Supply Base Report:

Enviva, LLC

Sustainable Biomass Program
sbp-cert.org

Completed in accordance with the Supply Base Report Template Version 2.0

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

Document history

Version 1.0	**Published 26 March 2015**
Version 2.0	**Published 10 August 2023**
Version 2.1.5	**Published 15 April 2024**

Table of contents

1 Overview

Producer name:	Enviva, LLC	
Producer address:	7500 Old Georgetown Suite 1400 Bethesda 20814	
SBP Certificate Code:		
Entity	SBP Certificate Code	Lat/long
Enviva, LLC	SBP-04-03	38.98510, -77.095180
Enviva Ahoskie	SBP-40.09	36.269712, -76.964838
Enviva Amory	SBP-04-12	33.988894, -88.494950
Enviva Cottondale	SBP-04-04	30.739187, -85.391074
Enviva Epes	TBD	32.684300, -88.102960
Enviva Greenwood	SBP-04-25	34.229426, -82.062082
Enviva Hamlet	SBP-04-43	34.934795, -79.636858
Enviva Lucedale	SBP-04-72	30.918960, -88.550400
Enviva Northampton	SBP-04-10	36.503920, -77.611860
Enviva Sampson	SBP-04-06	35.120960, -78.183640
Enviva Southampton	SBP-04-11	36.651220, -76.973570
Enviva Pellets Waycross	SBP-04-21	31.256300, -82.411300
Geographic position: See above		
Primary contact:	Don Grant, +1 984 789 3642, don.grant@envivabiomass.com	
Company website:	www.envivabiomass.com	
Date report finalised:	Draft for consultation	
SBR reporting period from:	1-Jan-2024	
SBR reporting period to:	31-Dec-2024	
Name of the Certification Body:	SCS Global Services	
Certification Body Approval date:	Draft for consultation	
SBP Standard(s) used:	SBP Standard 1: Feedstock Compliance v2.0, SBP Standard 2: Feedstock Verification v2.0, SBP Standard 4: Chain of Custody v2.0, SBP Standard 5: Collection and Communication of Data v2.0, SBP Standard 6: Energy and Carbon Balance Calculation v2.0, Instruction Document 5E: Collection and Communication of Energy and Carbon Data v2.0	
Feedstock origin (countries)	United States	
Weblink to Standard(s) used:	https://sbp-cert.org/documents/standards-documents/standards	

2 Description of the Biomass Producer and the Supply Base

2.1 Description of the company

Description of the company:

Enviva was founded in 2004 with a mission to displace fossil fuels, grow more trees, and address climate change. Early on, we realized that the real gap in the biomass energy base was not people building and operating the power plants, rather it was the aggregation and the commoditization of fuel. That's when we focused on sourcing and producing the fuel side of the business, which has been our growth area and the space where we've become the largest player. Today, we've evolved into a leading producer of wood pellets with a focus on the future of biogenic carbon. Enviva operates 10 pellet producing mills across the south soon to be 11 when Epes comes on-line in Q2 2025. Enviva ships pellets from 7 port locations across the south.

Products included in the scope of SBP Certification: Pellets

Number of employees: 1250

Annual maximum production capacity (metric tonnes): 5.5 million metric tons

Number of direct feedstock suppliers: 472

Approximate number of feedstock sub-suppliers: 450

Description of the chain-of-custody and upstream supply chain:

Enviva maintains multiple chain of custody (CoC) systems to satisfy various certification system requirements. The company has staff well versed in CoC operations. Enviva systems track the required chain of custody information including the necessary infrastructure, designated management representative, product type categories, record keeping and training to ensure the system meets SBP requirements. Enviva operates a Stakeholder Engagement Plan through its transparency partner, Earthworm via the company's Responsible Sourcing Policy. Envia's CoC process includes documented procedures to address non-conforming product, has developed a Risk Matrix to ensure compliance with applicable laws, conducts annual anti-corruption training for staff, complies with OSHA regulation and through its FSC Chain of Custody Core Labor Requirements meets the "decent working conditions" criteria. Envia has a mature Outsourcing program that includes multiple CoC systems. The company maintains records of all suppliers, trains suppliers in the necessary elements of CoC, HCV and other elements such as safe work practices while on an Enviva mill site. Enviva requires suppliers to provide the information included in SBP Standard 4 Section 4.2 and other information to determine origin. Enviva uses a mass balance credit ledger system to track inputs to pellet tons produced and shipped to customers.

2.2 Detailed description of the Supply Base

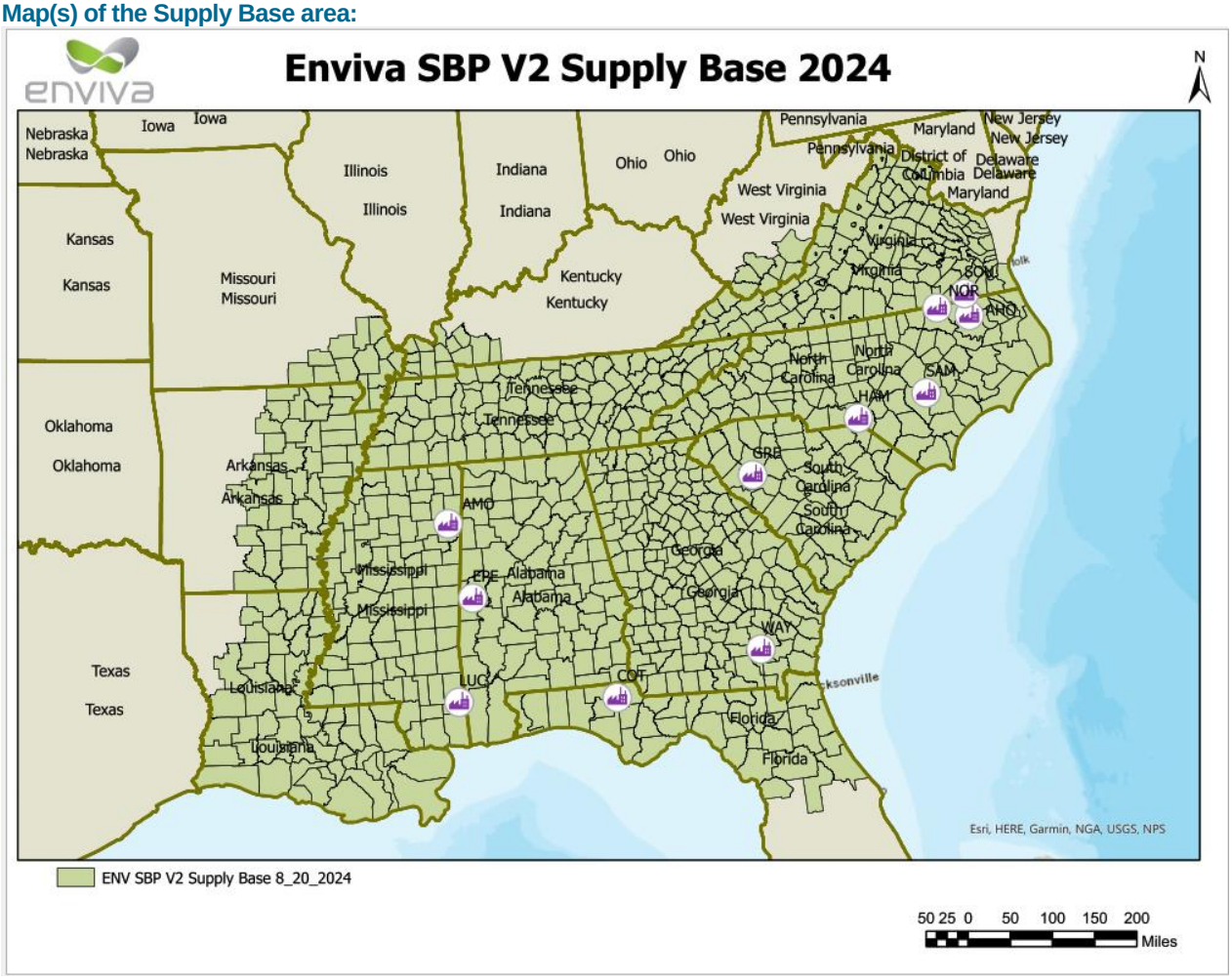
Guidance: Tables below have been generated automatically for each sourcing country based on the selection of 'Feedstock origin (countries)' in section 1 above.

Annex 1 is generated by the system if the SBP SBE is used without Regional Risk Assessment(s) (RRAs). In case RRA(s) is used, further details shall be given only in section 3 below.

Annex 2 is generated if RED II SBE is in the scope for each country separately.

Country	United States
Area/Region	Southeast, southcentral
Exclusions	None
Feedstock types	Primary, Processing residues
Feedstock Product Groups	Forest feedstock (1A), Processing residues feedstock (4A)
Feedstock inputs	SBP Compliant feedstock, SBP Controlled feedstock
Is the forest managed to supply energy and non-energy markets?	Yes - Majority
For the forests in the Supply Base, is there an intention to retain, restock or encourage natural regeneration within 5 years of felling?	Yes - Majority
Risk assessment(s)	Yes – Biomass Producer's own risk assessment used (SBE)
Provide a concise summary of why a SBE was determined to be required or not required here:	
Feedstock types included in SBE:	Primary, Processing residues
Includes RED II SBE:	Yes
Includes RED II TOF:	Yes
Size of Supply Base area (million ha):	117.22266

Map(s) of the Supply Base area:



2.3 Feedstock information

a. Total volume of Feedstock:

Total Feedstock Consumption (MT)

Enviva Mill	Total Feedstock
Ahoskie (AHO)	657,682.46
Amory (AMO)	186,298.40
Cottondale (COT)	1,240,454.64
Greenwood (GRE)	881,449.04
Hamlet (HAM)	909,017.54
Lucedale (LUC)	1,161,499.72
Northampton (NOR)	942,129.07
Sampson (SAM)	926,001.69
Southampton (SOU)	583,498.43
Waycross (WAY)	1,593,156.49
Total	**9,081,187.49**

b. Volume of primary feedstock:

Primary Feedstock (MT)

Enviva Mill	Primary Feedstock
Ahoskie (AHO)	490,037.42
Amory (AMO)	11,432.29
Cottondale (COT)	841,715.60
Greenwood (GRE)	686,645.17
Hamlet (HAM)	785,939.76
Lucedale (LUC)	686,723.19
Northampton (NOR)	772,227.05
Sampson (SAM)	889,479.47
Southampton (SOU)	553,012.14
Waycross (WAY)	1,073,917.75
Total	**6,791,129.84**

c. List of all the species in primary feedstock, including scientific name:

Pinus palustris (Longleaf pine); Pinus spp (Pine); Fagus spp (Beech); Fraxinus spp (Ash); Tilia americana (Basswood); Prunus serotina (Black cherry); Juglans spp (Walnut); Nyssa sylvatica (Blackgum); Aesculus spp (Buckeye); Populus deltoides (Eastern Cottonwood); Ulmus spp (Elm); Celtis occidentalis (Hackberry); Carya spp (Hickory); Robinia spp (Locust); Acer spp. (Maple); Quercus spp (Oak); Diospyros virginiana (Persimmon);

Morus rubra (Red mulberry); Betula spp (Birch); Sassafras albidum (Sassafras); Oxydendrum arboreum (Sourwood); Celtis laevigata (Sugarberry); Liquidambar styraciflua (Sweetgum); Platanus occidentalis (Sycamore); Liriodendron tulipifera (Yellow Poplar);

d. Was the feedstock used in the biomass removed from a forest as part of a pest/disease control measure or a salvage operation? Yes - Minority

Explanation: Enviva's sourcing area is within an area where Southern Pine Beetle (SPB) infestation is a known threat to pine stands. The recommended treatment for a stand infested with SPB is to perform salvage harvest and harvest ahead of the infestation point to slow movement of the pest, and at times wood from such harvest could come to Enviva. Extreme weather events such as hurricanes and tornadoes also take place with the Enviva supply base and salvage wood harvested from storm damaged stands can also be delivered to Enviva.

e. Hardwood (i.e. broadleaf trees): specify proportion of feedstock from (%):

Hardwood Feedstock %

Enviva Mill	Hardwood
Ahoskie	75%
Amory	49%
Cottondale	11%
Greenwood	32%
Hamlet	38%
Lucedale	1%
Northampton	68%
Sampson	63%
Southampton	36%
Waycross	10%
Overall	**32%**

f. Softwood (i.e. coniferous trees): specify proportion of feedstock from (%):

Softwood Feedstock %

Enviva Mill	Softwood
Ahoskie	25%
Amory	51%
Cottondale	89%
Greenwood	68%
Hamlet	62%
Lucedale	99%
Northampton	32%
Sampson	37%
Southampton	64%
Waycross	90%
Overall	**68%**

g. Proportion of feedstock composed of or derived from saw logs by weight (%): 0%

h. Indicate how you determine the proportion of saw log: Specification used by the sawmill closest to where the wood was grown.

i. Roundwood from fellings from forests with > 40 yr rotation times - Average % volume of fellings delivered to BP (%):

Rotation Times >40

Mill	% > 40
Ahoskie	34%
Amory	0%
Cottondale	3%
Greenwood	14%
Hamlet	25%
Lucedale	3%
Northampton	30%
Sampson	34%
Southampton	15%
Waycross	10%
Total	**18%**

j. Select forest type(s) where the primary feedstock was sourced from: Mix of naturally regenerated forest and planted forest.

k. Select the main harvesting system(s) used for the sourced primary feedstock: Mix of Clearcut and thinning

l. Volume of primary feedstock from primary forest: 0 metric tons

m. Volume of processing residues feedstock:
Physical form of the feedstock:

Processing Residue Feedstock (MT)

Feedstock Forms: Dust, Sawmill Chips, Shavings, Trim Ends, Pins & Fines

Enviva Mill	Secondary Feedstock	Tertiary Feedstock
Ahoskie (AHO)	113,806.87	53,838.01
Amory (AMO)	97,017.93	77,848.18
Cottondale (COT)	215,101.84	183,637.20
Greenwood (GRE)	62,619.24	132,184.63
Hamlet (HAM)	107,239.33	15,838.45
Lucedale (LUC)	298,274.04	176,502.49
Northampton (NOR)	29,054.38	140,847.64
Sampson (SAM)	36,405.78	116.44
Southampton (SOU)	30,088.91	397.37
Waycross (WAY)	338,515.58	180,723.16
Total	**1,328,123.89**	**961,933.59**

n. Share of SBP-recognised system claim for processing residues: 0%

o. Volume of post-consumer feedstock: 0 metric tons
Physical form of the feedstock: N/A

p. Estimated amount of REDII-compliant sustainable feedstock that could be collected annually by the BP: 9,081,187 metric tons

q. What is the estimated amount of REDII-compliant sustainable feedstock that could be harvested annually in a Supply Base (estimated): 254,011,727 metric tons

Explanation: Based on information found in the National Council for Air and Stream Improvement Briefing Note 22-02 Trends in Forest Harvest, Regeneration, and Management in the Southeastern United States as Related to Biomass Feedstock. The estimate includes the states of Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina South Carolina, Tennessee, Texas and Virginia.

3 Supply Base Risk Assessments and Risk Management Measures

Guidance: Biomass Producers shall demonstrate that any specified risks of sourcing feedstock not in compliance with SBP Standard 1 have been adequately reduced to low risk, following Standard 2 requirements. Following section applies to Biomass Producer's implementing SBP Supply Base Evaluation (SBP RRA or company own risk assessment). RED II Supply Base Evaluation details are reported in Annex 2.

3.1Summary of the Supply Base Evaluation

Enviva determine the supply base area by incorporating all 10 of its operating mills supply base areas and adding in the Enviva Epes supply base area. A map of the combined supply base area can be found in section 2.2 of this report. Enviva conducted a SBE for all feedstocks, regardless of certification claim, to determine SBP compliance. Enviva used the process developed by SBP as outlined in SBP Standard 2: Verification of SBP-compliant Feedstock and developed a Risk Assessment process. Supply Base Verifiers were documented at the federal and state level. Then each indicator was evaluated through a Risk Evaluation Framework (REF)

- Federal and/or state laws and regulations proved sufficient to determine low risk. (REF1)
- If existing laws and/or regulations were not determined to be strong enough or did not exist then the indicator was supplemented/evaluated using credible third-party Information from organizations like the National Council for Air and Stream Improvement, United States Forest Service Forest Inventory Analysis, Southern Group of State Foresters, National Association of State Foresters, etc. (REF2)
- Documentation of regulatory agencies and enforcement agencies, implementation of forestry best management practices, etc. (REF3)
- Results from data monitoring, enforcement and other publicly available data. (REF4)

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. And lastly consulted the SBP Regional Risk Assessment for US Private Forests (SBP-RRA US) to verify alignment with the draft document.

Once risk was established Enviva developed a Risk Management Plan (RMP) detailing the Risk Management Measures (RMM) for the specified risk indicators based on the suggested guidance found in the SBP RRA US. Based on this work and local knowledge Enviva determined a rating of "low risk" for each indicator apart from 2.1.3, 2.2.1, and 2.2.2..

3.2 Conflicts with applicable national and sub-national legislation

No conflicts with federal or state laws and regulations.

3.3 Risk Management Measures

Guidance: Please provide more details about specified risk indicators in each supply country and describe mitigation measures taken to address all specified risks associated with indicators.

Country: United States	
Area/sub-scope: Southeast and eastern southcentral	
Risk Assessment used:	
	☐ British Columbia, Canada ☐ Denmark ☐ Estonia ☐ Latvia ☐ Lithuania ☐ Quebec, Canada X Biomass Producer's own risk assessment
Indicator with specified risk:	
2.1.3 Key species, habitats, ecosystems, and areas of high conservation value (HCV) pertaining to biodiversity in the Supply Base shall be maintained or enhanced.	
Description of the specific risk:	
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 and evaluate the risks due to feedstock sourcing, The areas of high conservation value described and mapped in the FSC US CWNRA 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. The supply base area overlaps the following areas of high conservation value. FSC US CWNRA areas and species within the Enviva supply base (descriptions in the Annex indicator) **Category 3 High Conservation Values** HCV 1 Species Diversity Critical Biodiversity Areas (CBA) • Central Appalachian Critical Biodiversity Area • Florida Panhandle Critical Biodiversity Area • Central Florida Critical Biodiversity Area • Southern Appalachian Critical Biodiversity Area • Cape Fear Critical Biodiversity Area Species • Cheoah Bald Salamander	

- Dusky Gopher Frog
- Patch-nosed Salamander

HCV 3 High Conservation Values
- Late Successional Bottomland Hardwoods
- Native Longleaf Pine Systems
- Mesophytic Cove Sites

Beyond the FSC CWNRA findings Sustainable Forestry Initiative certificate holders are required to consider G1 & G2 species. Federal and state laws vary in recognition of key species, habitats, ecosystems, and areas of high conservation value (HCV) pertaining to biodiversity. Application of these laws vary. For instance, the federal Threatened and Endangered Species Act applies to both public and private lands. Though evaluation and protect/enhancement of G1/S1 & G2/S2 species and habitats are voluntary. Additional publicly available information was used to identify the gaps.

Specific Risks for Category 3 High Conservation Values HCV 1 Species Diversity

Central Appalachian Critical Biodiversity Area
Mixed Mesophytic Forests - Historically, forest management activities threatened and had significant negative impacts on the Mixed Mesophytic Forests of this CBA and there are lasting impacts from these activities today. Currently, however, widespread threats from forest management activities are not identified. Instead, the priority threats to the forests as a whole include: climate change, pollution from mining, new highways and utility rights-of-way, ORV recreation and overpopulation of deer.

Aquatic Habitats - In addition to threats associated with agriculture, development, and mining, the following threats were associated with forest management**:** Hydrologic alteration partially due to forestry practices and conversion from hardwood forests to non-native planted pine (which may include ditching as a practice in wetter areas), reduced water quality partially due to loss of near-stream forested habitat and sedimentation associated with forestry.

Florida Panhandle Critical Biodiversity Area
Apalachicola Bay/River System: Threats to this aquatic system are varied and include persistent drought resulting in reduced flow level, loss of floodplain and wetland habitat due to reduced flow levels, point and non-point source pollution (including sediments from forestry operations due to insufficient ground cover and inadequate buffers), unrestrained growth and development. FSC® US NRA Specified Risk Fact Sheet the Apalachicola River and Bay Surface Water Improvement and Management Plan identifies implementation of silvicultural Best Management Practices (BMPs) as a significant component of one of its priority projects.

Longleaf Pine Savanna: Biodiversity values can be adversely affected by forest management activities via conversion of longleaf to other pine types, and the use management techniques, including herbicide application that have the potential to inhibit native understory communities. As the bulk of the biodiversity exists in the understory of a longleaf pine system, restoration or maintenance of understory species composition is an essential component of longleaf pine conservation. Other threats include fire-suppression, urban development, fragmentation, nonnative species, and climate change. It is possible to harvest in and sustainably manage longleaf pine systems and therefore timber management by itself is not considered a threat.

Steephead Ravines: Reported threats include altered hydrologic regimes, conversion to other land uses, fire suppression. Forestry practices were identified as a low source of stress to the habitat in the Florida Wildlife Action Plan.

Central Florida Critical Biodiversity Area
Reported threats to Pine flatwoods include **c**onversion to agriculture and pine plantations, non-native species (including invasion by melaleuca if logged and over drained), hydrologic alteration, substrate disturbance (Wiregrass may not withstand

disturbance associated with planting pine), alteration of fire regimes, and recreational damage. Forestry practices were identified as a high source of stress to the natural pineland habitat in the Florida Wildlife Action Plan, in association with the following stresses which all had high ranks for the habitat: altered fire regime, altered hydrologic regime, habitat destruction or conversion, altered community structure, altered species composition/dominance, and fragmentation of habitats, communities, ecosystems**.**

Southern Appalachian Critical Biodiversity Area
Aquatic Habitats – Conservation actions that are needed for protection include: minimize nonpoint source pollution in waterways, including from silvicultural sources; minimize disturbance to riparian zones, including from forestry, and minimize or better manage use of fertilizers, herbicides and pesticides near aquatic habitats (and forest practices were identified as a source for this threat). Implementation of forestry Best Management Practices (BMPs) are specifically mentioned as methods for achieving these actions.

Glades – Threats include grazing, non-native species, quarrying, root-digging, plant and animal collecting, removal of large rocks for landscaping, urban development, plowing for fire breaks, use as logging decks (resulting in soil/vegetation disturbance and soil erosion), conversion to other land uses, and ORV damage. No threats from forest management activities were identified.

Montane Longleaf Pine – Biodiversity values can be adversely affected by forest management activities via conversion of longleaf to other pine types, and the use management techniques, including herbicide application that have the potential to inhibit native understory communities. As the bulk of the biodiversity exists in the understory of a longleaf pine system, restoration or maintenance of understory species composition is an essential component of longleaf pine conservation. It is possible to harvest in and sustainably manage longleaf pine systems and therefore timber management by itself is not considered a threat. Other threats include fire-suppression, urban development, forest conversion, non-native species, climate change.

Cape Fear Arch Critical Biodiversity Area
Pocosins: When the canopy has been completely removed through timber harvest, pocosins often do not regenerate. An associated threat from forest management is the conversion of native pine to planted pine and resulting loss of biodiversity, particularly if associated with changes in hydrology due to ditching. Other threats include hydraulic alteration, conversion to agriculture, road construction, and sand quarrying, habitat fragmentation, introduction of non-native species, climate change and fire suppression.

Longleaf Pine: Biodiversity values can be adversely affected by forest management activities via conversion of longleaf to other pine types, and the use management techniques, including herbicide application that have the potential to inhibit native understory communities. As the bulk of the biodiversity exists in the understory of a longleaf pine system, restoration or maintenance of understory species composition is an essential component of longleaf pine conservation. It is possible to harvest in and sustainably manage longleaf pine systems and therefore timber management by itself is not considered a threat. Other threats include fire-suppression, urban development, fragmentation, nonnative species, intensive pine straw raking, and climate change.

Cheoah Bald Salamander
G1G2; S1S2 (North Carolina); Forest & woodland habitats; Clear cutting is a major threat to local populations. Some populations have been found in second growth forests, providing evidence that they are able to re-populate after harvest, but literature suggests it takes decades and with so few known populations extant, that kind of disruption could have a significant effect on the species as a whole. The 1994 Amendment to the Nantahala National Forest Plan included new definitions of management areas that provide an indication of whether timber management will likely occur. The Cheoah Bald area is located within management areas that at this time either do not allow timber management or are identified as being likely unsuitable for timber management. However, as the species' range is not yet fully delineated, it is not possible to know whether all or most of the range occurs within these management areas.

Dusky Gopher Frog
The Dusky Gopher Frog depends on woodlands, forested wetlands and riparian habitats. The major threats to the species include population isolation, urbanization, disease, and a lack of suitable habitat. Habitat degradation is a significant factor, driven by multiple sources including, changes in forest type from longleaf FSC® US NRA Specified Risk Fact Sheet pine to other forest types, forest degradation caused by grazing and the disruption of the natural fire regime, and land management practices that alter the soil horizon, forest litter, herbaceous community, and the occurrence of down woody debris. Timber site prep and other forestry practices that alter temporary wetlands can damage breeding areas.

Patch-nosed Salamander
G1; S1 (Georgia); Riparian habitat; Little is known about this species and specific threats have not yet been documented. However, any factor that would disrupt water flow, canopy cover, or leaf-litter layer would likely impact the species. As all of these can potentially be affected by forest management, a precautionary approach should be taken.

G1 (Critically Imperiled) & G2 (Imperiled)
Critically Imperiled – At very high risk of extinction or elimination due to very restricted range, very few populations or occurrences, very steep declines, very severe threats, or other factors.
Imperiled – At high risk of extinction or elimination due to restricted range, few populations or occurrences, steep declines, severe threats, or other factors.

NatureServe and state Natural Heritage Programs contain the most up to date information regarding G1 & G2 species. In the supply base area most of these species are associated with streams and other water features.

Mitigation measure:

Enviva's entire supply base for all primary and secondary sourcing has been compared to the areas of "specified risk" identified in the US CW NRA to determine the risk that are pertinent to our operations. Not all risk areas are equally impacted across the supply base. Appropriate mitigation levels have been determined by using a mitigation level matrix and considering the specific sourcing impacts of each Enviva facility. In cases where multiple facilities overlap specified risk areas, increased mitigation will be provided. Enviva sources secondary residual feedstocks that result in expanded supply bases that extend well beyond a traditional hauling radius. A detailed analysis of mitigation requirements has been developed for those sources.

Enviva is committed to only source wood from forest where High Conservation Values are not threatened by harvest activities as outlined in the Enviva Responsible Sourcing Policy. This policy is publicly available on the company website and is contained within the Master Wood Purchase Agreement (MWPA) signed by suppliers. Enviva has adopted the High Conservation Value Network Approach (HCVNA) to make sure HCV's not only persist in the landscape, but are enhanced over time. The HCVNA is a globally applicable approach that can be implemented on a variety of landscapes. This approach defines 6 HCV types, but only 4 are applicable to the southeast US.

HCV Network Approach HCV Types	Enviva HCV Policy Focus
1) Species Diversity	Imperiled Species (G1,G2,S1,S2)
2) Landscape Level Ecosystems	Not Applicable in the SE US
3) Ecosystems and Habits	Bottomland Hardwood, Longleaf Pine
4) Ecosystem Services	Water Quality, BMP's
5) Community Needs	Not Applicable in the SE US
6) Cultural Values	Native American Sacred Sites

HCV Type 2 (Landscape Level Ecosystems) applies to large and undisturbed landscapes similar to Intact Forest Landscapes as defined by the World Resources Institute (WRI). Any areas in the southeast US meeting this criteria are already under federal

protection. HCV Type 5 (Community Needs) describes forest that are solely relied upon for survival of indigenous people groups without assistance from outside resources, and those areas do not exist in the southeast US.

Mitigation measures for Category 3 High Conservation Values

To address mitigation of Category 3 High Conservation Values Enviva adopted the High Conservation Value Approach. HCVNA involves 3 steps: identification of the HCV, management of the species or ecosystem, and monitoring to verify the effectiveness of the management practices. For identification of HCV's, Enviva will utilize internally developed mapping data for critically imperiled/imperiled species (G1, G2, S1, and S2), the US Fish and Wildlife Service Wetlands Mapper for bottomland hardwood, Longleaf Pine mapping data from the Longleaf Alliance, and sacred site mapping provided by Earthworm. Management of identified HCV's within harvest areas will be on a case-by-case basis utilizing in-house forestry expertise. Monitoring will be conducted through inspections with the Longleaf Pine assessment plots reviewed by the Longleaf Alliance, and Enviva's BMP assessment process. Based upon monitoring results, management practices will be improved as needed.

After Commodity Managers have collected Track & Trace® data for the prospective harvest location, they will check the tract boundary in ArcGIS. All the mapped HCV data layers will be available in ArcGIS and the Commodity Manager will compare the harvest area with the map layers to see if overlap exist. If a stand overlaps an HCV Area, there are a series of due diligence workflows in place to guide harvest and management guidelines. Site visits, harvest options, and secondary triggers are all part of these workflows. The Bottomland Hardwood Workflow ultimately requires executive approval for harvest, but the other workflows do not since they are based on conservation community recommendations.

Outreach and Education

Enviva requires all primary suppliers to complete an online course titled Enviva Responsible Sourcing Guidance for Suppliers. The training covers Enviva's commitment to protecting HCV areas of concern – Enviva does not harvest or source from areas of special concern that we have identified in partnership with leading conservation organizations. We use a High Conservation Value (HCV) Network approach to determine and protect HCVs. All tracts are required to undergo a pre-delivery assessment for the presence of HCV features. Those tracts found to contain HCV features must pass through our HCV field assessment and approval process before fiber may be delivered to one of Enviva's facilities. HCVs are:

- Bottomland Hardwoods,
- Low Pocosins,
- Atlantic White Cedar,
- Carolina Bays,
- Cypress Tupelo swamps,
- Longleaf Pine,
- Imperiled Species,
- Cultural HCVs.

The goal of the HCV Network Approach is to identify areas of exceptional value and make sure those HCV's persist on the landscape over time and that they are maintained and / or enhanced by harvest operations.

- Best Management Practices – Suppliers must adhere to state BMPs. To comply with BMPs, Logger Training must be maintained in order to deliver to any Enviva facility. Enviva Procurement and Sustainability Foresters will conduct random site visits on a selection of active and non-active harvests to verify BMP compliance.
- Certification support – Enviva maintains multiple forestry certifications, including the Sustainable Forestry Initiative® (SFI), Forest Stewardship Council® (FSC), Programme for Forest Stewardship (PEFC), and the Sustainable Biomass Program (SBP).

