real, but is considered low.”</p> <p>1.4 Harvesting permits – “Corruption associated with timber sales and harvesting permits in the US is generally not an issue.”</p> <p>Some additional sources of evidence include:</p> <ul style="list-style-type: none"> www.eia-international.org – publication <i>Forests A Tale of Two Laws</i> (February 2018 determined the US Lacey Act and the EUTR work effectively together to prohibit the transfer of illegally harvested wood between the US and EU countries www.transparency.org – ranks the United States 23rd on its Corruption Perceptions Index 2019 out of the 180 countries indicating a low risk of corruption. <p><u>Additional evidence:</u> Enviva uses contractual language in its Master Wood Purchase Agreement requiring supplier to abide by all relevant laws and regulations. The contract includes the requirement to avoid the following unacceptable sources wood:</p> <ul style="list-style-type: none"> - Illegally harvest wood; - Wood harvested in violation of traditional and civil rights; - Wood harvested from forests where high conservation values are threatened by management activities; - Wood harvested from old growth or semi-natural forests being converted to plantations or non-forest use; - Wood from forests where genetically modified trees are planted;

	<p>- Wood in which there was a violation of the ILO Declarations on fundamental principle and rights at work.</p> <p>Enviva requires all suppliers to sign a Master Wood Supply Agreement. Master Wood Purchase Agreements contain recital requiring the supplier to agree to abide by Enviva's legal and sustainability commitments including a provision to allow Enviva to periodically audit suppliers to ensure conformance. Enviva will only purchase feedstocks from suppliers who it has an established business relationship and a signed agreement. The Master Wood Purchase Agreement requirements for feedstock suppliers requires legality of ownership and ensures conformance with EUTR.</p> <p>In the United States regulation of forestry practices has its roots in Federal law and in Acts designed to provide guidance to states for developing state specific laws and regulations. The US ranks in the top 92nd percentile in Regulatory Quality in the World Bank, Worldwide Governance Indicators and in the top 89th percentile in Rule of Law. Evidence of the effectiveness of law enforcement is evident in news reporting and this reporting reveals no widespread or systematic criminal activity in the Enviva supply base area.</p> <p>SFI Fiber Sourcing Standard Objective 4 requires a certificate holder to comply with all applicable federal, provincial and local laws and regulations. ENV-SFIS-01 Certified Sourcing Implementation Manual describes processes and internal documents Enviva uses to meet the Objective. Specifically, indicators 4.1.4 and 4.1.5 requires the Program Participant to demonstrate it assessed if wood is legally sourced and put in programs to address risks of illegal sourcing if any exist. The 4.1.4 assessment found no significant risk of buying wood from illegal sources.</p> <p>The PEFC Chain of Custody Standard requires the certificate holder to ensure it knows where feedstocks originate and ensure wood is legally sourced. ENV-PEFCCOC-01 PEFC Chain of Custody Procedure and ENV-COC-02 Controlled Wood/Controlled Sources Procedure are Enviva documents describing the workflow to ensure feedstock are legally and sustainably sourced.</p> <p>Enviva's ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment is reviewed annually to ensure Enviva is aware of changes. The analysis includes a review of the existence of appropriate laws regarding legality of harvest and compliance with EUTR requirements. ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment contains the work done to determine if illegal logging and timber theft are a risk in the supply area. This document uses many of the same sources as the FSC US CWNRA. Both conclude illegal logging is a low risk in the Enviva supply area. Findings are incorporated into Enviva's ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment and revisions to the Master Wood Purchase Agreement.</p> <p>Enviva's Responsible Sourcing Policy publicly describes Enviva's commitment to avoid illegal sources of wood.</p> <p>Enviva EUTR Compliance Document is the report Enviva provides to its customers upon request describing how it meets EUTR requirements.</p> <p><u>Conclusion</u> Enviva is in compliance with EUTR legality requirements.</p>
Means of Verification	<p>a. Preamble citations</p> <p>b. FSC US CWNRA</p>

	c. ENV-SFIS-01 Certified Sourcing Implementation Manual d. ENV-PEFCCOC-01 PEFC Chain of Custody Procedure e. ENV-COC-02 Controlled Wood/Controlled Sources Procedure f. ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment g. Enviva Responsible Sourcing Policy h. Master Wood Purchase Agreement i. Enviva EUTR Compliance Document j. Assessment of Lawful Harvesting & Sustainability of US Hardwood Export Council k. World Bank Worldwide Governance Indicators
Evidence Reviewed	All means of verification reviewed
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA

	Indicator
1.4.1	The Biomass Producer has implemented appropriate control systems and procedures to verify that payments for harvest rights and timber, including duties, relevant royalties and taxes related to timber harvesting, are complete and up to date.
Finding	<p>Some relevant FSC US CWNRA indicators:</p> <p>1.5 Payment of royalties and harvesting fees there is no evidence of efforts to avoid payment and determined a low risk rating</p> <p>1.6 Value added taxes and other sales taxes finds a low risk of tax avoidance.</p> <p>1.7 Income and profit taxes concluded there is a low risk these taxes are not paid citing income and profit taxes are levied and managed at the federal and state level.</p> <p><u>Additional evidence:</u> Enviva uses contractual language in its Master Wood Purchase Agreement requiring supplier to abide by all relevant laws and regulations including payment of royalties and taxes. The contract also includes the requirement to avoid the following unacceptable sources wood and includes a requirement to ensure all appropriate taxes, royalties, etc. are paid:</p> <ul style="list-style-type: none"> - Illegally harvest wood; - Wood harvested in violation of traditional and civil rights; - Wood harvested from forests where high conservation values are threatened by management activities; - Wood harvested from old growth or semi-natural forests being converted to plantations or non-forest use; - Wood from forests where genetically modified trees are planted; - Wood in which there was a violation of the ILO Declarations on fundamental principle and rights at work. <p>Enviva requires all suppliers to sign a Master Wood Supply Agreement. Master Wood Purchase Agreements contain recital requiring the supplier to agree to abide by Enviva's legal and sustainability commitments including a provision to allow Enviva to periodically audit suppliers to ensure conformance. Enviva will only purchase feedstocks from suppliers who it has an established business relationship and a signed agreement. The Master Wood Purchase.</p>

	<p>The states in Enviva's Enviva supply all have laws governing taxation. The United States legal system is robust and capable of enforcing these Federal and state laws.</p> <ul style="list-style-type: none"> • Transparency International ranks the United States 23rd on its Corruption Perceptions Index 2019 out of the 180 countries indicating a low risk of corruption. • AHEC Legality Study determined the region Enviva supply base area is located is a low risk for illegal activity • The World Bank Worldwide Governance indicators ranked the US in the top 89th percentile in the Rule of Law category • The World Bank Worldwide Governance indicators ranked the US in the top 92nd percentile in the Regulatory Quality category <p>Enviva's Responsible Sourcing Policy publicly describes Enviva's commitment to require suppliers ensure all appropriate payments, fees and taxes are paid.</p> <p>The PEFC Chain of Custody Standard requires the certificate holder to ensure it knows where feedstocks originate and ensure wood is legally sourced. ENV-PEFCCOC-01 PEFC Chain of Custody Procedure and ENV-COC-02 Controlled Wood/Controlled Sources Procedure are Enviva documents describing the workflow to ensure feedstock are legally and sustainably sourced.</p> <p>Enviva's ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment is reviewed annually to ensure Enviva is aware of changes. The analysis includes a review of the existence of appropriate laws to ensure the payment of relevant fees and taxes. ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment contains the work done to determine if illegal logging and timber theft are a risk in the supply area. This document uses many if the same sources as the FSC US CWNRA. Both conclude illegal logging is a low risk in the Enviva supply area. Findings are incorporated into Enviva's ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment and revisions to the Master Wood Purchase Agreement.</p> <p>SFI Fiber Sourcing Standard Objective 4 requires a certificate holder to comply with all applicable federal, provincial and local laws and regulations. ENV-SFIS-01 Certified Sourcing Implementation Manual describes processes and internal documents Enviva uses to meet the Objective. Specifically, indicators 4.1.4 and 4.1.5 requires the Program Participant to demonstrate it assessed if wood is legally sourced and put in programs to address risks of illegal sourcing if any exist. The 4.1.4 assessment found no significant risk of buying wood from illegal sources.</p> <p>In certain state wood consuming mills are required to pay severance taxes on the wood used for manufacturing. These internal records are used to show Enviva's compliance with state requirements.</p> <p><u>Conclusion</u></p> <p>There is a low risk of non-payment payments for harvest rights and timber, including duties, relevant royalties and taxes related to timber harvesting, are complete and up to date.</p>
Means of Verification	<ul style="list-style-type: none"> a. Preamble citations b. FSC US CWNRA c. Enviva Responsible Sourcing Policy d. ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment e. ENV-COC-02 Controlled Wood/Controlled Sources Procedure f. ENV-PEFCCOC-01 PEFC Chain of Custody Procedure

	g. ENV-SFIS-01 Certified Sourcing Implementation Manual h. Master Wood Purchase Agreements i. Severance Tax Reports j. World Bank Worldwide Governance Indicators
Evidence Reviewed	All means of verification reviewed
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA

	Indicator
1.5.1	<p>The Biomass Producer has implemented appropriate control systems and procedures to verify that feedstock is supplied in compliance with the requirements of CITES.</p>
Finding	<p>Some FSC US CWNRA finding related to this indicator include:</p> <p>1.19 Customs regulations – The Lacey Act and other US code and enforcement find there is a low risk of a US company purchasing species listed by CITES.</p> <p>1.20 CITES finds no tree species with commercial timber value is listed on the CITES Appendices determining the there is a low risk of sourcing CITES species in North America.</p> <p>1.21 Legislation requiring due diligence/due care procedures cites the Lacey Act as the legislation that prohibits the importation of illegally sourced wood into the US.</p> <p>US ranks in the top 92 percentile in Regulatory Quality in the World Bank, Worldwide Governance Indicators and in the top 89 percentile in Rule of Law. Evidence of the effectiveness of law enforcement is evident in news reporting and reveals no widespread or systematic abuse of traditional or civil rights in the Enviva supply base area.</p> <p><u>Additional findings:</u></p> <p>Enviva's ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment determined the supply base area as a low risk for the potential to source CITES species. This document uses many if the same sources as the FSC US CWNRA. Both conclude sourcing CITES listed species is a low risk in the Enviva supply area. CITES enforcement is controlled at the federal level involving US Customs and Border Protection, Animal and Plant Health Inspection Services and the US Fish and Wildlife Service. Findings are incorporated into Enviva's ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment and revisions to the Master Wood Purchase Agreement.</p> <p>Enviva requires all suppliers to sign a Master Wood Supply Agreement. Master Wood Purchase Agreements contain recital requiring the supplier to agree to abide by Enviva's legal and sustainability commitments including a provision to allow Enviva to periodically audit suppliers to ensure conformance. Enviva will only purchase feedstocks from suppliers who it has an established business relationship and a signed agreement. None of the tree species Enviva uses at its Enviva Pellet Mill are on the CITES list. None of the feedstock used at the Enviva Pellet Mill comes from outside of the US.</p> <p>The PEFC Chain of Custody Standard requires the certificate holder to ensure it knows feedstocks meet CITES requirements. ENV-PEFCCOC-01 PEFC Chain of Custody and</p>

	<p>ENV-COC-02 Controlled Wood/Controlled Sources Procedure are Enviva documents describing the workflow to ensure feedstock are in conformance.</p> <p>Enviva's District of Origin Process asks the supplier to list the species used at its mill. These species lists are checked against the CITES requirements and are checked during periodic supplier audits.</p> <p>Primary feedstock suppliers are randomly audited at the FMU level to verify the information provided is accurate. Secondary feedstock suppliers are audited on a randomly to verify the species information provided on their District of Origin Form is correct.</p> <p><u>Conclusion</u></p> <p>There is a low risk of CITES species being used as feedstock at Enviva</p>
Means of Verification	<ul style="list-style-type: none"> a. Preamble citations b. FSC US CWNRA c. ENV-PEFCCOC-01 PEFC Chain of Custody Procedure d. ENV-COC-02 Controlled Wood/Controlled Sources Procedure e. ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment f. District of Origin Process g. Master Wood Purchase Agreement h. Enforcement of the Convention on International Trade in Endangered Species i. Lacey Act and enforcement data j. Tract Inspections k. District of Origin Supplier Audits l. World Bank Worldwide Governance Indicators
Evidence Reviewed	All means of verification reviewed
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA

	Indicator
1.6.1	The Biomass Producer has implemented appropriate control systems and procedures to ensure that feedstock is not sourced from areas where there are violations of traditional or civil rights.
Finding	<p>Some of the FSC US CWNRA findings applicable to this indicator:</p> <p>1.13 Customary rights – “The risk of violating a right held through adverse possession is low. If the right is being held openly and exclusively, the potential violator should be able to discover it through inspection of the land. Overall, customary rights being are not important in forest management, with the possible exception of Native American treaty rights. On balance the risk for this category is assessed as low.”</p> <p>1.15 Indigenous people's rights – Violations of Indigenous people's rights are considered a low risk because of the legal relationship between the federal government and Native American tribes. The two treat each other as sovereigns with treaties that outline tribal rights.</p> <p>2.1 The forest sector is not associated with violent armed conflict, including that which threatens national or regional security and/or linked to military control to be low risk in the US</p>

2.2 Labor rights are respected including rights as specified in ILO Fundamental Principle and Rights at Work as low risk in the US

2.3 The rights of Indigenous and Traditional Peoples are upheld

In the United States, land use and tenure questions have long been decided and in the southeast, there are no indigenous people groups with controversial traditional or civil rights to forestlands.

The FSC US CWNRA concluded,

“Within the U.S. there is no UN Security Council ban on timber exports, the areas are not designated as a source of conflict timber, child labor does not occur systematically, and ILO Fundamental Principles and rights at work are generally respected. In addition, the U.S. has recognized and equitable processes in place to resolve conflicts of substantial magnitude pertaining to traditional rights including use rights, cultural interests or traditional cultural identity. In the U.S., Native Americans with a land base are recognized as Sovereign Nations and accorded rights to manage their land and affairs. In addition, Native Americans have an equitable process to resolve conflicts over land management. Through the U.S. court system, many Native American tribes have challenged, won decisions, and resolved issues concerning land management and use rights. There are many examples within the U.S. where tribes have successfully been able to exercise treaty rights through formal and informal conflict resolutions systems.”

The Seneca Creek, LLC report entitled, *Assessment of Lawful Harvesting & Sustainability of US Hardwood Exports* found the same to be true.

Additional evidence:

Enviva uses contractual language in its Master Wood Purchase Agreement requiring supplier to abide by all relevant laws and regulations. The contract includes the requirement to avoid the following unacceptable sources wood:

- Illegally harvest wood;
- Wood harvested in violation of traditional and civil rights;
- Wood harvested from forests where high conservation values are threatened by management activities;
- Wood harvested from old growth or semi-natural forests being converted to plantations or non-forest use;
- Wood from forests where genetically modified trees are planted;
- Wood in which there was a violation of the ILO Declarations on fundamental principle and rights at work.

Enviva requires all suppliers to sign a Master Wood Supply Agreement. Master Wood Purchase Agreements contain recital requiring the supplier to agree to abide by Enviva's legal and sustainability commitments including a provision to allow Enviva to periodically audit suppliers to ensure conformance. Enviva will only purchase feedstocks from suppliers who it has an established business relationship and a signed agreement.

ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment contains the work done to determine if there is a risk of violating traditional and civil rights in the supply area. This document uses many of the same sources as the FSC US CWNRA. Both conclude a low risk of violating traditional and civil rights in the Enviva supply area. Enviva's ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment is reviewed annually to ensure Enviva is aware of changes. The analysis includes a review of laws governing traditional and civil rights. Findings are incorporated into Enviva's ENV-COC-03 Controlled

	<p>Wood/Controlled Source Risk Assessment and revisions to the Master Wood Purchase Agreement.</p> <p>SFI Fiber Sourcing Standard Objective 4 indicator 4.2.1 requires a Program Participant to have written policies to “comply with social laws, such as those covering civil rights, equal employment opportunities, anti-discrimination and anti-harassment measures, worker’s compensation, indigenous peoples’ rights, workers’ and communities’ right to know, prevailing wages, workers right to organize, and occupational health and safety.” ENV-SFI-01 Certified Sourcing Implementation Manual describes processes and internal documents Enviva uses to meet the requirements.</p> <p>The PEFC Chain of Custody Standard requires the certificate holder to demonstrate it avoids sources that violate traditional and human rights. ENV-PEFCCOC-01 PEFC Chain of Custody Procedure and ENV-COC-02 Controlled Wood/Controlled Sources Procedure are Enviva documents describing the workflow to ensure feedstocks meet these requirements.</p> <p>Enviva’s Responsible Sourcing Policy publicly describes Enviva’s commitment to avoid sources of wood that violate traditional and civil rights.</p> <p>US ranks in the top 92 percentile in Regulatory Quality in the World Bank, Worldwide Governance Indicators and in the top 89 percentile in Rule of Law. Evidence of the effectiveness of law enforcement is evident in news reporting and reveals no widespread or systematic abuse of traditional or civil rights in the Enviva supply base area.</p> <p><u>Conclusion</u></p> <p>There is a low risk Enviva's sourcing practices are a threat to traditional or civil rights.</p>
Means of Verification	<ul style="list-style-type: none"> a. Preamble citations b. FSC US CWNRA c. Assessment of Lawful Harvesting & Sustainability of US Hardwood Exports d. ENV-PEFCCOC-01PEFC Chain of Custody Procedure e. ENV-COC-02 Controlled Wood/Controlled Sources Procedure f. ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment g. ENV-SFIS-01 Certified Sourcing Implementation Manual h. Master Wood Purchase Agreement i. Enviva Responsible Sourcing Policy j. World Bank Worldwide Governance Indicators
Evidence Reviewed	All means of verification reviewed
Risk Rating	X Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA

	Indicator
2.1.1	The Biomass Producer has implemented appropriate control systems and procedures for verifying that forests and other areas with high conservation values are identified and mapped.
Finding	Enviva used the FSC US CWNRA as a basis to identify and map forested areas of high conservation value, areas of high biodiversity and species of concern. The SBP Guidance Document: Assessment of Risk, Means of Verification and Mitigation Measures in the Southeast US provides the platform for using the FSC US CWNRA as a basis for the BP’s risk assessment.

Enviva only uses woody biomass as a feedstock. Non-forested areas of high conservation value are excluded from the supply base evaluation. Enviva's sourcing policies and suppliers do not impact these non-forested areas. The definition of forest land is defined according to the USFS as, "Land that has at least 10 percent crown cover by live tally trees of any size or has had at least 10 percent canopy cover of live tally species in the past, based on the presence of stumps, snags, or other evidence. To qualify, the area must be at least 1.0 acre in size and 120.0 feet wide. Forest land includes transition zones, such as areas between forest and non-forest lands that meet the minimal tree stocking/cover and forest areas adjacent to urban and built-up lands. Roadside, streamside, and shelterbelt strips of trees must have a width of at least 120 feet and continuous length of at least 363 feet to qualify as forest land. Unimproved roads and trails, streams, and clearings in forest areas are classified as forest if they are less than 120 feet wide or less than an acre in size. Tree-covered areas in agricultural production settings, such as fruit orchards, or tree-covered areas in urban settings, such as city parks, are not considered forest land."

The areas of high conservation value described and mapped in the FSC US CWNRA Indicator 3 were compared to the defined supply area. The FSC US CWNRA identified many areas of high conservation value, biodiversity and species that could be affected by harvesting activities. This supply base evaluation only includes those the authors determined to be specified risk. The supply area overlaps the following areas of high conservation value.

Using the FSC US CWNRA Enviva identified the following Critical Biodiversity Areas (CBA) within the Enviva supply base area:

Cape Fear Arch Critical Biodiversity Area – Found in parts of 2 counties in the supply base area the geologic and hydrologic history of the Cape Fear Arch region have resulted in a diversity of wet and dry habitats. This diversity in addition to the sand and limestone deposits that have resulted in a very high diversity of natural communities and associated plant and animal species, particularly in pocosin and longleaf pine habitats. When the canopy has been completely removed through timber harvest, pocosins often do not regenerate.

Central Appalachian Critical Biodiversity Area – found in the northern portion of the supply area in all or part of 57 counties. This biodiversity area and mostly related to hardwood species management in mesic forests. Forest management threats are related to poor or improper forestry BMP implementation that could lead to stream degradation and soil erosion. According to the USGS Protected Area Database there are areas within the supply area that are effectively protected from timber harvesting ensuring examples of these hardwood forests will be preserved.

Mesophytic Cove Sites – associated with the Central Appalachian Critical Biodiversity Area these sites are high elevation (300-1,100m) mesic coves and concave slopes with high biodiversity and structural complexity. Poorly planned forest management practices can create opportunities for invasive species to enter these forest sites and conversion to other forest types such as white pine. All or portions of 69 counties in the northern portion of Enviva's supply area could contain mesophytic cove sites

Native Longleaf Pine Systems – found throughout much of the Enviva supply area. Native longleaf systems threats vary across its natural range with suppression of fire being the

greatest concern. Other concerns include conversion to other pine types and incompatible forest management practices.

Late Successional Bottomland Hardwoods – found throughout the south in the floodplains of rivers and streams the forests are periodically flooded or saturated. Variations in structure are determined by the location of the late successional bottomland forest. Generally, 80 years or older the forest is better defined by structure; closed canopy, large wood debris, standing hollow trees and little ground vegetation. Bottomland forests in Mississippi are reduced in size and area from historic clearing to create agricultural fields. Changes in hydrology, improper forest management techniques and invasive species. Forest management in and of itself may not be a threat but how the management is applied can be counterproductive.

Additional evidence:

ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment contains the work done to determine the existence and location of potential areas of high conservation values in the supply area. This document uses many of the same sources as the FSC US CWNRA such as those listed in the preamble. Both risk assessments conclude certain areas of specified risk in the Enviva supply area. Enviva's ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment and this supply base evaluation are reviewed annually to ensure Enviva is aware of changes. Forest Legality Initiative Findings are incorporated into Enviva's ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment, this supply base evaluation and revisions to the Master Wood Purchase Agreement.

The SFI Fiber Sourcing Standard Objective 1 Biodiversity in Fiber Sourcing requires Program Participants “to address the practice of sustainable forestry by conserving biological diversity”. Enviva’s ENV-SFIS-01 Certified Sourcing Implementation Manual describes processes and internal documents Enviva uses to meet Objective 1. Enviva engages with organizations like The Longleaf Alliance and Forest Steward Guild, NatureServe and the Nature Conservancy to gather additional information about the identified high conservation value areas to ensure Enviva can properly identify the Critical Biodiversity Areas in its supply base area.