Track & Trace – Track & Trace is a requirement to deliver primary volume to Enviva. Primary volume is considered to be inwoods volumes, including fuel only purchases from tracts. Track & Trace is not required for volumes from mills as residual secondary or tertiary sources, chip mills, wood yards, nor arboricultural volumes. CCommodity Managers are trained to understand what Enviva identifies as an HCV, how to evaluate a potential source tracts to determine if there is overlap of

potential HCV area and work with suppliers to avoid the HCV area or if harvesting can enhance the HCV then suggest management recommendations to do so.

Secondary and tertiary feedstock suppliers are evaluated through an in-person District of Origin audit. The audit confirms species used, procurement radius or counties, if the supplier has a sustainability policy, level of information collected from supplier regarding origin of wood, certification status, and other pertinent information to determine their understanding of their supply chain. Each mill is evaluated via mapping with known HCV areas. Each supplier is furnished with a map showing HCV overlap and appropriate HCV information.

Procurement Policy

Enviva's Master Wood Purchase Agreement clearly defines Enviva's procurement policies. Enviva requires all suppliers to sign a Master Wood Supply Agreement. The Agreement requires suppliers to abide by forest management activities regulations. Enviva uses contractual language in its Master Wood Purchase Agreement requiring suppliers to abide by all relevant laws and regulations and maintain a trained logger status. The contract includes the requirement to avoid the following unacceptable sources wood:

- Illegally harvested 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 nonforest 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.

Additionally, the document includes Enviva land use change policy clearly describing the company's desire to avoid feedstock produced from land use change tracts.

Implement Management Activities & Landowner Incentives

Enviva has been working with The Longleaf Alliance (TLA) to help restore Longleaf pine (LLP) to the southeast. The effort is multi-faceted.

- Landowner outreach through workshops
- Direct payment for Longleaf pine restoration plans through The Longleaf Alliance partner the Sandhill Prescribed Burn Association (SPBA)
- Documenting the restoration of Longleaf pine through feedstock purchasing from tracts that historically where but planted in a different species and the landowner wishes to convert the forest back to Longleaf
- Provide seedings each year to assist landowners in meeting their LLP objectives

BMP Monitoring

Enviva conducts field inspections including forestry BMPs at two stages. All inspections are scored and the score used to identify poor performers or areas where a supplier could improve

- Ongoing site inspection – to engage with suppliers while on-site to prevent potential BMP infractions
- Post-harvest site inspections – to ensure Enviva agrees the harvest site was properly closed out

Monitoring and outcomes:

Outreach and Education

a. Ensure Enviva primary suppliers complete and sign annual supplier education materials
b. Ensure Enviva Commodity Managers and Stumpage staff understand and sign annual education materials
c. Ensure forestry BMPs are properly applied through field inspections
d. Ensure secondary and tertiary suppliers complete their DOO audit and conform to Enviva's HCV policy

Procurement Policy

a. Ensure suppliers have signed an MWPA or similar document demonstrating they understand the procurement policy details pertaining to HCVs, BMPs and/or Track & Trace/DOO as appropriate
b. Monitor via tract set up, remote sensing, and field inspections
c. Monitor supplier trained logger status

Implement Management Activities & Landowner Incentives

e. Continue working with TLA to
    i. Hold landowner workshops
    ii. Track the number of landowners receiving LLP restoration plans through the SPBA
    iii. Track the conversion of other pine forest types to LLP
    iv. Provide LLP seedlings to landowners assisting them in meeting their LLP restoration objectives

BMP Monitoring

a. Ensure Commodity Managers and stumpage staff complete the necessary field inspections
b. Where necessary work with suppliers to improve their BMP score

Country: United States	
Area/sub-scope: Southeast and eastern southcentral	
Risk Assessment used:	
	☐ British Columbia, Canada ☐ Denmark ☐ Estonia ☐ Latvia ☐ Lithuania ☐ Quebec, Canada X Biomass Producer's own risk assessment
Indicator with specified risk:	
2.2.1 Feedstock shall not be sourced from land that had one of the following statuses in January 2008 and no longer has that status due to land conversion: a. Forests b. Wetlands c. Peatlands d. Highly biodiverse grasslands.	
Description of the specific risk:	
As described in Annex 1 Enviva focused on forest conversion since there is adequate protection for wetlands and peatlands vis the Clean Water Act. Enviva does not source from highly biodiverse grasslands so it is excluded in the RMP. Conversion: The FSC US CWNRA definition of conversion does not align with the SBP focusing on population growth and the issuance of building permits; focusing on urban development. 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. FSC identified 46 counties within the Enviva supply base are at risk of conversion due to urban development The SBP definition for conversion is much broader, "The process of changing or causing to change from one form to another". Though we recognize the identification of counties conducted under the FSC process, Enviva's approach is more stringent, we avoid harvests where the forest will not be regenerated into a new forest. There are not laws in states included in the supply base assessment prohibiting a landowner from converting a forest to another land use. Some local zoning laws and regulations may have a small local impact.	

Enviva requested the National Council for Air and Stream Improvement to conduct a resource analysis of the supply base area. From 2010 to 2020 the report indicates a -1% reduction in forestland area. Similar results are included the SBP RRA US draft citing a -1% reduction in timberland. Though the potential for conversion of forest is low Enviva is aware of conversion in its supply base area.

Personal property rights allow the owner to enjoy their property including the right to convert it to another use. Transfer of property through sale may find the next owner with differing opinions on what to do with the property.

Mitigation measure:

Enviva requires all primary suppliers to complete an online course titled Enviva Responsible Sourcing Guidance for Suppliers. The training covers Enviva's commitment to avoiding Land Use Change. Enviva will not knowingly accept wood from land use change (LUC) / conversion sources. Suppliers are required to confirm with the landowner that they intend to keep their tract forested after harvest, for every tract sourced for Enviva.

Commodity Managers are trained to understand what Enviva identifies as land use change, how to evaluate a potential source tract to determine if there is overlap of potential HCV area and work with suppliers to avoid the HCV area or if harvesting can enhance the HCV then suggest management recommendations to do so.

Secondary and tertiary feedstock suppliers are evaluated through an in-person District of Origin audit. The audit confirms species used, procurement radius or counties, if the supplier has a sustainability policy, level of information collected from supplier regarding origin of wood, certification status, and other pertinent information to determine their understanding of their supply chain including the likelihood for land use change and if they source land use change wood. If yes, we decline them as a supplier. If, through audit we determine the supplier was dishonest, according to Enviva Responsible Sourcing Policy, we can work with them to improve their performance or cease doing business with them.

Enviva's Master Wood Purchase Agreement clearly defines Enviva's procurement policies. Enviva requires all suppliers to sign a Master Wood Supply Agreement. The Agreement requires suppliers to abide by forest management activities regulations and maintain a trained logger status. Enviva uses contractual language in its Master Wood Purchase Agreement requiring suppliers to abide by all relevant laws and regulations. The contract includes the requirement to avoid the following unacceptable sources wood:

- Illegally harvested 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 nonforest 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.

Additionally, the document includes Enviva land use change policy clearly describing the company's desire to avoid feedstock produced from land use change tracts

As part of Enviva's Responsible Sourcing Policy the company is a member of Keeping Forests. Keeping Forests is a non-profit striving to support landowners in their efforts to keep forest as forest. They do this by working with conservation leaders show how responsible forest management can lead to the long-term vitality of southern forest. Promote the use of forest products coming from southern forest and evaluates emerging markets that may compensate a landowner for benefits such as clean air and clean water that originates from their forest.

Monitoring and outcomes:

1. Ensure suppliers receive training covering the company's desire to avoid land use change to limit its potential.
2. Monitor supplier trained logger status

3. Field inspections – Commodity Managers and Sustainability Foresters complete field inspections for BMP use and visually ensure the tract does not have signs of future conversion to ensure we are sampling for it.
4. Regeneration monitoring – looking back 3 years remotely sense for land use change on tracts where Enviva sourced wood. Look for commonality in land ownership, suppliers or other data points Enviva can use to make better sourcing decisions.

Country: United States	
Area/sub-scope: Southeast and eastern south central	
Risk Assessment used:	
	☐ British Columbia, Canada ☐ Denmark ☐ Estonia ☐ Latvia ☐ Lithuania ☐ Quebec, Canada X Biomass Producer's own risk assessment
Indicator with specified risk:	
2.2.2 Ecosystems, their health, vitality, functions and services in the Supply Base shall be maintained or enhanced.	
Description of the specific risk:	

Enviva conducted a risk assessment of federal and state laws and regulations and determined there is a sufficient and enforced legal structure in place to ensure feedstock sourcing and Enviva operations comply. These laws address various components of the indicator requirements but do not completely ensure without a field verification process driven by a company's commitment to sustainability policies and enforcement of the same. For examples of laws/regulation please refer to Annex 1 indicators 2.1.1, 2.1.2 and 2.1.3.
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 and evaluate the risks due to feedstock sourcing,

The areas of high conservation value described and mapped in the FSC US CWNRA 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. The supply base area overlaps the following areas of high conservation value.

FSC US CWNRA areas and species within the Enviva supply base (descriptions in the Annex indicator)
Category 3 High Conservation Values
HCV 1 Species Diversity

- Critical Biodiversity Areas (CBA)
- Central Appalachian Critical Biodiversity Area
- Florida Panhandle Critical Biodiversity Area
- Central Florida Critical Biodiversity Area
- Southern Appalachian Critical Biodiversity Area
- Cape Fear Critical Biodiversity Area

Species

- Cheoah Bald Salamander
- Dusky Gopher Frog
- Patch-nosed Salamander

HCV 3 High Conservation Values

- Late Successional Bottomland Hardwoods
- Native Longleaf Pine Systems
- Mesophytic Cove Sites

Beyond the FSC CWNRA findings Sustainable Forestry Initiative certificate holders are required to consider G1 & G2 species. Federal and state laws vary in recognition of key species, habitats, ecosystems, and areas of high conservation value (HCV) pertaining to biodiversity. Application of these laws vary. For instance, the federal Threatened and Endangered Species Act applies to both public and private lands. Though evaluation and protect/enhancement of G1/S1 & G2/S2 species and habitats are voluntary. Additional publicly available information was used to identify the gaps.

Specific Risks for Category 3 High Conservation Values HCV 1 Species Diversity
Central Appalachian Critical Biodiversity Area
Mixed Mesophytic Forests - Historically, forest management activities threatened and had significant negative impacts on the Mixed Mesophytic Forests of this CBA and there are lasting impacts from these activities today. Currently, however, widespread threats from forest management activities are not identified. Instead, the priority threats to the forests as a whole include: climate change, pollution from mining, new highways and utility rights-of-way, ORV recreation and overpopulation of deer.

Aquatic Habitats - In addition to threats associated with agriculture, development, and mining, the following threats were associated with forest management: Hydrologic alteration partially due to forestry practices and conversion from hardwood forests to non-native planted pine (which may include ditching as a practice in wetter areas), reduced water quality partially due to loss of near-stream forested habitat and sedimentation associated with forestry.

Florida Panhandle Critical Biodiversity Area
Apalachicola Bay/River System: Threats to this aquatic system are varied and include persistent drought resulting in reduced flow level, loss of floodplain and wetland habitat due to reduced flow levels, point and non-point source pollution (including sediments from forestry operations due to insufficient ground cover and inadequate buffers), unrestrained growth and development. FSC® US NRA Specified Risk Fact Sheet the Apalachicola River and Bay Surface Water Improvement and Management Plan identifies implementation of silvicultural Best Management Practices (BMPs) as a significant component of one of its priority projects.

Longleaf Pine Savanna: Biodiversity values can be adversely affected by forest management activities via conversion of longleaf to other pine types, and the use management techniques, including herbicide application that have the potential to inhibit native understory communities. As the bulk of the biodiversity exists in the understory of a longleaf pine system, restoration or maintenance of understory species composition is an essential component of longleaf pine conservation. Other threats include fire-suppression, urban development, fragmentation, nonnative species, and climate change. It is possible to harvest in and sustainably manage longleaf pine systems and therefore timber management by itself is not considered a threat.

Steephead Ravines: Reported threats include altered hydrologic regimes, conversion to other land uses, fire suppression. Forestry practices were identified as a low source of stress to the habitat in the Florida Wildlife Action Plan.

Central Florida Critical Biodiversity Area
Reported threats to Pine flatwoods include conversion to agriculture and pine plantations, non-native species (including invasion by melaleuca if logged and over drained), hydrologic alteration, substrate disturbance (Wiregrass may not withstand disturbance associated with planting pine), alteration of fire regimes, and recreational damage. Forestry practices were identified as a high source of stress to the natural pineland habitat in the Florida Wildlife

Action Plan, in association with the following stresses which all had high ranks for the habitat: altered fire regime, altered hydrologic regime, habitat destruction or conversion, altered community structure, altered species composition/dominance, and fragmentation of habitats, communities, ecosystems.

Southern Appalachian Critical Biodiversity Area
Aquatic Habitats – Conservation actions that are needed for protection include: minimize nonpoint source pollution in waterways, including from silvicultural sources; minimize disturbance to riparian zones, including from forestry, and minimize or better manage use of fertilizers, herbicides and pesticides near aquatic habitats (and forest practices were identified as a source for this threat). Implementation of forestry Best Management Practices (BMPs) are specifically mentioned as methods for achieving these actions.

Glades – Threats include grazing, non-native species, quarrying, root-digging, plant and animal collecting, removal of large rocks for landscaping, urban development, plowing for fire breaks, use as logging decks (resulting in soil/vegetation disturbance and soil erosion), conversion to other land uses, and ORV damage. No threats from forest management activities were identified.

Montane Longleaf Pine – Biodiversity values can be adversely affected by forest management activities via conversion of longleaf to other pine types, and the use management techniques, including herbicide application that have the potential to inhibit native understory communities. As the bulk of the biodiversity exists in the understory of a longleaf pine system, restoration or maintenance of understory species composition is an essential component of longleaf pine conservation. It is possible to harvest in and sustainably manage longleaf pine systems and therefore timber management by itself is not considered a threat. Other threats include fire-suppression, urban development, forest conversion, non-native species, climate change.

Cape Fear Arch Critical Biodiversity Area
Pocosins: When the canopy has been completely removed through timber harvest, pocosins often do not regenerate. An associated threat from forest management is the conversion of native pine to planted pine and resulting loss of biodiversity, particularly if associated with changes in hydrology due to ditching. Other threats include hydraulic alteration, conversion to agriculture, road construction, and sand quarrying, habitat fragmentation, introduction of non-native species, climate change and fire suppression.

Longleaf Pine: Biodiversity values can be adversely affected by forest management activities via conversion of longleaf to other pine types, and the use management techniques, including herbicide application that have the potential to inhibit native understory communities. As the bulk of the biodiversity exists in the understory of a longleaf pine system, restoration or maintenance of understory species composition is an essential component of longleaf pine conservation. It is possible to harvest in and sustainably manage longleaf pine systems and therefore timber management by itself is not considered a threat. Other threats include fire-suppression, urban development, fragmentation, nonnative species, intensive pine straw raking, and climate change.

Cheoah Bald Salamander
G1G2; S1S2 (North Carolina); Forest & woodland habitats; Clear cutting is a major threat to local populations. Some populations have been found in second growth forests, providing evidence that they are able to re-populate after harvest, but literature suggests it takes decades and with so few known populations extant, that kind of disruption could have a significant effect on the species as a whole. The 1994 Amendment to the Nantahala National Forest Plan included new definitions of management areas that provide an indication of whether timber management will likely occur. The Cheoah Bald area is located within management areas that at this time either do not allow timber management or are identified as being likely unsuitable for timber management. However, as the species' range is not yet fully delineated, it is not possible to know whether all or most of the range occurs within these management areas.

Dusky Gopher Frog
The Dusky Gopher Frog depends on woodlands, forested wetlands and riparian habitats. The major threats to the species include population isolation, urbanization, disease, and a lack of suitable habitat. Habitat degradation is a significant factor, driven by multiple sources including, changes in forest type from longleaf FSC® US NRA Specified Risk Fact Sheet pine to other forest types, forest degradation caused by grazing and the disruption of the natural fire regime, and land management practices that alter the soil horizon, forest litter, herbaceous community, and the occurrence of down woody debris. Timber site prep and other forestry practices that alter temporary wetlands can damage breeding areas.

Patch-nosed Salamander
G1; S1 (Georgia); Riparian habitat; Little is known about this species and specific threats have not yet been documented. However, any factor that would disrupt water flow, canopy cover, or leaf-litter layer would likely impact the species. As all of these can potentially be affected by forest management, a precautionary approach should be taken.

G1 (Critically Imperilled) & G2 (Imperilled)

- Critically Imperilled – At very high risk of extinction or elimination due to very restricted range, very few populations or occurrences, very steep declines, very severe threats, or other factors.
- Imperilled – At high risk of extinction or elimination due to restricted range, few populations or occurrences, steep declines, severe threats, or other factors.

NatureServe and state Natural Heritage Programs contain the most up to date information regarding G1 & G2 species. In the supply base area most of these species are associated with streams and other water features.

Mitigation measure:

Enviva's entire supply base for all primary and secondary sourcing has been compared to the areas of "specified risk" identified in the US CW NRA to determine the risk that are pertinent to our operations. Not all risk areas are equally impacted across the supply base. Appropriate mitigation levels have been determined by using a mitigation level matrix and considering the specific sourcing impacts of each Enviva facility. In cases where multiple facilities overlap specified risk areas, increased mitigation will be provided. Enviva sources secondary residual feedstocks that result in expanded supply bases that extend well beyond a traditional hauling radius. A detailed analysis of mitigation requirements has been developed for those sources.

Enviva is committed to only source wood from forest where High Conservation Values are not threatened by harvest activities as outlined in the Enviva Responsible Sourcing Policy. This policy is publicly available on the company website and is contained within the Master Wood Purchase Agreement (MWPA) signed by suppliers. Enviva has adopted the High Conservation Value Network Approach (HCVNA) to make sure HCV's not only persist in the landscape, but are enhanced over time. The HCVNA is a globally applicable approach that can be implemented on a variety of landscapes. This approach defines 6 HCV types, but only 4 are applicable to the southeast US.

HCV Network Approach HCV Types	Enviva HCV Policy Focus
1) Species Diversity	Imperiled Species (G1,G2,S1,S2)
2) Landscape Level Ecosystems	Not Applicable in the SE US
3) Ecosystems and Habits	Bottomland Hardwood, Longleaf Pine
4) Ecosystem Services	Water Quality, BMP's
5) Community Needs	Not Applicable in the SE US
6) Cultural Values	Native American Sacred Sites

HCV Type 2 (Landscape Level Ecosystems) applies to large and undisturbed landscapes similar to Intact Forest Landscapes as defined by the World Resources Institute (WRI). Any areas in the southeast US meeting this criteria are already under federal

protection. HCV Type 5 (Community Needs) describes forest that are solely relied upon for survival of indigenous people groups without assistance from outside resources, and those areas do not exist in the southeast US.

Mitigation measures for Category 3 High Conservation Values

To address mitigation of Category 3 High Conservation Values Enviva adopted the High Conservation Value Approach. HCVNA involves 3 steps: identification of the HCV, management of the species or ecosystem, and monitoring to verify the effectiveness of the management practices. For identification of HCV's, Enviva will utilize internally developed mapping data for critically imperilled/imperilled species (G1, G2, S1, and S2), the US Fish and Wildlife Service Wetlands Mapper for bottomland hardwood, Longleaf Pine mapping data from the Longleaf Alliance, and sacred site mapping provided by Earthworm. Management of identified HCV's within harvest areas will be on a case-by-case basis utilizing in-house forestry expertise. Monitoring will be conducted through inspections of with the Longleaf Pine assessment plots reviewed by the Longleaf Alliance, and Enviva's BMP assessment process. Based upon monitoring results, management practices will be improved as needed.

After Commodity Managers have collected Track & Trace® data for the prospective harvest location, they will check the tract boundary in ArcGIS. All the mapped HCV data layers will be available in ArcGIS and the Commodity Manager will compare the harvest area with the map layers to see if overlap exist. If a stand overlaps an HCV Area, there are a series of due diligence workflows in place to guide harvest and management guidelines. Site visits, harvest options, and secondary triggers are all part of these workflows. The Bottomland Hardwood Workflow ultimately requires executive approval for harvest, but the other workflows do not since they are based on conservation community recommendations.

Outreach and Education

Enviva requires all primary suppliers to complete an online course titled Enviva Responsible Sourcing Guidance for Suppliers. The training covers Enviva's commitment to protecting HCV areas of concern – Enviva does not harvest or source from areas of special concern that we have identified in partnership with leading conservation organizations. We use a High Conservation Value (HCV) Network approach to determine and protect HCVs. All tracts are required to undergo a pre-delivery assessment for the presence of HCV features. Those tracts found to contain HCV features must pass through our HCV field assessment and approval process before fiber may be delivered to one of Enviva's facilities. HCVs are:

- Bottomland Hardwoods,
- Low Pocosins,
- Atlantic White Cedar,
- Carolina Bays,
- Cypress Tupelo swamps,
- Longleaf Pine,
- Imperiled Species ,
- Cultural HCVs.

The goal of the HCV Network Approach is to identify areas of exceptional value and make sure those HCV's persist on the landscape over time and that they are maintained and / or enhanced by harvest operations.

- Best Management Practices – Suppliers must adhere to state BMPs. To comply with BMPs, Logger Training must be maintained in order to deliver to any Enviva facility. Enviva Procurement and Sustainability Foresters will conduct random site visits on a selection of active and non-active harvests to verify BMP compliance.
- Certification support – Enviva maintains multiple forestry certifications, including the Sustainable Forestry Initiative® (SFI), Forest Stewardship Council® (FSC), Programme for Forest Stewardship (PEFC), and the Sustainable Biomass Program (SBP).
  Track & Trace – Track & Trace is a requirement to deliver primary volume to Enviva. Primary volume is considered to be inwoods volumes, including fuel only purchases from tracts. Track & Trace is not required for volumes from mills as residual secondary or tertiary sources, chip mills, wood yards, nor arboricultural volumes.

Commodity Managers are trained to understand what Enviva identifies as an HCV, how to evaluate a potential source tract to determine if there is overlap of potential HCV area and work with suppliers to avoid the HCV area or if harvesting can enhance the HCV then suggest management recommendations to do so.

Secondary and tertiary feedstock suppliers are evaluated through an in-person District of Origin audit. The audit confirms species used, procurement radius or counties, if the supplier has a sustainability policy, level of information collected from supplier regarding origin of wood, certification status, and other pertinent information to determine their understanding of their supply chain. Each mill is evaluated via mapping with known HCV areas. Each supplier is furnished with a map showing HCV overlap and appropriate HCV information.

Procurement Policy

Enviva's Master Wood Purchase Agreement clearly defines Enviva's procurement policies. Enviva requires all suppliers to sign a Master Wood Supply Agreement. The Agreement requires suppliers to abide by forest management activities regulations. Enviva uses contractual language in its Master Wood Purchase Agreement requiring supplier to abide by all relevant laws and regulations and maintain a trained logger status. The contract includes the requirement to avoid the following unacceptable sources wood:

- Illegally harvested 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 nonforest 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.

Additionally, the document includes Enviva land use change policy clearly describing the company's desire to avoid feedstock produced from land use change tracts

Implement Management Activities & Landowner Incentives

Enviva has been working with The Longleaf Alliance (TLA) to help restore Longleaf pine (LLP) to the southeast. The effort is multi-faceted.

- Landowner outreach through workshops
- Direct payment for Longleaf pine restoration plans through The Longleaf Alliance partner the Sandhill Prescribed Burn Association (SPBA)
- Documenting the restoration of Longleaf pine through feedstock purchasing from tracts that historically where but planted in a different species and the landowner wishes to convert the forest back to Longleaf
- Provide seedings each year to assist landowners in meeting their LLP objectives

BMP Monitoring

Enviva conducts field inspections including forestry BMPs at two stages. All inspections are scored and the score used to identify poor performers or areas where a supplier could improve

- Ongoing site inspection – to engage with suppliers while on-site to prevent potential BMP infractions
- Post-harvest site inspections – to ensure Enviva agrees the harvest site was properly closed out

Monitoring and outcomes:

Outreach and Education

a. Ensure Enviva primary suppliers complete and sign annual supplier education materials
b. Ensure Enviva Commodity Managers and Stumpage staff understand and sign annual education materials
c. Ensure forestry BMPs are properly applied through field inspections
d. Ensure secondary and tertiary suppliers complete their DOO audit and conform to Enviva's HCV policy

Procurement Policy

a. Ensure suppliers have signed an MWPA or similar document demonstrating they understand the procurement policy details pertaining to HCVs, BMPs and/or Track & Trace/DOO as appropriate
b. Monitor supplier trained logger status
c. Monitor via tract set up, remote sensing, and field inspections

Implement Management Activities & Landowner Incentives

e. Continue working with TLA to
    i. Hold landowner workshops
    ii. Track the number of landowners receiving LLP restoration plans through the SPBA
    iii. Track the conversion of other pine forest types to LLP
    iv. Provide LLP seedlings to landowners assisting them in meeting their LLP restoration objectives

BMP Monitoring

a. Ensure Commodity Managers and stumpage staff complete the necessary field inspections
b. Where necessary work with suppliers to improve their BMP score

4 Stakeholder engagement

4.1 General description

Biomass Producer's stakeholder engagement start date:

Biomass Producer's stakeholder engagement end date:

Total number of stakeholders contacted:

Give a general description of the process of Stakeholders Engagement, including stakeholders contacted, method of communication and a summary of the comments received:

Enviva is conducting its first stakeholder consultation to the new SBP Version 2 Standards. Participants are invited via email to review and commment on the results of the evalaution using a SurveyMonkey link. Please provide specific responses to indicators of your choosing and provide verifiable third-party information from credible sources to support you position.

4.2 Response to stakeholder comments

5 Report updates and approval

This document is: New Supply Base Report (Assessments/reassessments)

Summary of changes: N/A

Annex 1: Detailed findings for Supply Base Evaluation indicators

United States	Indicator
1.1.1	Operations related to feedstock sourcing and biomass production shall comply with all existing applicable laws and regulations.
Supply Base Verifiers	Enviva conducted a risk assessment of federal and state laws and regulations and determined there is a sufficient and enforced legal structure in place to ensure feedstock sourcing and Enviva operations comply. • Lacey Act • Worldwide Governance Indicators • Court records of civil and criminal cases related to forestry violations • US Environmental Protection Agency records • US Fish and Wildlife Service records • State Environmental Agencies Documentation • US Department of Labor enforcement records • Sustainable Forestry Initiative Certification Records • FSC US Controlled Wood National Risk Assessment (FSC US CWNRA) • SBP Regional Assessment for US Private Forests – Draft (SBP RRA US)
Risk Rating justification	FSC US CWNRA: 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. SBP RRA US Risk conclusion and justification Given well-established laws pertaining to illegal harvesting and trade, the strong record of enforcement, the conclusions of other, widely accepted analyses include the FSC US NRA, and direct feedback from stakeholders and experts, there is a well-supported conclusion of low or negligible risk that feedstock sourcing for biomass does complies with all relevant laws within the RRA's geography. According to the World Bank Worldwide Governance indicators the US consistently ranks high in Regulatory Quality and 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. Enviva operates within the confines of the US legal system including but not limited to environmental, social and employment laws and regulations. Third party audits of Enviva processes find the company to be in conformance. Enviva's 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 feedstock from suppliers with an established business relationship and a signed agreement. Enviva's Responsible Sourcing Policy publicly describes Enviva's commitment legal operations. SFI Fiber Sourcing Standard Objective 4 requires a certificate holder to comply with all applicable federal, provincial and local laws and regulations. The risk rating justification includes Trees Outside of Forests.
Risk Rating	Low Risk

United States	**Indicator**
1.1.2	Legal ownership of land and resource use rights shall be respected.
Supply Base Verifiers	Enviva conducted a risk assessment of federal and state laws and regulations and determined there is a sufficient and enforced legal structure in place to ensure feedstock sourcing and Enviva operations comply. Some examples United States — US Consititution Fifth Amendment - Private ownership Alabama — Code Title 35 Property Arkansas — Code Title 18 Property Florida — Code XL- Real and Personal Property Georgia — Code Title 44 - Property Kentucky — Chapter 381 - Title to property and restrictions on use, ownership and alienation Louisiana — Statute Title 9 - Civil Code-Ancilliary Chapter 3 Louisiana Militatry Powers of Attorney Mississippi — Code Title 89 Real and Personal Property Missouri — Statute Title XXIX Ownership and Conveyance or Property North Carolina — Statute Chapter 47B Real Property Marketabe Title Act South Carolina — Code Title 27 Property and Conveyances Tennessee — Code Title 66 Property Virginia — Code Title 55.1 Property and Conveyances West Virginia — Code Chapter 37 Real Property • Worldwide Governance Indicators • FSC US Controlled Wood National Risk Assessment (FSC US CWNRA) • SBP Regional Assessment for US Private Forests – Draft (SBP RRA US)
Risk Rating justification	The Fifth Amendment of the US constitution states no person shall be deprived of property without due process of law establishing the five basic property rights; to hold, control, use, dispose of and exclude others from their property. FSC US CWNRA: 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. An American Hardwood Export Council Report

	(2019) determined the same as FSC US CWNRA meaning a low risk for illegality of source including violations of tenure rights SBP RRA US Given well-established laws pertaining to land use and resource rights, strong track record of enforcement, the conclusions of other, widely accepted analyses including the FSC US NRA and the AHEC 2019 study, and direct feedback from stakeholders and experts, there is a well-supported conclusion of low risk that legal ownership of land and resource use rights are not respected within the RRA's geography. According to the World Bank Worldwide Governance indicators the US consistently ranks high in Regulatory Quality and 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. Additional evidence Enviva Responsible Sourcing Policy, Section 2 Respect for Human Rights "Enviva has a strong commitment to ethical business practices and is committed to treating people with dignity, respect, and equal opportunity. We expect the same commitment from our suppliers. All suppliers are required to comply with our expectations regarding human rights and labor, health and safety, and business conduct and ethics. In keeping with our supply-chain sustainability certifications, Enviva holds our suppliers accountable to the International Labour Organization Declaration on Fundamental Principles and Rights at Work and the United Nations Declaration on the Rights of Indigenous Peoples. Enviva also respects the rights of Indigenous Peoples and communities to the ownership and control of their titled or customary lands, including their right to give or withhold their free, prior and informed consent (FPIC) to proposed developments on their lands." Enviva's Master Wood Purchase Agreements contain recitals 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 feedstock from suppliers with 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. The risk rating justification includes Trees Outside of Forests.
Risk Rating	Low risk

United States	Indicator
1.1.3	Feedstock shall be legally harvested, supplied and produced, including in compliance with CITES, EUTR and other applicable legal trade requirements.
Supply Base Verifiers	Enviva conducted a risk assessment of federal and state laws and regulations and determined there is a sufficient and enforced legal structure in place to ensure feedstock sourcing and Enviva operations comply. • Lacey Act • Convention on International Trade in Endangered Species

	• Federal Laws • State Forestry Laws • FSC US Controlled Wood National Risk Assessment (FSC US CWNRA) • SBP Regional Assessment for US Private Forests – Draft (SBP RRA US)
Risk Rating justification	FSC US CWNRA 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." 1.4 Harvesting permits – "Corruption associated with timber sales and harvesting permits in the US is generally not an issue." 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. 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. 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. Some additional sources of evidence include: • https://www.aphis.usda.gov/sites/default/files/2023-annual-report-laceyact.pdf – USDA 2023 Annual Report The Lacey Act: Combating the Illegal Trade of Protected Plant Species • www.transparency.org – ranks the United States 24th on its Corruption Perceptions Index 2023 out of the 180 countries indicating a low risk of corruption. SBP RRA US Given well-established laws pertaining to legally harvested, supplied, and produced feedstock, a strong track record of enforcement, and the conclusions of other, widely accepted analyses, along with direct feedback from stakeholders and experts, there is a well-supported conclusion of low risk that feedstock sourcing for biomass does not comply with all applicable trade regulations within the RRA's geography. Additional evidence Enviva's Responsible Sourcing Policy publicly describes Enviva's commitment to avoid illegal sources of wood. "Enviva's employees, suppliers, and subcontractors comply with all applicable federal, state, and local laws and regulations, including those pertaining to harvesting and exporting, environmental standards, and employment conditions. All Enviva contracts with suppliers require that wood is legally logged. At Enviva, we understand that legality is only a first step to ensure responsible harvesting; therefore, we have additional policy criteria that go above and beyond legal requirements." The risk rating justification includes Trees Outside of Forests.
Risk Rating	Low risk

United States	Indicator
1.1.4	Payments for harvest rights and feedstock, including duties, relevant royalties and taxes related to timber harvesting shall be complete and up-to-date.
Supply Base Verifiers	Enviva conducted a risk assessment of federal and state laws and regulations and determined there is a sufficient and enforced legal structure in place to ensure feedstock sourcing and Enviva operations comply. Some examples United States — Federal Timber Tax Code Alabama — Code Title 9 Chapter 13 Article 4 Forest Products Priveledge and Severence Tax Arkansas — Code Title 26 Taxation Subtitle 5 State Taxes Chapter 58 Severance Tax Florida — Florida does not have a timber or timber products tax structure Georgia — Code Title 48 - Revenue and Taxation Kentucky — Kentucky does not have a timber or timber products tax structure Louisiana — Statute 47 Revenue and Taxation Chapter 6 Taxes on Natural Resources. Mississippi — Code Title 27 Taxation and Finance Article 1 Timber and Timber Products Missouri — Missouri does not have a timber or timber products tax structure North Carolina — Chapter 106 Article 84 Primary Forest Product Assessment Act South Carolina — Code title 48 Environmental Protection and Conservation Chapter 30 Primary Forest Product Assessment Tennessee — Tennessee does not have a timber or timber products tax structure Virginia — Code title 58.1 taxation Chapter 16 Forest Products Tax West Virginia — West Virginia does not have a timber or timber products tax structure • Federal and State Laws • Transparency International • World Bank Worldwide Governance Indicators • AHEC Legality Study • Sustainable Forestry Initiative Certification Records • FSC US Controlled Wood National Risk Assessment (FSC US CWNRA) • SBP Regional Assessment for US Private Forests – Draft (SBP RRA US)
Risk Rating justification	FSC US CWNRA indicators: 1.5 Payment of royalties and harvesting fees there is no evidence of efforts to avoid payment and determined a low-risk rating. 1.6 Value added taxes and other sales taxes finds a low risk of tax avoidance. 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. SBP RRA US Given well-established laws pertaining to payments for harvest rights and feedstock, strong track record of enforcement, and the conclusions of other, widely accepted analyses, along with direct feedback from stakeholders and experts, there is a well-supported conclusion of low risk that feedstock sourcing for biomass does not comply with all relevant laws within the RRA's geography, including those related to the payment of required duties, taxes and royalties. The Transparency International Coalition ranks the United States 24th on its Corruption Perceptions Index 2022 out of the 180 countries indicating a low risk of corruption. (2022 Corruption Perceptions Index: Explore the… - Transparency.org) AHEC Legality Study determined the region Enviva supply base area is located is a low risk for illegal activity. According to the World Bank Worldwide Governance indicators the US consistently ranks high in Regulatory Quality and 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. The Transparency International Coalition ranks the United States 24th on its Corruption Perceptions Index 2023 out of the 180 countries indicating a low risk of corruption. (2022 Corruption Perceptions Index: Explore the… - Transparency.org) Enviva's Responsible Sourcing Policy publicly describes Enviva's commitment to require suppliers to ensure all appropriate payments, fees and taxes are paid. "Enviva's employees, suppliers, and subcontractors comply with all applicable federal, state, and local laws and regulations, including those pertaining to harvesting and exporting, environmental standards, and employment conditions. All Enviva contracts with suppliers require that wood is legally logged. At Enviva, we understand that legality is only a first step to ensure responsible harvesting; therefore, we have additional policy criteria that go above and beyond legal requirements." Enviva requires all suppliers to sign a Master Wood Purchase Agreement. Master Wood Purchase Agreements contain language 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 feedstock from suppliers with whom it has an established business relationship and a signed agreement. Enviva uses contractual language in its Master Wood Purchase Agreement requiring suppliers to abide by all relevant laws and regulations, including payment of necessary taxes, royalties, etc. SFI Fiber Sourcing Standard Objective 4 requires a certificate holder to comply with all applicable federal, state, provincial, and local laws, and regulations. Performance Measure 4.1 requires program participants have methods to access relevant laws, systems to achieve compliance, and commitments to legal compliance. ENV-SFIS-01 Certified Sourcing Implementation Manual describes processes and internal documents Enviva uses to meet the Objective. 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. The risk rating justification includes Trees Outside of Forests.
Risk Rating	Low risk

United States	**Indicator**
1.1.5	There shall be adequate protection of the Supply Base from unauthorised and illegal activities, such as illegal logging, mining, and encroachment.
Supply Base Verifiers	Enviva conducted a risk assessment of federal and state laws and regulations and determined there is a sufficient and enforced legal structure in place to ensure feedstock sourcing and Enviva operations comply. Some federal laws.

	General Mining Act of 1872 Surface Mining Control and Reclaimation Act of 1977 2021 US Code Title 43 - Public Lands Chapter 35 - Federal Land Policy and Management Sections 1701 - 1787 2021 US Code Title 25 - Indians Chapter 23 - Development of Tribal Mineral Resources CFR Title 30 Mineral Lands and Mining Lacey Act A listing of state laws would be extensive. • Federal and State Laws • Transparency International • AHEC Legality Study • World Bank Worldwide Governance Indicators • FSC US Controlled Wood National Risk Assessment (FSC US CWNRA) • SBP Regional Assessment for US Private Forests – Draft (SBP RRA US)
Risk Rating justification	FSC US CWNRA Controlled Wood Category 1 Illegally Harvested Wood is well documented and concludes that illegal logging in the US is a low risk. SBP Principle 1 Biomass feedstock is legally sourced covers this indicator as well. SBP RRA US Evidence and legal structures support that there is a low risk of the supply base from unauthorized and illegal activities such as illegal logging, mining, and encroachment. According to the World Bank Worldwide Governance indicators the US consistently ranks high in Regulatory Quality and 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. AHEC Legality Study determined the region Enviva supply base area is located is a low risk for illegal activity. The Transparency International Coalition ranks the United States 24th on its Corruption Perceptions Index 2023 out of the 180 countries indicating a low risk of corruption. (2022 Corruption Perceptions Index: Explore the… - Transparency.org) Additional evidence: Primary feedstock Enviva maintains a robust tracking and monitoring program to ensure that all our suppliers deliver wood that is sourced according to our expectations including legally purchased and avoidance of conversion. The information Enviva collects for every tract its suppliers harvest includes data on the forest type, age, GPS coordinates, acreage, etc. Before agreeing to accept material from any 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. 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. Suppliers are asked if they are aware of illegal logging in their sourcing area as well as whether they purchase wood for conversion sources. 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.
Risk Rating	Low risk

United States	**Indicator**
2.1.1	Key species, habitats, ecosystems, and areas of high conservation value (HCV) pertaining to biodiversity in the Supply Base shall be identified.
Supply Base Verifiers	Enviva conducted a risk assessment of federal and state laws and regulations and determined there is a sufficient and enforced legal structure in place to ensure feedstock sourcing and Enviva operations comply. Federal and state laws vary in recognition of key species, habitats, ecosystems, and areas of high conservation value (HCV) pertaining to biodiversity. Additional publicly available information was used to close the gaps Some examples below United States — 2021 US Code Title 16 Conservation Alabama — Code Title 9 Conservation and Natural Resources Chapter 2 Department of Conservation and Natural Resources Article 1 General Provisions Section 9-2-7 Commissioner of Conservation and Natural Resources - Powers and Duties as to Game, Fish and Seafood Generally Arkansas — Code Title 15 Natural Resources and Economic Development Subtitle 4 Wildlife Resources Chapter 45 Wildlife Preservation Florida — Statute Title XXVIII Natural Resources; Conservation, Reclaimation and Use Chapter 379 Fish and Wildlife Conservation Georgia — Code Title 27 Game and Fish Chapter 3 Wildlife Generally Article 5 Protection of Endangered Wildlife Kentucky — Regulation Title 301 Tourism, Arts and Heritage Cabinet - Department of Fish and Wildlife Resources Chapter 3 Hunting and Fishing Section 301 KAS 3:061 Endangered species of fish and wildlife Louisiana — Statute Title 56 Wildlife and Conservation Chapter 8 Louisiana Natural Heritage Preservation Part IV Threatened and Endangered Species Conservation Part V Wildlife Habitat and Natural Heritage Trust Mississippi — Code Title 49 Conservation and Ecology Chapter 5 Fish, Game and Bird Protection Refuges Section 49-5-101 Missouri — 49-5-119 Nongame and Endangered Species, Section 49-5-141 - 49-5-157 Mississppi Natural Heritage North Carolina — Statute Chapter 113 Conservation and Development Article 25 Endangered and Threatened Wildlife abd Wildlife Species of Concern South Carolina — Regulation Chapter 123 Department of Natural Resources Article 5 Non-Game and Endangered Species Tennessee — Code Title 70 Wildlife Resources Chapter 8 Species Protection and Conservation Part 1 Nongame and Endangered Species, Part 3 Rare Plant Protection and Conservation Virginia — Code Title 3.2 Agriculture, Animal Care and Food Chapter 10 Endangered Plant and Insect Species, Title 29.1 Wildlife, Inland Fisheries and Boating Chapter 5 Wildlife and Fish Laws Article 6 Endangered Species West Virginia — Code Chapter 20 Natural Resources Article 2 Wildlife Resources Section 20-2-29 Conservation of Species and Request for Public Records • US Fish and Wildlife Service Critical Habitat Mapping • Endangered Species Act

	• FSC US Controlled Wood National Risk Assessment (FSC US CWNRA) • SBP Regional Assessment for US Private Forests – Draft (SBP RRA US)
Risk Rating justification	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 areas of high conservation value described and mapped in the FSC US CWNRA 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. FSC US CWNRA areas and species within the Enviva supply base 1. Central Appalachian CBA 2. Southern Appalachian CBA 3. Cape Fear Arch 4. Florida Panhandle CBA 5. Cheoah Bald Salamander 6. Dusky Gopher Frog 7. Patch-nosed Salamander 8. Mesophytic Cove Sites Specified Risk Area 9. Bottomland Hardwood Areas Specified Risk Area 10. Longleaf Pine Systems Specified Risk Area 11. Conversion Specified Risk Area Additional evidence In 2015 Enviva asked the US Endowment for Forestry and Communities to work with stakeholders to identify forest types of concern in the Enviva supply base area. The Endowment identified four. 1. Cypress-tupelo swamps 2. Carolina bays 3. Pocosins 4. Atlantic white cedar stands Enviva supplements the FSC and Endowment data sets with additional information found on the US Fish and Wildlife Service website. Enviva developed and has since enhanced work processes to ensure we agree harvesting would be acceptable for tracts suppliers offer as sources of wood. Annually Enviva trains on our primary and secondary on our use of the HCV Resource Network Approach and how it impacts our sourcing decisions, the company's commitment to avoid conversion of forests to other uses, our commitment to certification systems; SBP FSC, PEFC, SFI, tract set up processes and safety requirements at our mills. Suppliers sign off they read and understood our requirement. Contracts between Enviva and our suppliers also have clauses describing our expectations for certifications and sustainability polices. In 2020 Enviva entered an MOU with The Longleaf Alliance (TLA). Our work with TLA is helping to protect and restore Longleaf pine forests across the south and southeast. The program provides landowner education opportunities, support for Longleaf pine restoration plans written by a professional forester and funding for seedling to help small landowners offset the cost of restoration.

	Enviva adopted the High Conservation Value Resource Network Approach in sourcing activities using data available from NatureServe, state level natural heritage programs, Information from the US Fish and Wildlife Service Critical Habitat mapping tools. The information collected is used in an enterprise-wide GIS mapping program available to all procurement staff. 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 risk rating justification includes Trees Outside of Forests.
Risk Rating	Low risk

United States	**Indicator**
2.1.2	Threats to and impacts on the identified key species, habitats, ecosystems, and areas of high conservation value (HCV) pertaining to biodiversity in the Supply Base shall be identified and evaluated.
Supply Base Verifiers	Enviva conducted a risk assessment of federal and state laws and regulations and determined there is a sufficient and enforced legal structure in place to ensure feedstock sourcing and Enviva operations comply. Federal and state laws vary in recognition of key species, habitats, ecosystems, and areas of high conservation value (HCV) pertaining to biodiversity. Application of these laws vary. For instance, the federal Threatened and Endangered Species Act applies to both public and private lands. Though evaluation and protect/enhancement of G1/S1 & G2/S2 species and habitats are voluntary. Additional publicly available information was used to close the gaps. Each state has US Fish & Wildlife Service Ecological Field Services Offices that offer support with various federal acts related to conservation and protection. A quote from their website: "Our Services We provide national leadership in the conservation of coastal areas and wetlands; restoration of natural resources injured by hazardous substances; environmental reviews of federal projects; listing and recovery candidate, threatened, and endangered species; and management of decision support and mapping tools. Our Laws and Regulations We are responsible for implementing numerous laws, including the Endangered Species Act, Fish and Wildlife Coordination Act, National Environmental Policy Act, Clean Water Act, Coastal Barrier Resources Act, Federal Power Act, Marine Mammal Protection Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, and Sikes Act." • FSC US Controlled Wood National Risk Assessment (FSC US CWNRA) • SBP Regional Assessment for US Private Forests – Draft (SBP RRA US)
Risk Rating justification	FSC US CWNRA

	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 and evaluate the risks due to feedstock sourcing, The areas of high conservation value described and mapped in the FSC US CWNRA 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. FSC US CWNRA areas and species within the Enviva supply base **Florida Panhandle Critical Biodiversity Area:** The Florida Panhandle Critical Biodiversity Area is considered an HCV because it contains a high overall species richness, diversity, or uniqueness within a defined area compared to other sites within the same biogeographic area. The Florida Panhandle is reported to be one of the 5 richest biodiversity hotspots in North America. Of particular importance is the richness of frogs (27 species), snakes (42 species) and turtles (18 species). This concentration of biodiversity is driven by the river systems (particularly the Apalachicola River), longleaf pine savanna habitat and unique steephead ravines. Biodiversity richness is centered on the area where the Chattahoochee River meets the Flint River and forms the Apalachicola River. Historically longleaf pine savanna supported incredibly high species richness, with up to 150 species of plants per hectare. Longleaf pine habitats were historically maintained by fire and biodiversity values are driven in part by the resulting understory plant community. Steephead Ravines along the Apalachicola River system contain a wide diversity of species including rare, threatened, and endangered species, due largely to the variety of site conditions and microclimates. They also harbor the southernmost range of many northern species. **Indication of Risk:** • Apalachicola Bay/River System: Threats to this aquatic system are varied and include persistent drought resulting in reduced flow level, loss of floodplain and wetland habitat due to reduced flow levels, point and non-point source pollution (including sediments from forestry operations due to insufficient ground cover and inadequate buffers), unrestrained growth and development. FSC® US NRA Specified Risk Fact Sheet the Apalachicola River and Bay Surface Water Improvement and Management Plan identifies implementation of silvicultural Best Management Practices (BMPs) as a significant component of one of its priority projects. • Longleaf Pine Savanna: Biodiversity values can be adversely affected by forest management activities via conversion of longleaf to other pine types, and the use management techniques, including herbicide application that have the potential to inhibit native understory communities. As the bulk of the biodiversity exists in the understory of a longleaf pine system, restoration or maintenance of understory species composition is an essential component of longleaf pine conservation. Other threats include fire-suppression, urban development, fragmentation, nonnative species, and climate change. It is possible to harvest in and sustainably manage longleaf pine systems and therefore timber management by itself is not considered a threat. • Steephead Ravines: Reported threats include altered hydrologic regimes, conversion to other land uses, fire suppression. Forestry practices were identified as a low source of stress to the habitat in the Florida Wildlife Action Plan

	Central Florida Critical Biodiversity Area: The Central Florida Critical Biodiversity Area is considered an HCV because it contains a high overall species richness, diversity, or uniqueness within a defined area compared to other sites within the same biogeographic area. As in other areas of the southern US, native pine ecosystems are an important driver for biodiversity in this CBA. Pine flatwoods in Central Florida are associated with drier uplands/sandhills that provide a range of biodiversity values. Longleaf pine is the dominant tree species in pine flatwoods, however as with other longleaf pine systems, the native plant diversity is one of the most significant components of the overall biodiversity. **Indication of Risk:** Reported threats to Pine flatwoods include conversion to agriculture and pine plantations, non-native species (including invasion by melaleuca if logged and over drained), hydrologic alteration, substrate disturbance (Wiregrass may not withstand disturbance associated with planting pine), alteration of fire regimes, and recreational damage. Forestry practices were identified as a high source of stress to the natural pineland habitat in the Florida Wildlife Action Plan, in association with the following stresses which all had high ranks for the habitat: altered fire regime, altered hydrologic regime, habitat destruction or conversion, altered community structure, altered species composition/dominance, and fragmentation of habitats, communities, ecosystems. **Central Appalachian Critical Biodiversity Area:** 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. **Indication of Risk:** • Mixed Mesophytic Forests - Historically, forest management activities threatened and had significant negative impacts on the Mixed Mesophytic Forests of this CBA and there are lasting impacts from these activities today. Currently, however, widespread threats from forest management activities are not identified. Instead, the priority threats to the forests as a whole include: climate change, pollution from mining, new highways and utility rights-of-way, ORV recreation and overpopulation of deer. • Aquatic Habitats - In addition to threats associated with agriculture, development, and mining, the following threats were associated with forest management: Hydrologic alteration partially due to forestry practices and conversion from hardwood forests to non-native planted pine (which may include ditching as a practice in wetter areas), reduced water quality partially due to loss of near-stream forested habitat and sedimentation associated with forestry **Southern Appalachian Critical Biodiversity Area:** The biodiversity area has great aquatic diversity, glades and montane longleaf pine habitats. Forest management activities such as improper or poorly implemented forest best management practices, herbicide use and conversion of longleaf to other pine types can negatively impact the area. **Indication of Risk:** • Aquatic Habitats – Conservation actions that are needed for protection include: minimize nonpoint source pollution in waterways, including from silvicultural sources; minimize disturbance to riparian zones, including from forestry, and minimize or better manage use of fertilizers, herbicides and pesticides near aquatic habitats (and forest practices were identified as a source for this threat). Implementation of forestry Best Management Practices (BMPs) are specifically mentioned as methods for achieving these actions. • Glades – Threats include grazing, non-native species, quarrying, root-digging, plant and animal collecting, removal of large rocks for landscaping, urban

development, plowing for fire breaks, use as logging decks (resulting in soil/vegetation disturbance and soil erosion), conversion to other land uses, and ORV damage. No threats from forest management activities were identified.

- Montane Longleaf Pine – Biodiversity values can be adversely affected by forest management activities via conversion of longleaf to other pine types, and the use management techniques, including herbicide application that have the potential to inhibit native understory communities. As the bulk of the biodiversity exists in the understory of a longleaf pine system, restoration or maintenance of understory species composition is an essential component of longleaf pine conservation. It is possible to harvest in and sustainably manage longleaf pine systems and therefore timber management by itself is not considered a threat. Other threats include fire-suppression, urban development, forest conversion, non-native species, climate change.

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.

Indication of Risk: Significant threats include development, hydrologic changes (droughts, water withdraws, ditching), incompatible forest management (results in changes to canopy age and structure, hydrology, and available dead and down woody debris), pollution, fragmentation, climate change, invasive species (including spread that is exacerbated by logging activities), and economic drivers that alter forest management goals (i.e., economic drivers result in pressure for inappropriate harvests). Changes to the vegetative cover in these systems can significantly affect hydrologic flow, and therefore, the entire system. Forest management occurring within bottomland hardwoods is not necessarily in itself a threat, but how the management is applied in the context of the local landscape is important. Silviculture decisions should emphasize the geomorphic setting and hydrologic conditions of the site, while restoring or maintaining the species and structural diversity.

Cape Fear Arch Critical Biodiversity Area: The Cape Fear Arch Critical Biodiversity Area is considered an HCV because it contains a high overall species richness, diversity, or uniqueness within a defined area compared to other sites within the same biogeographic area. The geologic and hydrologic history of the Cape Fear Arch region has resulted in a diversity of wet and dry habitats. The region is considered to have the greatest biological diversity along the Atlantic Coast north of Florida. Important drivers of biodiversity in this region include longleaf pine forests and Pocosins (coastal peatlands).

Indication of Risk:

- Pocosins: When the canopy has been completely removed through timber harvest, pocosins often do not regenerate. An associated threat from forest management is the conversion of native pine to planted pine and resulting loss of biodiversity, particularly if associated with changes in hydrology due to ditching. Other threats include hydraulic alteration, conversion to agriculture, road construction, and sand quarrying, habitat fragmentation, introduction of non-native species, climate change and fire suppression.
- Longleaf Pine: Biodiversity values can be adversely affected by forest management activities via conversion of longleaf to other pine types, and the use management techniques, including herbicide application that have the potential

	to inhibit native understory communities. As the bulk of the biodiversity exists in the understory of a longleaf pine system, restoration or maintenance of understory species composition is an essential component of longleaf pine conservation. It is possible to harvest in and sustainably manage longleaf pine systems and therefore timber management by itself is not considered a threat. Other threats include fire-suppression, urban development, fragmentation, nonnative species, intensive pine straw raking, and climate change. **Native Longleaf Pine Systems:** Native Longleaf Pine Systems were once one of the most widespread forest types in the US but were reduced to less than 5% of their original range, becoming one of the rarest forest systems in the world. This historical reduction was driven by suppression of fire and conversion to other forest types. These forest systems are associated with high animal and plant diversity, including many rare, threatened, and endangered species. **Indication of Risk:** Threats include altered stand structure (due to lack of fire), conversion to other forest types, conversion to other land uses (development and agriculture), habitat disturbance (including management techniques that inhibit native understory communities which may include herbicide application), fragmentation, and modification of hydrological features (including by both past and current silvicultural practices). Because native longleaf cannot compete with other species for short-term returns on investment, it is still being converted to other forest types. **Mesophytic Cove Sites:** Mesophytic cove sites are considered an HCV because they are a rare ecosystem that is at risk at a national or regional scale. Mesophytic cove sites are highly diverse, closed-canopy hardwood forest occurring on sheltered sites at low- to moderate-elevation (1000-3600 ft), and sometimes higher. They tend to occur in large patches on concave slopes that accumulate nutrients and moisture. They are characterized by high species diversity and a complex forest structure. The ground level flora in particular has high species richness, often with abundant spring ephemerals. Rich cove forests have very fertile soils with a diverse herb layer containing few shrubs. Acidic cove forests are less fertile than rich coves, but otherwise similar. While the sheltered, mesic sites that support Cove Forests are not particularly rare, examples that retain structural components like the dense canopy and high species diversity (both in the overstory and understory) are very rare. These characteristics may take 200 years to develop. These sites will not have evidence of having been previously clear-cut or farmed (followed by regrowth of the forest). Typically, they will include basswood, buckeye, cucumber, walnut, and magnolias in the mid-story and yellow-poplar, beech, sugar maple, northern red oak, white oak, ash, and hickories in the overstory. **Indication of Risk:** The most significant current threats to this forest type are invasive species and conversion to other uses. Threats also include incompatible forest management that results in alterations to the structure and composition of the forest, conversion to other forest types (white pine), climate change, chronic deer herbivory, harvesting of herbs, and pollution. Cove forest sites can be managed in a compatible way using methods that do not disturb soil productivity, hydrology or the understory, that maintain the diversity of the overstory without losing oak or moving toward monocultures of maple or poplar, that limit openings, and that don't result in 'high-grading' the forest (removing all trees of high commercial value and leaving the remainder). Incompatible forest management occurs when these guidelines are not followed and remains a threat to these systems in the Appalachian region. While less severe disturbances, such as logging and fire, may not reduce herbaceous species richness or diversity to the same extent as more severe disturbances like mining and agriculture, they can still affect herbaceous species composition or abundance and therefore the quality and functioning of the system.

	Overall, the magnitude of impact on the herbaceous species from activities that occur within these sites is directly proportional to the severity of disturbance. **Dusky Gopher Frog:** The Dusky Gopher Frog is considered an HCV because it is a rare species population with very limited distribution. This species historically occurred on the Coastal Plain from eastern Louisiana to the Mobile River delta in Alabama. Now, it is only known from one site in Harrison County and a couple of sites in Jackson County, MS, although there are also active efforts to reintroduce into wetlands in Perry County, MS. It is federally endangered wherever found and is also listed as endangered by the State of Mississippi. The species occurs in upland areas of sandy soils that were historically forested with longleaf pine and in temporary wetland breeding sites within the forested landscape. Most of its life cycle is spent in or near underground areas of refuge that historically were gopher tortoise burrows. Critical habitat was designated in 2012 within four counties in Mississippi and one in Louisiana. Current populations are documented in two of the Mississippi Counties (Harrison and Jackson) and active efforts toward reintroduction are occurring in the third (Perry). The species has not been documented in Louisiana since 1967 and there is no evidence of active reintroduction efforts. **Indication of Risk:** The Dusky Gopher Frog depends on woodlands, forested wetlands and riparian habitats. The major threats to the species include population isolation, urbanization, disease, and a lack of suitable habitat. Habitat degradation is a significant factor, driven by multiple sources including, changes in forest type from longleaf FSC® US NRA Specified Risk Fact Sheet pine to other forest types, forest degradation caused by grazing and the disruption of the natural fire regime, and land management practices that alter the soil horizon, forest litter, herbaceous community, and the occurrence of down woody debris. Timber site prep and other forestry practices that alter temporary wetlands can damage breeding areas. **Cheoah Bald Salamander:** The Cheoah Bald Salamander's range is not yet well defined, but it is believed to be limited a portion of the Appalachian Mountains at the very western extent of North Carolina within the elevational range of 975-1,524 meters, associated with the Cheoah Bald. The salamander is endemic to the mesic forests that occur on the bald and may be common in suitable habitat. It appears that much of the species' range may occur within the Nantahala National Forest and it is identified as a Federal Species of Concern. For more information, contact the North Carolina Natural Heritage Program or the Nantahala National Forest. **Indication of Risk:** G1G2; S1S2 (North Carolina); Forest & woodland habitats; Clear cutting is a major threat to local populations. Some populations have been found in second growth forests, providing evidence that they are able to re-populate after harvest, but literature suggests it takes decades and with so few known populations extant, that kind of disruption could have a significant effect on the species as a whole. The 1994 Amendment to the Nantahala National Forest Plan included new definitions of management areas that provide an indication of whether timber management will likely occur. The Cheoah Bald area is located within management areas that at this time either do not allow timber management or are identified as being likely unsuitable for timber management. However, as the species' range is not yet fully delineated, it is not possible to know whether all or most of the range occurs within these management areas. **Patch-nosed Salamander:** The known range of the Patch-nosed Salamander is a small, first order stream located at the foot of the Blue Ridge escarpment in Stephens County, GA. For more information, contact the Georgia Department of Natural Resources, Wildlife Resources Division. **Indication of Risk:** G1; S1 (Georgia); Riparian habitat; Little is known about this species and specific threats have not yet been documented. However, any factor that would disrupt water flow, canopy cover, or leaf-litter layer would likely impact the species. As all of these

	can potentially be affected by forest management, a precautionary approach should be taken. **Conversion:** The FSC US CWNRA definition of conversion does not align with the SBP focusing on population growth and the issuance of building permits. The SBP definition for conversion is much broader, "The process of changing or causing to change from one form to another". Though we recognize the identification of counties conducted under the FSC process, Enviva's approach is more stringent, we avoid harvests where the forest will not be regenerated into a new forest. SBP RRA US "The FSC US NRA was reviewed to evaluate whether it effectively identified threats and impacts on the identified key species, habitats, ecosystems, and areas of HCV pertaining to biodiversity. Indeed, the core function of the FSC US NRA is the evaluation of the risk of sourcing wood from forests in which high conservation values are threatened by management activities. The analysis includes extensive evaluation of each of the identified HCVs and the threats and impacts to them. While the focus is on the impact of forest management activities, it also specifies other driving threats to specific HCVs." And "In summary, identification and analysis of threats and impacts to key species, habitats, ecosystems and HCVs pertaining to biodiversity is part of the identification processes undertaken via the ESA, NatureServe's global ranking system for species and ecosystems, and the FSC US NRA. These approaches are subject to legal and/or organizational oversight which ensures appropriate monitoring and enforcement of specified processes for threat and impact analysis and identification. This assessment supports a designation of low risk." The risk rating justification includes Trees Outside of Forests.
Risk Rating	Low risk

United States	**Indicator**
2.1.3	Key species, habitats, ecosystems, and areas of high conservation value (HCV) pertaining to biodiversity in the Supply Base shall be maintained or enhanced.
Supply Base Verifiers	Enviva conducted a risk assessment of federal and state laws and regulations and determined there is a sufficient and enforced legal structure in place to ensure feedstock sourcing and Enviva operations comply. Federal and state laws vary in recognition of key species, habitats, ecosystems, and areas of high conservation value (HCV) pertaining to biodiversity. Application of these laws vary. For instance, the federal Threatened and Endangered Species Act applies to both public and private lands. Though evaluation and protect/enhancement of G1/S1 & G2/S2 species and habitats are voluntary. Additional publicly available information was used to close the gaps. For examples, please refer to indicator 2.1.1 & 2.1.2 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 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.". 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. • World Bank Worldwide Governance Indicators • FSC US Controlled Wood National Risk Assessment (FSC US CWNRA) • SBP Regional Assessment for US Private Forests – Draft (SBP RRA US)
Risk Rating justification	According to the World Bank Worldwide Governance indicators the US consistently ranks high in Regulatory Quality and 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. Many of the species of concern are associated with streams, creeks, wetlands, ponds, etc The National Association of State Forester (NASF) recently released a 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 publication states, "Across the country, BMPs 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". At a 2023 National Council for Air and Stream Improvement meeting in Atlanta, John Tirpak – Deputy Assistant Regional Director Ecological Services USFWS Southeast Region, gave a presentation on how language around BMP compliance is now being included in USFWS 4D Rules for T&E aquatic species. Slide quotes. BMPs for Aquatic Species Best Management Practices for Forest Management Activities "We recognize that forest management practices are widely implemented in accordance with state-approved BMPs (as reviewed by Cristan et al 2018, entire), and the adherence of these BMPs broadly protects water quality, particularly related to sedimentation (as reviewed by Cristen et al 2016, Warrington et all 2017, entire, and Schilling et al 2021, entire), to an extent that does not impair species' conservation." "Forest landowners who properly implement those BMPs are helping conserve the species and this 4(d) rule is incentive for all landowners to properly implement them to avoid any take implications. Further those forest landowners who are third party certified (attesting to the sustainable management of working forests) to a credible forest management standard are providing audited certainty that BMP implementation is taking place across the landscape."