As part of our Responsible Sourcing Policy, Enviva engages with stakeholders to receive feedback on its current wood sourcing policies and suggestions for how to improve it from the following non-profit and agencies:

- The Association of Fish and Wildlife Agencies and The National Wildlife Federation
- The Nature Conservancy
- Audubon
- World Wildlife Fund
- National Council for Air and Stream Improvement
- The Conservation Fund
- The Forest Trust

The PEFC Chain of Custody Standard requires the certificate holder to ensure it knows where feedstocks originate and evaluate its supply area to determine if there are areas of high conservation value as part of its Due Diligence System (ENV-PEFCCOC-01 PEFC Chain of Custody Procedure). ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment is Enviva’s PEFC Due Diligence System and it contains the work done to

	<p>determine where areas of high conservation are located within the supply area. This document uses many of the same sources as the FSC US CWNRA.</p> <p><u>Conclusion</u></p> <p>According to SBP Guidance Document: Assessment of Risk, Means of Verification and Mitigation Measures in the Southeast US, “SBP has yet to receive a Regional Risk Assessment (RRA) for the US to evaluate for approval and considers all of the currently available assessment resources in and of themselves to be only partially adequate in assessing high conservation value and conversion indicators.” Use of the FSC CWNRA is suggested but is considered incomplete.</p> <p>Enviva engages with willing stakeholders to continually assess for potential areas of high conservation value (https://www.greenbiz.com/article/stakeholder-engagement-how-enviva-moved-crisis-collaboration). We find these engagements and subsequent collaborations to be both enlightening and beneficial in the promotion of sustainable forest management</p>
Means of Verification	<ul style="list-style-type: none"> a. Preamble citations b. FSC US CWNRA c. Enviva Responsible Sourcing Policy d. ENV-SFIS-01 Certified Sourcing Implementation Manual e. ENV-PEFCCOC-01 PEFC Chain of Custody Procedure f. ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment g. Stakeholder engagement information
Evidence Reviewed	All means of verification reviewed
Risk Rating	<input type="checkbox"/> Low Risk <input checked="" type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA
Comment or Mitigation Measure	<p><u>Management System</u></p> <p>Enviva will annually review its Means of Verification and engage with Stakeholders to ensure it can accurately identify and map forests and other areas of high conservation values in its supply base area. As new information is found it will be incorporated into the supply base evaluation.</p>
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA

	Indicator
2.1.2	The Biomass Producer has implemented appropriate control systems and procedures to identify and address potential threats to forests and other areas with high conservation values from forest management activities.
Finding	<p>Most of the high conservation value areas identified in Enviva’s supply base area are associated with streams or water features. Forestry BMP’s are the best tool available to ensure forest management activities do not adversely impact forests and other areas of high conservation value such as those identified. And even in areas not associated with streams or water features forestry BMP’s specify how roads, trails and other forest management activities are performed to minimize their impact on the forest. The National Association of State Forester (NASF) recently released publication, <i>Protecting The Nation’s Water: State Forestry Agencies and Best Management Practices</i>. The publication covers all 50 US States and eight of its territories. The state forestry BMP implementation</p>

rates for the Enviva supply base area are listed in the preamble and the NASF publication concluded.

“Across the country, BMP’s are implemented appropriately, when and where they are needed, 92% of the time. This is a figure not only one state forestry agency can be proud of: it serves as strong evidence in support of a silvicultural exemption to Clean Water Act permitting requirements”.

Links to state BMP websites and state specific BMP’s for the Enviva supply base area can be found in the preamble.

Additional evidence

Enviva uses contractual language in its Master Wood Purchase Agreement requiring supplier to abide by all relevant laws and regulations. The contract includes the requirement to avoid the following unacceptable sources wood:

- Illegally harvest wood;
- Wood harvested in violation of traditional and civil rights;
- Wood harvested from forests where high conservation values are threatened by management activities;
- Wood harvested from old growth or semi-natural forests being converted to plantations or non-forest use;
- Wood from forests where genetically modified trees are planted;
- Wood in which there was a violation of the ILO Declarations on fundamental principle and rights at work.

Enviva requires all suppliers to sign a Master Wood Supply Agreement. Master Wood Purchase Agreements contain recital requiring the supplier to agree to abide by Enviva’s legal and sustainability commitments including a provision to allow Enviva to periodically audit suppliers to ensure conformance. Enviva will only purchase feedstocks from suppliers who it has an established business relationship and a signed agreement.

Enviva contractually requires the use of BMP’s. Enviva’s Track & Trace Program includes a harvest site auditing component to ensure suppliers conform to the requirement. The Forestry Commissions for each state in the supply area monitor and enforce BMP implementation. Additionally, State Forestry Commission’s in Enviva’s supply area have forestry and wildlife management plans with action item the state is undertaking to improve forest health and wildlife protection on both state and private ownerships.

ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment contains the work done to determine if forest management activities pose a threat to areas of high conservation value in the supply area. This document uses many if the same sources as the FSC US CWNRA. Enviva’s ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment and this supply base evaluation are reviewed annually to ensure Enviva is aware of changes in the supply base area. The review includes ongoing stakeholder engagement to identify potential new high conservation value areas and evaluation to determine if forest management activities could have a negative impact on these areas. Findings are incorporated into Enviva’s ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment and revisions to the Master Wood Purchase Agreement.

Primary Feedstock

Enviva uses its proprietary Track & Trace for all primary wood purchases. Specifically, Enviva maintains a robust tracking and monitoring program to ensure that all our suppliers deliver wood that is sourced according to our expectations. The information Enviva collects for every tract its suppliers harvest includes; 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 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 mill, each load is linked to that tract's ID number. As a result, Enviva knows the tract-level attributes for all the primary wood entering the mill. Enviva conducts random field audits to verify stated forest management objectives are employed. During annual certification audits an independent certifying body confirms Enviva's internal findings as part of its third-party audit assessment. And Enviva's HCV Tract Approval Process ensures forest management activities do not harm sensitive eco-systems, habitats or threaten biodiversity in its sourcing practices.

Each tract is assessed using a set of criteria that include the tract location within known bottomland forest settings. Every tract is evaluated for forest health concerns, wildlife considerations, location within the landscape, conservation value and other criteria. Enviva will only purchase wood from a tract if the assessment determines harvesting is the best outcome for the forest.

Secondary Feedstock

Enviva's annual District of Origin Process allows secondary feedstock suppliers to meet the requirements described in SBP's Normative Interpretations Document. The process collects information about the suppliers sourcing area, species processed at the mill, the types of information collected about the landowner and other pertinent information as described in the guidance found in Standard 2 Section 8.4 of the Interpretations. This information is mapped and compared to Enviva's supply base area and against known areas with potential high conservation value to ensure that any risk to HCV values associated with suppliers of secondary feedstocks is appropriately included in the SBP supply base evaluation process to ensure the suppliers' sourcing practices do not pose a threat to these areas. Enviva purchases primary feedstock from many of the same timber harvesting crews as its secondary feedstock suppliers. Since Enviva uses its proprietary Track & Trace program to purchase primary feedstock it, by extension, has quite a bit of information about the source tracts of its secondary feedstock suppliers.

Enviva's Responsible Sourcing Policy publicly describes Enviva's commitment to avoid wood harvested from forests where high conservation values are threatened by management activities.

The SFI Fiber Sourcing Standard Objective 1 Biodiversity in Fiber Sourcing requires Program Participants "to address the practice of sustainable forestry by conserving biological diversity". Enviva's ENV-SFIS-01 Certified Sourcing Implementation Manual describes processes and internal documents Enviva uses to meet Objective 1, which include partnerships with organizations such as,

Enviva and The Longleaf Alliance announced the signing of a five-year partnership to protect and restore longleaf pine forests, one of the most biodiverse ecosystems in North America. Enviva and The Longleaf Alliance will collaboratively implement Enviva's longleaf forest restoration plan (<https://www.envivabiomass.com/enviva-and-the-longleaf-alliance-announce-partnership-to-protect-and-restore-longleaf-pine-forests/>)

Enviva committed to enhance our ability to detect and monitor HCV areas, finalize our enhanced HCV forest types, and develop procedures for protecting them in harvest operations. As part of the plan, we committed to work with our conservation partners, notably NatureServe, state Natural Heritage programs, and Earthworm Foundation, to

	<p>identify the full range of HCV types in our sourcing regions using the HCV Network Approach.</p> <p>In 2019, we developed and implemented enhanced methodology for real-time monitoring and auditing of T&T data using geographic information system mapping, as well as working with NEPCo to develop the first T&T third-party audit standard.</p> <p>Enviva is working with the Forest Steward Guild to help landowners learn about proper bottomland hardwood management to maintain and enhance these forests for wildlife and water quality protection. Additional information about Enviva's partnerships can be found on Enviva's webpage under Responsible Sourcing (https://www.envivabiomass.com/sustainability/responsible-sourcing/responsible-sourcing-policy/#)</p> <p>The PEFC Chain of Custody Standard requires the certificate holder to ensure it knows where feedstocks originate and ensure sourcing practices avoid areas of high conservation value. ENV-PEFCCOC-01 PEFC Chain of Custody and ENV-COC-02 Controlled Wood/Controlled Sources Procedure are Enviva documents describing the workflow to ensure feedstock are legally and sustainably sourced.</p> <p><u>Conclusion</u></p> <p>According to SBP Guidance Document: Assessment of Risk, Means of Verification and Mitigation Measures in the Southeast US, "SBP has yet to receive a Regional Risk Assessment (RRA) for the US to evaluate for approval and considers all of the currently available assessment resources in and of themselves to be only partially adequate in assessing high conservation value and conversion indicators." Use of the FSC CWNRA is suggested but is considered incomplete.</p> <p>2.1.2 is closely related to 2.1.1 and the Biomass Producers ability to identify and map areas of forest and other high conservation values. And to develop methods to assess the potential impact of forest management activities. This indicator has a presumed specified risk.</p>
Means of Verification	<ul style="list-style-type: none"> a. Preamble citations b. FSC US CWNRA c. ENV-SFIS-01 Certified Sourcing Implementation Manual d. ENV-PEFCCOC-01 PEFC Chain of Custody Procedure e. ENV-COC-02 Controlled Wood/Controlled Sources Procedures f. District of Origin Process g. ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment h. Master Wood Purchase Agreement i. Track & Trace j. HCV Tract Approval Process k. State BMP Manuals l. Enviva Responsible Sourcing Policy m. NASFPublication, <i>Protecting The Nations Water: State Forestry Agencies and Best Management Practices</i>
Evidence Reviewed	All means of verification reviewed
Risk Rating	<input type="checkbox"/> Low Risk <input checked="" type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA
Comment or Mitigation Measure	<p><u>Management System</u></p> <p>Enviva engages with willing stakeholders to continually assess for potential areas of high conservation value (https://www.greenbiz.com/article/stakeholder-engagement-how-enviva-moved-crisis-collaboration). We find these engagements and subsequent</p>

	<p>collaborations to be both enlightening and beneficial in the promotion of sustainable forest management. Enviva will annually review its Means of Verification and include relevant information from its stakeholders to ensure it can accurately identify and map forests and other areas of high conservation values in its supply base area.</p> <p>Enviva's supplier audit processes provide the assessment tools necessary to collect and evaluate a supplier's conformance to Enviva's contractual requirements to determine if the supplier is providing SBP-complaint or SBP-controlled feedstocks. If new high conservation value areas are identified Enviva will work with its stakeholders to determine the best course of action and how to best maintain SBP-compliant sourcing practices.</p>
Risk Rating	X Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA

	Indicator
2.1.3	<p>The Biomass Producer has implemented appropriate control systems and procedures for verifying that feedstock is not sourced from forests converted to production plantation forest or non-forest lands after January 2008.</p>
Finding	<p>The FSC US CWNRA has identified 13 counties with the supply base area as being at risk for conversion. The FSC US CWNRA only assessed conversion risk based on urbanization and does not include a risk assessment to production plantation or other non-forest uses. Related to forest conversion FSC US CWNRA finds, "Evidence indicates that forestland is growing in the North Central, Northeastern, and Rocky Mountain portions of the United States, while the Southeast and Pacific Coast regions are experiencing forest loss and concurrent rapid population growth. Within the Southeastern United States, the highest rates of urbanization are occurring in the Piedmont region from northern Georgia through North Carolina into Virginia. Forest loss is also occurring along the Atlantic Coast and in eastern Texas. Despite the high rates of urban growth and development across the Southeast, this growth is not consistent across the region."</p> <p>In summary the authors found, "Rates of urban development vary throughout the United States with higher rates in the Pacific Coast Region and portions of the Southeast Region. These two regions are also the regions identified as experiencing more recent forestland loss. Therefore, the greatest risk of materials entering the supply chain from conversions will most likely be in these two regions; however, the risk is not consistent across the regions.</p> <p><u>Additional evidence:</u> Enviva partnered with terraPulse Inc., builders of data-driven geospatial solutions, to develop a methodology for assessing the regeneration status of forests that we sourced from in the past. Our post-harvest audits provide us with assurance that the forestland from which we source is being regenerated, but it is not always feasible for Enviva personnel to check the status of all of the harvest sites year after year. Remote sensing allows us to scale our monitoring in order to confirm that our sourcing is achieving our policy goals. Utilizing technology in developing this methodology provided us with valuable insights and better information for making decisions today about how we work with stakeholders to ensure positive harvest outcomes in the forest landscape. Learn more about Enviva's work on conversion related topics on the Enviva Responsible Sourcing webpage (https://www.envivabiomass.com/sustainability/responsible-sourcing/responsible-sourcing-policy/#)</p>

Enviva uses contractual language in its Master Wood Purchase Agreement requiring supplier to abide by all relevant laws and regulations. The contract includes the requirement to avoid the following unacceptable sources wood:

- Illegally harvest wood;
- Wood harvested in violation of traditional and civil rights;
- Wood harvested from forests where high conservation values are threatened by management activities;
- Wood harvested from old growth or semi-natural forests being converted to plantations or non-forest use;
- Wood from forests where genetically modified trees are planted;
- Wood in which there was a violation of the ILO Declarations on fundamental principle and rights at work.

Enviva requires all suppliers to sign a Master Wood Supply Agreement. Master Wood Purchase Agreements contain recital requiring the supplier to agree to abide by Enviva's legal and sustainability commitments including a provision to allow Enviva to periodically audit suppliers to ensure conformance. Enviva will only purchase feedstocks from suppliers who it has an established business relationship and a signed agreement. Enviva's Master Wood Purchase Agreement specifies suppliers are to avoid all types of land use change or conversion sources of wood when providing feedstocks to Enviva.

The PEFC Chain of Custody Standard requires the certificate holder to ensure it knows where feedstocks originate and ensure wood does not originate from controversial sources. The definition of conversion sources is not as stringent as SBP's relying only on legality compliance. ENV-PEFCCOC-01 PEFC Chain of Custody and ENV-COC-02 Controlled Wood/Controlled Sources Procedure are Enviva documents describing the workflow to ensure feedstock are legally and sustainably sourced.

ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment contains the work done to determine if forest management activities pose a threat to areas of high conservation value in the supply area. This document uses many of the same sources as the FSC US CWNRA. Enviva's ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment and this supply base evaluation are reviewed annually to ensure Enviva is aware of changes in the supply base area. The review includes ongoing stakeholder engagement to identify trends in land use change and conversion within the supply base area. Findings are incorporated into Enviva's ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment, this supply base evaluation and revisions to the Master Wood Purchase Agreement.

The 2015 Forest2Market Report, *Historic Perspectives on the Relationship between Demand and Forest Productivity in the US South* concluded annual timberland acres have "remained stable, increasing about 3% from 1953 and 2015". The report findings are based on information from the USDA Forest Service Forest Inventory Analysis, a long running US inventory including many attributes such as changes in timberland acres. The report also found a correlation between growth in the forest product industry and increases in timberland acres over the same time period.

Primary Feedstock

Enviva uses its proprietary Track & Trace for all primary wood purchases. Specifically, Enviva maintains a robust tracking and monitoring program to ensure that all our suppliers deliver wood that is sourced according to our expectations. The information Enviva collects for every tract its suppliers harvest includes; data on the forest type, age, GPS coordinates, acreage, and the percent of volume from that tract being sold to Enviva.

	<p>Before agreeing to accept material from a certain tract, Enviva's 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 mill, each load is linked to that tract's ID number. As a result, Enviva knows the tract-level attributes for all the primary wood entering the mill. Enviva randomly conducts field audits and verifies feedstocks are not from land use change or conversion sources. During annual certification audits an independent certifying body confirms Enviva's internal findings as part of its third-party audit assessment. And Enviva's HCV Tract Approval Process ensures forest management activities do not harm sensitive eco-systems, habitats or threaten biodiversity in its sourcing practices. Each tract is assessed using a set of criteria that include the tract location within known bottomland forest settings. Every tract is evaluated for forest health concerns, wildlife considerations, location within the landscape, conservation value and other criteria. Enviva will only purchase wood from a tract if the assessment determines harvesting is the best outcome for the forest.</p> <p><i>Secondary Feedstock</i></p> <p>Enviva's annual District of Origin Process allows secondary feedstock suppliers to meet the requirements described in SBP's Normative Interpretations Document. The process collects information about the suppliers sourcing area, species processed at the mill, the types of information collected about the landowner and other pertinent information as described in the guidance found in Standard 2 Section 8.4 of the Interpretations. This information is mapped and compared to Enviva's supply base area and against known areas with potential high conservation value to ensure that any risk to HCV values associated with suppliers of secondary feedstocks is appropriately included in the SBP supply base evaluation process to ensure the suppliers' sourcing practices do not pose a threat to these areas. Enviva purchases primary feedstock from many of the same timber harvesting crews as its secondary feedstock suppliers. Since Enviva uses its proprietary Track & Trace program to purchase primary feedstock it, by extension, has quite a bit of information about the source tracts of its secondary feedstock suppliers.</p> <p>Enviva does not source from production plantations as defined in the SBP Glossary as "forests of exotic species that have been planted or seeded by human intervention and that are under intensive stand management, are fast growing and subject to short rotations (e.g. Poplar, Acacia or Eucalyptus plantations)."</p> <p><u>Conclusion</u></p> <p>There is a low risk associated with forest conversion in the supply area.</p>
Means of Verification	<ul style="list-style-type: none"> a. Preamble citations b. FSC US CWNRA c. Enviva Responsible Sourcing Policy d. Historic Perspective on the Relationship between Demand and Forest Productivity in the US South (Forest2Market) e. ENV-COC-02 Controlled Wood/Controlled Sources Procedure f. ENV-PEFCCOC-01 PEFC Chain of Custody Procedure g. Master Wood Purchase Agreement h. ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment i. Track & Trace j. HCV Tract Approval Process k. District of Origin Process
Evidence Reviewed	All means of verification reviewed
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA

	Indicator
2.2.1	The Biomass Producer has implemented appropriate control systems and procedures to verify that feedstock is sourced from forests where there is appropriate assessment of impacts, and planning, implementation and monitoring to minimise them.
Finding	<p>The FSC US CWNRA evaluated and determined there are appropriate assessments, planning, implementation and monitoring to determine a low risk rating for this indicator</p> <p>1.1 Land tenure and management rights – “In its report to the Montreal Process Working Group on the Conservation and Management of Temperate and Boreal Forests, in scoring an indicator relating to land tenure, the US government concluded that, “All forest land owners, public and private, exercise their forest tenure rights to achieve their forest land management goals [A]lthough complex, clear title is usually sufficient [to allow forest management] in the United States.”</p> <p>1.3 Management and harvesting planning – Planning requirements for private lands are limited. The author has not been able to find indications of regular violations of these requirements.</p> <p>1.8 Timber harvesting and regulations – The US has ample regulation of the timber industry that varies by state but finds there is a low risk these rules and laws are not followed</p> <p>The FSC US CWNRA cited the Seneca Creek Associates, LLC report entitled, <i>Assessment of Lawful Harvesting & Sustainability of US Hardwood Exports</i>, "States in the hardwood-producing region have very complex and diverse legal authorities over various aspects of forests and each state has crafted its own approach to fostering sustainable forest management."</p> <p>Further it finds, "Many states have implemented voluntary or incentive-based programs to achieve sustainable forestry objectives. Only sporadic information can be found in the formal literature or in media reporting about violations or potential violations of state regulations in the hardwood-producing states. Information that is readily available suggests that state regulatory agencies are not timid about issuing citations or pursuing violators."</p> <p>Additionally, "While states in the hardwood-producing region take different approaches to regulating harvesting and forest practices, the data suggest that all states direct significant resources to forest sustainability issues. The extent of regulation in a given state is not necessarily an indication of how well forests are managed, but it does relate to legal compliance with state laws and thus the legality of hardwood production. The available data suggest that states in the hardwood region are diligent about enforcing regulations that affect forest practices."</p> <p>The Endangered Species Act was enacted in 1973 to ensure threatened and endangered plant and animal species and their habitats could receive the necessary support for conservation. The Act is primarily managed and enforced by the US Fish & Wildlife Service (https://www.fws.gov/endangered/laws-policies/). The US Fish & Wildlife Service states, “Under the ESA, species may be listed as either endangered or threatened. "Endangered" means a species is in danger of extinction throughout all or a significant</p>

portion of its range. "Threatened" means a species is likely to become endangered within the foreseeable future. All species of plants and animals, except pest insects, are eligible for listing as endangered or threatened. For the purposes of the ESA, Congress defined species to include subspecies, varieties, and, for vertebrates, distinct population segments."

In a peer reviewed publication entitled, "The Effectiveness of the Endangered Species Act: A Quantitative Analysis" (BioScience (2005), Vol. 55 Is. 4(1): 360-367.) authors Martin et al. found the Act to be vigorously enforced.

The National Association of State Forester (NASF) recently released publication, *Protecting The Nation's Water: State Forestry Agencies and Best Management Practices*. The publication covers all 50 US States and eight of its territories. The state forestry BMP implementation rates for the Enviva supply base area are listed in the appendix and the NASF publication concluded.

"Across the country, BMP's are implemented appropriately, when and where they are needed, 92% of the time. This is a figure not only one state forestry agency can be proud of: it serves as strong evidence in support of a silvicultural exemption to Clean Water Act permitting requirements".

Links to state BMP websites and state specific BMP implementation rates for the Enviva supply base area can be found in the preamble.

Additional evidence:

Enviva uses contractual language in its Master Wood Purchase Agreement requiring supplier to abide by all relevant laws and regulations. The contract includes the requirement to avoid the following unacceptable sources wood:

- Illegally harvest wood;
- Wood harvested in violation of traditional and civil rights;
- Wood harvested from forests where high conservation values are threatened by management activities;
- Wood harvested from old growth or semi-natural forests being converted to plantations or non-forest use;
- Wood from forests where genetically modified trees are planted;
- Wood in which there was a violation of the ILO Declarations on fundamental principle and rights at work.
-

Enviva requires all suppliers to sign a Master Wood Supply Agreement. Master Wood Purchase Agreements contain recital requiring the supplier to agree to abide by Enviva's legal and sustainability commitments including a provision to allow Enviva to periodically audit suppliers to ensure conformance. Enviva will only purchase feedstocks from suppliers who it has an established business relationship and a signed agreement.

Most of the high conservation value areas identified in Enviva's supply base area are associated with streams or water features. Forestry BMP's are the best tool available to ensure forest management activities do not adversely impact forests and other areas of high conservation value such as those identified. And even in areas not associated with streams or water features forestry BMP's specify how roads, trails and other forest management activities are performed to minimize their impact on the forest. Enviva contractually requires the use of BMP's. Enviva's Track & Trace Program includes a harvest site auditing component to ensure suppliers conform to the requirement. The Forestry Commissions for each state in the supply area monitor and enforce BMP implementation.

ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment is reviewed annually to ensure Enviva is aware of forest impact assessments, planning implementation and monitoring efforts in all of Enviva's supply areas. Enviva reviews sources such those listed in the preamble to conduct a state by state study of its supply area. The analysis indicates there are ample state and regional forest assessment tools that help determine forestry regulations within the supply base area. Many of these are the same sources of information used by FSC in its FSC US CWNRA. Findings are incorporated into Enviva's ENV-COC-03 Controlled Wood/Controlled Sources Risk Assessment, this supply base evaluation and revisions to the Master Wood Purchase Agreement

SFI Fiber Sourcing Standard Objective 7 requires a certificate holder to be "knowledgeable about credible regional conservation planning and priority-setting efforts that include a broad range of stakeholders and have a program to take into account the results of these efforts in planning." Enviva does this through engaging state forestry associations.