	Each state in the supply base area has a Forest Action Plan outlining the state's assessment of forest resources and analysis of trends and challenges and the state's top priorities for forestland within their borders. Each state in the supply base area has a Wildlife Action Plan outlining the state's assessment and analysis of wildlife resources defines the state's priorities and species of concern within their state's borders. SBP RRA US "Beyond those identified by ESA, NatureServe's framework, and the FSC US NRA, analysis, key species, habitats, ecosystems, and HCVs are not guaranteed protections under Federal or State law." And "This analysis indicates the ESA is a highly efficient system for the maintenance and enhancement of federally listed threatened and endangered animal species. However, there is specified risk for the following due to lack of regulatory safeguards and/or resources/incentives for maintenance and enhancement of the following: - Nature Serve Network identified G1-G2 animal species not on the ESA threatened or endangered list; G1-G2 plant species (Figure 2.1.3.-1)" The risk rating justification includes Trees Outside of Forests.
Risk Rating	Specified risk

United States	Indicator
2.2.1	Feedstock shall not be sourced from land that had one of the following statuses in January 2008 and no longer has that status due to land conversion: a. Forests b. Wetlands c. Peatlands d. Highly biodiverse grasslands.
Supply Base Verifiers	Enviva conducted a risk assessment of federal and state laws and regulations and determined there is a sufficient and enforced legal structure in place to ensure feedstock sourcing and Enviva operations comply. The Clean Water Act (CWA) provides protection of wetlands. A sample of laws/regulations

	United States: Clean Water Act Alabama: Enforcement of Clean Water Act Arkansas: Non-regulatory program Multi-agency Wetland Planning Team Florida: Statute Title XXVIII Natural Resources; Conservation, Reclaimation and Use Chapter 373 Water Resources Georgia: Regulation Department 391 Rules of Georgia Department of Natural Resources Chapter 391-3 Environmental Protection Subject 391-3-16 Rules for Environmental Planning Criteria Rule 391-3-16-.03 Criteria for Wetlands Protection Kentucky: Enforcement of Clean Water Act Louisiana: US Code Title 16 Conservation Chapter 59A Wetlands Mississippi: Code Title 49 Chapter 27 Coastal Wetlands Protection Act Missouri: Executive Order 96-03 North Carolina: Enforcement of Clean Water Act South Carolina: Enforcement of Clean Water Act Tennessee: Code Title 69 Waters, Waterways, Drains and Levees Chapter 3 Water Pollution Control Part 1 Water Quality Control Act Virginia: Code Title 62.1 Waters of the State, Ports and Harbors Chapter 3.1 State Water Control Section 62.1-44:20 Virginia Water Protection Act West Virginia: Enforcement of Clean Water Act • World Bank Worldwide Governance Indicators • FSC US Controlled Wood National Risk Assessment (FSC US CWNRA) • SBP Regional Assessment for US Private Forests – Draft (SBP RRA US)
Risk Rating justification	FSC US CWNRA Conversion: The FSC US CWNRA definition of conversion does not align with the SBP focusing on population growth and the issuance of building permits; focusing on urban development. The SBP definition for conversion is much broader, "The process of changing or causing to change from one form to another". Though we recognize the identification of counties conducted under the FSC process, Enviva's approach is more stringent, we avoid harvests where the forest will not be regenerated into a new forest." SBP RRA US Forests "For (a) forests, according to all sources reviewed, the overall rate of deforestation is quite low at the scale of the US, as whole, and the US Southeast, in which the RRA geography is situated. Similarly, there is consensus that forest harvesting is not a driver of forest loss, and neither is expansion of agriculture. Deforestation is driven by population growth and commercial or residential development." And "While there is an array of relevant laws for lands owned by the State and Federal governments, there is no specific legal Federal framework that governs the conversion of private forests, outside of forested wetlands." Wetlands "For (b) wetlands, land use history and the impact of legislation was evaluated. The US Clean Water Act (CWA) is the dominant Federal regulatory mechanism for protection of wetlands, which is further articulated at the State level through the implementation of Best Management Practices (BMPs). Specifically, Section 404 of the CWA regulates the discharge of dredged or fill material and specifies activities must not convert wetlands to uplands and/or new uses (EPA, 2020). The rigorous and longstanding enforcement of the CWA suggests conversion of any wetland to dried alternative ecosystems is likely to have occurred before its enactment in 1972, and well before the 2008 cut off specified by the SBP requirements." Peatlands

	"Within the geographic scope of the RRA, peatlands tend to be associated with histosol soils, which meet SBP's definition for peatland (areas with soils containing at least a 40cm deep layer of peaty material in the first 80cm of the soil). According to the USDA Illustrated Guide to Soil Taxonomy V2.0, 2015, "histosols are formed in thick accumulations of organic matter from decaying plant material. The organic-dominated layers are typically at least 40 cm thick and commonly much thicker." As such, this definition for wetlands. Further, review of the literature and consultation with experts confirmed that peatlands are terrestrial wetland ecosystems. As a subset of wetlands, the analyses completed for 3.2.1 would apply to peatlands (USFWS, 1979). This analysis yields a net increase in wetlands of 1.18% across the RRA's geography and no losses were reported for any of the States with the RRA's geography. As such, risk of sourcing feedstock from forests displacing wetlands in 2008 is low." Highly Biodiverse Grasslands "According to experts consulted, the definition provided Sustainable Biomass Partnership (SBP) and European Union (EU) legislation is not well suited to the grasslands in the US. There is consensus across all reviewed sources and experts, that intact, biodiverse grasslands are extremely rare within the RRA's geography and have been for over 100 years. Intact, natural, native, highly biodiverse grasslands, as described in part i. of the SBP/EU definition are estimated to remain at 1-5% of historical pre-European colonial levels and have been stable at these levels for more than 100 years, as this conversion occurred before the US Civil War (1861) (Estes, 2024; Estes etal, 2016; Murray, 2024; Muir, 2024). As such, the likelihood of sourcing feedstock from highly biodiverse grasslands in 2008 is extremely low." The risk rating justification includes Trees Outside of Forests.
Risk Rating	Specified risk for forests

United States	**Indicator**
2.2.2	Ecosystems, their health, vitality, functions and services in the Supply Base shall be maintained or enhanced.
Supply Base Verifiers	Enviva conducted a risk assessment of federal and state laws and regulations and determined there is a sufficient and enforced legal structure in place to ensure feedstock sourcing and Enviva operations comply. These laws address various components of the indicator requirements but do not completely ensure without a field verification process driven by a company's commitment to sustainability policies and enforcement of the same. For examples of laws/regulation please refer to indicator 2.1.1, 2.1.2 and 2.1.3 • Worldwide Governance Indicators • FSC US Controlled Wood National Risk Assessment (FSC US CWNRA) • SBP Regional Assessment for US Private Forests – Draft (SBP RRA US) • National Council for Air and Stream Improvement (NCASI) • SBP Standard 1 Guidance Document • State Forestry Action Plans • State Wildlife Action Plans

	• United States Fish and Wildlife Service
Risk Rating justification	According to the World Bank Worldwide Governance indicators the US consistently ranks high in Regulatory Quality and in Rule of Law. Evidence of the effectiveness of law enforcement is evident in news. SBP's definition of ecosystem function/functions of ecosystems - The capacity of natural processes and components to provide goods and services that satisfy human needs, either directly or indirectly. De Groot et al 2002. UN Biodiversity working group: https://www.un.org/Depts/los/biodiversityworkinggroup/workshop2_soto.pdf. The SBP Standard 2 Guidance document for 2.2.2 in the Additional Information for Context section lists a series of indicators that parse out criteria that make up the definition above, two of which Enviva has determined to be specified risk. Each state in the supply base area has a Forest Action Plan outlining the state's assessment of forest resources and analysis of trends and challenges and the state's top priorities for forestland within their borders. Each state in the supply base area has a Wildlife Action Plan outlining the state's assessment and analysis of wildlife resources defines the state's priorities and species of concern within their state's borders. In an NCASI Literature review titled, Forestry Best Management Practices and Conservation of Aquatic Systems in the Southeastern United States (2021) the authors determined forest certification systems require the use of BMPs and the interconnectivity of the wood industry elevate the likelihood of use. The authors noted the US Fish and Wildlife Service has determined BMPs can contribute to the conservation of at-risk aquatic species. "When the Service identifies potential threats to a species, the agency is required to identify and report specific threats (the Service defines a threat as anything that is known to or reasonably could negatively affect individuals either directly or as a stressor) in the Federal Register and provide the public with an opportunity to comment on the accuracy of their threat assessment and the opportunity to propose potential remedies or conservation measures. In recent threatened and endangered species listing determinations, the Service has recognized that privately-owned, managed forests that implement BMPs can be an important component of conservation strategies for aquatic organisms." On a landscape level a National Council for Air and Stream Improvement Briefing Note Biodiversity and Biomass Feedstock Harvesting in the Southeastern US determined forests in a forestry certification system such as FSC, PEFC and SFI owners are compelled to conserve biodiversity. FSC US CWNRA There are laws in place to protect ecosystems, but additional ecosystems have been identified and are not protected. SBP RRA US "Ecosystems enjoy protections under a range of laws, including the CWA, which are consistently implemented. However, the ecosystems identified as threatened by forest management in the FSC NRA are not protected by law within the RRA's geography. These include Mesophytic Cove Sites, Late Successional Bottomland Hardwoods, and Native

	Longleaf Pine Systems. As a result, there is a conclusion of specified risk for these ecosystems…" The risk rating justification includes Trees Outside of Forests.
Risk Rating	Specified risk

United States	Indicator
2.2.3	Soil quality in the Supply Base shall be maintained or enhanced
Supply Base Verifiers	Enviva conducted a risk assessment of federal and state laws and regulations and determined there is a sufficient and enforced legal structure in place to ensure feedstock sourcing and Enviva operations comply. All the laws/regulations identified are agricultural in nature. • SBP Regional Assessment for US Private Forests – Draft (SBP RRA US) • National Council for Air and Stream Improvement (NCASI)
Risk Rating justification	Forest soils are affected in part by site retention of wood debris to decay and replenish soil nutrients. The long-term nature of forest growth allows for leaf drop and other parts of the vegetation for fall and decay while the forest is growing as noted in an NCASI study titled, Agricultural Site Productivity: Principles Derived from Long Term Experiments and Their Implications for Managed Forests. After harvest studies such as SR Fritts et al paper, Biomass Harvesting Guidelines affect downed woody debris retention determined even if biomass harvesting guidelines are not employed on sites where biomass is being harvested these sites exceeded the Forest Guilds recommendations by three-fold. NCASI's Briefing Note BN-22-03 literature review including Fritts et al as noted above determined, "It is important to note that complete biomass removal is, in actual practice, rare. For example, in North Carolina, Fritts et al. (2014) showed that even when woody residuals were removed without following Biomass Harvesting Guidelines for an experimental treatment (which was intended to remove all woody residuals), approximately 20% of total downed woody debris (DWD, all branches and logs on the ground) was retained when compared to clearcut stands not harvested for biomass feedstock, illustrating that complete biomass removal is not practical. Following biomass harvesting guidelines, 35-52% of total DWD was retained in stands with residual removal compared to stands without residual removal (Fritts et al. 2014)." SBP RRA US "With rigorous and well-established standard practices and laws, the forestry sector in the US South has done an exemplary job of protecting soil health helping forest inventories and production grow significantly. The sector takes seriously its commitment to complying with these practices and laws as reflected in overall soil health and increased productivity, and the investments the sector makes in education, training, and monitoring enabling a low-risk designation for this indicator."

	The risk rating justification includes Trees Outside of Forests.
Risk Rating	Low risk

United States	**Indicator**
2.2.4	Where the removal of harvest forest residues and/or stumps occurs, this shall not lead to irreversible negative impacts to the ecosystem.
Supply Base Verifiers	Enviva conducted a risk assessment of federal and state laws and regulations and determined there is a sufficient and enforced legal structure in place to ensure feedstock sourcing and Enviva operations comply. There are no laws regulating the removal of stumps or forest residues. • SBP Regional Assessment for US Private Forests – Draft (SBP RRA US) • National Council for Air and Stream Improvement (NCASI) • United States Department of Agriculture Forest Service • State Forestry Commissions • National Association of State Foresters (NASF) • Enviva Responsible Sourcing Policy
Risk Rating justification	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. Forest soils are affected in part by site retention of wood debris to decay and replenish soil nutrients. The long-term nature of forest growth allows for leaf drop and other parts of the vegetation for fall and decay while the forest is growing as noted in an NCASI study titled, Agricultural Site Productivity: Principles Derived from Long Term Experiments and Their Implications for Managed Forests. After harvest studies such as SR Fritts et al paper, Biomass Harvesting Guidelines affect downed woody debris retention determined even if biomass harvesting guidelines are not employed on sites where biomass is being harvested these sites exceeded the Forest Guilds recommendations by three-fold. NCASI's Briefing Note BN-22-03 literature review including Fritts et al as noted above determined, "It is important to note that complete biomass removal is, in actual practice, rare. For example, in North Carolina, Fritts et al. (2014) showed that even when woody residuals were removed without following Biomass Harvesting Guidelines for an experimental treatment (which was intended to remove all woody residuals), approximately 20% of total downed woody debris (DWD, all branches and logs on the ground) was retained when compared to clearcut stands not harvested for biomass feedstock, illustrating that complete biomass removal is not practical. Following biomass harvesting guidelines, 35-

	52% of total DWD was retained in stands with residual removal compared to stands without residual removal (Fritts et al. 2014)." And "Clearcut harvesting is the dominant method of final harvest for southern pine, regardless of the harvested wood's fate. Clearcut harvests remove overstory, which can have short-term negative effects on species that require a forest overstory or specific microclimates, such as terrestrial salamanders (Tilghman et al. 2012). However, clearcut harvests roughly mimic natural, large-extent disturbances such as fire and windthrow (historically common in the southeastern US), and many organisms are adapted to the resultant young, open forest conditions. This includes at-risk species such as gopher tortoise (Gopherus polyphemus, Parish et al. 2020); early successional-associated birds (Grodsky et al. 2016; Lane et al. 2011; Hanberry et al. 2012; Hanberry et al. 2013), many of which are declining (King and Schlossberg 2013); reptiles (Jones et al. 2020); and species of economic and recreational importance, such as white-tailed deer (Odocoileus virginianus). When considered at a landscape scale, the mosaic of stand stages resulting from active forest management provides structural conditions to support diverse wildlife communities (e.g., Demarais et al. 2017)." Forest soils are affected in part by site retention of wood debris to decay and replenish soil nutrients. The long-term nature of forest growth allows for leaf drop and other parts of the vegetation for fall and decay while the forest is growing as noted in an NCASI study titled, Agricultural Site Productivity: Principles Derived from Long Term Experiments and Their Implications for Managed Forests. After harvest studies such as SR Fritts et al paper, Biomass Harvesting Guidelines affect downed woody debris retention determined even if biomass harvesting guidelines are not employed on sites where biomass is being harvested these sites exceeded the Forest Guilds recommendations by three-fold. The Forestry Commissions for each state in the supply area monitor and enforce BMP implementation. BMP Manuals are available online for each state within the supply area. 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 BMPs are effective when implemented as recommended by state forestry agencies. Proper implementation of forestry BMP's protect soil quality. Enviva uses the HCV Resource Network Approach in purchasing wood for our mills. Each tract submitted for consideration by a supplier is evaluated against known HCV areas and a determination whether Enviva will agree to receive wood from it or not. Enviva randomly inspects tracts for compliance. Enviva's Master Wood Purchasing Agreement prohibits the use of stumps as feedstock. Further the agreement details Enviva's requirements for our suppliers to support our third-party certifications and abide by our sustainability policies. As we describe in our Responsible Sourcing Policy, "We will monitor suppliers' performance to ensure that we are making measurable, timely progress on implementing the policy criteria. Suppliers failing to meet our time-bound requirements will go through a review process and may be subject to non-renewal or

	termination of contracts. The policy criteria will increasingly be included in our supplier selection and evaluation process." SBP RRA US "Given that it is very unlikely that biomass will be sourced from stumps, or that mills will accept stump material even if it were removed for reasons other than biomass production, it follows that the risk is accordingly low that feedstock would be sourced from stumps. Pertaining to residue removal, state BMPs require compliance with a rigorous set of practices to protect water quality and prevent soil erosion, with some states explicitly calling for residue retention onsite. And, because BMP compliance coupled with a strong network of federal laws and regulations, residue removal is likewise characterized as low risk. In summary, there is low risk the removal of harvest residues and stumps shall lead to irreversible negative impacts to the ecosystem." The risk rating justification includes Trees Outside of Forests.
Risk Rating	Low risk

United States	**Indicator**
2.2.5	Quality and quantity of ground water, surface water and water downstream shall be maintained or enhanced.
Supply Base Verifiers	Enviva conducted a risk assessment of federal and state laws and regulations and determined there is some legal structure in place to ensure feedstock sourcing and Enviva operations comply. The Clean Water Act (CWA) provides basic Best Management Practices guidelines, and some states have additional requirements. States enforcement can be regulatory, quasi-regulatory or non-regulatory. Some states actively monitor and can fine harvesting operations for violations related to forestry BMPs and require on the ground corrections to implementation before the harvest is complete or may require the harvester to return to a harvest site to correct insufficient BMP implementation. Additionally, the CWA sets regulations for industrial discharges into waterways. • Clean Water Act • State level forestry Best Management Practices • National Association of State Foresters (NASF) • National Council for Air and Stream Improvement NCASI) • US Fish and Wildlife Service • Environmental Protection Agency (EPA) • Enviva Responsible Sourcing Policy • SBP Regional Assessment for US Private Forests – Draft (SBP RRA US)
Risk Rating justification	The National Association of State Foresters periodically assesses BMP implementation rates by state. The table below lists the BMP implementation rates found in the NASF publication Protecting the Nation's Water State Forestry Agencies and Best Management Practices (2019).

Jurisdiction	BMP Enforcement	Compliance rate	Monitoring/Enforcement Agency
Alabama	Qausi regulatory	96.25	Alabama Forestry Commission
Arkansas	Non-regulatory	95.25	Arkansas Forestry Division
Florida	Qausi regulatory	99.81	Florida Forestry Service
Georgia	Qausi regulatory	94.37	Georgia Forestry Commission
Kentucky	Regulatory	Not rated	Kentucky Division of Forestry
Louisiana	Non-regulatory	97.42	Louisiana Department of Agriculture and Forestry
Mississippi	Non-regulatory	96.2	Mississippi Forestry Commission
Missouri	Non-regulatory	Not rated	Missouri Department of Conservation Forestry Division
North Carolina	Qausi regulatory	83.18	North Carolina Forestry Commission
South Carolina	Non-regulatory	88.93	South Carolina Forestry Commission
Tennessee	Non-regulatory	95.56	Tennessee Division of Forestry
Virginia	Qausi regulatory	92.82	Virginia Department of Forestry
West Virginia	Regulatory	97.17	West Virginia Department of Forestry

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 that forestry BMPs are effective when implemented as recommended by state forestry agencies. Proper implementation of forestry BMP's protect soil quality.

In an NCASI Literature review titled, Forestry Best Management Practices and Conservation of
Aquatic Systems in the Southeastern United States (2021) the authors determined forest certification systems require the use of BMPs and the interconnectivity of the wood industry elevate the likelihood of use.

“Currently, within the 13 states in the southeastern U.S., we are aware of at least 9,067,235 hectares certified to SFI and 1,894,657 hectares certified to FSC (Table 1); note that there may be some overlap where some hectares are certified to both SFI and FSC. Nonetheless, this is a conservative estimate as there are likely additional acres that are certified to ATFS but are not accounted for here. Additionally, all ownerships in the area are likely to be influenced by the SFI Fiber Sourcing Standard. For example, a recent study in Georgia concluded that the SFI Fiber Sourcing Standard contributed to increased BMP compliance rates within mill sourcing boundaries [68]. Although the percentage varied among mill types, certified mills accounted for 97% of wood consumed by the pulp and paper industry. Because most timber harvests result in multiple products, including pulpwood, the higher number likely reflects the influence of forest certification. While BMP implementation across all types of ownership in the southeast is high, certified lands provide additional assurance that high rates of implementation will continue into the future”.

In the same review the authors noted the US Fish and Wildlife Service has noted BMPs can contribute to the conservation of at risk aquatic species.

“When the Service identifies potential threats to a species, the agency is required to identify and report specific threats (the Service defines a threat as anything that is known to or reasonably could negatively affect individuals either directly or as a stressor) in the Federal Register and provide the public with an opportunity to comment on the accuracy of their threat assessment and the opportunity to propose potential remedies or conservation measures. In recent threatened and endangered species listing determinations, the Service has recognized that privately-owned, managed forests that implement BMPs can be an important component of conservation strategies for aquatic organisms.”

In 82 FR 43492 the EPA released, Decision Not To Regulate Forest Road Discharges Under the Clean Water Act; Notice of Decision the agency concluded

	"EPA has determined not to designate stormwater discharges from forest roads for regulation under Section 402(p)(6) of the Clean Water Act (CWA) at this time. EPA's decision is based on several interrelated factors. First, state, federal, regional, tribal government, and private sector programs already exist nationwide to address water quality problems caused by discharges from forest roads. Many of these programs have been improved and updated in recent years. Program implementation rates are generally high and have been shown to be effective in protecting water quality when properly implemented. These programs employ a variety of approaches, based in part on variations in regional topography and climate. While EPA recognizes that existing programs vary in their degree of rigor, the Agency has concluded that efforts to help strengthen existing programs would be more effective in further addressing forest road discharges than superimposing an additional federal regulatory layer over them." Enviva is certified to multiple certification systems including SFI Fiber Sourcing and FSC Chain of custody and Controlled Wood. Further, Enviva's Master Wood Purchasing Agreement requires the use of forestry BMPs. Further the agreement details Enviva's requirements for our suppliers to support our third-party certifications and abide by our sustainability policies. As we describe in our Responsible Sourcing Policy. "We will monitor suppliers' performance to ensure that we are making measurable, timely progress on implementing the policy criteria. Suppliers failing to meet our time-bound requirements will go through a review process and may be subject to non-renewal or termination of contracts. The policy criteria will increasingly be included in our supplier selection and evaluation process." SBP RRA US "Based on the effective regulation and monitoring system, including high compliance rates with BMPs, it is concluded that the risk of negative impacts on ground water, surface water and water downstream from forest management activities related to sourcing of feedstock is low for all forests in the scope of the assessment." The risk rating justification includes Trees Outside of Forests.
Risk Rating	Low risk

United States	**Indicator**
2.2.6	Air emissions shall comply with national legislation or in the absence of national legislation with industry best practice.
Supply Base Verifiers	Enviva conducted a risk assessment of federal and state laws and regulations and determined there is a sufficient and enforced legal structure in place to ensure feedstock sourcing and Enviva operations comply. Each state in the supply base area has laws addressing air quality. Some examples are below.

Jurisdiction	Law/Code/Regulation/Statute
United States	Code Title 42 The Public Health and Welfare Chapter 85 Air Pollution Prevention and Control
Alabama	Code Title 22 Health, Mental Health and Environmental Control Title 1 Health and Environmental Control Generally Chapter 28 Alabama Air Polution Control Act
Arkansas	Code Title 8 Environmental Law Chapter 4 Arkansas Water and Air Pollution Control Act Chapter 3 Air Pollution
Florida	Statute Title XXIX Public Health Chapter 403 Environmental Control Part 1 Pollution Control
Georgia	Code Title 12 Conservation and Natural Resources Chapter 9 Prevention and Control of Air
Kentucky	Statute Chapter 224 Environmental Protection Subchapter 224.20 Air Quality
Louisiana	Statute Title 30 Minerals, Oil, Gas and Environmental Quality Chapter 3 Louisiana Air Control Law
Mississippi	Code Title 49 Conservation and Ecology Chapter 17 Pollution of Waters, Streams and Air
Missouri	Statute Title XL additional Executive Departments Chapter 643 Air Conservation
North Carolina	Statute Chapter 143 State Department, Insititutions and Commissions Article 21 B Air Pollution Control
South Carolina	Statute Title 48 Environmental Protection and Conservation Chapter 1 Pollution Control Act
Tennessee	Code Title 68 Health, Safety and Environmental Protection Chapter 201 Tennessee Air Quality Act
Virginia	Code Title 10.0 Conservation Chapter 11.1 Department of Environmental Quality Section 10.1-1184 State Air pollution Control Board, State Water Control Board and Virginia Waste Management Board continued
West Virginia	Code Chapter 22 Environmental Resources Article 5 Air Pollution Control

- Federal and State laws
- United States Fire Administration
- Federal Insecticide, Fungicide and Rodenticide Act
- United States Clean Air Act
- Environmental Protection Agency
- SBP Regional Assessment for US Private Forests – Draft (SBP RRA US)

Risk Rating justification

Air quality impacts from forest management activities are generally related to prescribe fire site preparation techniques. The US Clean Air Act requires each state to implement air quality controls to ensure the public's safety. The USDA Forest Service website, Forest Service Air Management Responsibilities, 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.

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). 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 insects.

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.

Enviva is certified to multiple certification systems including SFI Fiber Sourcing and FSC Chain of custody and Controlled Wood. Further, Enviva's Master Wood Purchasing Agreement requires suppliers to abide by laws relevant to the forest industry. Further the agreement details Enviva's requirements for our suppliers to support our third-party certifications and abide by our sustainability policies. As we describe in our Responsible Sourcing Policy.

"We will monitor suppliers' performance to ensure that we are making measurable, timely progress on implementing the policy criteria. Suppliers failing to meet our time-bound

	requirements will go through a review process and may be subject to non-renewal or termination of contracts. The policy criteria will increasingly be included in our supplier selection and evaluation process." SBP RRA US "On the foundation of a comprehensive set of Federal and State laws, which are rigorously enforced, air emissions from forestry operations connected to feedstock sourcing comply with applicable legislation. In fact, there is no evidence of significant emissions from such operations. Therefore, a low-risk designation is assigned for this indicator for all forests within the scope of the assessment." The risk rating justification includes Trees Outside of Forests.
Risk Rating	Low risk

United States	**Indicator**
2.2.7	Pesticides shall only be used as part of an Integrated Pest Management (IPM) plan in compliance with national legislation, chemical safety data sheets and industry best practice. Banned pesticides shall not be used.
Supply Base Verifiers	Enviva conducted a risk assessment of federal and state laws and regulations and determined there is a sufficient and enforced legal structure in place to ensure feedstock sourcing and Enviva operations comply. Each state in the supply base area has laws addressing the use of pesticides. Some examples below. Jurisdiction / Law/Code/Regulation/Statute United States: Title 7 Agriculture Chapter 6 Insecticide and Environmental Pesticide Control Alabama: Code Title 2 Agriculture Chapter 27 Pesticides Arkansas: Code Title 2 Agriculture Subtitle 2 Agronomy Chapter 16 Plant Disease and Pest Control Subchapter 4 Pesticide Control Florida: Statute Title XXXII Regulation of Profession and Occupations Chapter 487 Pesticide Regulation and Safety Georgia: Code Title 2 Agriculture Chapter 7 Plant Disease, Pest Control and Pesticides Kentucky: Regulation Title 302 Department of Agriculture Chapter 26 Pesticides Louisiana: Statute Title 3 Agriculture and Forestry Chapter 20 Louisiana Pesticide Law Mississippi: Code Title 69 Mississippi Pesticide Law Missouri: Statute Title XVII Agriculture and Animals Chapter 281 Pesticides North Carolina: Statute Chapter 106 Agriculture Article 4 Insecticides and Fungicides South Carolina: Code title 46 Agriculture Chapter 11 Pest Control Compact Tennessee: Code Title 43 Agriculture and Horticulture Chapter 8 Pesticides Virginia: Code Title 3.2 Agriculture, Animal Care, and Food Chapter 39 Pesticide Control West Virginia: Code Chapter 19 Agriculture Article 16A west Virginia Pesticide Control Act • Federal and State Law • Federal and State Regulation • National Council for Ari and Stream Improvement • Federal Insecticide, Fungicide, and Rodenticide Act • SBP Regional Assessment for US Private Forests – Draft (SBP RRA US)
Risk Rating justification	In an NCASI Literature review titled, Forestry Best Management Practices and Conservation of Aquatic Systems in the Southeastern United States (2021) the authors determined "The use of herbicides and other pesticides in the U.S. is regulated under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and state pesticide laws. Best

	management practices typically note that pesticides must be used in accordance with legal requirements and that forest managers should seek guidance from experts. In most southeastern states, BMPs emphasize the importance of reading labels on herbicides and other pesticide products. The label defines the legal restrictions on application rates and other aspects of safe, efficient use. For herbicides, leaching through the soil profile and transport to streams via shallow groundwater and movement into streams through baseflow have typically not been observed in forested streams." Enviva is certified to multiple certification systems including SFI Fiber Sourcing and FSC Chain of custody and Controlled Wood. Further, Enviva's Master Wood Purchasing Agreement requires suppliers to abide by laws relevant to the forest industry. Further the agreement details Enviva's requirements for our suppliers to support our third-party certifications and abide by our sustainability policies. As we describe in our Responsible Sourcing Policy. "We will monitor suppliers' performance to ensure that we are making measurable, timely progress on implementing the policy criteria. Suppliers failing to meet our time-bound requirements will go through a review process and may be subject to non-renewal or termination of contracts. The policy criteria will increasingly be included in our supplier selection and evaluation process." SBP RRA US "Based upon the existence of clear and consistent federal regulation, State oversight and permitting process, BMP guidance, landowner assistance program and ongoing performance, there is sufficient evidence to designate low risk for this indicator."
Risk Rating	Low risk

United States	**Indicator**
2.2.8	Waste shall be disposed of in an environmentally appropriate manner.
Supply Base Verifiers	Enviva conducted a risk assessment of federal and state laws and regulations and determined there is a sufficient and enforced legal structure in place to ensure feedstock sourcing and Enviva operations comply. Each state in the supply base area has laws addressing waste management. Some examples below.

Jurisdiction	Law/Code/Regulation/Statute
United States	Code Title 42 The Public Health and Welfare Chapter 82 Solid Waste Disposal
Alabama	Code Title 13A Criminal Code Chapter 7 Offenses Involving Damage to and Intrusion Upon Property Article 2 Criminal Damage to Property Section 13A-7-29 Criminal Littering
Arkansas	Code Title 8 Environmental Law Chapter 6 Disposal of Solid Wastes and Other Refuse
Florida	Title XXVIII Natural Resources; Conservation, Reclaimation and Use Chapter 376 Pollutant Discharge Prevention and Removal
Georgia	Title 16 Crimes and Offenses Chapter 7 Damage and Intrusion Upon Property Article 2 Criminal Trespass and Damage to Property Part 2 Littering Public and Private Property and Part 3 Waste Contro
Kentucky	Statute Chapter 224 Subchapter 224.40 Waste - Generalities Subchapter 224.43 Solid Waste Subchapter 224.46 Hazardous Waste Subchapter 224.50 Other Specific Types of Waste
Louisiana	Chapter 8 Louisiana Solid Waste Management Chapter 9 Hazardous Waste Chapter 13 Louisiana Waste Reduction Law Chapter 21 Statewide Beautification Part I Louisiana Litter Violations and Penalties
Mississippi	Code Title97 crimes Chapter 15 Offences Affecting Highways, Ferries and Waterways Section 97-15-29 Littering highways and private property with trash or substance likely to cause a fire; civil penalty; fines; disposition of records Section 97-15-30 Penalties for unauthroized dumping of solid wastes; commercial purpose defined.
Missouri	Statute Title XXXVIII Crimes and Punishment; Peace Officers and Public Defenders Chapter 577 Public Safety Offenses Section 577.070 Littering - penalties
North Carolina	Staute Chapter 14 Criminal Law Article 52 Micellanious Police Regulatons section 14-399 Littering
South Carolina	Code Title 16 Crimes and Offenses Chapter 11 Offens Against Property Section 16-11-700 Dumping litter on private or public property prohibited; exceptions; responsibility for remova; penalties
Tennessee	Code Title 39 Criminal Offenses Chapter 14 Offenses Against Property Part 5 Litter Control
Virginia	Code Title 10.1 Conservation Chapter 14 Virginia Waste Management Act Article 2 Solid Waste Management Article 3 Litter Control and Recycling
West Virginia	Code Chapter 22 Environmental Resources Article 15 Solid Waste Mangement Article 15A The A James Manchin Rehabilitation Environmental Action Plan

- Federal and State Law
- Forestry BMPs
- Evidence in Indicator 1.1.1
- National Association of State Forester
- World Bank Worldwide Governance Indicators
- SBP Regional Assessment for US Private Forests – Draft (SBP RRA US)

Risk Rating justification

Enviva reviews sources such as the National Association of State Foresters, USFS, NCASI and the Southern Group of State Foresters 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.

Enviva is a member of state Sustainable Foresty Initiative committees 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 management practices. Enviva interacts with these groups to improve forestry best management practices guidelines and monitor enforcement.
Proper disposal of both oily and non-oily waste is a key component of forestry BMPs. Even in areas not associated with streams or water features forestry BMPs specify howroads, trails and other forest management activities are performed to minimize their impact on the forest. Enviva contractually requires the use of BMPs through the Master Wood Purchase Agreement. BMP Manuals are available online for each state within the supply area.

	Enviva's Track & Trace Program includes a harvest site auditing component to ensure suppliers conform to the requirement. Further the Forestry Commissions for each state in the supply area monitor and enforce BMP implementation. The National Association of State Forester (NASF) recently released a 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 supply base area are listed in the NASF publication. "Across the country, BMP's are implemented appropriately, when and where they areneeded, 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". According to the World Bank Worldwide Governance indicators the US consistently ranks high in Regulatory Quality and 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. Chemical use and other waste disposal 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. SBP RRA US "Like many other aspects of forestry operations, waste disposal is regulated by a stringent and robust set of federal and state BMPs. As a mature industry in the region, companies have a set of tools beyond laws to help ensure compliance." The risk rating justification includes Trees Outside of Forests.
Risk Rating	Low risk

United States	**Indicator**
2.2.9	Harvesting levels shall be justified as to how they can be sustained with reference to inventory and growth data for the Supply Base.
Supply Base Verifiers	Federal lands are governed by Code Title 16 Conservation Chapter 36 Forest and Rangeland Renewable Resources Planning. There are no federal or state laws governing harvest levels on private lands. However private lands in the supply base have consistently increased in growth to drain ratio, even while the region experienced losses of forestland to agriculture and urban development. Enviva commissioned the National Council for Air and Stream Improvement (NCASI) to conduct a resource analysis of the Enviva enterprise-wide supply base area. The analysis was designed to be similar to NCASI's Briefing Note – Trends in Forest Harvest,

	Regeneration and Management in the Southeast United States as Related to Biomass Feedstock. NCASI conducted the analysis using United States Forest Service Forest Inventory and Analysis data and the Timber Products Output program. • National Council for Air and Stream Improvement • United States Forest Service Forest Inventory and Analysis • United States Forest Services Timber Product Output • SBP Regional Assessment for US Private Forests – Draft (SBP RRA US)
Risk Rating justification	In the analysis, in the decade 2010 – 2020, NCASI noted • Private forestland had a slight reduction in area, 145MMac to 143.7MMac (-1%) and public forestland had a 5% increase from 25.4MMac to 26.7MMac. • Total standing inventory increase from 9,772 million dry short tons (MMtons) to 11,954MMtons • Private forests added 83% of the increase. The decadal change is 7,909MMtons to 9,717MMtons (23%) and public lands volume increased from 1,863MMtons 2,237MMtons. Net growth in the same decade continued to be strong increasing from a G:D in 2010 of 1.6:1 to a 2020 G:D of 2.0:1 • Harvest levels have remained fairly consistent around 130MMtons/year • Softwood have increased as an overall industry source increasing in use from 47% in 2010 to 54% in 2020 • Hardwoods have from 44% in 2010 to 36% in 2020 • Private forestlands contributed 95% of the harvest during the analysis period Forest inventories in the southeast United States have been increasing since the 1950's. SBP RRA US "While there is no Federal legal framework dictating harvest levels or annual allowable cut, original analyses of USFS FIA data for annual harvest rates, along with similar analysis and studies conducted by the Federal government and others demonstrate growth consistently exceeds harvesting since the 1950s. Based on consistent ongoing performance, there is sufficient evidence to designate low risk for this indicator."
Risk Rating	Low risk

United States	**Indicator**
2.2.10	Harvested areas shall be regenerated
Supply Base Verifiers	Federal lands are governed by Code Title 16 Conservation Chapter 36 Forest and Rangeland Renewable Resources Planning Subchapter I Planning Section 1604 National Forest System land and resource management plans. There are no federal or state laws governing regeneration on private lands. However private lands in the supply base ahave consistently increased in growth to drain ratio even while the region experienced losses of forestland to agriculture and urban development. Enviva commissioned the National Council for Air and Stream Improvement (NCASI) to conduct a resource analysis of the Enviva enterprise-wide supply base area. The analysis

	was designed to be similar to NCASI's Briefing Note – Trends in Forest Harvest, Regeneration and Management in the Southeast United States as Related to Biomass Feedstock. NCASI conducted the analysis using United States Forest Service Forest Inventory and Analysis data and the Timber Products Output program. • National Council for Air and Stream Improvement • United States Forest Service Forest Inventory and Analysis • United States Forest Services Timber Product Output • State Forestry Best Management Practices • SBP Regional Assessment for US Private Forests – Draft (SBP RRA US)
Risk Rating justification	In the analysis, in the decade 2010 – 2020, NCASI noted • Private forestland had a slight reduction in area, 145MMac to 143.7MMac (-1%) and public forestland had a 5% increase from 25.4MMac to 26.7MMac. • Total standing inventory increase from 9,772 million dry short tons (MMtons) to 11,954MMtons • Private forests added 83% of the increase. The decadal change was 7,909MMtons to 9,717MMtons (23%) and public lands volume increased from 1,863MMtons 2,237MMtons. The Briefing Note – Trends in Forest Harvest, Regeneration and Management in the Southeast United States as Related to Biomass Feedstock Conclusion notes "It is important to understand that the primary driver of forest loss in the southeastern US is conversion due to urbanization (Olson 2020). As indicated above, strong forest products markets encourage maintenance of forest cover by private forest landowners; wood for biomass feedstock is another market that encourages investment in forest resources." SBP RRA US "While there is no Federal legal framework in place for ensuring forest productivity through post-harvest regeneration on private lands in the US. However, state BMPs include provisions for reforestation and there is a history of strong evidence of forest productivity as measured by harvest to inventory rates. Additionally, reforestation aligns with typical landowner objectives, for both family and industrial ownerships. These factors, working together, support a conclusion of low risk that harvest areas are not regenerated." Enviva requires suppliers to collect intent to reforestation information from the forest landowner they are servicing. If the landowner does not intend to reforest Enviva will not provide a market. Enviva remotely monitors the tracts we do purchase wood from to see if the landowner did reforest. If we notice trends in certain suppliers that tend to have tracts where reforestation did not occur, we may choose to stop working with a supplier. As we describe in our Responsible Sourcing Policy. "We will monitor suppliers' performance to ensure that we are making measurable, timely progress on implementing the policy criteria. Suppliers failing to meet our time-bound requirements will go through a review process and may be subject to non-renewal or termination of contracts. The policy criteria will increasingly be included in our supplier selection and evaluation process." The risk rating justification includes Trees Outside of Forests.
Risk Rating	Low risk

United States	Indicator
2.2.11	The impacts of natural processes such as fires, pests and diseases shall be managed.
Supply Base Verifiers	Enviva conducted a risk assessment of federal and state laws and regulations and determined there is a sufficient and enforced legal structure in place to ensure feedstock sourcing and Enviva operations comply. Each state in the supply base area has laws addressing fire, pest and disease issues. A listing of laws would be extensive. • Federal and State Laws • United States Forest Service • State Forestry Commissions • State level Forest Action Plans • State level Wildlife Action Plans • National Council of Air and Stream Improvement • SBP Regional Assessment for US Private Forests – Draft (SBP RRA US)
Risk Rating justification	The United States Forest Service (USFS) provides forest insect, disease and invasive plant survey and monitoring information, as well as technical and financial assistance to prevent, suppress and control outbreaks threatening forest health. The USFS and other federal agencies are responsible for nationwide response efforts. 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/foresthealth-monitoring/monitoring-forest-highlights.shtml). These reports describe state level efforts underway to protect and/or enhance forest health. State level agencies are responsible for efforts to control fire, pest and disease within their respective borders. Individual landowners are responsible for the land they own or manage. 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 pests, disease, and wildfire to ensure healthy forest and are available on the National State Forester Website. Forest management uses herbicides and pesticides to control unwanted vegetation and Insects. 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, ordesiccant, 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/). Chemical use in forest management activities also follows EPA guidance under FIFRA

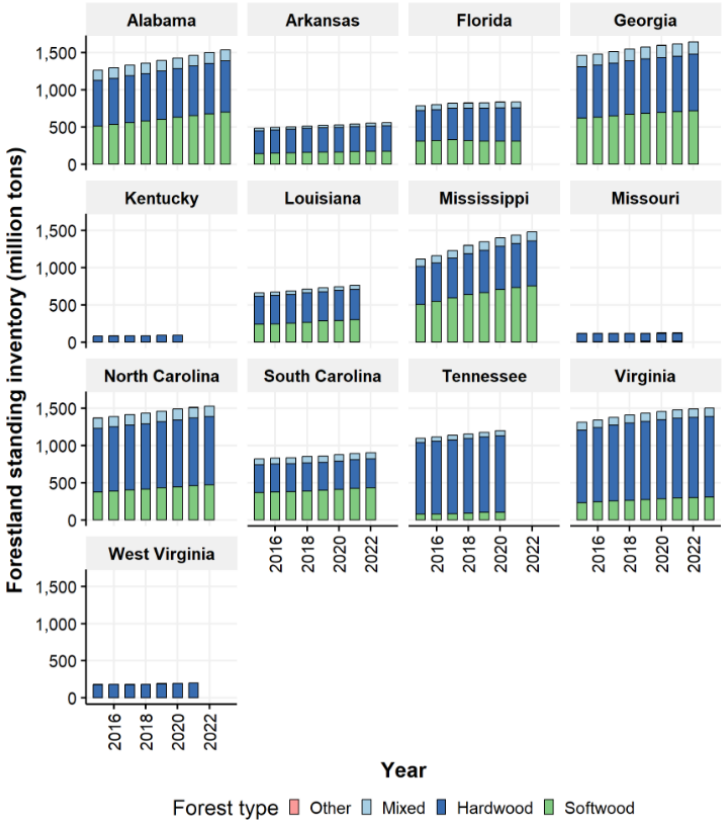
	and includes in-woods practices. A review of the EPA Civil Cases and Settlements by Statute resulted in no findings related to forest management activities. The United States has a robust legal system that deters the abuse of state and federal regulation. Enviva reviews sources such as the National Association of State Foresters and the USFS Forest Inventory Analysis 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 that the wood products industry is well established, logger training and the use of forestry best management practices (BMPs) are an industry norm. Enviva is 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. SBP RRA US "Based upon the robust federal system of managing the impacts of natural processes, the collaboration with State level authorities, the effective engagement of private landowners, and consistent ongoing performance, there is sufficient evidence to designate low risk for this indicator."
Risk Rating	Low risk

United States	**Indicator**
2.2.12	Genetically modified trees shall not be used.
Supply Base Verifiers	Enviva conducted a risk assessment of federal and state laws and regulations and determined there is a sufficient and enforced legal structure in place to ensure feedstock sourcing and Enviva operations comply. • United States Code Title 7 Agriculture Chapter 104 Plant Protection • United States Code of Federal Regulation Title 7 Agriculture Subtitle B Regulations of the Department of Agriculture Chapter 3 Animal and Plant Health Inspection Service Part 340 Movement of Organisms Modified or Produced Through Genetic Engineering • FSC US Controlled Wood National Risk Assessment (FSC US CWNRA) • SBP Regional Assessment for US Private Forests – Draft (SBP RRA US)
Risk Rating justification	There are multiple federal agencies within the US government responsible for regulating GMO's such as the Environmental Protection Agency, Food and Drug Administration, US Department of Agriculture and the Animal and Plant Inspection Service. The FSC US CWNRA concluded the US to be a low risk for the use of GMO's SBP RRA US

	"The use of genetically modified trees in the US including the RRA's geography, is strictly regulated and essentially non-existent within the commercial arena. At this point in time, there is very low risk of GMO trees being planted and harvested commercially to enter the feedstock supply. The FSC US NRA and Seneca Creek study commissioned by AHEC both conclude low risk for use of genetically modified trees. Thus, low risk is designated for the use of genetically modified trees."
Risk Rating	Low risk

United States	Indicator
3.1.1	LULUCF emissions shall be accounted for through one of the following routes: Route A Feedstock may be sourced from a country of origin which is party to the Paris Agreement, and which has submitted a Nationally Determined Contribution to the United Nations Framework Convention on Climate Change (UNFCCC) covering carbon emissions and removals from agriculture, forestry and land use which ensure the changes in carbon stock associated with biomass harvest are counted towards the country's commitment to reduce or limit greenhouse gas emissions, or Route B Feedstock may be sourced from a country of origin which is party to the Paris Agreement and has national or sub-national laws in place (developed in accordance with Article 5 of the Paris Agreement and applicable in the area of harvest), to conserve and enhance carbon stocks and sinks, and provided there is evidence that reported LULUCF-sector emissions do not exceed removals, or Route C Feedstock may be sourced from a Supply Base where an assessment demonstrates that both the carbon stock is stable, and the forests' capacity to act as a carbon sink is stable or increasing over the long term.
Supply Base Verifiers	• SBP REDII Level A risk assessment for Art 29-7 LULUCF v1.3 12Sep24 • Paris Agreement Signatory country • United States Nationally Determined Contribution (NDC) • SBP Regional Assessment for US Private Forests – Draft (SBP RRA US)
Risk Rating justification	The United States is a signatory to the Paris Agreement and has submitted an NDC. Recently the new administration removed the US from the Agreement it is a yearlong process ending in January 2026. Enviva will be transitioning to the SBP RRA for the southeast US in 2025 which will address the Path C evidence requirements. SBP created the SBP REDII Level A risk assessment for Article 29-7 LULCF v1.3 12-Sep24 to level the system for biomass producers who were not operating under and SBP RRA. SBP determined the US to low risk SBP RRA US "Based on review and confirmation that the US is a party to the Paris Agreement and publication of the Nationally Determined Contribution, a conclusion of low risk." The risk rating justification includes Trees Outside of Forests.
Risk Rating	Low risk

United States	Indicator
3.2.1	All feedstock sourcing shall be consistent with either of these two options: Option A. Feedstock may be sourced from Supply Bases where an assessment of the Supply Base shows that the forest carbon stocks are stable or increasing, or Option B. Feedstock may be sourced, if the assessment shows that the forest carbon stocks are declining in the Supply Base, provided that the decline is due to natural processes (fire, pests etc.), and sourcing of feedstock has the aim to recover feedstock that would otherwise be lost or to assist regeneration.
Supply Base Verifiers	There are no federal or state laws or regulations governing forest carbon stocks on private property. • National Council for Air and Stream Improvement (NCASI) • National Association of Forest Owners (NAFO) • United States Forest Service Forest Inventory and Analysis • United States Forest Services Timber Product Output • SBP Regional Assessment for US Private Forests – Draft (SBP RRA US)
Risk Rating justification	Enviva commissioned the National Council for Air and Stream Improvement (NCASI) to conduct a resource analysis of the Enviva enterprise-wide supply base area. The analysis was designed to be similar to NCASI's Briefing Note – Trends in Forest Harvest, Regeneration and Management in the Southeast United States as Related to Biomass Feedstock. NCASI conducted the analysis using United States Forest Service Forest Inventory and Analysis data and the Timber Products Output program.



The Graph above is from the NCASI memo indicating increasing standing forest inventory which is synonymous with increasing carbon stocking.

Forest inventories in the southeast United States have been increasing since the 1950's.

Recently NAFO and NCASI completed an update to their Forest Carbon Data Visualization Tool. They created a series of regional data sets. These data sets show carbon stocks are increasing. Since only 2% of forest volume is harvested annually, the authors expect forest carbon stocks to continue increasing as forests mature.
https://forestcarbondataviz.org/wp-content/uploads/2024/11/NAFO_CarbonAcreageViz_National_Regional_11-5-2024.pdf

SBP RRA US
"While there is no Federal legal framework dictating carbon levels, original analyses of USDA Forest Service FIA data, along with similar analysis and studies conducted by the Federal government and others demonstrate increasing carbon levels. Based on consistent ongoing performance, there is sufficient evidence to designate low risk for this indicator."

Risk Rating	Low risk

United States	Indicator

3.2.2	Primary feedstock shall not be sourced from forest areas where site productivity is low and, according to local definitions or norms, the areas are classified as low-productive or difficult to regenerate.
Supply Base Verifiers	There are no federal or state laws or regulations addressing harvest activities on low productivity forested areas • United States Forest Service (USFS) • SBP Regional Assessment for US Private Forests – Draft (SBP RRA US)
Risk Rating justification	USFS definition; Forest land use is defined as a land area at least 1 acre in size, with at least 10 percent tree canopy cover, or can grow such canopy cover, and is not managed for other uses. Marginal forests are rarely harvested in the supply base area since there are not enough trees per acre to make harvesting operations financially feasible. Generally, if a forest is not capable of growing trees of quantity, size and quality to be sold into the wood economy of the region then the tract is less likely to be harvested but may be at risk for conversion. SBP RRA US "While there is no Federal regulatory mechanism to prevent the planting and harvesting of trees on sites with low productivity, there is little incentive to do so. Original analyses of USDA Forest Service FIA data, corroborated by expert engagement strongly suggests the risk of sourcing from low productivity lands is very low. Based on consistent ongoing performance, there is sufficient evidence to designate low risk for this indicator."
Risk Rating	Low risk

United States	**Indicator**
3.2.3	Primary feedstock shall not be sourced from forest areas in the Supply Base which, according to local definitions or norms, are classified as having combined attributes of high carbon stocks and high conservation value (HCV).
Supply Base Verifiers	There are no federal or state laws or regulations addressing harvest activities in high carbon stock forests or the complete breadth of HCV's defined by SBP. • FSC US Controlled Wood National Risk Assessment (FSC US CWNRA)
Risk Rating justification	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 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. 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. http://water.epa.gov/type/wetlands/types_index.cfm

	The FSC US CWNRA has identified old growth bottomland hardwood forests in the supply base area **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. **Indication of Risk:** Significant threats include development, hydrologic changes (droughts, water withdraws, ditching), incompatible forest management (results in changes to canopy age and structure, hydrology, and available dead and down woody debris), pollution, fragmentation, climate change, invasive species (including spread that is exacerbated by logging activities), and economic drivers that alter forest management goals (i.e., economic drivers result in pressure for inappropriate harvests). Changes to the vegetative cover in these systems can significantly affect hydrologic flow, and therefore the entire system. Forest management occurring within bottomland hardwoods is not necessarily in itself a threat, but how the management is applied in the context of the local landscape is important. Silviculture decisions should emphasize the geomorphic setting and hydrologic conditions of the site, while restoring or maintaining the species and structural diversity. The FSC US CWNRA identifies Old Growth in the Pacific Coast, Rocky Mountain and Southwest regions, but not in the Southeast or Appalachian regions that overlap with the supply base area.
Risk Rating	Low risk

United States	**Indicator**
3.3.1	Feedstock sourcing shall be in compliance with the principles of cascading use, high quality stem wood shall not be used as feedstock if it is in substantial demand for long-lived products in the Supply Base.
Supply Base Verifiers	• IEA Bioenergy • National Council for Air and Stream Improvement
Risk Rating justification	There are no federal or state laws or regulations governing the cascading principle. National Council for Air and Stream Improvement Excerpt from Trends in Forest Harvest, Regeneration, and Management in the Southeastern United States as Related to Biomass Feedstock "Prices drive harvest decisions, and biomass feedstock is a a low-priced material. Prices that landowners receive for their wood have a significant effect on their decision to harvest timber (Zhang et al. 2015; Zhao et al. 2020). This suggests that the market for biomass feedstock could only drive timber harvest decisions if prices offered were high relative to other products. But in the southeastern US, the stumpage price (that landowners are paid) for biomass feedstock is comparable to that for pulpwood. South-wide sawtimber stumpage prices were recently $26/ton for pine and $33/ton for hardwood. At the same

	time, pulpwood stumpage prices (also relevant to biomass feedstock) were about $11/ton for both pine and hardwood. This indicates that a landowner harvesting a 55-year-old mixed oak-pine stand for biomass feedstock would receive about $1,080 per acre, while the same stand sold for a mix of sawtimber and pulpwood would receive about $2,115 per acre. Furthermore, during the recession of 2009-2014, landowners in the southeastern US responded to plunging prices for sawtimber. The amount of timberland area that was clearcut and replanted dropped 47% since the mid-1980s, while the area undergoing partial harvests such as thinnings increased by 57% (Hodges et al. 2011). This amounted to a decline in clearcut harvest of 5 million acres from 2005-2012. This was driven by sawtimber prices, because during this same period, pulpwood prices remained relatively flat. This further demonstrates forest landowner response to markets and prices. Of added importance, healthy markets for forest products incentivize maintaining forest cover (National Commission on Science for Sustainable Forestry 2005)." Excerpt from the IEA Bioenergy Task 40 Working Paper, Cascading of woody biomass: definitions, policies and effects on international trade 5.1 Cascading in North American forest policies 5.1.1 USA "Unless forests are owned by companies and grown for a specific assortment, forest management and harvest timing are usually driven to maximize the most valuable fractions. For softwoods, managed forests in the US South are geared to maximize their sawtimber quantities. Chip-n-saw as well as pulpwood fractions are secondary products. Woody feedstock for energy production is traditionally derived from harvesting and processing residues, which are often not part of traditional forest management objectives, although they can provide economic revenue streams. As such, these low-value harvest fractions, require a high-revenue companion market to provide sufficient financial incentives for harvest operations in the first place. In other words, without a companion market such as sawtimber, less pulpwood and residual quantities are available to the market, including energy production."
Risk Rating	Low risk

United States	Indicator
4.1.1	Freedom of association and the right to collective bargaining shall be respected in the workplace.
Supply Base Verifiers	Enviva conducted a risk assessment of federal and state laws and regulations and determined there is a sufficient and enforced legal structure in place to ensure feedstock sourcing and Enviva operations comply. Each state in the supply base area has laws addressing rights to associate and collective bargaining. Some examples below.

Jurisdiction	Law/Code/Regulation/Statute
United States	Code Title 29 Labor Chapter 7 Labor-Management Relations Sub-chapter 2 National Labor Relations CFR 29 Labor Subtitle B Regulations Related to Labor Chapter 1 National Labor Relations Board
Alabama	Code Title 25 Industrial Relations and Labor Chapter 7 Labour Unions and Labor Relations AL CONST Amend. No. 913
Arkansas	Code Title 11 Labor and Industrial Relations Chapter 3 Labor Relations and Practicies Subchapter 3 Right to Work
Florida	Statute Title XXXI Labor Chapter 447Labor Organizations Part I General Provisions 447.03 Employee's Right of Self-organization
Georgia	Code Title 34 Labor and Industrial Relations Chapter 6 Labor Organizations and Labor Relations
Kentucky	Title XXVII Labor and Human Rights Statute Chapter 336 Labor and empoyment 336.13 Employees may organize, bargain collectively, strike, picket - Effect of violence or injury to person or property
Louisiana	Worker's Compensation Part V Right to Work Section 23.981 Declaration of public polic
Mississippi	Mississippi Constitution Article 7 Section 198A Right to work; labor unions
Missouri	Constitution Article 1 Bill of Rights Section 29 Organized labor and collective bargaining
North Carolina	North Carolina follows the rules set forth by the National Labor Relations Board
South Carolina	Code Title 41 Labor and Employment Chapter 7 Right to Work
Tennessee	2022 Tennessee Consitiutional Amendment 1 Right to Work
Virginia	Code Title 40.1 Labor and Employment Chapter 4 Labor Unions, Strikes, Etc Article 3 Denial or Abridgement of Work
West Virginia	Code 21 Labor Article 1A Labor - Management Relations Act for the Private Sector

- Federal and State laws
- World Bank Worldwide Governance Indicator
- International Labor Organization (ILO)
- United States Department of Labor
- SBP Regional Assessment for US Private Forests – Draft (SBP RRA US)

Risk Rating justification

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

According to the World Bank Worldwide Governance Indicators the US consistently ranks high in Regulatory Quality and in Rule of Law. Evidence of the effectiveness of law enforcement is evident in news reporting and reveals no widespread or systematic abuse of the right to freely associate or collectively bargain in the Enviva supply base area.

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

SBP RRA US
"These risk assessments, legal protections, enforcement mechanisms, educational resources, and policy initiatives provide a strong conclusion that the US promotes and protects freedom of association and the right to collective bargaining in the private and public sectors. The Federal laws establish foundational worker protections that empower employees to advocate for their rights without fear of retaliation. Thus, low risk is designated for freedom of association and the right to collective bargaining being disrespected in the workplace."

The risk rating justification includes Trees Outside of Forests.