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Secondary Feedstock

Enviva's annual District of Origin Process allows secondary feedstock suppliers to meet the requirements described in SBP's Normative Interpretations Document. The process collects information about the suppliers sourcing area, species processed at the mill, the types of information collected about the landowner and other pertinent information as described in the guidance found in Standard 2 Section 8.4 of the Interpretations. This information is mapped and compared to Enviva's supply base area and against known areas with potential high conservation value to ensure that any risk to HCV values associated with suppliers of secondary feedstocks is appropriately included in the SBP supply base evaluation process to ensure the suppliers' sourcing practices do not pose a threat to these areas. Enviva purchases primary feedstock from many of the same timber harvesting crews as its secondary feedstock suppliers. Since Enviva uses its proprietary Track & Trace program to purchase primary feedstock it, by extension, has quite a bit of information about the source tracts of its secondary feedstock suppliers.

	<p>State Forestry Commission's in Enviva's supply area have forestry and wildlife management plans with action items the state is undertaking to improve forest health and wildlife protection on both state and private ownerships.</p> <p><u>Conclusion</u></p> <p>Enviva's feedstock is sourced from areas with forest impact assessments, planning implementation and monitoring. Based on the available information, the risk for this category has been assessed as low.</p>
Means of Verification	<ul style="list-style-type: none"> a. Preamble citations b. FSC US CWNRA c. ENV-SFIS-01 Certified Sourcing Implementation Manual d. Master Wood Purchase Agreement e. ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment f. Track & Trace g. HCV Tract Approval Process h. District of Origin Process i. State BMP Manuals j. Assessment of Lawful Harvesting & Sustainability of US Hardwood Exports k. US Fish & Wildlife Service l. NASF publication, <i>The Nation's Water: State Forestry Agencies and Best Management Practices</i> m. NASF State Forest Fact Sheets n. NASF Water Quality Report o. BioScience website
Evidence Reviewed	All means of verification reviewed
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk RA <input type="checkbox"/> Unspecified Risk at RA

	Indicator
2.2.2	<p>The Biomass Producer has implemented appropriate control systems and procedures for verifying that feedstock is sourced from forests where management maintains or improves soil quality (CPET S5b).</p>
Finding	<p>Forest BMP's are designed to protect water quality by preventing the movement of soil into waterways therefore protecting soil quality. Further, many states have specific BMP's that describe methods timber harvesters use to enhance forest soils by redistributing. The National Association of State Forester (NASF) recently released publication, <i>Protecting The Nation's Water: State Forestry Agencies and Best Management Practices</i>. The publication covers all 50 US States and eight of its territories. The state forestry BMP implementation rates for the Enviva supply base area are listed in the appendix and the NASF publication concluded.</p> <p>"Across the country, BMP's are implemented appropriately, when and where they are needed, 92% of the time. This is a figure not only one state forestry agency can be proud of: it serves as strong evidence in support of a silvicultural exemption to Clean Water Act permitting requirements".</p> <p>Links to state BMP websites and state specific BMP implementation rates for the Enviva supply base area can be found in the preamble.</p> <p>Enviva reviews sources such as the National Association of State Foresters, USFS Forest Inventory Analysis, World Wildlife Fund, Conservation International and World Resources Institute to conduct a state by state study of its supply area. The analysis indicates there are ample state and regional forest assessment tools that help determine forestry</p>

regulations within the supply base area. The analysis determined the wood products industry is well established, logger training is an industry norm and the use of forestry best management practices are a long-standing business practice in the supply base area.

State Forestry Agency/Commission are also responsible for implementing forestry BMP's as directed by the Clean Water Act and conducting periodic BMP implementation monitoring. State-wide BMP compliance reports are readily available. The NASF website contains many useful reports including, *Effectiveness of forestry BMP's in the United States: Literature Review*, which was published in *Forest Ecology and Management* (2016: 133 - 151). The review determined forestry BMP's are effective when implemented as recommended by state forestry agencies. Proper implementation of forestry BMP's protect soil quality.

The United States Department of Agriculture Forest Service General Technical Report INT-69 titled, *Forest Soil Biology - Timber Harvesting Relationships: A Perspective*, concluded generally timber harvesting does not have a long-term impact on forest soil productivity and if changes do exist these are generally small and only last a few years.

Additional evidence

Enviva uses contractual language in its Master Wood Purchase Agreement requiring supplier to abide by all relevant laws and regulations. The contract includes the requirement to avoid the following unacceptable sources wood:

- Illegally harvest wood;
- Wood harvested in violation of traditional and civil rights;
- Wood harvested from forests where high conservation values are threatened by management activities;
- Wood harvested from old growth or semi-natural forests being converted to plantations or non-forest use;
- Wood from forests where genetically modified trees are planted;
- Wood in which there was a violation of the ILO Declarations on fundamental principle and rights at work.

Enviva requires all suppliers to sign a Master Wood Supply Agreement. Master Wood Purchase Agreements contain recital requiring the supplier to agree to abide by Enviva's legal and sustainability commitments including a provision to allow Enviva to periodically audit suppliers to ensure conformance. Enviva will only purchase feedstocks from suppliers who it has an established business relationship and a signed agreement.

Most of the high conservation value areas identified in Enviva's supply base area are associated with streams or water features. Forestry BMP's are the best tool available to ensure forest management activities do not adversely impact forests and other areas of high conservation value such as those identified. And even in areas not associated with streams or water features forestry BMP's specify how roads, trails and other forest management activities are performed to minimize their impact on the forest. Enviva contractually requires the use of BMP's. Enviva's Track & Trace Program includes a harvest site auditing component to ensure suppliers conform to the requirement. The Forestry Commissions for each state in the supply area monitor and enforce BMP implementation.

Primary Feedstock

Enviva uses its proprietary Track & Trace for all primary wood purchases. Specifically, Enviva maintains a robust tracking and monitoring program to ensure that all our suppliers deliver wood that is sourced according to our expectations. The information Enviva

	<p>collects for every tract its suppliers harvest includes; 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 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 mill, each load is linked to that tract's ID number. As a result, Enviva knows the tract-level attributes for all the primary wood entering the mill. Enviva randomly conducts field audits and verifies forestry BMP's are used and the removal of forest residues do not have a negative impact on soil quality. During annual certification audits an independent certifying body confirms Enviva's internal findings as part of its third-party audit assessment. And Enviva's HCV Tract Approval Process ensures forest management activities do not harm sensitive eco-systems, habitats or threaten biodiversity in its sourcing practices. Each tract is assessed using a set of criteria that include the tract location within known bottomland forest settings. Every tract is evaluated for forest health concerns, wildlife considerations, location within the landscape, conservation value and other criteria. Enviva will only purchase wood from a tract if the assessment determines harvesting is the best outcome for the forest.</p> <p><i>Secondary Feedstock</i></p> <p>Enviva's annual District of Origin Process allows secondary feedstock suppliers to meet the requirements described in SBP's Normative Interpretations Document. The process collects information about the suppliers sourcing area, species processed at the mill, the types of information collected about the landowner and other pertinent information as described in the guidance found in Standard 2 Section 8.4 of the Interpretations. This information is mapped and compared to Enviva's supply base area and against known areas with potential high conservation value to ensure that any risk to HCV values associated with suppliers of secondary feedstocks is appropriately included in the SBP supply base evaluation process to ensure the suppliers' sourcing practices do not pose a threat to these areas. Enviva purchases primary feedstock from many of the same timber harvesting crews as its secondary feedstock suppliers. Since Enviva uses its proprietary Track & Trace program to purchase primary feedstock it, by extension, has quite a bit of information about the source tracts of its secondary feedstock suppliers.</p> <p>SFI Fiber Sourcing Standard Objective 2 requires a certificate holder, "To broaden the practice of sustainable forestry through the use of best management practices to protect water quality". Enviva's ENV-SFIS-01 Certified Sourcing Implementation Manual describes processes and internal documents Enviva uses to meet the Objective. Enviva requires the use of forestry best management practices of its suppliers and further requires them to require forestry best management practices be employed by their suppliers.</p> <p><u>Conclusion</u></p> <p>There is a low risk the Enviva sourcing practices will degrade forest soils.</p>
Means of Verification	<ol style="list-style-type: none"> Preamble citations ENV-SFIS-01 Certified Sourcing Implementation Manual Track & Trace HCV Tract Approval Process District of Origin Process Master Wood Purchase Agreement State BMP Manuals NASF publication, <i>The Nation's Water: State Forestry Agencies and Best Management Practices</i> NASF Water Quality Report BMP implementation rate information for states in supply base area

	k. Effectiveness of forestry BMP's in the United States: Literature Review. l. Forest Soil Biology - Timber Harvesting Relationships: A Perspective
Evidence Reviewed	All means of verification reviewed
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA

	Indicator
2.2.3	The Biomass Producer has implemented appropriate control systems and procedures to ensure that key ecosystems and habitats are conserved or set aside in their natural state (CPET S8b).
Finding	<p>The FSC US CWNRA finding related to this indicator</p> <p>1.9 Protected sites and species – “The US has a broad and comprehensive legal structure surrounding species protection and the protection of socially and ecologically important sites, administered at both the federal and state level.”</p> <p>Using the FSC US CWNRA Enviva has identified the following key ecosystems and habitats that are at risk. Those CBA's are listed in indicator 2.1.1 and examples of most at risk key ecosystems and habitats are protected by federal and state agencies.</p> <p><u>Additional evidence:</u> Enviva uses contractual language in its Master Wood Purchase Agreement requiring supplier to abide by all relevant laws and regulations. The contract includes the requirement to avoid the following unacceptable sources wood:</p> <ul style="list-style-type: none"> - Illegally harvest wood; - Wood harvested in violation of traditional and civil rights; - Wood harvested from forests where high conservation values are threatened by management activities; - Wood harvested from old growth or semi-natural forests being converted to plantations or non-forest use; - Wood from forests where genetically modified trees are planted; - Wood in which there was a violation of the ILO Declarations on fundamental principle and rights at work. <p>Enviva requires all suppliers to sign a Master Wood Supply Agreement. Master Wood Purchase Agreements contain recital requiring the supplier to agree to abide by Enviva's legal and sustainability commitments including a provision to allow Enviva to periodically audit suppliers to ensure conformance. Enviva will only purchase feedstocks from suppliers who it has an established business relationship and a signed agreement.</p> <p>ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment is reviewed annually to ensure it Enviva is aware of forest impact assessments, planning implementation and monitoring efforts including an analysis of ecosystem and habitats in all of Enviva's supply areas. The program requires an assessment of each risk area to determine if forest management activities are impacting eco-regions of significant high conservation values. Enviva reviews sources such as those listed in the preamble to evaluate its supply base area. The analysis indicates there are ample state and regional forest assessment tools that help determine forestry regulations within the supply base area. The analysis also finds the wood products industry is well established, logger training is an industry norm</p>

and the use of forestry best management practices are a long-standing business practice in the supply base area. These same sources were used by the authors of the FSC US CWNRA.

Many areas of high conservation value are found in conjunction with rivers, streams, etc. SFI Fiber Sourcing Standard Objective 2 indicator 2.1 requires Program Participants to develop a verifiable monitoring system to ensure BMP's are evaluated across its wood supply area, ensure implementation rates are maintained and identify areas for improvement. Enviva's ENV-SFIS-01 Certified Sourcing Implementation Manual and its Track & Trace Fields Audits to meet the requirements. Forestry BMP's are the best tool available to ensure forest management activities do not adversely impact forests and other areas of high conservation value. Enviva contractually requires the use of BMP's. Enviva's Track & Trace Program includes a harvest site auditing component to ensure suppliers conform to the requirement.

ENV-SFIS-01 Certified Sourcing Implementation Manual describes processes and internal documents Enviva uses to meet the SFI requirements related to Objective 1 "Biodiversity in Fiber Sourcing. To address the practice of sustainable forestry by conserving biological diversity".

Enviva and The Longleaf Alliance announced the signing of a five-year partnership to protect and restore longleaf pine forests, one of the most biodiverse ecosystems in North America. Enviva and The Longleaf Alliance will collaboratively implement Enviva's longleaf forest restoration plan (<https://www.envivabiomass.com/enviva-and-the-longleaf-alliance-announce-partnership-to-protect-and-restore-longleaf-pine-forests/>)

Enviva committed to enhance our ability to detect and monitor HCV areas, finalize our enhanced HCV forest types, and develop procedures for protecting them in harvest operations. As part of the plan, we committed to work with our conservation partners, notably NatureServe, state Natural Heritage programs, and Earthworm Foundation, to identify the full range of HCV types in our sourcing regions using the HCV Network Approach.

In 2019, we developed and implemented enhanced methodology for real-time monitoring and auditing of T&T data using geographic information system mapping, as well as working with NEPCo to develop the first T&T third-party audit standard.

As part of our Responsible Sourcing Policy, Enviva engages with stakeholders to receive feedback on its current wood sourcing policies and suggestions for how to improve it from the following non-profit and agencies:

- The Association of Fish and Wildlife Agencies and The National Wildlife Federation
- The Nature Conservancy
- Audubon
- World Wildlife Fund
- National Council for Air and Stream Improvement
- The Conservation Fund
- Earthworm

Primary Feedstock

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collects for every tract its suppliers harvest includes; 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 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 mill, each load is linked to that tract's ID number. As a result, Enviva knows the tract-level attributes for all the primary wood entering the mill. And Enviva's HCV Tract Approval Process ensures forest management activities do not harm sensitive eco-systems, habitats or threaten biodiversity in its sourcing practices. Enviva randomly conducts field audits and verifies feedstocks are not sourced from areas of high conservation value. During annual certification audits an independent certifying body confirms Enviva's internal findings as part of its third-party audit assessment. Each tract is assessed using a set of criteria that include the tract location within known bottomland forest settings. Every tract is evaluated for forest health concerns, wildlife considerations, location within the landscape, conservation value and other criteria. Enviva will only purchase wood from a tract if the assessment determines harvesting is the best outcome for the forest.

Secondary Feedstock

Enviva's annual District of Origin Process allows secondary feedstock suppliers to meet the requirements described in SBP's Normative Interpretations Document. The process collects information about the suppliers sourcing area, species processed at the mill, the types of information collected about the landowner and other pertinent information as described in the guidance found in Standard 2 Section 8.4 of the Interpretations. This information is mapped and compared to Enviva's supply base area and against known areas with potential high conservation value to ensure that any risk to HCV values associated with suppliers of secondary feedstocks is appropriately included in the SBP supply base evaluation process to ensure the suppliers' sourcing practices do not pose a threat to these areas. Enviva purchases primary feedstock from many of the same timber harvesting crews as its secondary feedstock suppliers. Since Enviva uses its proprietary Track & Trace program to purchase primary feedstock it, by extension, has quite a bit of information about the source tracts of its secondary feedstock suppliers.

Outreach:

In early 2019 Enviva invited leaders in the longleaf pine restoration effort to tour Greenwood and to discuss collaboration opportunities. Representatives from the Longleaf Alliance, Milliken Forestry and the Longleaf Partnership Council met at the Greenwood mill, toured the facility and discussed plans to work on various longleaf pine restoration projects.

Conclusion

According to SBP Guidance Document: Assessment of Risk, Means of Verification and Mitigation Measures in the Southeast US, "SBP has yet to receive a Regional Risk Assessment (RRA) for the US to evaluate for approval and considers all of the currently available assessment resources in and of themselves to be only partially adequate in assessing high conservation value and conversion indicators." Use of the FSC CWNRA is suggested but is considered incomplete.

Enviva engages with willing stakeholders to continually assess for potential areas of high conservation value (<https://www.greenbiz.com/article/stakeholder-engagement-how-enviva-moved-crisis-collaboration>). We find these engagements and subsequent collaborations to be both enlightening and beneficial in the promotion of sustainable forest management.

Means of Verification	<ul style="list-style-type: none"> a. Preamble citations b. FSC US CWNRA c. Enviva Sourcing Policy d. ENV-SFIS-01 Certified Sourcing Implementation Manual e. ENV-COC-03 Controlled Source Risk Assessment f. Track & Trace g. HCV Tract Approval Process h. District of Origin Process i. Stakeholder engagement j. Master Wood Purchase Agreement
Evidence Reviewed	All means of verification reviewed
Risk Rating	<input type="checkbox"/> Low Risk <input checked="" type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA
Comment or Mitigation Measure	<u>Management System</u> Enviva will annually review it's Means of Verification, engage with Stakeholders, use its proprietary Track & Trace Program, HCV Tract Approval Process and District of Origin Process to ensure key ecosystems and habitats are or conserved or set aside.
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA

	Indicator
2.2.4	The Biomass Producer has implemented appropriate control systems and procedures to ensure that biodiversity is protected (CPET S5b).
Finding	<p>The FSC US CWNRA did not identify any specified risk species that have habitat located in the Enviva supply base area:</p> <p><u>Additional evidence:</u> Enviva uses contractual language in its Master Wood Purchase Agreement requiring supplier to abide by all relevant laws and regulations. The contract includes the requirement to avoid the following unacceptable sources wood:</p> <ul style="list-style-type: none"> - Illegally harvest wood; - Wood harvested in violation of traditional and civil rights; - Wood harvested from forests where high conservation values are threatened by management activities; - Wood harvested from old growth or semi-natural forests being converted to plantations or non-forest use; - Wood from forests where genetically modified trees are planted; - Wood in which there was a violation of the ILO Declarations on fundamental principle and rights at work. <p>Enviva requires all suppliers to sign a Master Wood Supply Agreement. Master Wood Purchase Agreements contain recital requiring the supplier to agree to abide by Enviva's legal and sustainability commitments including a provision to allow Enviva to periodically audit suppliers to ensure conformance. Enviva will only purchase feedstocks from suppliers who it has an established business relationship and a signed agreement.</p>

Most of areas of high biodiversity identified in Enviva's supply base area are associated with streams or water features. Forestry BMP's are the best tool available to ensure forest management activities do not adversely impact forests and other areas of high conservation value such as those identified. And even in areas not associated with streams or water features forestry BMP's specify how roads, trails and other forest management activities are performed to minimize their impact on the forest. Enviva contractually requires the use of BMP's. Enviva's Track & Trace Program includes a harvest site auditing component to ensure suppliers conform to the requirement. The Forestry Commissions for each state in the supply area monitor and enforce BMP implementation.

The National Association of State Foresters (NASF) recently released publication, *Protecting The Nation's Water: State Forestry Agencies and Best Management Practices*. The publication covers all 50 US States and eight of its territories. The state forestry BMP implementation rates for the Enviva supply base area are listed in the appendix and the NASF publication concluded.

"Across the country, BMP's are implemented appropriately, when and where they are needed, 92% of the time. This is a figure not only one state forestry agency can be proud of: it serves as strong evidence in support of a silvicultural exemption to Clean Water Act permitting requirements".

Links to state BMP websites and state specific BMP implementation rates for the Enviva supply base area can be found in the preamble.

Longleaf pine forests are a critical forest ecosystem in the southeastern U.S. They are considered high conservation value forests because of their rarity and biodiversity value. Longleaf forests support some of the highest levels of small-scale species diversity of any forest ecosystem in North America. Well-managed longleaf pine forests provide critical habitat for 29 threatened and endangered species, including the red-cockaded woodpecker, the gopher tortoise, and the Eastern indigo snake.

Enviva and The Longleaf Alliance announced the signing of a five-year partnership to protect and restore longleaf pine forests, one of the most biodiverse ecosystems in North America. Enviva and The Longleaf Alliance will collaboratively implement Enviva's longleaf forest restoration plan (<https://www.envivabiomass.com/enviva-and-the-longleaf-alliance-announce-partnership-to-protect-and-restore-longleaf-pine-forests/>)

In 2019, we developed and implemented enhanced methodology for real-time monitoring and auditing of T&T data using geographic information system mapping, as well as working with NEPCo to develop the first T&T third-party audit standard.

Enviva is working with the Forest Steward Guild to help landowners learn about proper bottomland hardwood management to maintain and enhance these forests for wildlife and water quality protection.

ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment is reviewed annually to ensure Enviva is aware of forest impact assessments, planning implementation and monitoring efforts in all of Enviva's supply areas. Enviva reviews sources such as those listed in the preamble as the National Association of State Foresters, USFS Forest Inventory Analysis, World Wildlife Fund, Conservation International and World Resources Institute to conduct a state by state study of its supply area. The analysis indicates there are ample state and regional forest assessment tools that help determine forestry regulations within the supply base area. Many of these are the same sources of information used by FSC in

its FSC US CWNRA. Findings are incorporated into Enviva's ENV-COC-03 Controlled Wood/Controlled Sources Risk Assessment, this supply base evaluation and revisions to the Master Wood Purchase Agreement

ENV-SFI-01 SFI Certified Sourcing Implementation Manual describes processes and internal documents Enviva uses to meet the SFI requirements related to Objective 1 "Biodiversity in Fiber Sourcing. To address the practice of sustainable forestry by conserving biological diversity".

Enviva committed to enhance our ability to detect and monitor HCV areas, finalize our enhanced HCV forest types, and develop procedures for protecting them in harvest operations. As part of the plan, we committed to work with our conservation partners, notably NatureServe, state Natural Heritage programs, and Earthworm Foundation, to identify the full range of HCV types in our sourcing regions using the HCV Network Approach.

Primary Feedstock

Enviva uses its proprietary Track & Trace for all primary wood purchases. Specifically, Enviva maintains a robust tracking and monitoring program to ensure that all our suppliers deliver wood that is sourced according to our expectations. The information Enviva collects for every tract its suppliers harvest includes; 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 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 mill, each load is linked to that tract's ID number. As a result, Enviva knows the tract-level attributes for all the primary wood entering the mill. Enviva randomly conducts field audits and verifies feedstocks are not sourced in a manner that threatens biodiversity. During annual certification audits an independent certifying body confirms Enviva's internal findings as part of its third-party audit assessment. And Enviva's HCV Tract Approval Process ensures forest management activities do not harm sensitive eco-systems, habitats or threaten biodiversity in its sourcing practices. Each tract is assessed using a set of criteria that include the tract location within known bottomland forest settings. Every tract is evaluated for forest health concerns, wildlife considerations, location within the landscape, conservation value and other criteria. Enviva will only purchase wood from a tract if the assessment determines harvesting is the best outcome for the forest.

Secondary Feedstock

Enviva's annual District of Origin Process allows secondary feedstock suppliers to meet the requirements described in SBP's Normative Interpretations Document. The process collects information about the suppliers sourcing area, species processed at the mill, the types of information collected about the landowner and other pertinent information as described in the guidance found in Standard 2 Section 8.4 of the Interpretations. This information is mapped and compared to Enviva's supply base area and against known areas with potential high conservation value to ensure that any risk to HCV values associated with suppliers of secondary feedstocks is appropriately included in the SBP supply base evaluation process to ensure the suppliers' sourcing practices do not pose a threat to these areas. Enviva purchases primary feedstock from many of the same timber harvesting crews as its secondary feedstock suppliers. Since Enviva uses its proprietary Track & Trace program to purchase primary feedstock it, by extension, has quite a bit of information about the source tracts of its secondary feedstock suppliers.

Conclusion

	<p>The two species are very localized and specific in their habitat and those habitats are 0.84% of the total hectares in Enviva's supply base. There is a low risk Enviva's sourcing policies would affect either of them. Regardless, according to SBP Guidance Document: Assessment of Risk, Means of Verification and Mitigation Measures in the Southeast US, "SBP has yet to receive a Regional Risk Assessment (RRA) for the US to evaluate for approval and considers all of the currently available assessment resources in and of themselves to be only partially adequate in assessing high conservation value and conversion indicators." Use of the FSC CWNRA is suggested but is considered incomplete.</p> <p>Enviva engages with willing stakeholders to continually assess for potential areas of high conservation value (https://www.greenbiz.com/article/stakeholder-engagement-how-enviva-moved-crisis-collaboration). We find these engagements and subsequent collaborations to be both enlightening and beneficial in the promotion of sustainable forest management.</p>
Means of Verification	<ul style="list-style-type: none"> m. Preamble citations n. FSC CWNRA o. ENV-SFIS-01 Certified Sourcing Implementation Manual p. Track & Trace q. HCV Tract Approval Process r. District of Origin Process s. ENV-COC-03 Controlled Wood/Controlled Sources Risk Assessment t. Master Wood Purchase Agreement u. National Association of State Foresters v. Enviva Responsible Sourcing Policy w. NASF publication, <i>The Nation's Water: State Forestry Agencies and Best Management Practices</i>
Evidence Reviewed	All means of verification reviewed
Risk Rating	<input type="checkbox"/> Low Risk <input checked="" type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA
Comment or Mitigation Measure	<p><u>Management System</u></p> <p>Enviva will annually review it's Means of Verification, engage with Stakeholders, use its proprietary Track & Trace Program, HCV Tract Approval Process and District of Origin Process to ensure key ecosystems and habitats are or conserved or set aside.</p>
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA

	Indicator
2.2.5	The Biomass Producer has implemented appropriate control systems and procedures for verifying that the process of residue removal minimises harm to ecosystems.
Finding	<p>The United States. The United States Department of Agriculture Forest Service General Technical Report INT-69 titled, <i>Forest Soil Biology - Timber Harvesting Relationships: A Perspective</i>, concluded generally timber harvesting does not have a long-term impact on forest soil productivity and if changes do exist these are generally small and only last a few years.</p> <p>Enviva reviews sources such as the National Association of State Foresters, USFS Forest Inventory Analysis, World Wildlife Fund, Conservation International and World Resources</p>

Institute to conduct a state by state study of its supply area. The analysis indicates there are ample state and regional forest assessment tools that help determine forestry regulations within the supply base area. The analysis determined the wood products industry is well established, logger training is an industry norm and the use of forestry best management practices are a business is a best practice in the supply base area.

Forestry BMP's are the best tool available to ensure forest management activities do not adversely impact forests. Enviva contractually requires the use of BMP's. Enviva's Track & Trace Program includes a harvest site auditing component to ensure suppliers conform to the requirement.

The Forestry Commissions for each state in the supply area monitor and enforce BMP implementation. The NASF website contains many useful reports including, *Effectiveness of forestry BMP's in the United States: Literature Review*. Published in Forest Ecology and Management (2016, pgs 133 - 151). The review determined forestry BMP's are effective when implemented as recommended by state forestry agencies. Proper implementation of forestry BMP's protect soil quality.

Forest BMP's are designed to protect water quality by preventing the movement of soil into waterways therefore protecting soil quality. Further, many states have specific BMP's that describe methods timer harvesters use to enhance forest soils by redistributing. The National Association of State Forester (NASF) recently released publication, *Protecting The Nation's Water: State Forestry Agencies and Best Management Practices*. The publication covers all 50 US States and eight of its territories. The state forestry BMP implementation rates for the Enviva supply base area are listed in the appendix and the NASF publication concluded.

"Across the country, BMP's are implemented appropriately, when and where they are needed, 92% of the time. This is a figure not only one state forestry agency can be proud of: it serves as strong evidence in support of a silvicultural exemption to Clean Water Act permitting requirements".

Links to state BMP websites and state specific BMP implementation rates for the Enviva supply base area can be found in the preamble.

There are few studies looking at the effect of timber harvesting on forest soils in the United States. The United States Department of Agriculture Forest Service General Technical Report INT-69 titled, *Forest Soil Biology - Timber Harvesting Relationships: A Perspective*, concluded generally timber harvesting does not have a long-term impact on forest soil productivity and if changes do exist these are generally small and only last a few years.

Enviva reviews sources such as the National Association of State Foresters, USFS Forest Inventory Analysis, World Wildlife Fund, Conservation International and World Resources Institute to conduct a state by state study of its supply area. The analysis indicates there are ample state and regional forest assessment tools that help determine forestry regulations within the supply base area. The analysis determined the wood products industry is well established, logger training is an industry norm and the use of forestry best management practices are a business as usual practice in the supply base area. Forestry BMP's are the best tool available to ensure forest management activities do not adversely impact forests. Enviva contractually requires the use of BMP's. Enviva's Track & Trace Program includes a harvest site auditing component to ensure suppliers conform to the requirement. The Forestry Commissions for each state in the supply area monitor and enforce BMP implementation. The NASF website contains many useful reports including,

Effectiveness of forestry BMP's in the United States: Literature Review. Published in Forest Ecology and Management (2016, pgs 133 - 151). The review determined forestry BMP's are effective when implemented as recommended by state forestry agencies. Proper implementation of forestry BMP's protect soil quality.

Additional evidence

Enviva uses contractual language in its Master Wood Purchase Agreement requiring supplier to abide by all relevant laws and regulations. The contract includes the requirement to avoid the following unacceptable sources wood.

- Illegally harvest wood;
- Wood harvested in violation of traditional and civil rights;
- Wood harvested from forests where high conservation values are threatened by management activities;
- Wood harvested from old growth or semi-natural forests being converted to plantations or non-forest use;
- Wood from forests where genetically modified trees are planted;
- Wood in which there was a violation of the ILO Declarations on fundamental principle and rights at work.

Enviva requires all suppliers to sign a Master Wood Supply Agreement. Master Wood Purchase Agreements contain recital requiring the supplier to agree to abide by Enviva's legal and sustainability commitments including a provision to allow Enviva to periodically audit suppliers to ensure conformance. The Enviva will only purchase feedstocks from suppliers who it has an established business relationship and a signed agreement.

ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment contains the work done to determine if removals of forest residues have a negative influence on forests in the supply area. This document uses many of the same sources as the FSC US CWNRA. Enviva's ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment and this supply base evaluation are reviewed annually to ensure Enviva is aware of changes in the supply base area. The review includes ongoing stakeholder engagement to identify potential new high conservation value areas and evaluation to determine if forest management activities could have a negative impact on these areas. Findings are incorporated into Enviva's ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment, this supply base evaluation and revisions to the Master Wood Purchase Agreement.

Primary Feedstock

Enviva uses its proprietary Track & Trace for all primary wood purchases. Specifically, Enviva maintains a robust tracking and monitoring program to ensure that all our suppliers deliver wood that is sourced according to our expectations. The information Enviva collects for every tract its suppliers harvest includes; 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 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 mill, each load is linked to that tract's ID number. As a result, Enviva knows the tract-level attributes for all the primary wood entering the mill. Enviva randomly conducts field audits and verifies feedstocks are not sourced in a manner that could harm ecosystems. Enviva randomly conducts field audits and verifies feedstock forcing practices do not harm forest soils. During annual certification audits an independent certifying body confirms Enviva's internal findings as part of its third-party audit assessment. And Enviva's HCV Tract Approval Process ensures forest management activities do not harm sensitive eco-systems, habitats or threaten biodiversity in its

	<p>sourcing practices. Each tract is assessed using a set of criteria that include the tract location within known bottomland forest settings. Every tract is evaluated for forest health concerns, wildlife considerations, location within the landscape, conservation value and other criteria. Enviva will only purchase wood from a tract if the assessment determines harvesting is the best outcome for the forest.</p> <p><i>Secondary Feedstock</i></p> <p>Enviva's annual District of Origin Process allows secondary feedstock suppliers to meet the requirements described in SBP's Normative Interpretations Document. The process collects information about the suppliers sourcing area, species processed at the mill, the types of information collected about the landowner and other pertinent information as described in the guidance found in Standard 2 Section 8.4 of the Interpretations. This information is mapped and compared to Enviva's supply base area and against known areas with potential high conservation value to ensure that any risk to HCV values associated with suppliers of secondary feedstocks is appropriately included in the SBP supply base evaluation process to ensure the suppliers' sourcing practices do not pose a threat to these areas. Enviva purchases primary feedstock from many of the same timber harvesting crews as its secondary feedstock suppliers. Since Enviva uses its proprietary Track & Trace program to purchase primary feedstock it, by extension, has quite a bit of information about the source tracts of its secondary feedstock suppliers.</p> <p><u>Conclusion</u></p> <p>There is a low risk the Enviva sourcing practices will affect residue removal from forests.</p>
Means of Verification	<ul style="list-style-type: none"> a. Preamble citations b. ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment c. Master Wood Purchase Agreement d. Track & Trace e. District of Origin Process f. HCV Tract Approval Process g. State BMP Manuals and BMP monitoring data h. BMP implementation rate information for states in supply base area i. Effectiveness of forestry BMP's in the United States: Literature Review. j. Forest Soil Biology - Timber Harvesting Relationships: A Perspective k. NASF publication, <i>The Nation's Water: State Forestry Agencies and Best Management Practices</i>
Evidence Reviewed	All means of verification reviewed
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA

	Indicator
2.2.6	The Biomass Producer has implemented appropriate control systems and procedures to verify that negative impacts on ground water, surface water and water downstream from forest management are minimised (CPET S5b).
Finding	The FSC US CWNRA indicator 3.4 HCV 4 determined there is a low risk of forest management activities affecting water quality. Further the author states, "Evidence of the effectiveness of forestry BMPs, combined with the reported levels of compliance, indicates that there is a high likelihood that HCV 4 are being effectively protected throughout the assessment area through the implementation of forestry BMPs associated with State

nonpoint source pollution programs.” The effectiveness of forestry best management practices is well documented in the FSC US CWNRA.

The US Clean Water Act requires each state to develop non-point source BMP's to address run off. This includes forestry activities. Enviva's contracts require suppliers to ensure their supply chain follows all applicable laws including those that protect special habitats by following BMP's and other laws.

The National Association of State Forester (NASF) recently released publication, *Protecting The Nation's Water: State Forestry Agencies and Best Management Practices*. The publication covers all 50 US States and eight of its territories. The state forestry BMP implementation rates for the Enviva supply base area are listed in the appendix and the NASF publication concluded.

“Across the country, BMP's are implemented appropriately, when and where they are needed, 92% of the time. This is a figure not only one state forestry agency can be proud of: it serves as strong evidence in support of a silvicultural exemption to Clean Water Act permitting requirements”.

Links to state BMP websites and state specific BMP implementation rates for the Enviva supply base area can be found in the preamble.

Enviva reviews sources such as the National Association of State Foresters, USFS Forest Inventory Analysis, World Wildlife Fund, Conservation International and World Resources Institute to conduct a state by state study of its supply area. The analysis indicates there are ample state and regional forest assessment tools that help determine forestry regulations within the supply base area. The analysis determined the wood products industry is well established, logger training is an industry norm and the use of forestry best management practices are a long-standing business practice in the supply base area.

Enviva is a member of state forestry associations within its supply base area and these organizations are responsible for reviewing and developing logger training in conjunction with state forestry commissions related to forestry best manage practices. Enviva interacts with these groups to improve forestry best management practices guidelines and monitor enforcement. Forestry BMP's are the best tool available to ensure forest management activities do not adversely impact forests and other areas of high conservation value such as those identified. And even in areas not associated with streams or water features forestry BMP's specify how roads, trails and other forest management activities are performed to minimize their impact on the forest. Enviva contractually requires the use of BMP's. Enviva's Track & Trace Program includes a harvest site auditing component to ensure suppliers conform to the requirement. The Forestry Commissions for each state in the supply area monitor and enforce BMP implementation.

Additional evidence:

Enviva uses contractual language in its Master Wood Purchase Agreement requiring supplier to abide by all relevant laws and regulations. The contract includes the requirement to avoid the following unacceptable sources wood:

- Illegally harvest wood;
- Wood harvested in violation of traditional and civil rights;
- Wood harvested from forests where high conservation values are threatened by management activities;
- Wood harvested from old growth or semi-natural forests being converted to plantations or non-forest use;
- Wood from forests were genetically modified trees are planted;

- Wood in which there was a violation of the ILO Declarations on fundamental principle and rights at work.

Enviva requires all suppliers to sign a Master Wood Supply Agreement. Master Wood Purchase Agreements contain recital requiring the supplier to agree to abide by Enviva's legal and sustainability commitments including a provision to allow Enviva to periodically audit suppliers to ensure conformance. Enviva will only purchase feedstocks from suppliers who it has an established business relationship and a signed agreement.

ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment contains the work done to determine if forest management activities pose a threat to water quality in the supply area. This document uses many of the same sources as the FSC US CWNRA. Enviva's ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment and this supply base evaluation are reviewed annually to ensure Enviva is aware of changes in the supply base area. The review includes annual reviews of state forestry BMP studies to incorporate state findings into Enviva's ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment, this supply base evaluation and revisions to the Master Wood Purchase Agreement.

Enviva is an SFI Program Participant certified to SFI's Fiber Sourcing Standard. Objective 2 requires Program Participants to mandate the use and monitor the implementation of forestry BMP's to protect water quality. Enviva's ENV-SFIS-01 Certified Sourcing Implementation Manual describes how Track & Trace and its harvest site inspection process fulfils the Objective as well as SFI Fiber Sourcing Standard Objective 3 requiring Program Participants to promote the use of trained logger.

Primary Feedstock

Enviva uses its proprietary Track & Trace for all primary wood purchases. Specifically, Enviva maintains a robust tracking and monitoring program to ensure that all our suppliers deliver wood that is sourced according to our expectations. The information Enviva collects for every tract its suppliers harvest includes; 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 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 mill, each load is linked to that tract's ID number. As a result, Enviva knows the tract-level attributes for all the primary wood entering the mill. Enviva randomly conducts field audits and verifies feedstocks harvesting does not impact ground water quality. During annual certification audits an independent certifying body confirms Enviva's internal findings as part of its third-party audit assessment. And Enviva's HCV Tract Approval Process ensures forest management activities do not harm sensitive eco-systems, habitats or threaten biodiversity in its sourcing practices. Each tract is assessed using a set of criteria that include the tract location within known bottomland forest settings. Every tract is evaluated for forest health concerns, wildlife considerations, location within the landscape, conservation value and other criteria. Enviva will only purchase wood from a tract if the assessment determines harvesting is the best outcome for the forest.

Secondary Feedstock

Enviva's annual District of Origin Process allows secondary feedstock suppliers to meet the requirements described in SBP's Normative Interpretations Document. The process collects information about the suppliers sourcing area, species processed at the mill, the types of information collected about the landowner and other pertinent information as described in the guidance found in Standard 2 Section 8.4 of the Interpretations. This

	<p>information is mapped and compared to Enviva's supply base area and against known areas with potential high conservation value to ensure that any risk to HCV values associated with suppliers of secondary feedstocks is appropriately included in the SBP supply base evaluation process to ensure the suppliers' sourcing practices do not pose a threat to these areas. Enviva purchases primary feedstock from many of the same timber harvesting crews as its secondary feedstock suppliers. Since Enviva uses its proprietary Track & Trace program to purchase primary feedstock it, by extension, has quite a bit of information about the source tracts of its secondary feedstock suppliers.</p> <p><u>Conclusion</u> There is a low risk the Enviva's sourcing practices will have a negative impact on water quality.</p>
Means of Verification	<ul style="list-style-type: none"> a. Preamble citations b. FSC US CWNRA c. NASF publication, <i>The Nation's Water: State Forestry Agencies and Best Management Practices</i> d. ENV-SFIS-01 Certified Sourcing Implementation Manual e. ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment f. State BMP Manuals and BMP monitoring data g. Master Wood Purchase Agreement h. Track & Trace i. District of Origin Process j. HCV Tract Approval Process k. NASF Water Quality Report l. US Clean Water Act
Evidence Reviewed	All means of verification reviewed
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA

	Indicator
2.2.7	<p>The Biomass Producer has implemented appropriate control systems and procedures for verifying that air quality is not adversely affected by forest management activities.</p>
Finding	<p>Air quality impacts from forest management activities are generally related to prescribe fire site preparation techniques. State specific prescribed fire regulation websites are listed below.</p> <ul style="list-style-type: none"> • North Carolina – https://ncforestservice.gov/goodfire/index.htm • South Carolina – https://www.state.sc.us/forest/fire.htm • Virginia – https://www.dof.virginia.gov/fire/prescribed/index.htm <p>The US Clean Air Act requires each state to implement air quality controls to ensure the public's safety. The USDA Forest Service website, <i>Forest Service Air Management Responsibilities</i> describes how the Clean Air Act affects forestry operations in general. States in the Enviva supply base area have haze/smoke laws that are enforced at the local level.</p> <p>Examples of enforcement of forestry fire laws can be found on the United States Fire Administration website (https://www.usfa.fema.gov/prevention/outreach/wildfire_arson/court_cases.html).</p>

And the US Environmental Protection Agency website (https://cfpub.epa.gov/compliance/criminal_prosecution/).

Air quality can also be affected by the forest management use of herbicides and pesticides to control unwanted vegetation and insect. State specific herbicide BMP websites are listed below.

- North Carolina – https://www.ncforestservice.gov/publications/WQ0107/BMP_chapter07.pdfhttps://www.ncforestservice.gov/publications/WQ0107/BMP_manual.pdf
- South Carolina – <https://www.state.sc.us/forest/bmpmanual.pdf>
- Virginia – https://www.dof.virginia.gov/infopubs/BMP-Technical-Guide_pub.pdf

Though each state has varying guidance for herbicide and pesticide use all use of these chemicals is regulated by the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). FIFRA is a federal statute that governs the registration, distribution, sale, and use of pesticides in the United States. With certain exceptions, a pesticide is any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest, or intended for use as a plant regulator, defoliant, or desiccant, or desiccant, or any nitrogen stabilizer.

In the United States regulation of forestry practices has its roots in federal law and acts designed to provide minimum guidance to states in developing state specific laws and regulations and ranks in the top 92nd percentile in Regulatory Quality in the World Bank, Worldwide Governance Indicators and in the top 89th percentile in Rule of Law. Chemical use in forest management activities also follow EPA guidance under FIFRA and include in-woods practices. A review of the EPA Civil Cases and Settlements by Statute resulted in no findings related to forest management activities. The United States has a robust legal system that deters the abuse of state and federal regulation.

Additional evidence

Enviva uses contractual language in its Master Wood Purchase Agreement requiring supplier to abide by all relevant laws and regulations. The contract includes the requirement to avoid the following unacceptable sources wood:

- Illegally harvest wood;
- Wood harvested in violation of traditional and civil rights;
- Wood harvested from forests where high conservation values are threatened by management activities;
- Wood harvested from old growth or semi-natural forests being converted to plantations or non-forest use;
- Wood from forests where genetically modified trees are planted;
- Wood in which there was a violation of the ILO Declarations on fundamental principle and rights at work.

Enviva requires all suppliers to sign a Master Wood Supply Agreement. Master Wood Purchase Agreements contain recital requiring the supplier to agree to abide by Enviva's legal and sustainability commitments including a provision to allow Enviva to periodically audit suppliers to ensure conformance. Enviva will only purchase feedstocks from suppliers who it has an established business relationship and a signed agreement.

Enviva's ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment and this supply base evaluation are reviewed annually to ensure it Enviva is aware of forest

	<p>impact assessments, planning implementation and monitoring efforts of forestry best management practices including regulations related to forest management activities effect on air quality in all of Enviva's supply areas.</p> <p>Enviva reviews sources such as the National Association of State Foresters, USFS Forest Inventory Analysis, World Wildlife Fund, Conservation International and World Resources Institute to conduct a state by state study of its supply area. The analysis indicates there are ample state and regional forest assessment tools that help determine forestry regulations within the supply base area. All states in the supply area have forestry regulations pertaining to the use of fire as a silvicultural tool. The analysis determined the wood products industry is well established, logger training is an industry norm and the use of forestry best management practices are a long-standing business practice in the supply base area.</p> <p>Enviva is a member of regional state forestry associations responsible for reviewing and developing logger training in conjunction with state forestry commissions related to forestry best manage practices. Enviva interacts with these groups to improve forestry best management practices guidelines and monitor enforcement including air quality from forest management.</p> <p><i>Primary Feedstock</i></p> <p>Enviva uses its proprietary Track & Trace for all primary wood purchases. Specifically, Enviva maintains a robust tracking and monitoring program to ensure that all our suppliers deliver wood that is sourced according to our expectations. The information Enviva collects for every tract its suppliers harvest includes; 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 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 mill, each load is linked to that tract's ID number. As a result, Enviva knows the tract-level attributes for all the primary wood entering the mill. Enviva randomly conducts field audits and verifies feedstocks are not sourced from areas without forestry regulations governing air quality. During annual certification audits an independent certifying body confirms Enviva's internal findings as part of its third-party audit assessment. And Enviva's HCV Tract Approval Process ensures forest management activities do not harm sensitive eco-systems, habitats or threaten biodiversity in its sourcing practices. Each tract is assessed using a set of criteria that include the tract location within known bottomland forest settings. Every tract is evaluated for forest health concerns, wildlife considerations, location within the landscape, conservation value and other criteria. Enviva will only purchase wood from a tract if the assessment determines harvesting is the best outcome for the forest.</p> <p><i>Secondary Feedstock</i></p> <p>Enviva's annual District of Origin Process allows secondary feedstock suppliers to meet the requirements described in SBP's Normative Interpretations Document. The process collects information about the suppliers sourcing area, species processed at the mill, the types of information collected about the landowner and other pertinent information as described in the guidance found in Standard 2 Section 8.4 of the Interpretations. This information is mapped and compared to Enviva's supply base area and against known areas with potential high conservation value to ensure that any risk to HCV values associated with suppliers of secondary feedstocks is appropriately included in the SBP supply base evaluation process to ensure the suppliers' sourcing practices do not pose a threat to these areas. Enviva purchases primary feedstock from many of the same timber harvesting crews as its secondary feedstock suppliers. Since Enviva uses its proprietary</p>
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	<p>Track & Trace program to purchase primary feedstock it, by extension, has quite a bit of information about the source tracts of its secondary feedstock suppliers.</p> <p><u>Conclusion</u></p> <p>There is a low risk the Enviva sourcing practices will have a negative impact on air quality.</p>
Means of Verification	<ul style="list-style-type: none"> a. Preamble citations b. Master Wood Purchase Agreement c. ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment d. Track & Trace e. District of Origin Process f. HCV Tract Approval Process g. Clean Air Act h. State Forestry Regulations i. USDA Forest Service j. US EPA FIFRA k. US Fire Administration l. World Bank Worldwide Governance Indicators
Evidence Reviewed	All means of verification reviewed
Risk Rating	X Low Risk <input type="checkbox"/> Specified Risk RA <input type="checkbox"/> Unspecified Risk at RA

	Indicator
2.2.8	<p>The Biomass Producer has implemented appropriate control systems and procedures for verifying that there is controlled and appropriate use of chemicals, and that Integrated Pest Management (IPM) is implemented wherever possible in forest management activities (CPET S5c).</p>
Finding	<p>Air quality can also be affected by the forest management use of herbicides and pesticides to control unwanted vegetation and insect. State specific herbicide BMP websites are listed below.</p> <ul style="list-style-type: none"> • North Carolina – https://www.ncforestservice.gov/publications/WQ0107/BMP_chapter07.pdfhttps://www.ncforestservice.gov/publications/WQ0107/BMP_manual.pdf • South Carolina – https://www.state.sc.us/forest/bmpmanual.pdf • Virginia – https://www.dof.virginia.gov/infopubs/BMP-Technical-Guide_pub.pdf <p>Though each state has varying guidance for herbicide and pesticide use all use of these chemicals is regulated by the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). FIFRA is a federal statute that governs the registration, distribution, sale, and use of pesticides in the United States. With certain exceptions, a pesticide is any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest, or intended for use as a plant regulator, defoliant, or desiccant, or desiccant, or any nitrogen stabilizer.</p> <p>Examples of enforcement of Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) can be found on the United States Environmental Protection Agency website (https://cfpub.epa.gov/compliance/criminal_prosecution/).</p>