Risk Rating

Low risk

<table>
<tr><th>United States</th><th>Indicator</th></tr>
<tr><td>4.1.2</td><td>Forced or compulsory labour shall not be used.</td></tr>
<tr><td>Supply Base Verifiers</td><td>Enviva conducted a risk assessment of federal and state laws and regulations and determined there is a sufficient and enforced legal structure in place to ensure feedstock sourcing and Enviva operations comply. Each state in the supply base area has laws addressing compulsory labor issues. Some examples below.
<table>
<tr><th>Jurisdiction</th><th>Law/Code/Regulation/Statute</th></tr>
<tr><td>United States</td><td>US Constitution 13 Amendment Slavery and Involuntary Servitude</td></tr>
<tr><td>Alabama</td><td>Alabama Constitution Section 32 Slavery prohibitied; involuntary servitude</td></tr>
<tr><td>Arkansas</td><td>Arkansas Constitution Article 2 Declaration of Rights Section 27 Slavery - Standing armies - Military subordinate to civil powers</td></tr>
<tr><td>Florida</td><td>Constitution Article 1 Delaration of Rights
Constitutional Amendment Article 1 Section 28</td></tr>
<tr><td>Georgia</td><td>Constitution Article 1 Bill of Rights Section 1 Rights of Persons Paragraph XXII Involuntary Servitude</td></tr>
<tr><td>Kentucky</td><td>Kentucky Constitution Bill of Rights Section 25 Slavery and involutary servitude forbidden</td></tr>
<tr><td>Louisiana</td><td>Louisiana Constitution Article 1 Declaration of Rights Section 3 Right o Individual Dignity</td></tr>
<tr><td>Mississippi</td><td>Mississipi Constitution Article 3 Bill of Rights Section 15 Slavery and involuntary servitude prohibited; punishment for crime</td></tr>
<tr><td>Missouri</td><td>Statute Title XXXVIII Crimes and Punishment; Peace Officers and Public Defenders Chapter 566 Sexual Offenses, Trafficking Offenses</td></tr>
<tr><td>North Carolina</td><td>Constitution Article 1 Section 17 Slavery and involuntary servitude</td></tr>
<tr><td>South Carolina</td><td>Code Title 16 Crimes and Offenses Chapter 3 Offenses Against the Person Article 19 Trafficking in Persons Section 16-3-2010 Definitons, Section 16-3-2020 Trafficking in person; penalties; minor victims; defenses</td></tr>
<tr><td>Tennessee</td><td>Tennessee Constitution Article 1 Declaration of Rights Section 33</td></tr>
<tr><td>Virginia</td><td>Constitution of 1864 to align with the 13th Amendment of the US Constitution</td></tr>
<tr><td>West Virginia</td><td>Code Chapter 61 Crimes and Their Punishment Article 14 Human Trafficking</td></tr>
</table>

Federal and State laws
World Bank Worldwide Governance Indicator
United States Constitution
United States Code
United States Department of Labor
SBP Regional Assessment for US Private Forests – Draft (SBP RRA US)
</td></tr>
<tr><td>Risk Rating justification</td><td>According to the World Bank Worldwide Governance Indicators the US consistently ranks high in Regulatory Quality and in Rule of Law. Evidence of the effectiveness of law enforcement is evident in news reporting and reveals no widespread or systematic abuse of the right to freely associate or collectively bargain in the Enviva supply base area.

US Code 18 Code § 1589 - Forced labour: Whoever knowingly provides or obtain labor by force in the US is subject to be fined under this title, imprisoned not more than 20 years, or both.

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

SBP RRA US
“These risk assessments, legal protections, enforcement mechanisms, training programs, and policy initiatives provide a strong conclusion that the US has a strong legal framework in place to prevent forced labor and compulsion in this sector. Based on consistent ongoing performance, there is sufficient evidence to designate low risk for this indicator.”

The risk rating justification includes Trees Outside of Forests.</td></tr>
</table>

Risk Rating	Low risk

United States	Indicator
4.1.3	Child labour shall not be used.
Supply Base Verifiers	Enviva conducted a risk assessment of federal and state laws and regulations and determined there is a sufficient and enforced legal structure in place to ensure feedstock sourcing and Enviva operations comply. Each state in the supply base area has laws addressing child labour issues. Some examples below.

Jurisdiction	Law/Code/Regulation/Statute
United States	Code Title 29 Labor Chapter 8 Fair Labor Standards Section212 Child labor provisions
Alabama	Code Title 25 Industrial Relations and Labor Chapter 8 Child Labor
Arkansas	Code Title 11 Labor and Industrial Relations Chapter 6 Child Labor
Florida	Statute Title XXXI Labor Chapter 450 Minority Labor Groups Part 1 Child Labor
Georgia	Code Title 39 Minors Chapter 2 Regulation and Employment of Minors
Kentucky	Statute Title XXVII Labor and Human Rights Chapter 339 Child Labor
Louisiana	Statute Title 23 Labor and Worker's Compensation Chapter 3 Employment Standards Part I Minors
Mississippi	Code Title 71 Labor and Industry Chapter 1 Employer and Employee Sections 71-1-17 - 29
Missouri	Statute Title XVIII Labor and Industrial Relations Chapter 294 Child Labor
North Carolina	Statute Chpater 95 Department of Labor and Laboir Regulations article 2A Wage and Hour Act Section 95-25.5 Youth Employment
South Carolina	Code Title 41 Labor and Employment Chapter 13 Child Labor
Tennessee	Code Title 50 Employer and Employee Chapter 5 Child Labor
Virginia	Code Title 40.1 Labor and Employment Chapter 5 Child Labor
West Virginia	Code Chapter 21 Labor Article 6 Child Labor

- Federal and State laws
- World Bank Worldwide Governance Indicator
- United States Department of Labor
- State level Department of Labor
- FSC US Controlled Wood National Risk Assessment (FSC US CWNRA)
- SBP Regional Assessment for US Private Forests – Draft (SBP RRA US)

Risk Rating justification	FSC US CWNRA concludes low risk for Category 2: Wood Harvested in violation of Traditional and Human Rights, which includes 2.2. Labour rights are respected, including rights as specified in ILO Fundamental Principles and Rights at work. The FSC CWNRA finds: "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." 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." According to the World Bank Worldwide Governance Indicators the US consistently ranks high in Regulatory Quality and in Rule of Law. Evidence of the effectiveness of law enforcement is evident in news reporting and reveals no widespread or systematic abuse of children's rights in the workplace in the Enviva supply base area. The United States Department of Labor provides verification of enforcement. (https://www.dol.gov/general/topic/youthlabor/enforcement) SBP RRA US "Based upon the established legal frameworks and enforcement mechanisms aimed at preventing child labor in the US, as evidenced by the FLSA, the TVPA, and the enforcement efforts of the DOL, there is sufficient evidence to designate low risk for this indicator regarding the use of child labor in the workplace." The risk rating justification includes Trees Outside of Forests.
Risk Rating	Low risk

United States	Indicator
4.1.4	Workers shall not be discriminated in hiring, remuneration, access to training, promotion, termination or retirement.
Supply Base Verifiers	Enviva conducted a risk assessment of federal and state laws and regulations and determined there is a sufficient and enforced legal structure in place to ensure feedstock sourcing and Enviva operations comply. Each state in the supply base area has laws addressing the treatment of workers in the workplace issues. Some examples below.

Jurisdiction	Law/Code/Regulation/Statute
United States	CFR 29 Labor Chapter 14 Equal Employment Opportunity Commission Subtitle B Regulations Relating to Labor Code Title 29 Labor Chapter 8 Fair Labor Standards
Alabama	Code Title 25 Industrial Relations Chapter 1 General Provisions
Arkansas	Code Title 11 Labor and Industrial Relations Chapter 4 Wage and Hour Regulations Generally Subchapter 6 Wage Discrimination Chapter 3 Labor Relations and Practices Code Title 16 Practice, Procedures and Courts Subtitle 7 Particular Proceedings and Remedies Chapter 123 Civil Rights Act of 1993
Florida	Statute Title XLIV Civil Rights Section 760.01-760.11 and 509.092 Statute Title XXXI Labor Chapter 448 General Labor Reguations Part I Terms and Conditions of Employment
Georgia	Code Title 34 Labor and Industrial Relations Chapter 1 General Provisions Chapter 7 Employment Generally; Employers Liability
Kentucky	Statute Title XXVII Labor and Human Rights Chapter 207 Aid to the needy blind - equal opportunties section Equal Opportunites Act Chapter 344 Civil rights Section Unlawful Discrimination Chapter 337 Wages and hours Section Wage Discrimination Because of Sex
Louisiana	Louisiana Workforce Commission (23.1), Prohibition of age discrimination (23.312), Discrimination (23.323), Intentional discrimination in employment (23.332), Unlawful practice by employers prohibited; pregnancy, childbirth, or related medical condition; benefits and leaves of absence; transfer of position (23.342), Prohibition of sickle cell trait discrimination (23.352), Louisiana Equal Pay for Women Act (23.661)
Mississippi	Code Title 71 Labor and Industry Chapter 13 Prohibition Against Empoyer Intimidation Act Chapter 11 Employment Protection Act Chapter 15 Mississippi Employment Fairness Act
Missouri	Code Title 71 Labor and Industry Chapter 13 Prohibition Against Empoyer Intimidation Act Chapter 11 Employment Protection Act Chapter 15 Mississippi Employment Fairness Act
North Carolina	Statute Chpater 95 Department of Labor and Labor Regulations Article 21 Retaliatory Employment Discriminiation Chapter 143 State Departments, Institutions and Commissions Article 49A Equal Employment Practices Administrative Code Title 13 Labor Chapter 19 Retaliatory Employment Discrimination
South Carolina	Code Title 41 Labor and Employment Chapter 1 General Provisions Chapter 7 Right to Work
Tennessee	Code Title 50 Employer and Employee Chapter 1 Employment Relationship and Practices
Virginia	Code Title 40.1 Labor and Employment Chapter 3 Protections of Employees Article 1 General Provisions
West Virginia	Code Chapter 21 Labor Article 5 Wage Payment and Collection Article 5B Equal Pay for Equal Work Article 5C Minimum Wage and Maximum Hour Standard for Employees

- Federal and State laws
- World Bank Worldwide Governance Indicator
- United States Equal Employment Opportunity Commission (US EEOC)
- FSC US Controlled Wood National Risk Assessment (FSC US CWNRA)
- SBP Regional Assessment for US Private Forests – Draft (SBP RRA US)

Risk Rating justification

FSC US CWNRA concludes low risk for Category 2: Wood Harvested in violation of Traditional and Human Rights, which includes 2.2. Labour rights are respected, including rights as specified in ILO Fundamental Principles and Rights at work.
"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 (EEOC). 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;" "All indicators In the Category 1 (legality) assessment were designated as 'low risk' at a national scale, indicating that the relevant legislation is enforced." From the EEOC website Overview "The US EEOC is responsible for enforcing workplace laws including discrimination against individuals based on the basis of race, color, religion, sex (includes pregnancy, childbirth, and related medical conditions, sex stereotyping, transgender status, and gender identity), national origin (includes limited English proficiency), age, disability, political affiliation or belief in respect of employment and occupation." According to the World Bank Worldwide Governance Indicators the US consistently ranks high in Regulatory Quality and in Rule of Law. Evidence of the effectiveness of law enforcement is evident in news reporting and reveals no widespread or systematic ill treatment of workers in the workplace in the workplace in the Enviva supply base area. The United States Department of Labor provides verification of enforcement. (https://www.dol.gov/general/topic/youthlabor/enforcement) SBP RRA US "Based on the existence of clear and comprehensive Federal laws, State-level protections, and strong enforcement mechanisms, there is sufficient evidence to designate low risk for this indicator regarding workplace discrimination in hiring, remuneration, access to training, promotion, termination, and retirement." The risk rating justification includes Trees Outside of Forests.
Risk Rating	Low risk

United States	**Indicator**
4.1.5	Wages paid to workers shall meet or exceed the legal minimum wage or where there is no statutory minimum wage industry norms shall be met or exceeded
Supply Base Verifiers	Enviva conducted a risk assessment of federal and state laws and regulations and determined there is a sufficient and enforced legal structure in place to ensure feedstock sourcing and Enviva operations comply. Each state in the supply base area has laws addressing the compensation of workers. Some examples below.

	<table><tr><th>Jurisdiction</th><th>Law/Code/Regulation/Statute</th></tr><tr><td>United States</td><td>Code Title 29 Labor Chapter 8 Fair Labor Standards CFR 29 Labor Chapter 14 Equal Employment Opportunity Commission</td></tr><tr><td>Alabama</td><td>Fair Labor Standards Act minimum wage rules apply</td></tr><tr><td>Arkansas</td><td>Code Title 11 Labor and Industrial Relations Chapter 4 Wage and Hour Regulations Generally Subchapter 2 Minimum Wage Law</td></tr><tr><td>Florida</td><td>Statute Title XXXI Labor Chapter 448 General Labor Regulations Part I Terms and Conditions of</td></tr><tr><td>Georgia</td><td>Code Title 34 Labor and Industrial Relations Chapter 4 Minimum Wage Law</td></tr><tr><td>Kentucky</td><td>Statute Title XXVII Labor and Human Rights Chapter 337 Wages and hours Section Payment of Wages Generally Section Wage and Hour 337.275</td></tr><tr><td>Louisiana</td><td>Fair Labor Standards Act minimum wage rules apply</td></tr><tr><td>Mississippi</td><td>Fair Labor Standards Act minimum wage rules apply</td></tr><tr><td>Missouri</td><td>Statute Title XVIII Labor and Industrial Relations Chapter 290 Wages, Hours and Dismisal Rights</td></tr><tr><td>North Carolina</td><td>Statutes Chapter 95 Department of Labor and Labor Regulations Article 2A Wage and Hour Act Section 95-25.3 Minimum Wage Article 11 Minimum Wage Act</td></tr><tr><td>South Carolina</td><td>Fair Labor Standards Act minimum wage rules apply</td></tr><tr><td>Tennessee</td><td>Fair Labor Standards Act minimum wage rules apply</td></tr><tr><td>Virginia</td><td>Code Title 40.1 Labor and Employment Chapter 3 Protections of Employees Article 1.1 Virginia Minimum Wage Act</td></tr><tr><td>West Virginia</td><td>Code Chapter 21 Labor Article 5C Minimum Wage and Maximum Hour Standard for Employees</td></tr></table> • Federal and State laws • World Bank Worldwide Governance Indicator • United States Department of Labor • FSC US Controlled Wood National Risk Assessment (FSC US CWNRA) • SBP Regional Assessment for US Private Forests – Draft (SBP RRA US)
Risk Rating justification	The Fair Labor Standards Act (FLSA) establishes minimum wage, overtime pay, recordkeeping, and child labor standards affecting full-time and part-time workers in the private sector and in federal, state, and local governments. The Wage and Hour Division (WHD) of the U.S. Department of Labor (DOL) administers and enforces the FLSA. The FSC US CWNRA concludes a low risk for category 1 Illegally Harvested Wood, including 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. According to the World Bank Worldwide Governance Indicators the US consistently ranks high in Regulatory Quality and in Rule of Law. Evidence of the effectiveness of law enforcement is evident in news reporting and reveals no widespread or systematic wage issues in the Enviva supply base area. SBP RRA US “Based on the existence of a comprehensive Federal legal framework, State-level wage laws, and strong enforcement mechanisms, there is sufficient evidence to designate low risk for this indicator.” The risk rating justification includes Trees Outside of Forests.
Risk Rating	Low risk

United States	Indicator
4.1.6	Working hours shall comply with legal requirements.
Supply Base Verifiers	Enviva conducted a risk assessment of federal and state laws and regulations and determined there is a sufficient and enforced legal structure in place to ensure feedstock sourcing and Enviva operations comply. Each state in the supply base area has laws addressing the working hours for workers. Some examples below.

Jurisdiction	Law/Code/Regulation/Statute
United States	Code Title 29 Labor Chapter 8 Fair Labor Standards CFR 29 Labor Chapter 14 Equal Employment Opportunity Commission
Alabama	Fair Labor Standards Act minimum wage rules apply
Arkansas	Code Title 11 Labor and Industrial Relations Chapter 4 Wage and Hour Regulations Generally
Florida	Statute Title XXXI Labor Chapter 448 General Labor Regulations Part I Terms and Conditions of Employment 448.01 Legal day's work; extra pay
Georgia	Code Title 34 Labor and Industrial Relations
Kentucky	Statute Title XXVII Labor and Human Rights Chapter 337 Wages and hours
Louisiana	Fair Labor Standards Act minimum wage rules apply
Mississippi	Fair Labor Standards Act minimum wage rules apply
Missouri	Statute Title XVIII Labor and Industrial Relations Chapter 290 Wages, Hours and Dismisal Rights
North Carolina	Statutes Chapter 95 Department of Labor and Labor Regulations Article 2A Wage and Hour Act
South Carolina	Fair Labor Standards Act minimum wage rules apply
Tennessee	Fair Labor Standards Act minimum wage rules apply
Virginia	Code Title 40.1 Labor and Employment Chapter 3 Protections of Employees
West Virginia	Code Chapter 21 Labor Article 5C Minimum Wage and Maximum Hour Standard for Employees

- Federal and State laws
- World Bank Worldwide Governance Indicator
- United States Department of Labor
- FSC US Controlled Wood National Risk Assessment (FSC US CWNRA)
- SBP Regional Assessment for US Private Forests – Draft (SBP RRA US)

Risk Rating justification	The Fair Labor Standards Act (FLSA) establishes minimum wage, overtime pay, recordkeeping, and child labor standards affecting full-time and part-time workers in the private sector and in federal, state, and local governments. The Wage and Hour Division (WHD) of the U.S. Department of Labor (DOL) administers and enforces the FLSA. The FSC US CWNRA concludes a low risk for category 1 Illegally Harvested Wood, including 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. According to the World Bank Worldwide Governance Indicators the US consistently ranks high in Regulatory Quality and in Rule of Law. Evidence of the effectiveness of law enforcement is evident in news reporting and reveals no widespread or systematic wage issues in the Enviva supply base area. SBP RRA US "Based on the existence of clear Federal and State-level regulations, high compliance rates, and enforcement mechanisms, there is sufficient evidence to designate low risk for this indicator." The risk rating justification includes Trees Outside of Forests.
Risk Rating	Low risk

<table>
<tr><th>United States</th><th>Indicator</th></tr>
<tr><td>4.1.7</td><td>Workers shall have access to health care provisions, sickness benefits, retirement benefits, invalidity benefits, death benefits, and workers' compensation</td></tr>
<tr><td>Supply Base Verifiers</td><td>Enviva conducted a risk assessment of federal and state laws and regulations and determined there is a sufficient and enforced legal structure in place to ensure feedstock sourcing and Enviva operations comply. Each state in the supply base area has laws addressing the health, retirement and other benefits for workers. Federal laws and regulations apply to all states. Some specific state examples below.
<table>
<tr><th>Jurisdiction</th><th>Law/Code/Regulation/Statute</th></tr>
<tr><td>United States</td><td>Code Title 29 Labor
Chapter 8 Fair Labor Standards
Chapter 29 Family and Medical Leave Act
Chapter 18 Employee Retirement Income Security
Code 42 Chapter 157 Quaility, Affordable Health Care for All Americans</td></tr>
<tr><td>Alabama</td><td>State Code Title 25 Industrial Relations and Labor
Chapter 5 Workers' Compentation
Chapter 4 Unemployment Compensation</td></tr>
<tr><td>Arkansas</td><td>Code Title 11 Labor and Industrial Relations
Chapter 9 Workers Compensation
Chapter 10 Division of Workforce Services Law Subchapter 11 Benefits Generally</td></tr>
<tr><td>Florida</td><td>Statute Title XXXI Labor Chapter 440 Workers' Compensation</td></tr>
<tr><td>Georgia</td><td>Code Title 34 Labor and Industrial Relations
Chapter 8 Employment Security
Chapter 9 Workers Compensation</td></tr>
<tr><td>Kentucky</td><td>Statute Title XXVII Labor and Human Rights
Chapter 341 Unemployment compensation
Chapter 342 Worker's Compensation</td></tr>
<tr><td>Louisiana</td><td>Code Title 23 Labor and Worker's Compensation Chapter 1 Louisiana Workforce Commission Chapter 3-A Prohibited Discriminationn
Chapter 109 Workers' Compensation
Chapter 11 Unemployment Compensation</td></tr>
<tr><td>Mississippi</td><td>Code Title 71 Labor and Industry
Chapter 3 Workers' Compensation
Chapter 5 Unemployment Compensation</td></tr>
<tr><td>Missouri</td><td>State Regulations Title 8 Department of Labor and Industrial Relations
Division 10 Division of Employment Security
Divison 50 Division of Workers Compensation
Division 60 Missouri Commission on Human Rights</td></tr>
<tr><td>North Carolina</td><td>Chapter 97 Worker's Compensation Act
Chapter 96 Employment Security</td></tr>
<tr><td>South Carolina</td><td>Code Title 42 Workers' Compensation
Regulation Chapter 47 Department of Employment and Workforce</td></tr>
<tr><td>Tennessee</td><td>Code Title 50 Employer and Employee
Chapter 6 Workers Compensation Law
Chapter 7 Tennessee Employment Security</td></tr>
<tr><td>Virginia</td><td>Title 60.2 Unemployment Compensation
Title 65.2 Worker's Compensation</td></tr>
<tr><td>West Virginia</td><td>Code Chapter 21A Unemployment Compensation
Chapter 23 Workers' Compensation</td></tr>
</table>

Federal and state laws
United States Department of Labor
World Bank worldwide Governance Indicators
SBP Regional Assessment for US Private Forests – Draft (SBP RRA US)
</td></tr>
<tr><td>Risk Rating justification</td><td>Federal laws and regulations apply in all states and some states have laws and regulations that go beyond federal requirements. Federal programs managed at the state level include US Affordable Care Act, Family Medical Leave Act, Unemployment Compensation, Workers Compensation, and Social Security.</td></tr>
</table>

	The US Department of Labor and other federal agencies are responsible for monitoring and enforcement. According to the World Bank Worldwide Governance Indicators the US consistently ranks high in Regulatory Quality and in Rule of Law. Evidence of the effectiveness of law enforcement is evident in news reporting and reveals no widespread or systematic issues related to worker care as defined in the indicator in the Enviva supply base area. SBP RRA US "Given well-established laws pertaining to health care provisions, workers' compensation, and benefits, a strong track record of enforcement, and the conclusions of other, widely-accepted analyses, along with direct feedback from stakeholders and experts, there is a well-supported conclusion of low risk that feedstock sourcing for biomass does not comply with all relevant laws within the geography of the RRA, including those related to workers' access to healthcare, sickness benefits, retirement benefits, and workers' compensation." The risk rating justification includes Trees Outside of Forests.
Risk Rating	Low risk

United States	**Indicator**
4.1.8	Training shall be provided for all workers to allow them to implement the conditions set out in all elements of the SBP Standards relevant to their responsibilities.
Supply Base Verifiers	Enviva conducted a risk assessment of federal and state laws and regulations and determined there is a sufficient and enforced legal structure in place to ensure feedstock sourcing and Enviva operations comply. Each state in the supply base area has laws and regulations based on federal Occupational Safety and Health Administration regulations addressing training for workers. • Occupational Safety and Health Administration (OSHA) • World Bank Worldwide Governance Indicator • United States Department of Labor • Sustainable Forestry Initiative Fiber Sourcing (SFI) certificate holder • FSC US Controlled Wood National Risk Assessment (FSC US CWNRA) • SBP Regional Assessment for US Private Forests – Draft (SBP RRA US)
Risk Rating justification	OSHA's mission statement from their website "OSHA's mission is to assure America's workers have safe and healthful working conditions free from unlawful retaliation. OSHA carries out its mission by setting and enforcing standards; enforcing anti-retaliation provisions of the OSH Act and other federal whistleblower laws; providing and supporting training, outreach, education, and assistance; and working collaboratively with our state OSHA programs as well as ensuring that they are at least as effective as federal OSHA, furthering a national system of worker safety and health protections." The US Occupational Health and Safety Administration is responsible for implementing, monitoring, and enforcing worker health and safety laws and regulations.

	OSHA records of reportable injuries and rates are publicly available. 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. Monitoring and enforcement is conducted by the US Department of Labor. (https://www.osha.gov/dep/index.html) The SFI Fiber Sourcing Standard requires certificate holders to use qualified resource professionals, qualified logging professionals and certified logging companies; promote the use of the same and contractually require its suppliers to participate in SFI approved logger training programs. Enviva requires all primary feedstock suppliers to complete an annual training covering the necessary elements of SBP. Enviva also requires Commodity Managers and Foresters to complete an annual training to ensure staff understands their responsibilities in light of SBP and other certification systems. According to the World Bank Worldwide Governance Indicators the US consistently ranks high in Regulatory Quality and in Rule of Law. Evidence of the effectiveness of law enforcement is evident in news reporting and reveals no widespread or systematic issues related to worker training in the Enviva supply base area. The FSC US CWNRA concludes a low risk for category 1 Illegally Harvested Wood, including 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. SBP RRA US "Given well-established laws and industry standards pertaining to worker training, a strong track record of enforcement, and the conclusions of other, widely accepted analyses, along with direct feedback from stakeholders and experts, there is a well-supported conclusion of low risk that feedstock sourcing for biomass does not comply with all relevant laws within the geography of the RRA, including those related to training provisions." The risk rating justification includes Trees Outside of Forests.
Risk Rating	Low risk

United States	**Indicator**
4.1.9	Mechanisms shall be in place for resolving grievances and disputes in the workplace.
Supply Base Verifiers	Enviva conducted a risk assessment of federal and state laws and regulations and determined there is a sufficient and enforced legal structure in place to ensure feedstock sourcing and Enviva operations comply. Federal and state laws are in place to resolve worker grievances and disputes.

Jurisdiction	Law/Code/Regulation/Statute
United States	Code Title 29 Labor Chapter 8 Fair Labor Standards CFR 29 Labor Chapter 14 Equal Employment Opportunity Commission
Alabama	Code Title 25 Industrial Relations and Labor Chapter 1 General Provisions
Arkansas	Code Title 11 Labor and Industrial Relations Chapter 3 Labor Relations and Practices Subchapter 4 Labor Disputes Code Title 16 Practice, Procedure and Courts Subtitle 7 Particular Proceedings and Remedies Chapter 123 Civil Rights Subchapter 1 Arkansas Civil Rights Act of 1993 16-123-107 Discrimination offenses
Florida	Statute Title XXXI Labor Chapter 448 General Labor Regulations Part I Terms and Conditions of Employment 448.103 Employee's remedy; relief
Georgia	Rules and Regulations Department 186 Commission on Equal Opportunity Chapter 186-1 Administration Rule 186-1-.05 Complaint Processing
Kentucky	Statute Title XVII Economic Security and Public Welfare Chapter 207 Aid to the needey blind - equal opportunities Section equal Opportunities Act
Louisiana	Administrtative Code title 40 Labor and Employment PartXIX Louisiana Workforce Commission
Mississippi	Code Title 71 Labor and Industry Chapter 13 Prohibition Against Employer Intimidation
Missouri	State Regulations Title 8 Department of Labor and Industrial Relations Division 60 Missouri Commission on Human rights
North Carolina	Statute Chapter 95 Department of Labor and Labor Regulations Article 21 Retaliatory Employment Discriminiation Chapter 143 State Departments, Institutions and Commissions Article 49A Equal Employment Practices
South Carolina	Regulation Chapter 65 South Carolina Human Affairs Commission
Tennessee	Code Titlee 50 Employer and Employee Chapter 1 Employment Relationships and Practicies Part 1 Hiring Practicies Part 2 Right to Work Part 3 Working Conditions Generally Part 5 Healthy Workplace Act Part 8 Retaliatory Discharge
Virginia	Code Title 40.1 Labor and Employment Chapter 3 Protections of Employees Article 1 General Provisions Section 40.1-27.3 Retaliatory actions against employ prohibited
West Virginia	Code Chapter 5 General Powers and Authority of the Governor, Secretary of State and Attorney General; Board of Public Works; Miscellanious Agencies, Commissions, Offices, Programs, etc. Article 11 Human Rights Commission

- Federal and state law
- National Labor Relations Board (NLRB)
- World Bank Worldwide Governance Indicator
- United States Equal Employment Opportunity Commission (US EEOC)
- SBP Regional Assessment for US Private Forests – Draft (SBP RRA US)

Risk Rating justification

From the National Labor Relations Board website About NLRB Who We Are
"The National Labor Relations Board (NLRB) is an independent federal agency created in 1935 and vested with the power to safeguard employees' rights to organize, engage with one another to seek better working conditions, choose whether or not to have a collective bargaining representative negotiate on their behalf with their employer, or refrain from doing so. The NLRB also acts to prevent and remedy unfair labor practices committed by private sector employers and unions, as well as conducts secret-ballot elections regarding union representation. The NLRB is a bifurcated agency governed on one side by a five-person Board and on the other side by a General Counsel. Board Members and the General Counsel are appointed by the President with the consent of the Senate. The responsibilities and functions of the Agency under the 1935 National Labor Relations Act, as amended, are carried out by the National Labor Relations Board and its General Counsel, who, in addition to independent authority under the statute, exercises other authority by delegation from the Board."

From the EEOC website Overview
"The US EEOC is responsible for enforcing workplace laws including discrimination against individuals based on the basis of race, color, religion, sex (includes pregnancy, childbirth, and related medical conditions, sex stereotyping, transgender status, and gender identity), national origin (includes limited English proficiency), age, disability,

	political affiliation or belief in respect of employment and occupation." According to the World Bank Worldwide Governance Indicators the US consistently ranks high in Regulatory Quality and in Rule of Law. Evidence of the effectiveness of law enforcement is evident in news reporting and reveals no widespread or systematic issues related to the inability for workers to file a grievance or complaint and had affair hearing of the same in the Enviva supply base area. SBP RRA US "Based upon the existence of clear Federal and State regulations, established grievance resolution mechanisms, industry standards, and ongoing enforcement efforts, there is sufficient evidence to designate low risk for this indicator." The risk rating justification includes Trees Outside of Forests.
Risk Rating	Low risk

United States	**Indicator**
4.1.10	Safeguards shall be put in place to protect the health and safety of workers by developing, communicating and implementing policies and procedures.
Supply Base Verifiers	Enviva conducted a risk assessment of federal and state laws and regulations and determined there is a sufficient and enforced legal structure in place to ensure feedstock sourcing and Enviva operations comply. Each state in the supply base area has laws and regulations based on federal Occupational Safety and Health Administration regulations addressing training for workers.