	<p>Information about Integrated Pest Management can be found on the USDA Forest Service website (https://www.fs.fed.us/foresthealth/protecting-forest/integrated-pest-management/).</p> <p>In the United States regulation of forestry practices has its roots in federal law and acts designed to provide minimum guidance to states in developing state specific laws and regulations and ranks in the top 92nd percentile in Regulatory Quality in the World Bank, Worldwide Governance Indicators and in the top 89th percentile in Rule of Law. Chemical use in forest management activities also follow EPA guidance under FIFRA and include in-woods practices. A review of the EPA Civil Cases and Settlements by Statute resulted in no findings related to forest management activities. The United States has a robust legal system that deters the abuse of state and federal regulation.</p> <p><u>Additional evidence</u></p> <p>Enviva uses contractual language in its Master Wood Purchase Agreement requiring supplier to abide by all relevant laws and regulations. The contract includes the requirement to avoid the following unacceptable sources wood:</p> <ul style="list-style-type: none"> - Illegally harvest wood; - Wood harvested in violation of traditional and civil rights; - Wood harvested from forests where high conservation values are threatened by management activities; - Wood harvested from old growth or semi-natural forests being converted to plantations or non-forest use; - Wood from forests where genetically modified trees are planted; - Wood in which there was a violation of the ILO Declarations on fundamental principle and rights at work. <p>Enviva requires all suppliers to sign a Master Wood Supply Agreement. Master Wood Purchase Agreements contain recital requiring the supplier to agree to abide by Enviva's legal and sustainability commitments including a provision to allow Enviva to periodically audit suppliers to ensure conformance. Enviva will only purchase feedstocks from suppliers who it has an established business relationship and a signed agreement.</p> <p>Enviva's ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment and this supply base evaluation are reviewed annually to ensure it Enviva is aware of forest impact assessments, planning implementation and monitoring efforts, forestry best management practices in all of Enviva's supply areas.</p> <p>Enviva reviews sources such as the National Association of State Foresters, USFS Forest Inventory Analysis, World Wildlife Fund, Conservation International and World Resources Institute to conduct a state by state study of its supply area. The analysis indicates there are ample state and regional forest assessment tools that help determine forestry regulations within the supply base area. The analysis determined the wood products industry is well established, logger training is an industry norm and the use of forestry best management practices are a long-standing business practice in the supply base area. Findings are incorporated into Enviva's ENV-COC-03 Controlled Sources Risk Assessment and revisions to the Master Wood Purchase Agreement.</p> <p><i>Primary Feedstock</i></p> <p>Enviva uses its proprietary Track & Trace for all primary wood purchases. Specifically, Enviva maintains a robust tracking and monitoring program to ensure that all our suppliers deliver wood that is sourced according to our expectations. The information Enviva collects for every tract its suppliers harvest includes; data on the forest type, age,</p>
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	<p>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 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 mill, each load is linked to that tract's ID number. As a result, Enviva knows the tract-level attributes for all the primary wood entering the mill. Enviva randomly conducts field audits and verifies feedstocks are not from land where forest chemicals are used in excess. During annual certification audits an independent certifying body confirms Enviva's internal findings as part of its third-party audit assessments. And Enviva's HCV Tract Approval Process ensures forest management activities do not harm sensitive eco-systems, habitats or threaten biodiversity in its sourcing practices. Each tract is assessed using a set of criteria that include the tract location within known bottomland forest settings. Every tract is evaluated for forest health concerns, wildlife considerations, location within the landscape, conservation value and other criteria. Enviva will only purchase wood from a tract if the assessment determines harvesting is the best outcome for the forest.</p> <p><i>Secondary Feedstock</i></p> <p>Enviva's annual District of Origin Process allows secondary feedstock suppliers to meet the requirements described in SBP's Normative Interpretations Document. The process collects information about the suppliers sourcing area, species processed at the mill, the types of information collected about the landowner and other pertinent information as described in the guidance found in Standard 2 Section 8.4 of the Interpretations. This information is mapped and compared to Enviva's supply base area and against known areas with potential high conservation value to ensure that any risk to HCV values associated with suppliers of secondary feedstocks is appropriately included in the SBP supply base evaluation process to ensure the suppliers' sourcing practices do not pose a threat to these areas. Enviva purchases primary feedstock from many of the same timber harvesting crews as its secondary feedstock suppliers. Since Enviva uses its proprietary Track & Trace program to purchase primary feedstock it, by extension, has quite a bit of information about the source tracts of its secondary feedstock suppliers.</p> <p><u>Conclusion</u></p> <p>There is a low risk the Enviva sourcing practices will cause an increase in the use of pesticides or herbicides.</p>
Means of Verification	<ul style="list-style-type: none"> a. Preamble citations b. Master Wood Purchase Agreement c. ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment d. Track & Trace e. District of Origin Process f. HCV Tract Approval Process g. USDA Forest Service h. Federal Insecticide, Fungicide and Rodenticide Act i. US EPA j. World Bank Worldwide Governance Indicators
Evidence Reviewed	All means of verification reviewed
Risk Rating	<div> <input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk RA <input type="checkbox"/> Unspecified Risk at RA </div>

	Indicator
2.2.9	<p>The Biomass Producer has implemented appropriate control systems and procedures for verifying that methods of waste disposal minimise negative impacts on forest ecosystems (CPET S5d).</p>
Finding	<p>Enviva reviews sources such as the National Association of State Foresters, USFS Forest Inventory Analysis, World Wildlife Fund, Conservation International and World Resources Institute to conduct a state by state study of its supply area. The analysis indicates there are ample state and regional forest assessment tools that help determine forestry regulations within the supply base area. The analysis determined the wood products industry is well established, logger training is an industry norm and the use of forestry best management practices are a long-standing best practice in the supply base area.</p> <p>Enviva is a member of state forestry associations within its supply base area and these organizations are responsible for reviewing and developing logger training in conjunction with state forestry commissions related to forestry best manage practices. Enviva interacts with these groups to improve forestry best management practices guidelines and monitor enforcement.</p> <p>The National Association of State Forester (NASF) recently released publication, <i>Protecting The Nation's Water: State Forestry Agencies and Best Management Practices</i>. The publication covers all 50 US States and eight of its territories. The state forestry BMP implementation rates for the Enviva supply base area are listed in the appendix and the NASF publication concluded.</p> <p>“Across the country, BMP’s are implemented appropriately, when and where they are needed, 92% of the time. This is a figure not only one state forestry agency can be proud of: it serves as strong evidence in support of a silvicultural exemption to Clean Water Act permitting requirements”.</p> <p>Links to state BMP websites and state specific BMP implementation rates for the Enviva supply base area can be found in the preamble.</p> <p>In the United States regulation of forestry practices has its roots in federal law and acts designed to provide minimum guidance to states in developing state specific laws and regulations and ranks in the top 92nd percentile in Regulatory Quality in the World Bank, Worldwide Governance Indicators and in the top 89th percentile in Rule of Law. Chemical use in forest management activities also follow EPA guidance under FIFRA and include in-woods practices. A review of the EPA Civil Cases and Settlements by Statute resulted in no findings related to forest management activities. The United States has a robust legal system that deters the abuse of state and federal regulation</p> <p><u>Additional evidence</u></p> <p>Enviva uses contractual language in its Master Wood Purchase Agreement requiring supplier to abide by all relevant laws and regulations. The contract includes the requirement to avoid the following unacceptable sources wood:</p> <ul style="list-style-type: none"> - Illegally harvest wood; - Wood harvested in violation of traditional and civil rights; - Wood harvested from forests where high conservation values are threatened by management activities; - Wood harvested from old growth or semi-natural forests being converted to plantations or non-forest use; - Wood from forests where genetically modified trees are planted; - Wood in which there was a violation of the ILO Declarations on fundamental principle and rights at work.

Enviva requires all suppliers to sign a Master Wood Supply Agreement. Master Wood Purchase Agreements contain recital requiring the supplier to agree to abide by Enviva's legal and sustainability commitments including a provision to allow Enviva to periodically audit suppliers to ensure conformance. Enviva will only purchase feedstocks from suppliers who it has an established business relationship and a signed agreement.

Enviva is an SFI Program Participant certified to SFI's Fiber Sourcing Standard. Objective 2 requires Program Participants to mandate the use and monitor the implementation of forestry BMP's that include proper waste disposal. Enviva's ENV-SFIS-01 Certified Sourcing Implementation Manual describes how Enviva's Track & Trace and its harvest site inspection process fulfils the Objective.

Forestry BMP's are the best tool available to ensure forest management activities do not adversely impact forests and other areas of high conservation value. Enviva contractually requires the use of BMP's. Enviva's Track & Trace Program includes a harvest site auditing component to ensure suppliers conform to the requirement. The Forestry Commissions for each state in the supply area monitor and enforce BMP implementation. Forestry BMP's for each state have a waste removal component.

Primary Feedstock

Enviva uses its proprietary Track & Trace for all primary wood purchases. Specifically, Enviva maintains a robust tracking and monitoring program to ensure that all our suppliers deliver wood that is sourced according to our expectations. The information Enviva collects for every tract its suppliers harvest includes; 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 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 mill, each load is linked to that tract's ID number. As a result, Enviva knows the tract-level attributes for all the primary wood entering the mill. Enviva randomly conducts field audits and verifies feedstocks are not sourced from tracts without proper waste disposal. During annual certification audits an independent certifying body confirms Enviva's internal findings as part of its third-party audit assessment. And Enviva's HCV Tract Approval Process ensures forest management activities do not harm sensitive eco-systems, habitats or threaten biodiversity in its sourcing practices. Each tract is assessed using a set of criteria that include the tract location within known bottomland forest settings. Every tract is evaluated for forest health concerns, wildlife considerations, location within the landscape, conservation value and other criteria. Enviva will only purchase wood from a tract if the assessment determines harvesting is the best outcome for the forest.

Secondary Feedstock

Enviva's annual District of Origin Process allows secondary feedstock suppliers to meet the requirements described in SBP's Normative Interpretations Document. The process collects information about the suppliers sourcing area, species processed at the mill, the types of information collected about the landowner and other pertinent information as described in the guidance found in Standard 2 Section 8.4 of the Interpretations. This information is mapped and compared to Enviva's supply base area and against known areas with potential high conservation value to ensure that any risk to HCV values associated with suppliers of secondary feedstocks is appropriately included in the SBP supply base evaluation process to ensure the suppliers' sourcing practices do not pose a threat to these areas. Enviva purchases primary feedstock from many of the same timber harvesting crews as its secondary feedstock suppliers. Since Enviva uses its proprietary

	<p>Track & Trace program to purchase primary feedstock it, by extension, has quite a bit of information about the source tracts of its secondary feedstock suppliers.</p> <p><u>Conclusion</u></p> <p>There is a low risk the Enviva sourcing practices will harm forest due to waste disposal.</p>
Means of Verification	<ul style="list-style-type: none"> a. Preamble citations b. ENV-SFIS-01 Certified Sourcing Implementation Manual c. Master Wood Purchase Agreement d. ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment e. Track & Trace f. District of Origin Process g. HCV Tract Approval Process h. State BMP Manuals and monitoring data i. Word Bank Worldwide Governance Indicators
Evidence Reviewed	All means of verification reviewed
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA

	Indicator
2.3.1	<p>Analysis shows that feedstock harvesting does not exceed the long-term production capacity of the forest, avoids significant negative impacts on forest productivity and ensures long-term economic viability. Harvest levels are justified by inventory and growth data.</p>
Finding	<p>The annual growth to drain ratio of the supply base is 1.91:1 for all species, 2.39:1 for hardwood, and 1.65:1 for pine. A positive growth to drain ratio indicates that forest growth exceeds harvest removals. In the Gulf region of the U.S. South, total inventory has increased by an average of 1.2% annually between 2000 and 2017. Since 2000, US Forest Service Forest Inventory Analysis (FIA) data indicates an increase in forest area in the states covered included in the Enviva supply base area.</p> <p>Enviva is just one of several industries and entities sourcing wood in its supply base area. According to Forest2Market's database and Enviva's wood delivery database, Enviva's three mills in the mid-Atlantic region together source about 15% of the total wood harvested in the area, while regional annual inventory growth exceeded the volume harvested. In the region, pine pulpwood is the only product for which demand has increased (4.0% annually). 24% of Enviva's pellet feedstock in this region is made up of pine, 76% of wood used is hardwood. At the Ahoskie mill specifically, 37% of the feedstock is made up of pine and 63% is made up of hardwood.</p>

	<div data-bbox="550 212 1241 616" data-label="Figure"> <table border="1"> <caption>MATL Supply Base: Forestland Volume (Billions of Cubic Feet)</caption> <thead> <tr> <th>Year</th> <th>Volume (Billions of Cubic Feet)</th> </tr> </thead> <tbody> <tr><td>2000</td><td>61</td></tr> <tr><td>2001</td><td>61</td></tr> <tr><td>2002</td><td>61</td></tr> <tr><td>2003</td><td>61</td></tr> <tr><td>2004</td><td>62</td></tr> <tr><td>2005</td><td>62</td></tr> <tr><td>2006</td><td>62</td></tr> <tr><td>2007</td><td>63</td></tr> <tr><td>2008</td><td>63</td></tr> <tr><td>2009</td><td>64</td></tr> <tr><td>2010</td><td>65</td></tr> <tr><td>2011</td><td>66</td></tr> <tr><td>2012</td><td>68</td></tr> <tr><td>2013</td><td>70</td></tr> <tr><td>2014</td><td>72</td></tr> <tr><td>2015</td><td>74</td></tr> <tr><td>2016</td><td>76</td></tr> <tr><td>2017</td><td>78</td></tr> <tr><td>2018</td><td>79</td></tr> </tbody> </table> </div> <p>The procurement of wood material contributes to reducing environmental impacts and enhancing the productivity of forests. A 2017 Forest2Market report, <i>Historic Perspectives on the Relationship between Demand and Forest Productivity in the US South</i>, concluded further that a positive relationship exists between forest harvest and forest growth, proving that forest landowners respond to robust forest products markets by planting more trees. Markets for low valued wood products allow for more efficient site preparation and reforestation. 23% of Enviva's feedstock is sourced as processing residues from secondary sources which harvested wood is intended for saw timber-derived products.</p> <p>Enviva's ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment is reviewed annually to ensure it Enviva is aware of forest impact assessments, planning implementation and monitoring efforts, forestry best management practices in all of Enviva's supply areas. The annual review requires an analysis of growth to drain in the supply area.</p> <p><u>Conclusion</u> There is a low risk the Enviva sourcing practices will harm growth to drain levels in the supply area.</p>	Year	Volume (Billions of Cubic Feet)	2000	61	2001	61	2002	61	2003	61	2004	62	2005	62	2006	62	2007	63	2008	63	2009	64	2010	65	2011	66	2012	68	2013	70	2014	72	2015	74	2016	76	2017	78	2018	79
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Means of Verification	<ul style="list-style-type: none"> a. Preamble citations b. ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment c. USFS FIA web site d. Growth Drain study e. Forest2Market Reports <ul style="list-style-type: none"> • https://www.forest2market.com/hubfs/2016_Website/Documents/20151119_Forest2Market_USSouthWoodSupplyTrends.pdf • https://www.forest2market.com/hubfs/2016_Website/Documents/20170726_Forest2Market_Historical_Perspective_US_South.pdf?t=1516993507491 																																								
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Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA																																								

	Indicator
2.3.2	Adequate training is provided for all personnel, including employees and contractors (CPET S6d).
Finding	<p>In the United States regulation of worker training and protection has its roots in federal law and acts and state laws and regulations. The United States has a robust legal system that deters the abuse of state and federal act, laws and regulation. The United States ranks in the top 92nd percentile in Regulatory Quality in the World Bank, Worldwide Governance Indicators and in the top 89th percentile in Rule of Law. Workforce laws in use in the United States follow OSHA guidance and include in-woods practices through manufacturing and transportation.</p> <p><u>Additional evidence</u></p> <p>Enviva uses contractual language in its Master Wood Purchase Agreement requiring supplier to abide by all relevant laws and regulations. The contract includes the requirement to avoid the following unacceptable sources wood:</p> <ul style="list-style-type: none"> - Illegally harvest wood; - Wood harvested in violation of traditional and civil rights; - Wood harvested from forests where high conservation values are threatened by management activities; - Wood harvested from old growth or semi-natural forests being converted to plantations or non-forest use; - Wood from forests where genetically modified trees are planted; - Wood in which there was a violation of the ILO Declarations on fundamental principle and rights at work. <p>Enviva requires all suppliers to sign a Master Wood Supply Agreement. Master Wood Purchase Agreements contain recital requiring the supplier to agree to abide by Enviva's legal and sustainability commitments including a provision to allow Enviva to periodically audit suppliers to ensure conformance. Enviva will only purchase feedstocks from suppliers who it has an established business relationship and a signed agreement.</p> <p>The Agreement require suppliers to ensure their supply chain follows all applicable laws including and ensure each crew is led by a properly trained foreman. Logger training can be verified via each state's logger training program website General information about logger training programs can be found, https://www.sfiopa.org/_download_link.php?did=32. Enviva annually reviews supplier training to ensure it is current.</p> <p>The SFI Fiber Sourcing Standard Objective 6 requires Program Participants to contractors, and personnel and appropriately trained to do their tasks and requires the use of qualified logging professionals. Enviva's ENV-SFIS-01 Certified Sourcing Implementation Manual describes the internal processes Enviva uses to ensure these requirements are met.</p> <p>SFI Logger Training Programs provide training in 13 management principles. Each state develops its own training modules to fulfil the training needs of the states logging force.</p> <ol style="list-style-type: none"> 1. Sustainable Forestry 2. Forest Productivity and Health 3. Protection of Water Resources 4. Protection of Biological Diversity

	<p>5. Aesthetics and Recreation 6. Protection of Special Sites 7. Responsible Fiber Sourcing in North America 8. Legal Compliance 9. Research 10. Training and Education 11. Community Involvement and Social Responsibility 12. Transparency 13. Continual Improvement</p> <p>Specifics for each state program can be found</p> <ul style="list-style-type: none"> • North Carolina – https://www.sfiofpa.org/_download_link.php?did=32. • South Carolina – https://www.sforestry.org/top • Virginia – http://sharplogger.vt.edu/ <p>Enviva's internal Human Resources practices, Operational Excellence Management System and Safety Program ensure employees receive the proper training to perform their tasks safely. Enviva conducts in-depth internal training for all employees and those records are checked during third party audits</p> <p>Enviva's staff with Sustainable Biomass Program responsibility all have college/university degrees in Forestry or a related field. Additional staff training may include:</p> <ul style="list-style-type: none"> • State level logger training to enhance understanding of state harvesting regulations and forestry BMP's • Training in the structure and requirements of Enviva's SFI Wood Sourcing, and FSC/PEFC/SFI Chain of Custody systems • Internal high conservation value area identification • Track & Trace • Climate change • Community relations • Safety <p>All on site contractors are vetted prior to signing work contracts including a review of their training and safety policies, OSHA 300 log, and other relevant records.</p> <p><u>Conclusion</u> Enviva sourcing practices ensures adequate training is provided by Enviva, its contractors and suppliers.</p>
Means of Verification	<p>a. Preamble citations b. ENV-SFIS-Certified Sourcing Implementation Manual c. Master Wood Purchase Agreement d. Staff training documentation e. State logger training websites f. World Bank Worldwide Governance Indicators</p>
Evidence Reviewed	All means of verification reviewed
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA

	Indicator
2.3.3	Analysis shows that feedstock harvesting and biomass production positively contribute to the local economy, including employment.
Finding	<p>The National Association of State Foresters website contains State-wide Assessments describing the contributions the timber industry has in each state contained in the Enviva supply base area. The forests of the Southeast provide a number of economic and societal benefits such as manufacturing, employment, recreation, aesthetics, and environmental protection. To ensure that the forests can meet the current and future economic, ecological, cultural, and recreational demands placed on them, State Foresters, Forest Managers and others must focus their efforts to address changing landowner objectives, parcelization and fragmentation, current and emerging markets, forest regulation, critical habitats, and cultural/recreational concerns.</p> <p>According to a report created for Enviva by Chmura Economics & Analytics, the total annual economic impact (direct, indirect, and induced impacts) of the ongoing operation of the Southampton wood pellet manufacturing plant in Virginia is estimated to be \$152.4 million (measured in 2013 dollars) which supports 261 state jobs. Aside from the direct impact, an additional indirect impact of \$61.0 million and 145 jobs will benefit other Virginia businesses that support the plant's operation, including local logging and trucking companies. The economic impact of the plant in North Carolina is smaller, derived entirely from the indirect and induced impact. The indirect impact in North Carolina is estimated to be \$21.1 million and 27 jobs per year in 2013, which benefits other North Carolina businesses that support the plant's operation, including local logging and trucking companies (Chmura Economics & Analytics, 2013).</p> <p><u>Conclusion</u> Evidence demonstrates the economic benefits of Enviva's presence in the supply area.</p>
Means of Verification	<ul style="list-style-type: none"> a. Preamble citations b. National State Forester web site c. Internal Economic Impact Study
Evidence Reviewed	All means of verification reviewed
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA

	Indicator
2.4.1	The Biomass Producer has implemented appropriate control systems and procedures for verifying that the health, vitality and other services provided by forest ecosystems are maintained or improved (CPET S7a).
Finding	<p>Forest landowners in the supply base area can participate in numerous federal funding opportunities to maintain forest health. One of the most successful programs is the Southern Pine Beetle Prevention Program. Since 2003, the program has allocated millions of dollars to improving the health of pine stands primarily through thinning and understory management. Between 2003 and 2016, over 1 million acres of private and public lands were granted funding to help prevent against pine beetle infestations.</p> <p>(https://www.srs.fs.usda.gov/compass/2016/12/20/southern-pine-beetle-prevention-program/)</p>

In addition, the Forest Health Protection (FHP) program also provides federal aid for management for insect species such as the Gypsy moth, Southern pine beetle and Hemlock woolly-delgid, and many other native and invasive.
(<https://www.fs.fed.us/foresthealth/>).

The USFS also provides forest health monitoring that includes state level Forest Health Highlights for each state (<https://www.fs.fed.us/foresthealth/protecting-forest/forest-health-monitoring/monitoring-forest-highlights.shtml>). These reports describe state level efforts underway to protect and/or enhance forest health

Resources describing forest health protection efforts in the supply base area can be found at <http://southernforesthealth.net/>.

The annual growth to drain ratio of the supply base is 1.69:1 for all species, 2.00:1 for hardwood, and 1.61:1 for pine. A positive growth to drain ratio indicates that forest growth exceeds harvest removals. In the Gulf region of the U.S. South, total inventory has increased by an average of 1.2% annually between 2000 and 2017. Since 2000, US Forest Service Forest Inventory Analysis (FIA) data indicates an increase in forest area in the states covered included in the Enviva supply base area.