Jurisdiction	Law/Code/Regulation/Statute
United States	Code Title 29 Labor Chapter 8 Fair Labor Standards CFR 29 Labor Chapter 17 Occupational Safety and Health Administration, Department of Labor
Alabama	Code Title 29 Labor Chapter 8 Fair Labor Standards CFR 29 Labor Chapter 17 Occupational Safety and Health Administration, Department of Labor
Arkansas	Code Title 11 Labor and Industrial Relations Chapter 2 Department of Labor Subchapter 1 General Provisions 11-2-116, 11-2-117
Florida	Code Title 29 Labor Chapter 8 Fair Labor Standards Administrative Code 61 Department of Business and Professional Regulation
Georgia	Code Title 34 Laor and Industrial Relations Chapter 2 Department of Labor Section 34-2-10 Employer's
Kentucky	Statute Title XXVII Labor and Human Rights Chapter Chapter 338 Occupational safety and health of employees
Louisiana	Code Title 23 Labor and Worker's Compensation Section23.1179 Occupational safety and health program
Mississippi	Code Title 71 Labor and Industry Chapter 1 Employer and Employee Section 71-1-1 Occupational health and safety program
Missouri	Statutes Title XVIII Labor and Industrial Relations Chapter 292 Health and Safety of Employees
North Carolina	Statute Chapter 95 Department ofLabor and Labor Regulations Article 16 Occupational Safety and Health Act of North Carolina
South Carolina	Code Title 41 Labor and Employment Chapter 15 Occupational Health and Safety
Tennessee	Code Title 50 Employer and Employee Chapter 1 Employment Relationship and Practicies Part 5 Healthy Workplace Act Chapter 3 Occupational Safety and Health Act of 1972
Virginia	Code Title 40.1 Labor and Employment Chapter 3 Protection of Employees Article section 40.1-51.1 Duties of employers
West Virginia	Code Chapter 21 Labor Article 3A Occupational Safety and Health Act

- Occupational Safety and Health Administration (OSHA)
- World Bank Worldwide Governance Indicator

	• United States Department of Labor • SBP Regional Assessment for US Private Forests – Draft (SBP RRA US)
Risk Rating justification	OSHA's mission statement from their website "OSHA's mission is to assure America's workers have safe and healthful working conditions free from unlawful retaliation. OSHA carries out its mission by setting and enforcing standards; enforcing anti-retaliation provisions of the OSH Act and other federal whistleblower laws; providing and supporting training, outreach, education, and assistance; and working collaboratively with our state OSHA programs as well as ensuring that they are at least as effective as federal OSHA, furthering a national system of worker safety and health protections." The US Occupational Health and Safety Administration is responsible for implementing, monitoring, and enforcing worker health and safety laws and regulations. OSHA records of reportable injuries and rates are publicly available. 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. Monitoring and enforcement is conducted by the US Department of Labor. (https://www.osha.gov/dep/index.html) According to the World Bank Worldwide Governance Indicators the US consistently ranks high in Regulatory Quality and in Rule of Law. Evidence of the effectiveness of law enforcement is evident in news reporting and reveals no widespread or systematic issues related to worker health and safety in the Enviva supply base area. SBP RRA US "Based on the clear federal regulations enforced by OSHA, State-level safety programs, comprehensive health and safety policies mandated for employers, there is sufficient evidence to designate low risk for this indicator." The risk rating justification includes Trees Outside of Forests.
Risk Rating	Low risk

United States	**Indicator**
4.2.1	Negative social and community impacts shall be identified and avoided.
Supply Base Verifiers	• Code Title 42 The Public Health and Welfare Chapter 55 National Environmental Policy • State level Forestry Action Plans • EPA • National Council for Air and Stream Improvement • Air and Water Permitting Agencies • Enviva Community Outreach • SBP Regional Assessment for US Private Forests – Draft (SBP RRA US)

Risk Rating justification	Each state in the supply base area has a Forest Action Plan outlining the state's assessment of forest resources and analysis of trends and challenges and the state's top priorities for forestland within their borders. The plans are federally mandated to address forest health issues, access to recreation and resource development. The EPA developed a mapping tool, EPA Environmental Justice (EJ) Screen for public use to help companies, stakeholders and others to conduct high level assessments of potential EJ issues. NCASI recently released a Briefing Note to its members, BN-24-06 EJScreen Insights: A Resource for Industry Stakeholders with Updates in Version 2.3 encouraging members to be sure they fully understand the methodology behind the percentage calculations among other things. And to consider other sources when using the mapping tool. Each state has Environmental Quality Agency responsible for issuing and monitoring air and water permits. Enviva has all the necessary permits and is following air and water quality compliance standards. Enviva' Community Relations Managers are active in our sourcing regions and participate in many public activities where concerned community members can approach them to discuss concerns. SBP RRA US "Based on the existence of data collection by the US Census Bureau, State Forest Action Plans designed to promote community benefits, tools like the Environmental Justice Screening and Mapping Tool for monitoring impacts, and stakeholder consultation to address potential social issues, there is sufficient evidence to designate low risk. The risk rating justification includes Trees Outside of Forests.
Risk Rating	Low risk

United States	**Indicator**
4.2.2	Feedstock sourcing shall positively contribute to the local economy, including employment.
Supply Base Verifiers	• Southern Group of State Foresters (SGSF) • United States Pellet Association (USIPA) • Chmura Summary – Enviva • SBP Regional Assessment for US Private Forests – Draft (SBP RRA US)
Risk Rating justification	According to SGSF forestry and forest products from the southern states contribute over $251 billion to the southern economy annually. Further, it generates over 1.1 million jobs and over $53 million in income. USIPA reports that pellet exports increased over the past decade to 9.5 million tons valued at over $1.75 billion. And since the first pellet mill in 2007 an additional 10 million acres of forestland have been added or a 4.5% increase.

	In a report commissioned by Envia by Chmura in Feb 2021 Enviva's impact after the commissioning of Es would be 1,145 direct employment jobs and 3,106 indirect. The direct economic impact would be $1.563 million and indirect $1,145 million. SBP RRA US "Based on the significant role of feedstock sourcing in the economy of the geography of the RRA, as evidenced by employment data from the US Census Bureau and Bureau of Labor Statistics, the positive economic impacts highlighted in various studies, and the substantial job creation reported by organizations like NAFO, there is sufficient evidence to designate low risk for this indicator."
Risk Rating	Low risk

United States	**Indicator**
4.2.3	Food, water supply or high conservation values (HCV) that are essential for the fulfilment of basic needs of communities shall be maintained or enhanced

Supply Base Verifiers	Enviva conducted a risk assessment of federal and state laws and regulations and determined there is a sufficient and enforced legal structure in place to ensure feedstock sourcing and Enviva operations comply. Some federal examples below
	• CFR 25 Indians
	  ○ Subpart F Tribal Government
	  ○ Subchapter H Land and Water
	  ○ Subchapter I Energy and Mineral
	  ○ Subchapter J Fish and Wildlife
	  ○ Subchapter L Heritage Preservation
	• Code Title 25
	  ○ Chapter 32 Native American Graves Protection and Repatriation
	• National Indian Forest Resource Management
	  ○ Chapter 45 Protection of Indians and Conservation of Resources
	Additional verifiers
	• FSC US Controlled Wood National Risk Assessment (FSC US CWNRA)
	• SBP Regional Assessment for US Private Forests – Draft (SBP RRA US)
	• World Bank Worldwide Governance Indicator

Risk Rating justification	Excerpt from the FSC US CWNRA "The United States is an industrialized nation that likely does not contain nontribal communities within the conterminous states that directly rely on sites or resources fundamental to satisfying basic needs. No evidence of HCV 5 related to nontribal communities in the conterminous United States were 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." According to the World Bank Worldwide Governance Indicators the US consistently ranks high in Regulatory Quality and in Rule of Law. Evidence of the effectiveness of law enforcement is evident in news reporting and reveals no widespread or systematic issues related to subsistence communities. SBP RRA US Based on the established legal mechanisms and support services aimed at maintaining food security, protecting water quality, and conserving high conservation values (HCVs) in the US, as evidenced by the USDA's data on food security, the enforcement of the CWA, and the protections afforded by the ESA, there is sufficient evidence to designate low risk for this indicator. There are no subsistence communities sourcing basic needs from the forest in the Enviva supply base area.
Risk Rating	Low risk

United States	**Indicator**
4.2.4	Legal, customary, and traditional tenure and use rights of Indigenous Peoples and local communities related to the Supply Base shall be identified, documented, and respected.

Supply Base Verifiers	Enviva conducted a risk assessment of federal and state laws and regulations and determined there is a sufficient and enforced legal structure in place to ensure feedstock sourcing and Enviva operations comply. Some federal examples below
	• CFR 25 Indians
	  ○ Subpart F Tribal Government
	  ○ Subchapter H Land and Water
	  ○ Subchapter I Energy and Mineral
	  ○ Subchapter J Fish and Wildlife
	  ○ Subchapter L Heritage Preservation
	Additional verifiers
	• FSC US Controlled Wood National Risk Assessment (FSC US CWNRA)
	• SBP Regional Assessment for US Private Forests – Draft (SBP RRA US)
	• World Bank Worldwide Governance Indicator
	• Evidence in indicator 1.1.2

Risk Rating justification	Some of the FSC US CWNRA findings applicable to this indicator: 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.

	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. 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. 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." According to the World Bank Worldwide Governance Indicators the US consistently ranks high in Regulatory Quality and in Rule of Law. Evidence of the effectiveness of law enforcement is evident in news reporting and reveals no widespread or systematic issues related to legal, customary, and traditional tenure and use rights of Indigenous Peoples and local communities. SBP RRA US "The US comprehensive legal framework, encompassing formal treaties, laws protecting Indigenous rights, and enforcement mechanisms such as the BIA and ACHP, indicates there are effective systems in place to identify, document, and respect the legal, customary, and traditional tenure and use rights of Indigenous Peoples and local communities. This leads to a strong conclusion of low risk regarding the recognition and protection of these rights in the context of biomass sourcing." The risk rating justification includes Trees Outside of Forests.
Risk Rating	Low risk

United States	Indicator
4.2.5	Mechanisms shall be in place for resolving grievances and disputes relating to tenure and use rights of the forest and other land management practices.

Supply Base Verifiers	Enviva conducted a risk assessment of federal and state laws and regulations and determined there is a sufficient and enforced legal structure in place to ensure feedstock sourcing and Enviva operations comply. Some federal examples below
	• CFR 25 Indians
	  ○ Subpart F Tribal Government
	  ○ Subchapter H Land and Water
	  ○ Subchapter I Energy and Mineral
	  ○ Subchapter J Fish and Wildlife
	  ○ Subchapter L Heritage Preservation
	• Civil Rights Division of the United States Department of Justice pamphlet Protecting the Civil Rights of American Indians and Alaska Natives
	
	Additional verifiers
	• FSC US Controlled Wood National Risk Assessment (FSC US CWNRA)
	• SBP Regional Assessment for US Private Forests – Draft (SBP RRA US)
	• World Bank Worldwide Governance Indicator
	• Evidence in indicator 1.1.2
	• See evidence offered in indicators 1.1.2 and 4.2.4

Risk Rating justification	Some of the FSC US CWNRA findings applicable to this indicator: 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. 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. 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. 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." According to the World Bank Worldwide Governance Indicators the US consistently ranks high in Regulatory Quality and in Rule of Law. Evidence of the effectiveness of law enforcement is evident in news reporting and reveals no widespread or systematic issues related to legal, customary, and traditional tenure and use rights of Indigenous Peoples and local communities. SBP RRA US "Based on the established legal frameworks and support mechanisms aimed at addressing grievances and disputes related to land tenure, use rights, and forest management practices in the US, as evidenced by civil rights laws, the National Historic Preservation Act, and certification programs, there is sufficient evidence to designate low risk." The risk rating justification includes Trees Outside of Forests.
Risk Rating	Low risk

United States	**Indicator**
4.2.6	Where Indigenous Peoples' rights are identified in the Supply Base, and Free Prior and Informed Consent (FPIC) has not been achieved for the proposed and planned activities, a consultation and, if required, accommodation process shall be put in place.

Supply Base Verifiers	Enviva conducted a risk assessment of federal and state laws and regulations and determined there is a sufficient and enforced legal structure in place to ensure feedstock sourcing and Enviva operations comply. Some federal examples below
	• CFR 25 Indians
	  ○ Subpart F Tribal Government
	  ○ Subchapter H Land and Water
	  ○ Subchapter I Energy and Mineral
	  ○ Subchapter J Fish and Wildlife
	  ○ Subchapter L Heritage Preservation
	• Civil Rights Division of the United States Department of Justice pamphlet Protecting the Civil Rights of American Indians and Alaska Natives
	
	Additional verifiers
	• FSC US Controlled Wood National Risk Assessment (FSC US CWNRA)
	• SBP Regional Assessment for US Private Forests – Draft (SBP RRA US)
	• World Bank Worldwide Governance Indicator
	• Evidence in indicator 1.1.2

	See evidence offered in indicators 1.1.2 and 4.2.4
Risk Rating justification	Some of the FSC US CWNRA findings applicable to this indicator: 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. 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. 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. 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." According to the World Bank Worldwide Governance Indicators the US consistently ranks high in Regulatory Quality and in Rule of Law. Evidence of the effectiveness of law enforcement is evident in news reporting and reveals no widespread or systematic issues related to legal, customary, and traditional tenure and use rights of Indigenous Peoples and local communities. SBP RRA US "Based on the established legal mechanisms and consultation processes aimed at protecting Indigenous Peoples' rights in the US, as evidenced by treaties, the US Constitution, NEPA, and TFPA, there is sufficient evidence to designate low risk for this

	indicator where Indigenous Peoples' rights are not identified in the Supply Base and FPIC has not been achieved for the proposed and planned activities." The risk rating justification includes Trees Outside of Forests.
Risk Rating	Low risk

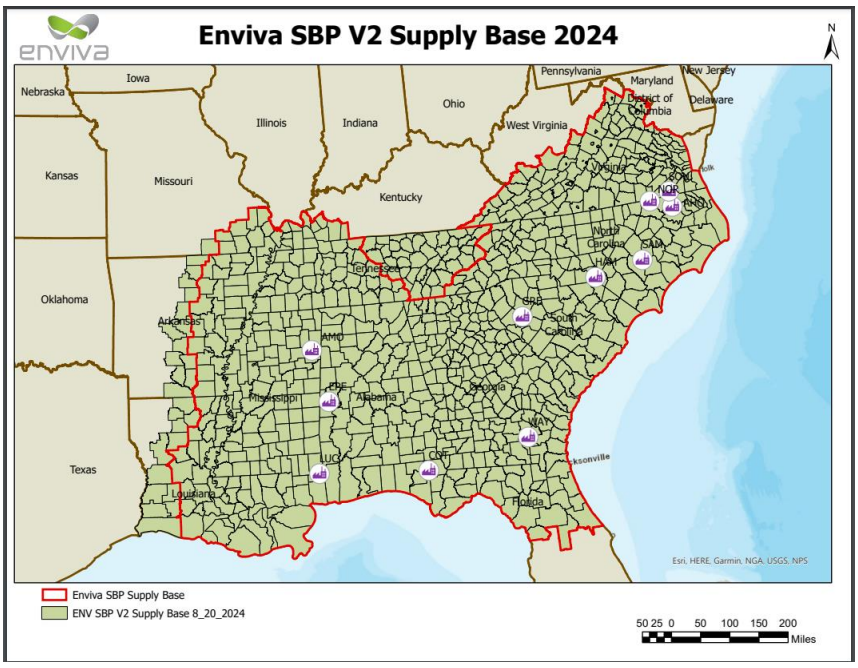
United States	**Indicator**
4.2.7	Designated cultural heritage sites shall be preserved.
Supply Base Verifiers	Enviva conducted a risk assessment of federal and state laws and regulations and determined there is a sufficient and enforced legal structure in place to ensure feedstock sourcing and Enviva operations comply. Some examples below

Jurisdiction	Law/Code/Regulation/Statute
United States	Code Title 16 Conservation Chapter 1A Historic Sites, Buildings, Objects and Antiquitie Code Title 54 National Park Service and Related Programs Subtitle III National Preservation Programs
Alabama	Administrative Code Title 460 Alabama Historic Commission Title 220 Alabama Department of Conservation and Natural Resources Chapter 220-4 State Land Division Section 220-4-.05 State of Alabama Natural Heritage Program - Purpose Section 220-4-.06 State of Alabama Natural Heritage Program - General Policies
Arkansas	Code Title 15 Natural Resources and Economic Development Subtitle 1 Development of Economic and Natural Resources Generally Chapter 12 Arkansas Natural and Cultural Resources Council Administrative Code Agency 12 Department of Arkansas Heritage
Florida	Administrative Code 1 Department of State 1A Division of Historical Resources 1P Florida Folklife Program 1T Divison of Arts and Culture
Georgia	Code Title 44 Property Chapter 10 Historic Preservation Code Title 12 Conservation and Natural Resources Chapter 6 Forest Resources and Other Plant Life Article 6 Forest Heritage Trust
Kentucky	Statute Title XII Conservation and Development Chapter 146 Natural Resources Heritage Land Conservation
Louisiana	Administrative Code Title 25 Cultural Resources Statute Title 25 Libraries, Museums and other Scientific Section 25.521 Louisiana Historical Preservation Sction 25.731-746 Historic Cemetary Preservation Act
Mississippi	Code Title 39 Libraries, Arts, Archives and History Administrative Code Title 16 History, Humanities and the Arts
Missouri	State Regulations Title 10 Department of Natural Resources Division 90 State Parks Chapter 3 Historic Preservation Statute Title XVI Conservation, Resources and Development Chapter 253 State Parks and Historic Preservation Section Historic Preservation
North Carolina	Administrative Code Title 7 Natural and Cultural Resources Statute Chapter 70 Indian Antiquities, Archaeological Resources and Unmarked Skelatal Remians Protection Chapter 113 Conservation and Development
South Carolina	Code Title 51 Parks, Recreation and Tourism Chapter 17 Heritage Trust Program
Tennessee	Code Title 11 Natural Areas and Recreation Chapter 7 Tennessee Heritage Conservation Trust Fund Act of 2005
Virginia	Administrative Code 17 Libraries and Cultural Resources Agency 10 Department of Historical Resources
West Virginia	Agency 82 Culture and History Title 82 Legislative Rule and Division of Culture and History

- FSC US Controlled Wood National Risk Assessment (FSC US CWNRA)
- SBP Regional Assessment for US Private Forests – Draft (SBP RRA US)
- World Bank Worldwide Governance Indicator

Risk Rating justification	FSC CWNRA 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. The quick way to find protected areas on a piece of public land is to look at the official management plan prepared by the responsible agency. Due to the transparency of planning and the active participation of interested members of the public, it is highly likely that the plan accurately identifies protected sites. The long way is to start first with the statute or executive order that assigned the land to a particular management agency. That may assign the land to a class of protected areas (e.g., national park, national monument, national historic landmark, etc.), may specify how it is to be managed or protected, and may specify areas within the land subject to special protections. The risks of non-compliance on public lands are generally low. The planning processes are open and transparent, with strong public participation. Conservation groups have shown a willingness to take agencies to court over protected area and Endangered Species Act issues. The Endangered Species Act has a citizen suit provision, 16 USC §1540(g), allowing any citizen to sue anyone, including the federal government, seeking an injunction to enforce the Act. As a result, the agencies are generally careful to follow the law on these matters. Where there are high instances of these privately initiated actions, there may be a higher level of risk. Private lands may have more risk. Zoning violations are going to occur, but they are going to be hard to disguise, and people will risk local enforcement actions. Damage to historic or archeological sites, especially if previously undiscovered, will be hard to detect, even for certification auditors. Damage to protected species may also be hard to detect, unless the auditor sees nests or individuals of the species near the site. However, violators of the Endangered Species Act face civil and criminal prosecution if caught, which is a strong deterrent. Overall, the risk on private lands is still low, but attention should be paid to areas known to be important to listed species, such as forests in the Pacific Northwest with salmon spawning streams, or forests in the Southeast with red-cockaded woodpeckers." According to the World Bank Worldwide Governance Indicators the US consistently ranks high in Regulatory Quality and in Rule of Law. Evidence of the effectiveness of law enforcement is evident in news reporting and reveals no widespread or systematic issues related to legal, customary, and traditional tenure and use rights of Indigenous Peoples and local communities. SBP RRA US "Based on the established legal frameworks and enforcement mechanisms aimed at preserving cultural heritage sites in the US, as evidenced by the NHPA, the ARPA, and State-level historic preservation programs, there is sufficient evidence to designate low risk for this indicator regarding the preservation of designated cultural heritage sites." The risk rating justification includes Trees Outside of Forests.
Risk Rating	Low risk

Annex 2: RED II Supply Base Evaluation

Please add all countries where RED II Supply Base Evaluation is used	
Country	United States
Area	
Sustainable harvesting criteria 29(6)	
(i) The legality of harvesting operations	
Type of Risk Assessment used	☐ Level A – proof at national or sub-national level X Level B – management system at forest sourcing area level
Level A risk assessment description	N/A
Level B management system at the level of the forest sourcing area	EUTR Document Enviva SBP reports and certificates MWPA Track & Trace
(ii) Forest regeneration of harvested areas	
Type of Risk Assessment used	☐ Level A – proof at national or sub-national level X Level B – management system at forest sourcing area level
Level A risk assessment description	N/A
Level B management system at the level of the forest sourcing area	Enviva receives wood from multiple harvest types. Our MWPPA requires suppliers to comply with Enviva's T&T program that records all of the necessary information about the tract location, harvest type (including salvage operations), ownership,

	feedstock type, etc. Enviva tracts the tons received via thinning and final harvests using information provided by the supplier from the landowner. Enviva uses an MWPPA to relay certification requirements to its suppliers. Tracts supplying feedstock to Enviva are required to be replanted or naturally regenerated with native species. Enviva's Track & Trace Program records the landowner response to whether they intend to reforest. Part of the Track & Trace program monitors forest regeneration of tracts Enviva received feedstock. As a risk-based approach Enviva can confidently state our efforts to ensure forest regeneration occurs can be demonstrated.
(iii) That areas designated by international or national law or by the relevant competent authority for nature protection purposes, including in wetlands and peatlands, are protected unless evidence is provided that the harvesting of that raw material does not interfere with those nature protection purposes	
Type of Risk Assessment used	☐ Level A – proof at national or sub-national level X Level B – management system at forest sourcing area level
Level A risk assessment description	N/A
Level B management system at the level of the forest sourcing area	Designated nature protection areas only exist on nationally owned land. Any timber harvesting on these lands will be both instigated by and closely regulated by the applicable federal agency. This would include US Forest Service lands, US Fish & Wildlife, US Department of Defence, National Wildlife Refuges. The region also has state and private easement properties with designated conservation areas. Enviva is certified to the FSC COC/CW standards and the PEFC/SFI COC including Controlled Sources. Enviva uses the FSC US NRA as a basis for evaluating protected areas and supplements the sourcing process by implementing the HCVRNA into all of its primary feedstock sourcing. the HCVRNA coupled with T&T means each tract is assessed for multiple HCV categories.
(iv) That harvesting is carried out considering the maintenance of soil quality and biodiversity with the aim of minimising negative impacts	
Type of Risk Assessment used	☐ Level A – proof at national or sub-national level X Level B – management system at forest sourcing area level
Level A risk assessment description	N/A
Level B management system at the level of the forest sourcing area	In 2015 Enviva asked the US Endowment for Forestry and Communities to convene a group of stakeholders to help Enviva identify sensitive forest types Enviva should develop additional operational guidance. The Endowment group identified; cypress - tupelo, Atlantic white cedar, low pocosins and Carolina bays. In 2016 Enviva convened a Blue-Ribbon Panel of local experts to develop the operational guidance for the four forest types. Enviva implemented the guidance and finalized its initial HCV Assessment Process in 2017. In 2020, working with Earthworm, Enviva improved its HCV process by adopting the HCV Resource Network Approach expanding the types of HCV's to be assessed at the source tract level. The HCV RNA was implemented enterprise-wide in 2021 and remains in a Plan, Do, Check, Act status. Enviva's MWPPA and T&T sourcing program requires suppliers to provide GPS coordinates of tracts they intend to source to Enviva. The GPS coordinates and other

	T&T information such as forest type help Enviva map the location of a tract and assess soils based on hydrology and forest type. Using Enviva's HCVRNA Program Enviva staff determine based on hydrology and forest type if the underlying soils are sensitive. and whether we will source from the tract or not. The 1972 Clean Water Act (CWA) was a restructure and expansion of the 1948 Federal Water Pollution Control Act. In 1987 Section 319 was added, creating a funding mechanism and required states (among others) to develop nonpoint source (NPS) management solutions. Though forest activities are generally exempt there are 15 BMP's related to road construction within the Act. Each state has developed forestry BMP programs built on the CWA. And each state manages their NPS program to ensure compliance. These agencies serve as the competent authority controlling harvesting on the soil types and geological features in this step. The US Army Corp determines if silvicultural activity comply with Section 404 silvicultural exemption of the CWA. If not, the activity requires a permit. State Forestry Commissions monitor and enforce water quality BMPs on all harvest sites including on wetlands. Enviva has a robust HCVRNA process that requires all tracts to be checked against specific mapping Information. If a tract is in a wetland and meets certain criteria Enviva requires a field assessment to determine if Enviva agrees harvesting is the best outcome for the tract and that harvest will occur according to state BMP's (MWPPA). If the tract is deemed sensitive according to the application of the HCVRNA Enviva will not source from the trac The CWA makes states responsible for managing forestry operations and forestry water quality BMP's. State BMPs are designed to address not only soil movement but proper road and trail construction to minimized soil compaction. State's monitor BMP implementation and report on the outcomes of their monitoring. Enviva requires the use of forestry BMP's (MWPPA) Enviva also samples forestry sites for BMP implementation and uses those finding to help improve supplier performance. Harvesting crews use a variety of methods to reduce ground presser such as wide tires on harvesting equipment and trail mats to distribute ground presser across a broader base. Decisions to use specific measure to reduce soil compaction are made by harvesters on a tract-by-tract basis. Enviva uses a series of tools to ensure biodiversity is protected. Enviva worked with the US Endowment for Forestry and Communities to identify at risk forest types in its supply base area. Then a Blue-Ribbon panel of local experts provided Enviva with the needed information to allow the company to make specialized workflows for each. Further Enviva uses it T&T process to capture the GPS location and tract map for every source tract. Each tract is assessed according to workflows developed under the HCVRNA and are checked against mapping information to ensure biodiversity, habitat, G1, G2, S1, S2, T&E species and at-risk habitats will not be negatively impacted by potential timber harvesting activity. Enviva will not purchase feedstock from tracts where it doesn't agree harvesting is the best outcome. Lastly, Enviva has an FSC COC/CW certificate based on the FSC USCWNRA which requires the assessment of HCV risk across the company's supply base.
(v) That harvesting maintains or improves the long-term production capacity of the forest.	
Type of Risk Assessment used	☐ Level A – proof at national or sub-national level X Level B – management system at forest sourcing area level

Level A risk assessment description	N/A
Level B management system at the level of the forest sourcing area	Enviva uses USFS Forest Inventory Analysis data to determine the growth to drain ratio for each mills supply base area. Net annual increment includes adjustments for mortality and removals. Enviva commission NCASI to conduct an inventory analysis of the supply base area. The most recent complete FIA panels are from 2020. The calculated growth:drain for Enviva supply base area is 2:1 up from 2010 at 1.6:1. USFS FIA data is sampled on a 5-year rotation.
LULUCF criteria 29(7)	
Type of Risk Assessment used	X Level A – proof at national or sub-national level ☐ Level B – management system at forest sourcing area level
Level A risk assessment description	SBP-endorsed REDII Level A risk assessment for Article 29(7) LULUCF
Level B management system at the level of the forest sourcing area	N/A

Annex 3: SBP Processing residues and/or Post-consumer feedstock requirements

☐ Not Applicable (Processing Residues and/or post-consumer feedstock not used)

Verification and monitoring of suppliers

Enviva's District of Origin (DOO) process is used obtain processing and sourcing information from all of our residual suppliers. In 2023 the annual update portion of the DOO process was revised to meet the requirements of REDII. 100% of all residual suppliers completed a revised DOO annual update form that included a signed self-declaration document confirming the supplier was delivering a residue to Enviva. All suppliers with a mill or processing facility were visited by Enviva staff to confirm the information provided on the DOO form was accurate. Aerial imagery was used to verify material input/output and residue storage locations. Suppliers verified sourcing areas, species accepted, products produced, and raw material purchasing practices.

Feedstock inspection and classification upon receipt

Residual feedstock categories for each supplier are set up within our scaling software (LIMS) prior to delivery. Upon receipt loads are entered into the system in the appropriate category. Summaries are produced through a Power BI spreadsheet and reviewed by Enviva staff familiar with the suppliers delivering to each Enviva facility. Credit ledgers are populated with volumes acquired through Power BI. Residual supplier site visits also serve as a means to verify the feedstock categories for each supplier.

Supplier audit for processing residues and post-consumer feedstock

Enviva's District of Origin (DOO) process is used obtain processing and sourcing information from all of our residual suppliers. In 2023 the annual update portion of the DOO process was revised to meet the requirements of REDII. 100% of all residual suppliers completed a revised DOO annual update form that included a signed self-declaration document confirming the supplier was delivering a residue to Enviva. All suppliers with a mill or processing facility were visited by Enviva staff to confirm the information provided on the DOO form was accurate. Aerial imagery was used to verify material input/output and residue storage locations. Suppliers verified sourcing areas, species accepted, products produced, and raw material purchasing practices.

Annex 4: RED II detailed findings for Trees Outside Forest (TOF) feedstock

NOTE: For "Trees outside forests (TOF) – Urban and landscape feedstock" no REDII sustainability requirements apply, only the GHG savings criteria apply (SBP REDII Bridging ID Section 4.2). The land use category in this case is neither forest land nor agricultural land. For "Trees outside forests (TOF) – Agricultural land feedstock" the applicable criteria are Article 29 paragraphs (2)-(5).

Enviva included Trees Outside of Forests in its Supply Base Evaluation and determined specified risk for indicators 2.1.3, 2.2.1 and 2.2.2. The mitigation measures assigned to these indicators apply to trees outside of forests as well.