Enviva is also a member of the National Council on Air and Stream Improvement (NCASI). NCASI is a 501 (c) (6) tax-exempt association that serves the forest products industry as a center of excellence by providing unbiased, scientific research and technical information to help the wood products industry achieve environmental and sustainability goals. Membership allows Enviva to stay informed of trends in forest health and interact with other in the wood products industry to develop useful research for the forest products sector NCASI Technical Bulletin No. 1022 *Summary of Conservation Planning Efforts in Forested Regions of the United States: 2014 Update* describes conservation plans and initiatives states are undertaking to ensure forest health. The bulletin contains information on 19 national conservation planning initiatives, 9 regional conservation planning initiatives,

Additional evidence

The SFI Fiber Sourcing Program Objective 5 requires Program Participants to individually or with others participate in research related to forest health issues. Enviva's ENV-SFIS-01 Certified Sourcing Implementation Manual describes the internal processes Enviva uses to meet the requirement. Markets for residual by-products benefit sawmills which in turn benefits forest landowners and helps support reforestation.

ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment and this supply base evaluation are reviewed annually to ensure it Enviva is aware of state forest impact assessments, planning implementation and monitoring efforts, forestry best management practices in all of Enviva's supply areas. The annual review requires a review of evidence to ensure harvesting practices do not harm forest health or vitality. Findings are incorporated into Enviva's ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment, this supply base evaluation and revisions to the Master Wood Purchase Agreement.

Enviva uses contractual language in its Master Wood Purchase Agreement requiring supplier to abide by all relevant laws and regulations. The contract includes the requirement to avoid the following unacceptable sources wood:

- Illegally harvest wood;
- Wood harvested in violation of traditional and civil rights;

- Wood harvested from forests where high conservation values are threatened by management activities;
- Wood harvested from old growth or semi-natural forests being converted to plantations or non-forest use;
- Wood from forests where genetically modified trees are planted;
- Wood in which there was a violation of the ILO Declarations on fundamental principle and rights at work.

Enviva requires all suppliers to sign a Master Wood Supply Agreement. Master Wood Purchase Agreements contain recital requiring the supplier to agree to abide by Enviva's legal and sustainability commitments including a provision to allow Enviva to periodically audit suppliers to ensure conformance. Enviva will only purchase feedstocks from suppliers who it has an established business relationship and a signed agreement. The Agreement requires the use of forestry BMP's that are the best tool available to ensure forest management activities do not adversely impact forest health and vitality. Even in areas not associated with streams or water features, forestry BMP's specify how roads, trails and other forest management activities are performed to minimize their impact on the forest.

Primary Feedstock

Enviva uses its proprietary Track & Trace for all primary wood purchases. Specifically, Enviva maintains a robust tracking and monitoring program to ensure that all our suppliers deliver wood that is sourced according to our expectations. The information Enviva collects for every tract its suppliers harvest includes; 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 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 mill, each load is linked to that tract's ID number. As a result, Enviva knows the tract-level attributes for all the primary wood entering the mill. Enviva randomly conducts field audits that reviews the reforestation success and health of forest tracts. During annual certification audits an independent certifying body confirms Enviva's internal findings as part of its third-party audit assessment. And Enviva's HCV Tract Approval Process ensures forest management activities do not harm sensitive ecosystems, habitats or threaten biodiversity in its sourcing practices. Each tract is assessed using a set of criteria that include the tract location within known bottomland forest settings. Every tract is evaluated for forest health concerns, wildlife considerations, location within the landscape, conservation value and other criteria. Enviva will only purchase wood from a tract if the assessment determines harvesting is the best outcome for the forest.

Secondary Feedstock

Enviva's annual District of Origin Process allows secondary feedstock suppliers to meet the requirements described in SBP's Normative Interpretations Document. The process collects information about the suppliers sourcing area, species processed at the mill, the types of information collected about the landowner and other pertinent information as described in the guidance found in Standard 2 Section 8.4 of the Interpretations. This information is mapped and compared to Enviva's supply base area and against known areas with potential high conservation value to ensure that any risk to HCV values associated with suppliers of secondary feedstocks is appropriately included in the SBP supply base evaluation process to ensure the suppliers' sourcing practices do not pose a threat to these areas. Enviva purchases primary feedstock from many of the same timber harvesting crews as its secondary feedstock suppliers. Since Enviva uses its proprietary

	<p>Track & Trace program to purchase primary feedstock it, by extension, has quite a bit of information about the source tracts of its secondary feedstock suppliers.</p> <p><u>Conclusion</u></p> <p>According to SBP Guidance Document: Assessment of Risk, Means of Verification and Mitigation Measures in the Southeast US, "SBP has yet to receive a Regional Risk Assessment (RRA) for the US to evaluate for approval and considers all of the currently available assessment resources in and of themselves to be only partially adequate in assessing whether forest health and vitality and other forest services are conserved." Use of the FSC CWNRA is suggested but is considered incomplete in determining if forest health, vitality and other services provided by forest ecosystems are maintained or improved.</p> <p>Enviva engages with willing stakeholders to continually assess for improvements in health, vitality and other forest services (https://www.greenbiz.com/article/stakeholder-engagement-how-enviva-moved-crisis-collaboration). We find these engagements and subsequent collaborations to be both enlightening and beneficial in the promotion of sustainable forest management.</p>
Means of Verification	<ul style="list-style-type: none"> a. Preamble citations b. ENV-COC-03 Controlled Sources Risk Assessment c. ENV-SFIS-01 Certified Sourcing Implementation Manual d. Master Wood Purchase Agreement e. Track & Trace f. District of Origin Process g. HCV Tract Approval Process h. NCASI Technical Bulletin No 982 & No. 1022 Summary of Conservation Planning Efforts in Forested Regions of the United States: 2014 Update
Evidence Reviewed	All means of verification reviewed
Risk Rating	<input type="checkbox"/> Low Risk <input checked="" type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA
Comment or Mitigation Measure	<p><u>Management System</u></p> <p>Enviva will annually review it's Means of Verification, engage with Stakeholders, use its proprietary Track & Trace Program, HCV Tract Approval Process and District of Origin Process to develop meaningful way to assess forest health, vitality and ecosystem services are maintained or improved.</p>
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA

	Indicator
2.4.2	The Biomass Producer has implemented appropriate control systems and procedures for verifying that natural processes, such as fires, pests and diseases are managed appropriately (CPET S7b).
Finding	<p>The USFS also provides forest health monitoring that includes state level Forest Health Highlights for each state (https://www.fs.fed.us/foresthealth/protecting-forest/forest-health-monitoring/monitoring-forest-highlights.shtml). These reports describe state level efforts underway to protect and/or enhance forest health</p> <p>State level resources describing forest health protection efforts include.</p>

- North North Carolina – https://www.ncforestservice.gov/forest_health/forest_health.htm
- South Carolina – <http://www.trees.sc.gov/fra-pro.htm>
- Virginia – <http://dof.virginia.gov/health/index.htm>

Enviva is also a member of the National Council on Air and Stream Improvement (NCASI). NCASI is a 501 (c) (6) tax-exempt association that serves the forest products industry as a center of excellence by providing unbiased, scientific research and technical information to help the wood products industry achieve environmental and sustainability goals. Membership allows Enviva to stay informed of trends in forest health and interact with other in the wood products industry to develop useful research for the forest products sector NCASI Technical Bulletin No. 1022 *Summary of Conservation Planning Efforts in Forested Regions of the United States: 2014 Update* describes conservation plans and initiatives states are undertaking to ensure forest health. The bulletin contains information on 19 national conservation planning initiatives, 9 regional conservation planning initiatives,

Forest management use of herbicides and pesticides to control unwanted vegetation and insect. State specific herbicide BMP websites are listed below.

- North Carolina – https://www.ncforestservice.gov/publications/WQ0107/BMP_chapter07.pdf
- South Carolina – <https://www.state.sc.us/forest/bmpmanual.pdf>
- Virginia – https://www.dof.virginia.gov/infopubs/BMP-Technical-Guide_pub.pdf

Though each state has varying guidance for herbicide and pesticide use all use of these chemicals is regulated by the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). FIFRA is a federal statute that governs the registration, distribution, sale, and use of pesticides in the United States. With certain exceptions, a pesticide is any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest, or intended for use as a plant regulator, defoliant, or desiccant, or any nitrogen stabilizer.

Examples of enforcement of Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) can be found on the United States Environmental Protection Agency website (https://cfpub.epa.gov/compliance/criminal_prosecution/).

Information about Integrated Pest Management can be found on the USDA Forest Service website (<https://www.fs.fed.us/foresthealth/protecting-forest/integrated-pest-management/>).

Forest management activities related to prescribe fire site preparation techniques. State specific prescribed fire regulation websites are listed below.

- North Carolina – <https://ncforestservice.gov/goodfire/index.htm>
- South Carolina – <https://www.state.sc.us/forest/fire.htm>
- Virginia – <https://www.dof.virginia.gov/fire/prescribed/index.htm>

Examples of enforcement of forestry fire laws can be found on the United States Fire Administration website (https://www.usfa.fema.gov/prevention/outreach/wildfire_arson/court_cases.html).

The US Environmental Protection Agency website containing information about enforcement activities can be found at (https://cfpub.epa.gov/compliance/criminal_prosecution/).

In some cases, Enviva can help landowners control infestations by providing a market for diseased, damaged or infested wood which allow landowners to replant healthy forests. In 2018 the Florida Forest Service determined Hurricane Michael damaged over 2.8 million acres of forestland (<http://floridaforest.org/wp-content/uploads/Hurricane-Michael-Initial-Timber-Damage-Estimate.pdf>). Enviva joined with other sponsors to hold a landowner workshop to help affected landowners get sound advice to plan their reforestation recovery efforts (http://sfrc.ufl.edu/extension/florida_forestry_information/events_calendar/files/Hurricane_Recovery_Blountstown19_Booklet.pdf).

Enviva reviews sources such as the National Association of State Foresters, USFS Forest Inventory Analysis, World Wildlife Fund, Conservation International and World Resources Institute to conduct a state by state study of its supply area. The analysis indicates there are ample state and regional forest assessment tools that help determine forestry regulations within the supply base area. The analysis determined the wood products industry is well established, logger training is an industry norm and the use of forestry best management practices are a long-standing business practice in the supply base area.

In the United States regulation of forestry practices has its roots in federal law and acts designed to provide minimum guidance to states in developing state specific laws and regulations and ranks in the top 92nd percentile in Regulatory Quality in the World Bank, Worldwide Governance Indicators and in the top 89th percentile in Rule of Law. Chemical use in forest management activities also follow EPA guidance under FIFRA and include in-woods practices. A review of the EPA Civil Cases and Settlements by Statute resulted in no findings related to forest management activities. The United States has a robust legal system that deters the abuse of state and federal regulation

Additional evidence

Each state within the Enviva supply base has a state forest action plan in place that is designed to guide the work of forestry professionals to help manage, protect, enhance, and conserve forest resources within the state. These plans address forest pest, disease, and wildfire to ensure healthy forest and are available on the National State Forester Website.

ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment is reviewed annually to ensure it Enviva is aware of state forest impact assessments, planning implementation and monitoring efforts, forestry best management practices in all of Enviva's supply areas. The annual review requires a review of evidence to ensure harvesting practices do not harm forest health or vitality. Findings are incorporated into Enviva's ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment, this supply base evaluation and revisions to the Master Wood Purchase Agreement.

Enviva uses contractual language in its Master Wood Purchase Agreement requiring supplier to abide by all relevant laws and regulations. The contract includes the requirement to avoid the following unacceptable sources wood:

- Illegally harvest wood;
- Wood harvested in violation of traditional and civil rights;
- Wood harvested from forests where high conservation values are threatened by management activities;

- Wood harvested from old growth or semi-natural forests being converted to plantations or non-forest use;
- Wood from forests where genetically modified trees are planted;
- Wood in which there was a violation of the ILO Declarations on fundamental principle and rights at work.

Enviva requires all suppliers to sign a Master Wood Supply Agreement. Master Wood Purchase Agreements contain recital requiring the supplier to agree to abide by Enviva's legal and sustainability commitments including a provision to allow Enviva to periodically audit suppliers to ensure conformance. Enviva will only purchase feedstocks from suppliers who it has an established business relationship and a signed agreement. The Agreement requires the use of forestry BMP's that are the best tool available to ensure forest management activities do not adversely impact forest health and vitality.

Primary Feedstock

Enviva uses its proprietary Track & Trace for all primary wood purchases. Specifically, Enviva maintains a robust tracking and monitoring program to ensure that all our suppliers deliver wood that is sourced according to our expectations. The information Enviva collects for every tract its suppliers harvest includes; 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 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 mill, each load is linked to that tract's ID number. As a result, Enviva knows the tract-level attributes for all the primary wood entering the mill. Enviva randomly conducts field audits to ensure suppliers manage the health of forest tracts. During annual certification audits an independent certifying body confirms Enviva's internal findings as part of its third-party audit assessment. And Enviva's HCV Tract Approval Process ensures forest management activities do not harm sensitive ecosystems, habitats or threaten biodiversity in its sourcing practices. Each tract is assessed using a set of criteria that include the tract location within known bottomland forest settings. Every tract is evaluated for forest health concerns, wildlife considerations, location within the landscape, conservation value and other criteria. Enviva will only purchase wood from a tract if the assessment determines harvesting is the best outcome for the forest.

Secondary Feedstock

Enviva's annual District of Origin Process allows secondary feedstock suppliers to meet the requirements described in SBP's Normative Interpretations Document. The process collects information about the suppliers sourcing area, species processed at the mill, the types of information collected about the landowner and other pertinent information as described in the guidance found in Standard 2 Section 8.4 of the Interpretations. This information is mapped and compared to Enviva's supply base area and against known areas with potential high conservation value to ensure that any risk to HCV values associated with suppliers of secondary feedstocks is appropriately included in the SBP supply base evaluation process to ensure the suppliers' sourcing practices do not pose a threat to these areas. Enviva purchases primary feedstock from many of the same timber harvesting crews as its secondary feedstock suppliers. Since Enviva uses its proprietary Track & Trace program to purchase primary feedstock it, by extension, has quite a bit of information about the source tracts of its secondary feedstock suppliers.

Conclusion

Enviva sourcing practices verify natural processes are appropriately managed.

Means of Verification	a. Preamble citations b. USDA Forest Service web site c. National State Foresters web site State Forest Action Plans d. Florida Forest Service e. World Bank Worldwide Governance Indicators f. ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment g. Master Wood Purchase Agreement h. Track & Trace i. District of Origin Process j. HCV Tract Approval Process
Evidence Reviewed	All means of verification reviewed
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA

	Indicator
2.4.3	The Biomass Producer has implemented appropriate control systems and procedures for verifying that there is adequate protection of the forest from unauthorised activities, such as illegal logging, mining and encroachment (CPETS7c).
Finding	<p>FSC US CWNRA Controlled Wood Category 1 Illegally Harvested Wood is well documented and provides clear evidence that illegal logging in the US is a low risk. SBP Principle 1 Biomass feedstock is legally sourced covers this indicator as well.</p> <p>In the United States regulation of forestry practices has its roots in Federal law and in Acts designed to provide guidance to states for developing state specific laws and regulations. The US ranks in the top 92nd percentile in Regulatory Quality in the World Bank, Worldwide Governance Indicators and in the top 89th percentile in Rule of Law. Evidence of the effectiveness of law enforcement is evident in news reporting and this reporting reveals no widespread or systematic criminal activity in the Enviva supply base area.</p> <p><u>Additional evidence:</u> Enviva uses contractual language in its Master Wood Purchase Agreement requiring supplier to abide by all relevant laws and regulations. The contract includes the requirement to avoid the following unacceptable sources wood:</p> <ul style="list-style-type: none"> - Illegally harvest wood; - Wood harvested in violation of traditional and civil rights; - Wood harvested from forests where high conservation values are threatened by management activities; - Wood harvested from old growth or semi-natural forests being converted to plantations or non-forest use; - Wood from forests where genetically modified trees are planted; - Wood in which there was a violation of the ILO Declarations on fundamental principle and rights at work. <p>Enviva requires all suppliers to sign a Master Wood Supply Agreement. Master Wood Purchase Agreements contain recital requiring the supplier to agree to abide by Enviva's legal and sustainability commitments including a provision to allow Enviva to periodically audit suppliers to ensure conformance. Enviva will only purchase feedstocks from suppliers who it has an established business relationship and a signed agreement. The Master Wood Purchase</p>

	<p><i>Primary Feedstock</i></p> <p>Enviva uses its proprietary Track & Trace for all primary wood purchases. Specifically, Enviva maintains a robust tracking and monitoring program to ensure that all our suppliers deliver wood that is sourced according to our expectations. The information Enviva collects for every tract its suppliers harvest includes; 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 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 mill, each load is linked to that tract's ID number. As a result, Enviva knows the tract-level attributes for all the primary wood entering the mill. Enviva randomly conducts field audits and verifies feedstocks are not from illegal mining or encroachment activities. During annual certification audits an independent certifying body confirms Enviva's internal findings as part of its third-party audit assessment.</p> <p><i>Secondary Feedstock</i></p> <p>Enviva's annual District of Origin Process allows secondary feedstock suppliers to meet the requirements described in SBP's Normative Interpretations Document. The process collects information about the suppliers sourcing area, species processed at the mill, the types of information collected about the landowner and other pertinent information as described in the guidance found in Standard 2 Section 8.4 of the Interpretations. This information is mapped and compared to Enviva's supply base area and against known areas with potential high conservation value to ensure that any risk to HCV values associated with suppliers of secondary feedstocks is appropriately included in the SBP supply base evaluation process to ensure the suppliers' sourcing practices do not pose a threat to these areas. Enviva purchases primary feedstock from many of the same timber harvesting crews as its secondary feedstock suppliers. Since Enviva uses its proprietary Track & Trace program to purchase primary feedstock it, by extension, has quite a bit of information about the source tracts of its secondary feedstock suppliers.</p> <p>ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment contains the work done to determine if illegal mining or encroachment are prevalent in the supply base area. This document uses many of the same sources as the FSC US CWNRA. Enviva's ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment is reviewed annually to ensure Enviva is aware of changes in the supply base area. The review concluded the same as the FSC US CWNRA that there is a low risk of illegal logging activity in the US. Findings are incorporated into Enviva's ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment, this supply base evaluation and revisions to the Master Wood Purchase Agreement.</p> <p><u>Conclusion</u></p> <p>Laws and regulations are enforced in the United States and Enviva's supply area to ensure the potential for illegal logging, mining or other encroachment is a low risk.</p>
Means of Verification	<ul style="list-style-type: none"> a. Preamble citations b. FSC US CWNRA c. ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment d. Master Wood Purchase Agreement e. Track & Trace f. District of Origin Process g. World Bank Worldwide Governance Indicators
Evidence Reviewed	All means of verification reviewed

Risk Rating	<input checked="" type="checkbox"/> Low Risk	<input type="checkbox"/> Specified Risk	<input type="checkbox"/> Unspecified Risk at RA
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	Indicator
2.5.1	The Biomass Producer has implemented appropriate control systems and procedures for verifying that legal, customary and traditional tenure and use rights of indigenous people and local communities related to the forest are identified, documented and respected (CPET S9).
Finding	<p>FSC US CWNRA findings relevant to this indicator:</p> <p>2.1. The forest sector is not associated with violent armed conflict, including that which threatens national or regional security and/or linked to military control.</p> <p>2.3. The rights of Indigenous and Traditional Peoples are upheld. – The rights of indigenous and traditional peoples are upheld, particularly in the forest sector.</p> <p>US ranks in the top 92nd percentile in Regulatory Quality in the World Bank, Worldwide Governance Indicators and in the top 89th percentile in Rule of Law. Evidence of the effectiveness of law enforcement is evident in news reporting and reveals no widespread or systematic criminal activity related to the violation of customary or traditional tenure and use rights of indigenous people groups in the Enviva supply base area.</p> <p>The US is an industrial nation that does not have people groups dependent on a particular site or resource for basic human need. Further, federal and State legislation governs Native Americans and their rights are strictly enforced. Because Enviva and its supplier's source from primarily private forestlands where there are no issues related to traditional use or tenure rights. When Enviva does source from public lands, those forest managers are required to follow state or federal requirements to ensure harvests maintain the forest to the good of the public, including working with Native Americans. Native American reservations do exist within the Enviva supply base, but all are either under tribal or federal ownership. Enviva also has a formal process for receiving and responding to public inquiries, particularly those that potentially relate to practices that appear to be inconsistent with existing certification requirements.</p> <p><u>Additional evidence:</u></p> <p>Enviva uses contractual language in its Master Wood Purchase Agreement requiring supplier to abide by all relevant laws and regulations. The contract includes the requirement to avoid the following unacceptable sources wood:</p> <ul style="list-style-type: none"> - Illegally harvest wood; - Wood harvested in violation of traditional and civil rights; - Wood harvested from forests where high conservation values are threatened by management activities; - Wood harvested from old growth or semi-natural forests being converted to plantations or non-forest use; - Wood from forests where genetically modified trees are planted; - Wood in which there was a violation of the ILO Declarations on fundamental principle and rights at work. <p>Enviva requires all suppliers to sign a Master Wood Supply Agreement. Master Wood Purchase Agreements contain recital requiring the supplier to agree to abide by Enviva's legal and sustainability commitments including a provision to allow Enviva to periodically</p>

	<p>audit suppliers to ensure conformance. Enviva will only purchase feedstocks from suppliers who it has an established business relationship and a signed agreement.</p> <p>ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment contains the work done to determine if its sourcing activities would pose a threat to legal, customary or traditional land use rights in the supply area. This document uses many if the same sources as the FSC US CWNRA. Enviva's ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment is reviewed annually to ensure Enviva is aware of changes in the supply base area. The review came to the same determination as the FSC US CWNRA meaning there is a low risk Enviva's sourcing practices would threaten these people groups or their rights. Findings are incorporated into Enviva's ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment, this supply base evaluation and revisions to the Master Wood Purchase Agreement.</p> <p><i>Primary Feedstock</i></p> <p>Enviva uses its proprietary Track & Trace for all primary wood purchases. Specifically, Enviva maintains a robust tracking and monitoring program to ensure that all our suppliers deliver wood that is sourced according to our expectations. The information Enviva collects for every tract its suppliers harvest includes; 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 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 mill, each load is linked to that tract's ID number. As a result, Enviva knows the tract-level attributes for all the primary wood entering the mill. Enviva randomly conducts field audits and can assess whether sourcing activities threaten indigenous peoples or local communities forest access rights. During annual certification audits an independent certifying body confirms Enviva's internal findings as part of its third-party audit assessment.</p> <p><i>Secondary Feedstock</i></p> <p>Enviva's annual District of Origin Process allows secondary feedstock suppliers to meet the requirements described in SBP's Normative Interpretations Document. The process collects information about the suppliers sourcing area, species processed at the mill, the types of information collected about the landowner and other pertinent information as described in the guidance found in Standard 2 Section 8.4 of the Interpretations. This information is mapped and compared to Enviva's supply base area and against known areas with potential high conservation value to ensure that any risk to HCV values associated with suppliers of secondary feedstocks is appropriately included in the SBP supply base evaluation process to ensure the suppliers' sourcing practices do not pose a threat to these areas. Enviva purchases primary feedstock from many of the same timber harvesting crews as its secondary feedstock suppliers. Since Enviva uses its proprietary Track & Trace program to purchase primary feedstock it, by extension, has quite a bit of information about the source tracts of its secondary feedstock suppliers.</p> <p><u>Conclusion</u></p> <p>There are adequate law and regulation in the United States and Enviva's supply area to ensure there are no threats to traditional or customary land use rights.</p>
Means of Verification	<ul style="list-style-type: none"> a. Preamble citations b. FSC US CWNRA c. Federal and State laws and statutes d. Track & Trace e. ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment f. District of Origin Process

	g. Master Wood Purchase Agreement h. World Bank Worldwide Governance Indicators
Evidence Reviewed	All means of verification reviewed
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA

	Indicator
2.5.2	The Biomass Producer has implemented appropriate control systems and procedures for verifying that production of feedstock does not endanger food, water supply or subsistence means of communities, where the use of this specific feedstock or water is essential for the fulfilment of basic needs.
Finding	<p>Excerpt from the FSC US CWNRA</p> <p>“The United States is an industrialized nation that likely does not contain non-tribal communities within the conterminous states that directly rely on sites or resources fundamental to satisfying basic needs.</p> <p>No evidence of HCV 5 related to non-tribal communities in the conterminous United States was found through a literature search on this topic. There is some evidence that they may occur in Alaska and Hawaii [160, 161], but these states are not included in the assessment area for the NRA. FSC US also surveyed US certification bodies with forest management clients to inquire if they have received any comments from communities or stakeholders that depend on forests for their livelihood during forest management public consultations – the response was negative from all surveyed certification bodies [159]. There is no reason to believe that HCV 5 would be more or less likely to occur on certified vs noncertified lands (the focus of the NRA), therefore, our survey of certification bodies provides a sampling of lands throughout the assessment area. FSC US staff consulted with two FSC-certified tribes, two forest managers with extensive experience working with Tribes, and a representative of an affiliation of tribes.” There are no subsistence communities sourcing basic needs from the forest in the Enviva supply area.</p> <p>US ranks in the top 92nd percentile in Regulatory Quality in the World Bank, Worldwide Governance Indicators and in the top 89th percentile in Rule of Law. Evidence of the effectiveness of law enforcement is evident in news reporting and reveals no widespread or systematic criminal activity to suggest forest activities are threatening water supplies or subsistence means of communities in the Enviva supply base area.</p> <p><u>Additional evidence:</u></p> <p>Enviva uses contractual language in its Master Wood Purchase Agreement requiring supplier to abide by all relevant laws and regulations. The contract includes the requirement to avoid the following unacceptable sources wood:</p> <ul style="list-style-type: none"> - Illegally harvest wood; - Wood harvested in violation of traditional and civil rights; - Wood harvested from forests where high conservation values are threatened by management activities; - Wood harvested from old growth or semi-natural forests being converted to plantations or non-forest use; - Wood from forests where genetically modified trees are planted;

	<p>- Wood in which there was a violation of the ILO Declarations on fundamental principle and rights at work.</p> <p>Enviva requires all suppliers to sign a Master Wood Supply Agreement. Master Wood Purchase Agreements contain recital requiring the supplier to agree to abide by Enviva's legal and sustainability commitments including a provision to allow Enviva to periodically audit suppliers to ensure conformance. Enviva will only purchase feedstocks from suppliers who it has an established business relationship and a signed agreement. The Master Wood Purchase</p> <p>ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment contains the work done to determine if there are subsistence communities in the supply base area. This document uses many of the same sources as the FSC US CWNRA. As did the FSC US CWNRA, the review determined there are no subsistence communities in the supply base area. Findings are incorporated into Enviva's ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment, this supply base evaluation and revisions to the Master Wood Purchase Agreement.</p> <p><i>Primary Feedstock</i></p> <p>Enviva uses its proprietary Track & Trace for all primary wood purchases. Specifically, Enviva maintains a robust tracking and monitoring program to ensure that all our suppliers deliver wood that is sourced according to our expectations. The information Enviva collects for every tract its suppliers harvest includes; 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 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 mill, each load is linked to that tract's ID number. As a result, Enviva knows the tract-level attributes for all the primary wood entering the mill. Enviva randomly conducts field audits and can assess whether sourcing activities threaten subsistence communities. During annual certification audits an independent certifying body confirms Enviva's internal findings as part of its third-party audit assessment.</p> <p><i>Secondary Feedstock</i></p> <p>Enviva's annual District of Origin Process allows secondary feedstock suppliers to meet the requirements described in SBP's Normative Interpretations Document. The process collects information about the suppliers sourcing area, species processed at the mill, the types of information collected about the landowner and other pertinent information as described in the guidance found in Standard 2 Section 8.4 of the Interpretations. This information is mapped and compared to Enviva's supply base area and against known areas with potential high conservation value to ensure that any risk to HCV values associated with suppliers of secondary feedstocks is appropriately included in the SBP supply base evaluation process to ensure the suppliers' sourcing practices do not pose a threat to these areas. Enviva purchases primary feedstock from many of the same timber harvesting crews as its secondary feedstock suppliers. Since Enviva uses its proprietary Track & Trace program to purchase primary feedstock it, by extension, has quite a bit of information about the source tracts of its secondary feedstock suppliers.</p> <p><u>Conclusion</u></p> <p>There is a low risk Enviva's sourcing practices will impact a community relying on the forest for its subsistence.</p>
Means of Verification	<p>a. Preamble citations</p> <p>b. FSC US CWNRA</p> <p>c. ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment</p>

	d. Track & Trace e. District of Origin Process f. Master Wood Purchase Agreement g. World Bank Worldwide Governance Indicators
Evidence Reviewed	All means of verification reviewed
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA

	Indicator
2.6.1	<p>The Biomass Producer has implemented appropriate control systems and procedures for verifying that appropriate mechanisms are in place for resolving grievances and disputes, including those relating to tenure and use rights, to forest management practices and to work conditions.</p>
Finding	<p>Some FSC US CWNRA findings related to this indicator</p> <p>1.1 Land tenure and management rights finds the US legality of ownership to be a low risk citing landownership records in the US are highly reliable and frequently used by banking institutions to issue mortgages generally requiring title clearances.</p> <p>“In its report to the Montreal Process Working Group on the Conservation and Management of Temperate and Boreal Forests, in scoring an indicator relating to land tenure, the US government concluded that, “All forest land owners, public and private, exercise their forest tenure rights to achieve their forest land management goals”</p> <p>2.2. Labour rights are respected including rights as specified in ILO Fundamental Principles and Rights at work. - Labor rights are upheld including rights as specified in ILO Fundamental Principles and Rights at Work, particularly in the forest sector.</p> <p>Federal Law regarding forestry dictate that: Forest fire fighting and forest fire prevention occupations, timber tract occupations, forestry service occupations, logging occupations, and occupations in the operation of any sawmill, lathe mill, shingle mill, or cooperage stock mill abide by (Order 4). [75 FR 28453, May 20, 2010]</p> <p>OSHA work rules ensure workers have a right to a safe workplace. The law requires employers to provide their employees with working conditions that are free of known dangers. The OSHA law also prohibits employers from retaliating against employees for exercising their rights under the law (including the right to raise a health and safety concern or report an injury). For more information see www.whistleblowers.gov or worker rights.</p> <p>US ranks in the top 92nd percentile in Regulatory Quality in the World Bank, Worldwide Governance Indicators and in the top 89th percentile in Rule of Law. Evidence of the effectiveness of law enforcement is evident in news reporting and reveals no widespread or systematic criminal activity related to the suppression of lawsuits in the grievance process of forest related activities in the Enviva supply base area.</p> <p><u>Additional evidence:</u> Enviva uses contractual language in its Master Wood Purchase Agreement requiring supplier to abide by all relevant laws and regulations. The contract includes the requirement to avoid the following unacceptable sources wood:</p>

	<ul style="list-style-type: none"> - Illegally harvest wood; - Wood harvested in violation of traditional and civil rights; - Wood harvested from forests where high conservation values are threatened by management activities; - Wood harvested from old growth or semi-natural forests being converted to plantations or non-forest use; - Wood from forests where genetically modified trees are planted; - Wood in which there was a violation of the ILO Declarations on fundamental principle and rights at work. <p>Enviva requires all suppliers to sign a Master Wood Supply Agreement. Master Wood Purchase Agreements contain recital requiring the supplier to agree to abide by Enviva's legal and sustainability commitments including a provision to allow Enviva to periodically audit suppliers to ensure conformance. Enviva will only purchase feedstocks from suppliers who it has an established business relationship and a signed agreement. The Master Wood Purchase</p> <p>ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment contains the work done to determine if there are adequate laws and enforcement to permit resolution to valid complaints. This document uses many of the same sources as the FSC US CWNRA. The FSC US CWNRA and Enviva's analysis both arrived at the same conclusion, there are appropriate mechanisms and a low risk of violations. Findings are incorporated into Enviva's ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment, this supply base evaluation and revisions to the Master Wood Purchase Agreement.</p> <p>The PEFC Chain of Custody Standard requires the certificate holder to have and maintain a complaints process. ENV-PEFCCOC-01 PEFC Chain of Custody is the Enviva document describing the internal process for handling complaints.</p> <p><u>Conclusion</u> Enviva's sourcing practices confirms the existence and enforcement of appropriate laws and regulations governing grievances, disputes, tenure and use rights.</p>
Means of Verification	<ul style="list-style-type: none"> a. Preamble citations b. State and federal laws c. Occupational Health and Safety Administration d. FSC US CWNRA e. ENV-PEFCCOC-01 PEFC Chain of Custody f. Master Wood Purchase Agreement g. ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment h. ENV-PEFCCOC-01 PEFC Chain of Custody Procedure i. World Bank Worldwide Governance Indicators
Evidence Reviewed	
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA

	Indicator
2.7.1	<p>The Biomass Producer has implemented appropriate control systems and procedures for verifying that Freedom of Association and the effective recognition of the right to collective bargaining are respected.</p>
Finding	<p>The FSC US CWNRA determined: 2.2. Labour rights are respected including rights as specified in ILO Fundamental Principles and Rights at work.</p> <p><i>“Freedom of Association & Collective Bargaining</i> Even though the US has not ratified either of the associated Core Conventions, it has been a member of the ILO since 1980 (and previous to that was a member from 1934 to 1977). As a member, the US has obligations under the ILO Constitution, including a commitment under the Declaration on Fundamental Principles and Rights at Work. Additionally, the US is subject to annual ILO review and reporting processes and also complaint processes (through the Committee on Freedom of Association, CFA). A report by the International Organisation of Employers (IOE) notes that “Most CFA case examinations of U.S. law have resulted in conclusions and recommendations that the law or practice subject of the complaint is consistent with the principles of freedom of association” and that “there has never been a wholesale criticism of the NLRA or NLRB by the CFA or the ILO”. There are 42 closed complaints cases listed in the US member profile. All of this provides strong evidence that the United States respects, promotes and realizes, in good faith, workers’ rights to “freedom of association and the effective recognition of the right to collective bargaining.”</p> <p>Additionally, FSC determined, “It is possible to conclude from the information presented that while the US has not ratified and may not conform with all specifics in the associated Core Conventions, it respects the fundamental rights of freedom of association and the effective recognition of the right to collective bargaining.”</p> <p>US ranks in the top 92nd percentile in Regulatory Quality in the World Bank Worldwide Governance Indicators and in the top 89th percentile in Rule of Law. Evidence of the effectiveness of law enforcement is evident in news reporting and reveals no widespread or systematic criminal activity violating the freedom of association or collective bargaining in the Enviva supply base area.</p> <p>U.S. law clearly specifies rights to collective bargaining and freedom of association. Enviva’s HR practices ensure worker rights are protected. All contracts contain verbiage requiring suppliers to conform to all applicable laws. The United States ratified ILO C150 – Labor Administration Convention securing the rights of worker organization and collective bargaining. Verification of this and other ILO US Ratified Conventions can be found on the ILO NORMLEX website</p> <p>Enviva posts all of the US required employee information posters in key locations for all employees to see and read. Enviva's employee handbook describes the rights each worker enjoys including the right of free association and collective bargaining.</p> <p>The United States Department of Labor provides verification of enforcement. (https://www.dol.gov/general/aboutdol/majorlaws)</p> <p><u>Additional evidence:</u> Enviva uses contractual language in its Master Wood Purchase Agreement requiring supplier to abide by all relevant laws and regulations. The contract includes the requirement to avoid the following unacceptable sources wood:</p> <ul style="list-style-type: none"> - Illegally harvest wood; - Wood harvested in violation of traditional and civil rights; - Wood harvested from forests where high conservation values are threatened by management activities;

	<ul style="list-style-type: none"> - Wood harvested from old growth or semi-natural forests being converted to plantations or non-forest use; - Wood from forests were genetically modified trees are planted; - Wood in which there was a violation of the ILO Declarations on fundamental principle and rights at work. <p>Enviva requires all suppliers to sign a Master Wood Supply Agreement. Master Wood Purchase Agreements contain recital requiring the supplier to agree to abide by Enviva's legal and sustainability commitments including a provision to allow Enviva to periodically audit suppliers to ensure conformance. Enviva will only purchase feedstocks from suppliers who it has an established business relationship and a signed agreement.</p> <p>ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment contains the work done to determine if collective bargaining rights exist and are enforced in the supply area. This document uses many if the same sources as the FSC US CWNRA. Enviva's ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment is reviewed annually to ensure Enviva is aware of changes in the supply base area. As with the FSC US CWNRA the review determine laws and enforcement does exist in the supply base area. Findings are incorporated into Enviva's ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment, this supply base evaluation and revisions to the Master Wood Purchase Agreement.</p> <p><u>Conclusion</u> Analysis of Enviva's sourcing practices confirms the existence of appropriate laws and regulations governing workers right to associate.</p>
Means of Verification	<ul style="list-style-type: none"> a. Preamble citations b. FSC US CWNRA c. Enviva HR policies and procedures d. ENV-COC-03 Controlled Wood Risk Assessment e. Enviva Employee Handbook f. Mill site employee postings g. Master Wood Purchase Agreement h. ILO US Ratified Conventions i. ILO NORMLEX Information System j. United States Department of Labor k. World Bank Worldwide Governance Indicators
Evidence Reviewed	All means of verification reviewed
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA

	Indicator
2.7.2	The Biomass Producer has implemented appropriate control systems and procedures for verifying that feedstock is not supplied using any form of compulsory labour.
Finding	<p>The FSC US CWNRA finds:</p> <p>2.2. Labour rights are respected including rights as specified in ILO Fundamental Principles and Rights at work.</p> <p><i>"Compulsory or Forced Labor</i> The US ratified Core Convention 105 (Abolition of Forced Labour Convention) in 1991 and the ILO web site indicates the status as 'In Force'. The US has not yet ratified Convention 29 (Forced Labour Convention), but as noted above has legislation that addresses</p>

fundamental rights associated with compulsory or forced labor. There are also numerous additional policies, reports, action plans and executive orders that provide evidence of the country's efforts to ensure these rights, particularly as they relate to human trafficking [28].

The United States is consistently categorized as Tier 1 (the highest tier reflecting a country's efforts to address human trafficking problems) in the U.S. Department of State's Trafficking in Persons annual report. The Global Slavery Index's 2016 assessment identifies the United States as a country with one of the lowest estimated prevalence of modern slavery and as a country with one of the strongest responses to modern slavery. While the US has not ratified both relevant Core Conventions, it is still possible to conclude that the US respects the fundamental right to the elimination of all forms of forced or compulsory labor, and in particular that there are no concerns identified in the forest sector."

The U.S. supply areas where Enviva procures wood material have comprehensive laws prohibiting the use of compulsory labor or violating citizen's rights. Enviva's HR practices ensure worker rights are protected and employment is "at will".

The United States Department of Labor provides verification of enforcement.
(<https://www.dol.gov/general/aboutdol/majorlaws>)

US ranks in the top 92nd percentile in Regulatory Quality in the World Bank Worldwide Governance Indicators and in the top 89th percentile in Rule of Law. Evidence of the effectiveness of law enforcement is evident in news reporting and reveals no widespread or systematic criminal activity related to the use of compulsory labor in the wood products industry in the Enviva supply base area.

Additionally, evidence:

Enviva uses contractual language in its Master Wood Purchase Agreement requiring supplier to abide by all relevant laws and regulations. The contract includes the requirement to avoid the following unacceptable sources wood:

- Illegally harvest wood;
- Wood harvested in violation of traditional and civil rights;
- Wood harvested from forests where high conservation values are threatened by management activities;
- Wood harvested from old growth or semi-natural forests being converted to plantations or non-forest use;
- Wood from forests where genetically modified trees are planted;
- Wood in which there was a violation of the ILO Declarations on fundamental principle and rights at work.

Enviva requires all suppliers to sign a Master Wood Supply Agreement. Master Wood Purchase Agreements contain recital requiring the supplier to agree to abide by Enviva's legal and sustainability commitments including a provision to allow Enviva to periodically audit suppliers to ensure conformance. Enviva will only purchase feedstocks from suppliers who it has an established business relationship and a signed agreement.

ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment contains the work done to determine if compulsory labor exists the supply area. This document uses many of the same sources as the FSC US CWNRA. Enviva's ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment is reviewed annually to ensure Enviva is aware of changes in the supply base area. As with the FSC US CWNRA the review determine laws and enforcement does exist to prevent compulsory labor in the supply base area.

	Findings are incorporated into Enviva's ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment, this supply base evaluation and revisions to the Master Wood Purchase Agreement. <u>Conclusion</u> Analysis of Enviva's sourcing practices confirms the existence of appropriate laws and regulations prohibiting compulsory labor.
Means of Verification	<ul style="list-style-type: none"> a. Preamble citations b. Federal and State web sites c. FSC US CWNRA d. Enviva HR policies and procedures e. ENV-COC-03 Controlled Wood Risk Assessment f. Master Wood Purchase Agreement g. ILO US Ratified Conventions h. United States Code i. United States Department of Labor j. World Bank Worldwide Governance Indicators
Evidence Reviewed	All means of verification reviewed
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA

	Indicator
2.7.3	The Biomass Producer has implemented appropriate control systems and procedures to verify that feedstock is not supplied using child labour.
Finding	<p>The FSC CWNRA finds</p> <p>The United States ratified Core Convention 182 (Worst Forms of Child Labor Convention) in 1999 and the ILO web site indicates the status as 'In Force'. The US has not yet ratified Convention 138 (Minimum Age Convention), but as noted above has legislation that addresses fundamental rights associated with child labor. Additionally, every state has legislation that further limits the hours and days per week that minors may work in non-farm employment and 34 states have similar limits for farm work. And all states have compulsory education until at least 16 years of age [28]. The US Annual Reports to the ILO also detail statistics on the effective enforcement of the federal legislation, including hundreds of cases, thousands of children affected and millions of dollars paid in fines each year. The United States does not feature in the ILO Child Labour Country Dashboard, which indicates a low risk for child labour in the United States. The 2016 List of Goods Produced by Child Labor or Forced Labor [46] does not associate any goods produced in the US with child labor."</p> <p>Further it finds: "While the US has not ratified both relevant Core Conventions, it is still possible to conclude that the US respects the fundamental right to the effective abolition of child labor, particularly in the forest sector."</p> <p>The United States Department of Labor provides verification of enforcement. (https://www.dol.gov/general/topic/youthlabor/enforcement)</p>

The U.S. supply areas where Enviva procures wood material have comprehensive laws prohibiting the use of child labor or violating citizen's rights. Enviva's HR practices ensure the company complies with minimum worker age requirements and all supplier contracts contain verbiage requiring suppliers to conform to all applicable laws.

From the AHEC Legality Study:

"We come to the conclusion that wood procured in the study area can be considered Low Risk of violating traditional and civil rights. This conclusion is based on the determination that there is no UN Security Council ban, there is no evidence of prolific child labor, there is no evidence that ILO Fundamental Principles are not respected, and there are recognized and equitable processes in place to resolve conflicts of substantial magnitude."

"Forest employment in the US is regulated under federal and state laws and codes, which prohibit child labor and are consistent with the ILO Fundamental Principles and Rights at work."

US ranks in the top 92nd percentile in Regulatory Quality in the World Bank, Worldwide Governance Indicators and in the top 89th percentile in Rule of Law. Evidence of the effectiveness of law enforcement is evident in news reporting and reveals no widespread or systematic criminal activity in the use of child labor in the Enviva supply base area.

Additional evidence:

Enviva uses contractual language in its Master Wood Purchase Agreement requiring supplier to abide by all relevant laws and regulations. The contract includes the requirement to avoid the following unacceptable sources wood:

- Illegally harvest wood;
- Wood harvested in violation of traditional and civil rights;
- Wood harvested from forests where high conservation values are threatened by management activities;
- Wood harvested from old growth or semi-natural forests being converted to plantations or non-forest use;
- Wood from forests where genetically modified trees are planted;
- Wood in which there was a violation of the ILO Declarations on fundamental principle and rights at work.

Enviva requires all suppliers to sign a Master Wood Supply Agreement. Master Wood Purchase Agreements contain recital requiring the supplier to agree to abide by Enviva's legal and sustainability commitments including a provision to allow Enviva to periodically audit suppliers to ensure conformance. Enviva will only purchase feedstocks from suppliers who it has an established business relationship and a signed agreement.

ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment contains the work done to determine if child labor exists the supply area. This document uses many if the same sources as the FSC US CWNRA. Enviva's ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment is reviewed annually to ensure Enviva is aware of changes in the supply base area. As with the FSC US CWNRA the review determine laws and enforcement does exist to prevent child labor in the supply base area. Findings are incorporated into Enviva's ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment, this supply base evaluation and revisions to the Master Wood Purchase Agreement.

Enviva does not employ anyone under the age or 18 years.

	<p><u>Conclusion</u></p> <p>Analysis of Enviva's sourcing practices confirms the existence of appropriate laws and regulations prohibiting child labor.</p>
Means of Verification	<ul style="list-style-type: none"> a. Preamble citations b. Federal and State web sites c. FSC US CWNRA d. Enviva HR policies and procedures e. ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment f. Master Wood Purchase Agreement g. ILO US Ratified Conventions h. United States Department of Labor i. World Bank Worldwide Governance Indicators
Evidence Reviewed	All means of verification reviewed
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA

	Indicator
2.7.4	<p>The Biomass Producer has implemented appropriate control systems and procedures for verifying that feedstock is not supplied using labour which is discriminated against in respect of employment and occupation.</p>
Finding	<p>The FSC US CWNRA finds:</p> <p>1.12 Legal employment – Most employment in the US is considered "at will," and can be terminated by either party or changed without prior notice. A written contract is not necessary; all employers are still subject to labor laws.</p> <p>2.2 Labour rights are respected including rights as specified in ILO Fundamental Principles and Rights at work.</p> <p>“Discrimination with respect to employment is prohibited in the United States by Section VII of the Civil Rights Act of 1964 (Public Law 88-352), and is overseen by the U.S. Equal Employment Opportunity Commission. There are several additional and complementary pieces of legislation, such as: the Equal Pay Act of 1963 (EPA), which protects men and women who perform substantially equal work in the same establishment from sex-based wage discrimination; the Age Discrimination in Employment Act of 1967 (ADEA), which protects individuals who are 40 years of age or older; Title I and Title V of the Americans with Disabilities Act of 1990, as amended (ADA), which prohibit employment discrimination against qualified individuals with disabilities in the private sector, and in state and local governments; Sections 501 and 505 of the Rehabilitation Act of 1973, which prohibit discrimination against qualified individuals with disabilities who work in the federal government;”</p> <p>“All indicators In the Category 1 (legality) assessment were designated as ‘low risk’ at a national scale, indicating that the relevant legislation is enforced.”</p> <p>In the United States regulation of forestry practices has its roots in federal law and acts designed to provide minimum guidance to states in developing state specific laws and regulations and ranks in the top 92nd percentile in Regulatory Quality in the World Bank, Worldwide Governance Indicators and in the top 89th percentile in Rule of Law.</p>

	<p>The U.S. supply areas where Enviva procures wood material have comprehensive laws prohibiting the violation of citizen's rights. Enviva's HR practices ensure the company is an equal opportunity employer and prohibit discrimination in all of the federal and state laws in our areas of operation. Enviva's PEFC Due Diligence Risk Assessment was verified to show "There is no evidence of child labor or violation of ILO Fundamental Principles and Rights at work taking place in forest areas in the district concerned."</p> <p>The United States Department of Labor provides verification of enforcement. (https://www.dol.gov/general/aboutdol/majorlaws)</p> <p><u>Additional evidence:</u></p> <p>Enviva uses contractual language in its Master Wood Purchase Agreement requiring supplier to abide by all relevant laws and regulations. The contract includes the requirement to avoid the following unacceptable sources wood:</p> <ul style="list-style-type: none"> - Illegally harvest wood; - Wood harvested in violation of traditional and civil rights; - Wood harvested from forests where high conservation values are threatened by management activities; - Wood harvested from old growth or semi-natural forests being converted to plantations or non-forest use; - Wood from forests where genetically modified trees are planted; - Wood in which there was a violation of the ILO Declarations on fundamental principle and rights at work. <p>Enviva requires all suppliers to sign a Master Wood Supply Agreement. Master Wood Purchase Agreements contain recital requiring the supplier to agree to abide by Enviva's legal and sustainability commitments including a provision to allow Enviva to periodically audit suppliers to ensure conformance. Enviva will only purchase feedstocks from suppliers who it has an established business relationship and a signed agreement.</p> <p>ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment contains the work done to determine if labor discrimination exists the supply area. This document uses many if the same sources as the FSC US CWNRA. Enviva's ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment is reviewed annually to ensure Enviva is aware of changes in the supply base area. As with the FSC US CWNRA the review determine laws and enforcement does exist to prevent labor discrimination in the supply base area. Findings are incorporated into Enviva's ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment, this supply base evaluation and revisions to the Master Wood Purchase Agreement.</p> <p><u>Conclusion</u></p> <p>Analysis of Enviva's sourcing practices confirms the existence of appropriate laws and regulations prohibiting discrimination in the workplace.</p>
Means of Verification	<ol style="list-style-type: none"> a. Preamble citations b. Federal and State web sites c. FSC US CWNRA d. Enviva HR policies and procedures e. ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment f. Master Wood Purchase Agreement g. ILO US Ratified Conventions h. United States Department of Labor i. Word Bank Worldwide Governance Indicators

Evidence Reviewed	All means of verification reviewed
Risk Rating	X Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA

	Indicator
2.7.5	The Biomass Producer has implemented appropriate control systems and procedures for verifying that feedstock is supplied using labour where the pay and employment conditions are fair and meet, or exceed, minimum requirements.
Finding	<p>The FSC US CWNRA finds:</p> <p>1.12 Legal employment – There is a large body of laws governing fair labor, worker safety and health. These laws protect forest workers by prescribing specific safety measures to employ and safety equipment to use while working. There is a low risk forest worker are not adequately protected.</p> <p>In the United States federal law and acts designed to provide minimum guidance to states in developing state specific laws and regulations. The nation ranks in the top 92nd percentile in Regulatory Quality in the World Bank Worldwide Governance Indicators and in the top 89th percentile in Rule of Law.</p> <p>The U.S. supply areas where Enviva procures wood material have comprehensive laws prohibiting the violation of worker's rights and establishing minimum wage requirements.</p> <p>OSHA work rules ensure workers have a right to a safe workplace. The law requires employers to provide their employees with working conditions that are free of known dangers. The OSHA law also prohibits employers from retaliating against employees for exercising their rights under the law (including the right to raise a health and safety concern or report an injury). For more information see www.whistleblowers.gov or worker rights.</p> <p>The United States Department of Labor provides verification of enforcement. (https://www.dol.gov/general/aboutdol/majorlaws)</p> <p>The United State Department of Labor Occupational Safety and Health Administration provides verification of enforcement. (https://www.osha.gov/dep/index.html)</p> <p><u>Additional evidence</u></p> <p>Master Wood Purchase Agreements contain recital requiring the supplier to agree to abide by Enviva's legal and sustainability commitments including a provision to allow Enviva to periodically audit suppliers to ensure conformance.</p> <p>Enviva uses contractual language in its Master Wood Purchase Agreement requiring supplier to abide by all relevant laws and regulations. The contract includes the requirement to avoid the following unacceptable sources wood:</p> <ul style="list-style-type: none"> - Illegally harvest wood; - Wood harvested in violation of traditional and civil rights; - Wood harvested from forests where high conservation values are threatened by management activities; - Wood harvested from old growth or semi-natural forests being converted to plantations or non-forest use; - Wood from forests were genetically modified trees are planted;

	<p>- Wood in which there was a violation of the ILO Declarations on fundamental principle and rights at work.</p> <p>Enviva requires all suppliers to sign a Master Wood Supply Agreement. Master Wood Purchase Agreements contain recital requiring the supplier to agree to abide by Enviva's legal and sustainability commitments including a provision to allow Enviva to periodically audit suppliers to ensure conformance. Enviva will only purchase feedstocks from suppliers who it has an established business relationship and a signed agreement.</p> <p>ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment contains the work done to determine if poor working conditions exists the supply area. A review of federal and state laws and guidelines addressing worker safety and pay found no instances of violations. Findings are incorporated into Enviva's ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment, this supply base evaluation and revisions to the Master Wood Purchase Agreement.</p> <p><u>Conclusion</u> Analysis of Enviva's sourcing practices confirms the existence of appropriate laws and regulations ensuring fair pay for workers.</p>
Means of Verification	<ul style="list-style-type: none"> a. Preamble citations b. Federal and State web sites c. Enviva HR policies and procedures d. ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment e. Master Wood Purchase Agreement f. ILO US Ratified Conventions g. Occupational Safety and Health Administration h. United States Department of Labor i. World Bank Worldwide Governance Indicators
Evidence Reviewed	All means of verification reviewed
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA

	Indicator
2.8.1	The Biomass Producer has implemented appropriate control systems and procedures for verifying that appropriate safeguards are put in place to protect the health and safety of forest workers (CPET S12).
Finding	<p>The FSC US CWNRA finds:</p> <p>1.12 Legal employment – There is a large body of laws governing fair labor, worker safety and health. These laws protect forest workers by prescribing specific safety measures to employ and safety equipment to use while working. There is a low risk forest worker are not adequately protected.</p> <p>US ranks in the top 88th percentile in Regulatory Quality in the World Bank Worldwide Governance Indicators and in the top 89th percentile in Rule of Law. Evidence of the effectiveness of law enforcement is evident in news reporting and reveals no widespread or systematic criminal activity related to the violation of forest worker health and safety laws in the Enviva supply base area.</p>

The US Occupational Health and Safety Administration is responsible for implementing, monitoring and enforcing worker health and safety laws and regulations. Enviva complies with all applicable laws and regulation and contractually requires its suppliers to do the same. The SFI Wood Sourcing Standard requires Program Participants to adhere to health and safety laws. Enviva and its third-party suppliers will not contract with companies exhibiting poor performance. Enviva has safety manuals in place for mill workers. Enviva also has an in-depth safety program in place at each mill to prevent accidents and share best practices amongst sites. OSHA records of reportable injuries and rates are publicly available.

Federal Law regarding forestry dictate that: Forest fire fighting and forest fire prevention occupations, timber tract occupations, forestry service occupations, logging occupations, and occupations in the operation of any sawmill, lathe mill, shingle mill, or cooperage stock mill abide by (Order 4). [75 FR 28453, May 20, 2010]

OSHA work rules ensure workers have a right to a safe workplace. The law requires employers to provide their employees with working conditions that are free of known dangers. The OSHA law also prohibits employers from retaliating against employees for exercising their rights under the law (including the right to raise a health and safety concern or report an injury). For more information see www.whistleblowers.gov or worker rights.

The United State Department of Labor Occupational Safety and Health Administration provides verification of enforcement.
(<https://www.osha.gov/dep/index.html>)

Additional evidence:

Master Wood Purchase Agreements contain recital requiring the supplier to agree to abide by Enviva's legal and sustainability commitments including a provision to allow Enviva to periodically audit suppliers to ensure conformance.

Enviva uses contractual language in its Master Wood Purchase Agreement requiring supplier to abide by all relevant laws and regulations. The contract includes the requirement to avoid the following unacceptable sources wood:

- Illegally harvest wood;
- Wood harvested in violation of traditional and civil rights;
- Wood harvested from forests where high conservation values are threatened by management activities;
- Wood harvested from old growth or semi-natural forests being converted to plantations or non-forest use;
- Wood from forests where genetically modified trees are planted;
- Wood in which there was a violation of the ILO Declarations on fundamental principle and rights at work.

Enviva requires all suppliers to sign a Master Wood Supply Agreement. Master Wood Purchase Agreements contain recital requiring the supplier to agree to abide by Enviva's legal and sustainability commitments including a provision to allow Enviva to periodically audit suppliers to ensure conformance. Enviva will only purchase feedstocks from suppliers who it has an established business relationship and a signed agreement.

The SFI Fiber Sourcing Standard Objective 4 requires Program Participants to adhere to health and safety laws. Enviva's ENV-SFIS-01 Certified Sourcing Implementation Manual outlines the processes Enviva uses to meet the requirement.

	<p>ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment contains the work done to determine if poor work conditions exist the supply area. This document uses many if the same sources as the FSC US CWNRA. Enviva's ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment is reviewed annually to ensure Enviva is aware of changes in the supply base area. As with the FSC US CWNRA the review determine laws and enforcement does exist to prevent occurrences of poor work conditions in the supply base area. Findings are incorporated into Enviva's ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment, this supply base evaluation and revisions to the Master Wood Purchase Agreement.</p> <p><u>Conclusion</u> Analysis of Enviva's sourcing practices confirms the existence of appropriate laws and regulations ensuring worker health and safety.</p>
Means of Verification	<ul style="list-style-type: none"> a. Preamble citations b. FSC US CWNRA c. ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment d. ENV-SFIS-01 Certified Sourcing Implementation Manual e. Enviva Employee Handbook f. Master Wood Purchase Agreement g. United State Department of Labor Occupational Safety and Health h. World Bank Worldwide Governance Indicators
Evidence Reviewed	All means of verification reviewed
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA

	Indicator
2.9.1	Biomass is not sourced from areas that had high carbon stocks in January 2008 and no longer have those high carbon stocks.
Finding	<p>Enviva's ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment is reviewed annually to ensure it Enviva is aware of forest impact assessments, planning implementation and monitoring efforts, forestry best management practices in all of Enviva's supply areas. The analysis includes a study of carbon stocks in the supply area.</p> <p>Wetlands and peatlands are recognized as areas of high carbon stocks as well as areas of important ecological function. Where there are wetlands in the sourcing area, these are strongly protected by legislation to remain as wetlands through the Clean Water Act. No change can be made to the hydrology of wetlands without the permission of the Army Corps of Engineers, who oversee and implement CWA legislation.</p> <p>The annual growth to drain ratio of the supply base is 1.91:1 for all species, 2.39:1 for hardwood, and 1.65:1 for pine. A positive growth to drain ratio indicates that forest growth exceeds harvest removals. In the Gulf region of the U.S. South, total inventory has increased by an average of 1.2% annually between 2000 and 2017. Since 2000, US Forest Service Forest Inventory Analysis (FIA) data indicates an increase in forest area in the states covered included in the Enviva supply base area.</p> <p>Wetlands and peatlands are recognized as areas of high carbon stocks as well as areas of important ecological function. Wetlands such as swamps, ponds and bottoms are</p>

	<p>common within the supply base, but peatlands such as bogs and fens are usually associated with the Northeast United States and well outside of the supply base. The exception to this is Pocosin, which is the only Southeastern bog and is only found along the Atlantic coast from Virginia to Florida and not likely to occur within the supply base.</p> <p>http://water.epa.gov/type/wetlands/types_index.cfm</p> <p>While current BMP's are structured to allow selective harvesting within a wetland, guidelines are in place to protect wetland function and minimize site impacts during harvest. BMP's specifically do not allow forestry activities to alter the hydrologic conditions or drainage patterns of wetlands. By limiting harvest size and requiring leave trees and Streamside Management Zones within the wetland, BMP's work to maintain the carbon sink values associated with wetlands. The use of innovative harvesting techniques such as mat or shovel logging utilize concentrated skid trails and "mats" of felled wood to minimize ground disturbance during wetland harvest. It is common practice for logging slash to be left on site during wetland harvest and natural regeneration of the wetland takes place fairly quickly after harvest.</p> <p><u>Conclusion</u> Analysis of Enviva's supply area confirms carbon stocks are maintained.</p>
Means of Verification	<ul style="list-style-type: none"> a. Preamble citations b. BMP manuals and Compliance reports c. Clean Water Act d. USDA Forest Service Forest Inventory Analysis data
Evidence Reviewed	All means of verification reviewed
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA

	Indicator
2.9.2	Analysis demonstrates that feedstock harvesting does not diminish the capability of the forest to act as an effective sink or store of carbon over the long term.
Finding	<p>Enviva's ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment is reviewed annually to ensure it Enviva is aware of forest impact assessments, planning implementation and monitoring efforts, forestry best management practices in all of Enviva's supply areas. The analysis includes a study of carbon stocks in the supply area.</p> <p>The annual growth to drain ratio of the supply base is 1.91:1 for all species, 2.39:1 for hardwood, and 1.65:1 for pine. A positive growth to drain ratio indicates that forest growth exceeds harvest removals. In the Gulf region of the U.S. South, total inventory has increased by an average of 1.2% annually between 2000 and 2017. Since 2000, US Forest Service Forest Inventory Analysis (FIA) data indicates an increase in forest area in the states covered included in the Enviva supply base area.</p> <p>Understanding the role of managed forests in forest-carbon relationships is an essential component of global carbon dynamics and greenhouse gas (GHG) reductions. The ability of forests to act as carbon storage pools (sinks) and prevent additional carbon from entering the atmosphere is a key factor in this relationship. Recent studies have shown that a "hands off" strategy of forest preservation may not always produce the desired climatic results, but sustainably managed forests can provide carbon sequestration and</p>

storage benefits as well as a range of environmental and social benefits such as timber and biomass production, clean water, wildlife habitat, and recreational opportunities. The UN Intergovernmental Panel on Climate Change (IPCC) acknowledged this in their Fourth Assessment Report: “In the long term, a sustainable forest management strategy aimed at maintaining or increasing forest carbon stocks, while producing an annual sustained yield of timber, fiber or energy from the forest, will generate the largest sustained mitigation benefit.”

Healthy and vigorously growing forests are efficient at capturing and storing atmospheric carbon, but older mature forests, while maintaining large carbon stores, have very low rates of additional carbon sequestration. If natural mortality is allowed to occur in these mature forests, they can actually become carbon emitters and lose the benefit of stored carbon. The harvest of forest resources from such stands provides a mechanism for capturing and utilizing stored carbon. Sustainable forest management practiced at the landscape level provides a mosaic of forest stands from young to old and maintains carbon sequestration potential of the forests. Mature stands are harvested and reforested while younger stands are managed to maintain vigor and held for future harvest. Forest management practices such as thinning and prescribed burning reduce the potential for stand mortality from natural disturbances and the carbon emissions associated with such disturbances. The decay of trees destroyed by wildfires, storms, insects and diseases emits stored carbon back into the atmosphere without any realized benefit. As long as harvests and mortality do not exceed net growth across the forest, carbon stocks will remain stable or increase through time. In the U.S. we have experienced over 70 continuous years of net forest growth exceeding removals and mortality, thus indicating forest management practices are having a positive impact on the long-term storage of carbon. Forest Inventory Analysis (FIA) data shows that all states within the Enviva supply base follow the U.S. trend of steady to increasing forested acres.

Harvest and utilization of forest products have additional GHG reduction and carbon flow benefits beyond the forest that are often not realized in society. The premise of Enviva’s operations is to utilize forest materials and residuals from wood processing facilities in order to produce renewable energy and lower GHG emissions. By accepting lower quality wood produced from forest thinnings, Enviva is promoting the sustainable forest management practices that are essential to forest-climate interactions. Energy obtained from forest biomass uses far less of the Earth’s stored carbon; therefore, the use of our wood pellets reduces the flow of fossil fuel-based carbon emissions into the atmosphere. Solid wood products and wood-based products used in construction, furniture, and other industries maintain their stored carbon for the life of the product. The reuse or recycling of these wood products only compounds their impact on carbon flow. It takes less energy (embodied energy) and thus less fossil fuel to process raw forest materials into useful products than it does for other materials such as steel, aluminum, concrete, or plastic. When wood products are used in place of these other materials, there exist a real substitution effect that serves to reduce overall societal carbon emissions.

Sustainable forest management along with the additive effect of various wood use strategies, insure that forest operations have substantial carbon sequestration, storage, and substitution benefits that reduce global GHG emissions.

Society of American Foresters, 2011, Managing forests because carbon matters: integrating energy, products, and land management policy, Supplement to Journal of Forestry, October/November 2011, Volume 109, Number 7S

http://www.fs.fed.us/pnw/pubs/journals/pnw_2011_malmsheimer001.pdf

	<p>http://www.woodforgood.com/assets/Downloads/AHEC%20Carbon%20Storage%20through%20Forest%20Management.pdf</p> <p>Forest Inventory Analysis Data: http://www.fia.fs.fed.us/</p> <p>Only 16% of Enviva's supply base area is considered to be mature bottomland hardwoods. Less than 1% of Enviva's feedstock came from sources considered to be bottomland hardwood forests. Enviva's HCV Tract Approval Process ensures none of its feedstocks come from mature bottomland hardwood forests. The likelihood Enviva is sourcing are affecting the ability of the forest to act as an effective sink or store of carbon over the long term is low.</p> <p><u>Conclusion</u> Analysis of Enviva's supply area confirms carbon stocks are maintained.</p>
Means of Verification	<ul style="list-style-type: none"> a. Preamble citations b. SAF Journal of Forestry c. Ecological objectives can be achieved with wood derived bioenergy (peer reviewed letter) d. AHEC article (peer reviewed) e. Forest Inventory Analysis Data
Evidence Reviewed	All means of verification reviewed
Risk Rating	<input checked="" type="checkbox"/> Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA

	Indicator
2.10.1	Genetically modified trees are not used.
Finding	<p>The FSC US CWNRA findings conclude: "Currently there is no use of GMO trees for commercial use, but the US might be close to approving the use of such. If this happens it will not be possible to identify the use of that GMO to a certain MU, which is why there might be specified risk in the future. But as the situation is now in the US there are no commercial GMO timber trees.</p> <p>There are no commercial uses of Genetically Modified Organisms (GMO's) inside the Enviva LP supply area. Enviva communicates its desire to avoid these sources in its MWPA. Excerpt from Enviva's PEFC Chain of Custody Due Diligence System:</p> <p>"International groups have general consistency regarding the term GMO to ensure that it is not confused with hybrids, cultivars, and breeds, which are derived from traditional breeding programs. A GMO is an organism that has been transformed by the insertion of one or more genes (called transgenes). Often the inserted genes are from a different species than the recipient organism. Genetic modification does not include traditional breeding or natural hybridization, i.e. GM trees cannot be obtained through conventional tree breeding methods".</p> <p>There is a single synthesis document that provides an up to date (as of 2004) evaluation of forest GMO (Genetically Modified Organisms). Currently, the only commercial user of</p>

GMO trees is China and only a single species, *Populus nigra* (Black Poplar, Lombardy Poplar).

The majority of GMO tree research takes place in the U.S. As of 2004, there were field trials of multiple genera, but no commercial plantings.

Additional evidence:

Master Wood Purchase Agreements contain recital requiring the supplier to agree to abide by Enviva's legal and sustainability commitments including a provision to allow Enviva to periodically audit suppliers to ensure conformance.

Enviva uses contractual language in its Master Wood Purchase Agreement requiring supplier to abide by all relevant laws and regulations. The contract includes the requirement to avoid the following unacceptable sources wood:

- Illegally harvest wood;
- Wood harvested in violation of traditional and civil rights;
- Wood harvested from forests where high conservation values are threatened by management activities;
- Wood harvested from old growth or semi-natural forests being converted to plantations or non-forest use;
- Wood from forests where genetically modified trees are planted;
- Wood in which there was a violation of the ILO Declarations on fundamental principle and rights at work.

Enviva requires all suppliers to sign a Master Wood Supply Agreement. Master Wood Purchase Agreements contain recital requiring the supplier to agree to abide by Enviva's legal and sustainability commitments including a provision to allow Enviva to periodically audit suppliers to ensure conformance. Enviva will only purchase feedstocks from suppliers who it has an established business relationship and a signed agreement.

Primary Feedstock

Enviva uses its proprietary Track & Trace for all primary wood purchases. Specifically, Enviva maintains a robust tracking and monitoring program to ensure that all our suppliers deliver wood that is sourced according to our expectations. The information Enviva collects for every tract its suppliers harvest includes; 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 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 mill, each load is linked to that tract's ID number. As a result, Enviva knows the tract-level attributes for all the primary wood entering the mill. Enviva randomly conducts field audits and can assure timber GMO species are not in the supply area or feedstock. During annual certification audits an independent certifying body confirms Enviva's internal findings as part of its third-party audit assessment.

Secondary Feedstock

Enviva's annual District of Origin Form process allows secondary feedstock suppliers to meet the requirements described in SBP's Normative Interpretations Document. The process collects information about the suppliers sourcing area, species processed at the mill, the types of information collected about the landowner and other pertinent information as described in the guidance found in Standard 2 Section 8.4 of the Interpretations. This information is mapped and compared to Enviva's supply base area and against known areas with potential high conservation value to ensure that any risk to HCV values associated with suppliers of secondary feedstocks is appropriately included in the SBP supply base evaluation process to ensure the suppliers' sourcing practices do not pose a

	<p>threat to these areas. Enviva purchases primary feedstock from many of the same timber harvesting crews as its secondary feedstock suppliers. Since Enviva uses its proprietary Track & Trace program to purchase primary feedstock it, by extension, has quite a bit of information about the source tracts of its secondary feedstock suppliers.</p> <p>ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment contains the work done to determine if commercial timber GMO species the supply area. This document uses many if the same sources as the FSC US CWNRA. Enviva's ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment is reviewed annually to ensure Enviva is aware of changes in the supply base area. As with the FSC US CWNRA the review determine laws and enforcement does exist to prevent the establishment of commercial timber GMO species in the supply base area. Findings are incorporated into Enviva's ENV-COC-03 Controlled Wood/Controlled Source Risk Assessment, this supply base evaluation and revisions to the Master Wood Purchase Agreement.</p> <p>Enviva did not find its wood supply areas on any lists contained in the FAO preliminary review of biotechnology in forestry (http://www.fao.org/docrep/008/ae574e/ae574e00.htm).</p> <p>There are no commercial uses of genetically modified trees taking place across the wood supply area. Enviva is therefore confident that its wood supply does not source wood from forests in which genetically modified trees are planted.</p> <p><u>Conclusion</u> Enviva does not use genetically modified trees.</p>
Means of Verification	<ul style="list-style-type: none"> a. FSC US CWNRA b. ENV-COC-03 Controlled Wood Risk Assessment c. Track & Trace d. District of Origin Process e. Master Wood Purchase Agreement
Evidence Reviewed	All means of Verification reviewed
Risk Rating	X Low Risk <input type="checkbox"/> Specified Risk <input type="checkbox"/> Unspecified Risk at RA