Country: United States	
Area/sub-scope: Southeast and eastern southcentral	
Risk Assessment used:	
	☐ British Columbia, Canada ☐ Denmark ☐ Estonia ☐ Latvia ☐ Lithuania ☐ Quebec, Canada X Biomass Producer's own risk assessment
Indicator with specified risk:	
2.1.3 Key species, habitats, ecosystems, and areas of high conservation value (HCV) pertaining to biodiversity in the Supply Base shall be maintained or enhanced.	
Description of the specific risk:	
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 and evaluate the risks due to feedstock sourcing, The areas of high conservation value described and mapped in the FSC US CWNRA 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. The supply base area overlaps the following areas of high conservation value. FSC US CWNRA areas and species within the Enviva supply base (descriptions in the Annex indicator) **Category 3 High Conservation Values** HCV 1 Species Diversity Critical Biodiversity Areas (CBA) • Central Appalachian Critical Biodiversity Area • Florida Panhandle Critical Biodiversity Area • Central Florida Critical Biodiversity Area • Southern Appalachian Critical Biodiversity Area • Cape Fear Critical Biodiversity Area Species • Cheoah Bald Salamander • Dusky Gopher Frog • Patch-nosed Salamander	

HCV 3 High Conservation Values

- Late Successional Bottomland Hardwoods
- Native Longleaf Pine Systems
- Mesophytic Cove Sites

Beyond the FSC CWNRA findings Sustainable Forestry Initiative certificate holders are required to consider G1 & G2 species. Federal and state laws vary in recognition of key species, habitats, ecosystems, and areas of high conservation value (HCV) pertaining to biodiversity. Application of these laws vary. For instance, the federal Threatened and Endangered Species Act applies to both public and private lands. Though evaluation and protect/enhancement of G1/S1 & G2/S2 species and habitats are voluntary. Additional publicly available information was used to identify the gaps.

Specific Risks for Category 3 High Conservation Values HCV 1 Species Diversity Central Appalachian Critical Biodiversity Area

Mixed Mesophytic Forests - Historically, forest management activities threatened and had significant negative impacts on the Mixed Mesophytic Forests of this CBA and there are lasting impacts from these activities today. Currently, however, widespread threats from forest management activities are not identified. Instead, the priority threats to the forests as a whole include: climate change, pollution from mining, new highways and utility rights-of-way, ORV recreation and overpopulation of deer.

Aquatic Habitats - In addition to threats associated with agriculture, development, and mining, the following threats were associated with forest management**:** Hydrologic alteration partially due to forestry practices and conversion from hardwood forests to non-native planted pine (which may include ditching as a practice in wetter areas), reduced water quality partially due to loss of near-stream forested habitat and sedimentation associated with forestry.

Florida Panhandle Critical Biodiversity Area

Apalachicola Bay/River System: Threats to this aquatic system are varied and include persistent drought resulting in reduced flow level, loss of floodplain and wetland habitat due to reduced flow levels, point and non-point source pollution (including sediments from forestry operations due to insufficient ground cover and inadequate buffers), unrestrained growth and development**.** FSC® US NRA Specified Risk Fact Sheet the Apalachicola River and Bay Surface Water Improvement and Management Plan identifies implementation of silvicultural Best Management Practices (BMPs) as a significant component of one of its priority projects.

Longleaf Pine Savanna: Biodiversity values can be **a**dversely affected by forest management activities via conversion of longleaf to other pine types, and the use management techniques, including herbicide application that have the potential to inhibit native understory communities. As the bulk of the biodiversity exists in the understory of a longleaf pine system, restoration or maintenance of understory species composition is an essential component of longleaf pine conservation. Other threats include fire-suppression, urban development, fragmentation, nonnative species, and climate change. It is possible to harvest in and sustainably manage longleaf pine systems and therefore timber management by itself is not considered a threat.

Steephead Ravines: Reported threats include altered hydrologic regimes, conversion to other land uses, fire suppression. Forestry practices were identified as a low source of stress to the habitat in the Florida Wildlife Action Plan.

Central Florida Critical Biodiversity Area

Reported threats to Pine flatwoods include conversion to agriculture and pine plantations, non-native species (including invasion by melaleuca if logged and over drained), hydrologic alteration, substrate disturbance (Wiregrass may not withstand disturbance associated with planting pine), alteration of fire regimes, and recreational damage. Forestry practices were identified as a high source of stress to the natural pineland habitat in the Florida Wildlife Action Plan, in association with the following stresses which all had high ranks for the habitat: altered fire regime, altered hydrologic regime, habitat destruction or

conversion, altered community structure, altered species composition/dominance, and fragmentation of habitats, communities, ecosystems.

Southern Appalachian Critical Biodiversity Area
Aquatic Habitats – Conservation actions that are needed for protection include: minimize nonpoint source pollution in waterways, including from silvicultural sources; minimize disturbance to riparian zones, including from forestry, and minimize or better manage use of fertilizers, herbicides and pesticides near aquatic habitats (and forest practices were identified as a source for this threat). Implementation of forestry Best Management Practices (BMPs) are specifically mentioned as methods for achieving these actions.

Glades – Threats include grazing, non-native species, quarrying, root-digging, plant and animal collecting, removal of large rocks for landscaping, urban development, plowing for fire breaks, use as logging decks (resulting in soil/vegetation disturbance and soil erosion), conversion to other land uses, and ORV damage. No threats from forest management activities were identified.

Montane Longleaf Pine – Biodiversity values can be adversely affected by forest management activities via conversion of longleaf to other pine types, and the use management techniques, including herbicide application that have the potential to inhibit native understory communities**.** As the bulk of the biodiversity exists in the understory of a longleaf pine system, restoration or maintenance of understory species composition is an essential component of longleaf pine conservation. It is possible to harvest in and sustainably manage longleaf pine systems and therefore timber management by itself is not considered a threat. Other threats include fire-suppression, urban development, forest conversion, non-native species, climate change.

Cape Fear Arch Critical Biodiversity Area
Pocosins: When the canopy has been completely removed through timber harvest, pocosins often do not regenerate. An associated threat from forest management is the conversion of native pine to planted pine and resulting loss of biodiversity, particularly if associated with changes in hydrology due to ditching. Other threats include hydraulic alteration, conversion to agriculture, road construction, and sand quarrying, habitat fragmentation, introduction of non-native species, climate change and fire suppression.

Longleaf Pine: Biodiversity values can be adversely affected by forest management activities via conversion of longleaf to other pine types, and the use management techniques, including herbicide application that have the potential to inhibit native understory communities**.** As the bulk of the biodiversity exists in the understory of a longleaf pine system, restoration or maintenance of understory species composition is an essential component of longleaf pine conservation. It is possible to harvest in and sustainably manage longleaf pine systems and therefore timber management by itself is not considered a threat**.** Other threats include fire-suppression, urban development, fragmentation, nonnative species, intensive pine straw raking, and climate change.

Cheoah Bald Salamander
G1G2; S1S2 (North Carolina); Forest & woodland habitats; Clear cutting is a major threat to local populations. Some populations have been found in second growth forests, providing evidence that they are able to re-populate after harvest, but literature suggests it takes decades and with so few known populations extant, that kind of disruption could have a significant effect on the species as a whole. The 1994 Amendment to the Nantahala National Forest Plan included new definitions of management areas that provide an indication of whether timber management will likely occur. The Cheoah Bald area is located within management areas that at this time either do not allow timber management or are identified as being likely unsuitable for timber management. However, as the species' range is not yet fully delineated, it is not possible to know whether all or most of the range occurs within these management areas.

Dusky Gopher Frog
The Dusky Gopher Frog depends on woodlands, forested wetlands and riparian habitats. The major threats to the species include population isolation, urbanization, disease, and a lack of suitable habitat. Habitat degradation is a significant factor,

driven by multiple sources including, changes in forest type from longleaf FSC® US NRA Specified Risk Fact Sheet pine to other forest types, forest degradation caused by grazing and the disruption of the natural fire regime, and land management practices that alter the soil horizon, forest litter, herbaceous community, and the occurrence of down woody debris. Timber site prep and other forestry practices that alter temporary wetlands can damage breeding areas.

Patch-nosed Salamander
G1; S1 (Georgia); Riparian habitat; Little is known about this species and specific threats have not yet been documented. However, any factor that would disrupt water flow, canopy cover, or leaf-litter layer would likely impact the species. As all of these can potentially be affected by forest management, a precautionary approach should be taken.

G1 (Critically Imperiled) & G2 (Imperiled)
Critically Imperiled – At very high risk of extinction or elimination due to very restricted range, very few populations or occurrences, very steep declines, very severe threats, or other factors.
Imperiled – At high risk of extinction or elimination due to restricted range, few populations or occurrences, steep declines, severe threats, or other factors.

NatureServe and state Natural Heritage Programs contain the most up to date information regarding G1 & G2 species. In the supply base area most of these species are associated with streams and other water features.

Mitigation measure:

Enviva's entire supply base for all primary and secondary sourcing has been compared to the areas of "specified risk" identified in the US CW NRA to determine the risk that are pertinent to our operations. Not all risk areas are equally impacted across the supply base. Appropriate mitigation levels have been determined by using a mitigation level matrix and considering the specific sourcing impacts of each Enviva facility. In cases where multiple facilities overlap specified risk areas, increased mitigation will be provided. Enviva sources secondary residual feedstocks that result in expanded supply bases that extend well beyond a traditional hauling radius. A detailed analysis of mitigation requirements has been developed for those sources.

Enviva is committed to only source wood from forest where High Conservation Values are not threatened by harvest activities as outlined in the Enviva Responsible Sourcing Policy. This policy is publicly available on the company website and is contained within the Master Wood Purchase Agreement (MWPA) signed by suppliers. Enviva has adopted the High Conservation Value Network Approach (HCVNA) to make sure HCV's not only persist in the landscape, but are enhanced over time. The HCVNA is a globally applicable approach that can be implemented on a variety of landscapes. This approach defines 6 HCV types, but only 4 are applicable to the southeast US.

HCV Network Approach HCV Types	Enviva HCV Policy Focus
7) Species Diversity	Imperiled Species (G1,G2,S1,S2)
8) Landscape Level Ecosystems	Not Applicable in the SE US
9) Ecosystems and Habits	Bottomland Hardwood, Longleaf Pine
10) Ecosystem Services	Water Quality, BMP's
11) Community Needs	Not Applicable in the SE US
12) Cultural Values	Native American Sacred Sites

HCV Type 2 (Landscape Level Ecosystems) applies to large and undisturbed landscapes similar to Intact Forest Landscapes as defined by the World Resources Institute (WRI). Any areas in the southeast US meeting this criteria are already under federal protection. HCV Type 5 (Community Needs) describes forest that are solely relied upon for survival of indigenous people groups without assistance from outside resources, and those areas do not exist in the southeast US.

Mitigation measures for Category 3 High Conservation Values

To address mitigation of Category 3 High Conservation Values Enviva adopted the High Conservation Value Approach. HCVNA involves 3 steps: identification of the HCV, management of the species or ecosystem, and monitoring to verify the effectiveness of the management practices. For identification of HCV's, Enviva will utilize internally developed mapping data for critically imperilled/imperilled species (G1, G2, S1, and S2), the US Fish and Wildlife Service Wetlands Mapper for bottomland hardwood, Longleaf Pine mapping data from the Longleaf Alliance, and sacred site mapping provided by Earthworm. Management of identified HCV's within harvest areas will be on a case by case basis utilizing in-house forestry expertise. Monitoring will be conducted through inspections of with the Longleaf Pine assessment plots reviewed by the Longleaf Alliance, and Enviva's BMP assessment process. Based upon monitoring results, management practices will be improved as needed.

After Commodity Managers have collected Track & Trace® data for the prospective harvest location, they will check the tract boundary in ArcGIS. All the mapped HCV data layers will be available in ArcGIS and the Commodity Manager will compare the harvest area with the map layers to see if overlap exist. If a stand overlaps an HCV Area, there are a series of due diligence workflows in place to guide harvest and management guidelines. Site visits, harvest options, and secondary triggers are all part of these workflows. The Bottomland Hardwood Workflow ultimately requires executive approval for harvest, but the other workflows do not since they are based on conservation community recommendations.

Outreach and Education

Enviva requires all primary suppliers to complete an online course titled Enviva Responsible Sourcing Guidance for Suppliers. The training covers Enviva's commitment to protecting HCV areas of concern – Enviva does not harvest or source from areas of special concern that we have identified in partnership with leading conservation organizations. We use a High Conservation Value (HCV) Network approach to determine and protect HCVs. All tracts are required to undergo a pre-delivery assessment for the presence of HCV features. Those tracts found to contain HCV features must pass through our HCV field assessment and approval process before fiber may be delivered to one of Enviva's facilities. HCVs are:

- Bottomland Hardwoods,
- Low Pocosins,
- Atlantic White Cedar,
- Carolina Bays,
- Cypress Tupelo swamps,
- Longleaf Pine,
- Imperiled Species ,
- Cultural HCVs.

The goal of the HCV Network Approach is to identify areas of exceptional value and make sure those HCV's persist on the landscape over time and that they are maintained and / or enhanced by harvest operations.

- Best Management Practices – Suppliers must adhere to state BMPs. To comply with BMPs, Logger Training must be maintained in order to deliver to any Enviva facility. Enviva Procurement and Sustainability Foresters will conduct random site visits on a selection of active and non-active harvests to verify BMP compliance.
- Certification support – Enviva maintains multiple forestry certifications, including the Sustainable Forestry Initiative® (SFI), Forest Stewardship Council® (FSC), Programme for Forest Stewardship (PEFC), and the Sustainable Biomass Program (SBP).

- Track & Trace – Track & Trace is a requirement to deliver primary volume to Enviva. Primary volume is considered to be inwoods volumes, including fuel only purchases from tracts. Track & Trace is not required for volumes from mills as residual secondary or tertiary sources, chip mills, wood yards, nor arboricultural volumes.

Commodity Managers are trained to understand what Enviva identifies as an HCV, how to evaluate a potential source tracts to determine if there is overlap of potential HCV area and work with suppliers to avoid the HCV area or if harvesting can enhance the HCV then suggest management recommendations to do so.

Secondary and tertiary feedstock suppliers are evaluated through an in-person District of Origin audit. The audit confirms species used, procurement radius or counties, if the supplier has a sustainability policy, level of information collected from supplier regarding origin of wood, certification status, and other pertinent information to determine their understanding of their supply chain. Each mill is evaluated via mapping with known HCV areas. Each supplier is furnished with a map showing HCV overlap and appropriate HCV information.

Procurement Policy

Enviva's Master Wood Purchase Agreement clearly defines Enviva's procurement policies. Enviva requires all suppliers to sign a Master Wood Supply Agreement. The Agreement requires suppliers to abide by forest management activities regulations. Enviva uses contractual language in its Master Wood Purchase Agreement requiring suppliers to abide by all relevant laws and regulations. The contract includes the requirement to avoid the following unacceptable sources wood:

- Illegally harvested 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 nonforest 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.

Additionally, the document includes Enviva land use change policy clearly describing the company's desire to avoid feedstock produced from land use change tract.

Implement Management Activities & Landowner Incentives

Enviva has been working with The Longleaf Alliance (TLA) to help restore Longleaf pine (LLP) to the southeast. The effort is multi-faceted.

- Landowner outreach through workshops
- Direct payment for Longleaf pine restoration plans through The Longleaf Alliance partner the Sandhill Prescribed Burn Association (SPBA)
- Documenting the restoration of Longleaf pine through feedstock purchasing from tracts that historically where but planted in a different species and the landowner wishes to convert the forest back to Longleaf
- Provide seedings each year to assist landowners in meeting their LLP objectives

BMP Monitoring

Enviva conducts field inspections including forestry BMPs at two stages. All inspections are scored and the score used to identify poor performers or areas where a supplier could improve

- Ongoing site inspection – to engage with suppliers while on-site to prevent potential BMP infractions
- Post-harvest site inspections – to ensure Enviva agrees the harvest site was properly closed out

Monitoring and outcomes:

Outreach and Education

a. Ensure Enviva primary suppliers complete and sign annual supplier education materials
b. Ensure Enviva Commodity Managers and Stumpage staff understand and sign annual education materials
c. Ensure forestry BMPs are properly applied through field inspections

d. Ensure secondary and tertiary suppliers complete their DOO audit and conform to Enviva's HCV policy

Procurement Policy

a. Ensure suppliers have signed an MWPA or similar document demonstrating they understand the procurement policy details pertaining to HCVs, BMPs and/or Track & Trace/DOO as appropriate
b. Monitor via tract set up, remote sensing, and field inspections

Implement Management Activities & Landowner Incentives

a. Continue working with TLA to
   v. Hold landowner workshops
   vi. Track the number of landowners receiving LLP restoration plans through the SPBA
   vii. Track the conversion of other pine forest types to LLP
   viii. Provide LLP seedlings to landowners assisting them in meeting their LLP restoration objectives

BMP Monitoring

a. Ensure Commodity Managers and stumpage staff complete the necessary field inspections
b. Where necessary work with suppliers to improve their BMP score

Country: United States	
Area/sub-scope: Southeast and eastern southcenrtral	
Risk Assessment used:	
	☐ British Columbia, Canada ☐ Denmark ☐ Estonia ☐ Latvia ☐ Lithuania ☐ Quebec, Canada X Biomass Producer's own risk assessment
Indicator with specified risk:	
2.2.1 Feedstock shall not be sourced from land that had one of the following statuses in January 2008 and no longer has that status due to land conversion: a. Forests b. Wetlands c. Peatlands d. Highly biodiverse grasslands.	
Description of the specific risk:	
As described in Annex 1 Enviva focused on forest conversion since there is adequate protection for wetlands and peatlands vis the Clean Water Act. Enviva does not source from highly biodiverse grasslands so it is excluded in the RMP. Conversion: The FSC US CWNRA definition of conversion does not align with the SBP focusing on population growth and the issuance of building permits; focusing on urban development. 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." FSC identified 46 counties within the Enviva supply base are at risk of conversion due to urban development	

The SBP definition for conversion is much broader, "The process of changing or causing to change from one form to another". Though we recognize the identification of counties conducted under the FSC process, Enviva's approach is more stringent, we avoid harvests where the forest will not be regenerated into a new forest."

There are not laws in states included in the supply base assessment prohibiting a landowner from converting a forest to another land use. Some local zoning laws and regulations may have a small local impact.

Enviva requested the National Council for Air and Stream Improvement to conduct a resource analysis of the supply base area. From 2010 to 2020 the report indicates a -1% reduction in forestland area. Similar results are included the SBP RRA US draft citing a -1% reduction in timberland. Though the potential for conversion of forest is low Enviva is aware of conversion in its supply base area.

Personal property rights allow the owner to enjoy their property including the right to convert it to another use. And transfer of property through sale, will, etc may find the next owner with differing opinions on what to do with the property.

Mitigation measure:

Enviva requires all primary suppliers to complete an online course titled Enviva Responsible Sourcing Guidance for Suppliers. The training covers Enviva's commitment to avoiding Land Use Change. Enviva will not knowingly accept wood from land use change (LUC) / conversion sources. Suppliers are required to confirm with the landowner that they intend to keep their tract forested after harvest, for every tract sourced for Enviva.

Commodity Managers are trained to understand what Enviva identifies as land use change, how to evaluate a potential source tract to determine if there is overlap of potential HCV area and work with suppliers to avoid the HCV area or if harvesting can enhance the HCV then suggest management recommendations to do so.

Secondary and tertiary feedstock suppliers are evaluated through an in-person District of Origin audit. The audit confirms species used, procurement radius or counties, if the supplier has a sustainability policy, level of information collected from supplier regarding origin of wood, certification status, and other pertinent information to determine their understanding of their supply chain including the likelihood for land use change and if they source land use change wood. If yes, we decline them as a supplier. If, through audit we determine the supplier was dishonest, according to Enviva Responsible Sourcing Policy, we can work with them to improve their performance or cease doing business with them.

Enviva's Master Wood Purchase Agreement clearly defines Enviva's procurement policies. Enviva requires all suppliers to sign a Master Wood Supply Agreement. The Agreement requires suppliers to abide by forest management activities regulations. Enviva uses contractual language in its Master Wood Purchase Agreement requiring suppliers to abide by all relevant laws and regulations. The contract includes the requirement to avoid the following unacceptable sources wood:

- Illegally harvested 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.

Additionally, the document includes Enviva land use change policy clearly describing the company's desire to avoid feedstock produced from land use change tracts

As part of Enviva's Responsible Sourcing Policy the company is a member of Keeping Forests. Keeping Forests is a non-profit striving to support landowners in their efforts to keep forest as forest. They do this by working with conservation leaders show how responsible forest management can lead to the long-term vitality of southern forest. Promote the use of forest products

coming from southern forest and evaluates emerging markets that may compensate a landowner for benefits such as clean air and clean water that originates from their forest.
Monitoring and outcomes:
Ensure suppliers receive training covering the company's desire to avoid land use change to limit its potential. Field inspections – Commodity Managers and Sustainability Foresters complete field inspections for BMP use and visually ensure the tract does not have signs of future conversion to ensure we are sampling for it. Regeneration monitoring – looking back 3 years remotely sense for land use change on tracts where Enviva sourced wood. Look for commonality in land ownership, suppliers or other data points Enviva can use to make better sourcing decisions.

Country: United States	
Area/sub-scope: Southeast and eastern south central	
Risk Assessment used:	
	☐ British Columbia, Canada ☐ Denmark ☐ Estonia ☐ Latvia ☐ Lithuania ☐ Quebec, Canada X Biomass Producer's own risk assessment
Indicator with specified risk:	
2.2.2 Ecosystems, their health, vitality, functions and services in the Supply Base shall be maintained or enhanced.	
Description of the specific risk:	
Enviva conducted a risk assessment of federal and state laws and regulations and determined there is a sufficient and enforced legal structure in place to ensure feedstock sourcing and Enviva operations comply. These laws address various components of the indicator requirements but do not completely ensure without a field verification process driven by a company's commitment to sustainability policies and enforcement of the same. For examples of laws/regulation please refer to Annex 1 indicators 2.1.1, 2.1.2 and 2.1.3 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 and evaluate the risks due to feedstock sourcing, The areas of high conservation value described and mapped in the FSC US CWNRA 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. The supply base area overlaps the following areas of high conservation value. FSC US CWNRA areas and species within the Enviva supply base (descriptions in the Annex indicator) Category 3 High Conservation Values HCV 1 Species Diversity • Critical Biodiversity Areas (CBA) • Central Appalachian Critical Biodiversity Area • Florida Panhandle Critical Biodiversity Area • Central Florida Critical Biodiversity Area • Southern Appalachian Critical Biodiversity Area • Cape Fear Critical Biodiversity Area	

Species

- Cheoah Bald Salamander
- Dusky Gopher Frog
- Patch-nosed Salamander

HCV 3 High Conservation Values

- Late Successional Bottomland Hardwoods
- Native Longleaf Pine Systems
- Mesophytic Cove Sites

Beyond the FSC CWNRA findings Sustainable Forestry Initiative certificate holders are required to consider G1 & G2 species. Federal and state laws vary in recognition of key species, habitats, ecosystems, and areas of high conservation value (HCV) pertaining to biodiversity. Application of these laws vary. For instance, the federal Threatened and Endangered Species Act applies to both public and private lands. Though evaluation and protect/enhancement of G1/S1 & G2/S2 species and habitats are voluntary. Additional publicly available information was used to identify the gaps.

Specific Risks for Category 3 High Conservation Values HCV 1 Species Diversity
Central Appalachian Critical Biodiversity Area
Mixed Mesophytic Forests - Historically, forest management activities threatened and had significant negative impacts on the Mixed Mesophytic Forests of this CBA and there are lasting impacts from these activities today. Currently, however, widespread threats from forest management activities are not identified. Instead, the priority threats to the forests as a whole include: climate change, pollution from mining, new highways and utility rights-of-way, ORV recreation and overpopulation of deer.

Aquatic Habitats - In addition to threats associated with agriculture, development, and mining, the following threats were associated with forest management: Hydrologic alteration partially due to forestry practices and conversion from hardwood forests to non-native planted pine (which may include ditching as a practice in wetter areas), reduced water quality partially due to loss of near-stream forested habitat and sedimentation associated with forestry.

Florida Panhandle Critical Biodiversity Area
Apalachicola Bay/River System: Threats to this aquatic system are varied and include persistent drought resulting in reduced flow level, loss of floodplain and wetland habitat due to reduced flow levels, point and non-point source pollution (including sediments from forestry operations due to insufficient ground cover and inadequate buffers), unrestrained growth and development. FSC® US NRA Specified Risk Fact Sheet the Apalachicola River and Bay Surface Water Improvement and Management Plan identifies implementation of silvicultural Best Management Practices (BMPs) as a significant component of one of its priority projects.

Longleaf Pine Savanna: Biodiversity values can be adversely affected by forest management activities via conversion of longleaf to other pine types, and the use management techniques, including herbicide application that have the potential to inhibit native understory communities. As the bulk of the biodiversity exists in the understory of a longleaf pine system, restoration or maintenance of understory species composition is an essential component of longleaf pine conservation. Other threats include fire-suppression, urban development, fragmentation, nonnative species, and climate change. It is possible to harvest in and sustainably manage longleaf pine systems and therefore timber management by itself is not considered a threat.

Steephead Ravines: Reported threats include altered hydrologic regimes, conversion to other land uses, fire suppression. Forestry practices were identified as a low source of stress to the habitat in the Florida Wildlife Action Plan.

Central Florida Critical Biodiversity Area
Reported threats to Pine flatwoods include conversion to agriculture and pine plantations, non-native species (including invasion by melaleuca if logged and over drained), hydrologic alteration, substrate disturbance (Wiregrass may not withstand disturbance associated with planting pine), alteration of fire regimes, and recreational damage. Forestry practices were identified as a high source of stress to the natural pineland habitat in the Florida Wildlife Action Plan, in association with the following stresses which all had high ranks for the habitat: altered fire regime, altered hydrologic regime, habitat destruction or conversion, altered community structure, altered species composition/dominance, and fragmentation of habitats, communities, ecosystems.

Southern Appalachian Critical Biodiversity Area
Aquatic Habitats – Conservation actions that are needed for protection include: minimize nonpoint source pollution in waterways, including from silvicultural sources; minimize disturbance to riparian zones, including from forestry, and minimize or better manage use of fertilizers, herbicides and pesticides near aquatic habitats (and forest practices were identified as a source for this threat). Implementation of forestry Best Management Practices (BMPs) are specifically mentioned as methods for achieving these actions.

Glades – Threats include grazing, non-native species, quarrying, root-digging, plant and animal collecting, removal of large rocks for landscaping, urban development, plowing for fire breaks, use as logging decks (resulting in soil/vegetation disturbance and soil erosion), conversion to other land uses, and ORV damage. No threats from forest management activities were identified.

Montane Longleaf Pine – Biodiversity values can be adversely affected by forest management activities via conversion of longleaf to other pine types, and the use management techniques, including herbicide application that have the potential to inhibit native understory communities. As the bulk of the biodiversity exists in the understory of a longleaf pine system, restoration or maintenance of understory species composition is an essential component of longleaf pine conservation. It is possible to harvest in and sustainably manage longleaf pine systems and therefore timber management by itself is not considered a threat. Other threats include fire-suppression, urban development, forest conversion, non-native species, climate change.

Cape Fear Arch Critical Biodiversity Area
Pocosins: When the canopy has been completely removed through timber harvest, pocosins often do not regenerate. An associated threat from forest management is the conversion of native pine to planted pine and resulting loss of biodiversity, particularly if associated with changes in hydrology due to ditching. Other threats include hydraulic alteration, conversion to agriculture, road construction, and sand quarrying, habitat fragmentation, introduction of non-native species, climate change and fire suppression.

Longleaf Pine: Biodiversity values can be adversely affected by forest management activities via conversion of longleaf to other pine types, and the use management techniques, including herbicide application that have the potential to inhibit native understory communities. As the bulk of the biodiversity exists in the understory of a longleaf pine system, restoration or maintenance of understory species composition is an essential component of longleaf pine conservation. It is possible to harvest in and sustainably manage longleaf pine systems and therefore timber management by itself is not considered a threat. Other threats include fire-suppression, urban development, fragmentation, nonnative species, intensive pine straw raking, and climate change.

Cheoah Bald Salamander
G1G2; S1S2 (North Carolina); Forest & woodland habitats; Clear cutting is a major threat to local populations. Some populations have been found in second growth forests, providing evidence that they are able to re-populate after harvest, but literature suggests it takes decades and with so few known populations extant, that kind of disruption could have a significant effect on the species as a whole. The 1994 Amendment to the Nantahala National Forest Plan included new definitions of management areas that provide an indication of whether timber management will likely

occur. The Cheoah Bald area is located within management areas that at this time either do not allow timber management or are identified as being likely unsuitable for timber management. However, as the species' range is not yet fully delineated, it is not possible to know whether all or most of the range occurs within these management areas.

Dusky Gopher Frog
The Dusky Gopher Frog depends on woodlands, forested wetlands and riparian habitats. The major threats to the species include population isolation, urbanization, disease, and a lack of suitable habitat. Habitat degradation is a significant factor, driven by multiple sources including, changes in forest type from longleaf FSC® US NRA Specified Risk Fact Sheet pine to other forest types, forest degradation caused by grazing and the disruption of the natural fire regime, and land management practices that alter the soil horizon, forest litter, herbaceous community, and the occurrence of down woody debris. Timber site prep and other forestry practices that alter temporary wetlands can damage breeding areas.

Patch-nosed Salamander
G1; S1 (Georgia); Riparian habitat; Little is known about this species and specific threats have not yet been documented. However, any factor that would disrupt water flow, canopy cover, or leaf-litter layer would likely impact the species. As all of these can potentially be affected by forest management, a precautionary approach should be taken.

G1 (Critically Imperilled) & G2 (Imperilled)

- Critically Imperilled – At very high risk of extinction or elimination due to very restricted range, very few populations or occurrences, very steep declines, very severe threats, or other factors.
- Imperilled – At high risk of extinction or elimination due to restricted range, few populations or occurrences, steep declines, severe threats, or other factors.

NatureServe and state Natural Heritage Programs contain the most up to date information regarding G1 & G2 species. In the supply base area most of these species are associated with streams and other water features.

Mitigation measure:

Enviva's entire supply base for all primary and secondary sourcing has been compared to the areas of "specified risk" identified in the US CW NRA to determine the risk that are pertinent to our operations. Not all risk areas are equally impacted across the supply base. Appropriate mitigation levels have been determined by using a mitigation level matrix and considering the specific sourcing impacts of each Enviva facility. In cases where multiple facilities overlap specified risk areas, increased mitigation will be provided. Enviva sources secondary residual feedstocks that result in expanded supply bases that extend well beyond a traditional hauling radius. A detailed analysis of mitigation requirements has been developed for those sources.

Enviva is committed to only source wood from forest where High Conservation Values are not threatened by harvest activities as outlined in the Enviva Responsible Sourcing Policy. This policy is publicly available on the company website and is contained within the Master Wood Purchase Agreement (MWPA) signed by suppliers. Enviva has adopted the High Conservation Value Network Approach (HCVNA) to make sure HCV's not only persist in the landscape, but are enhanced over time. The HCVNA is a globally applicable approach that can be implemented on a variety of landscapes. This approach defines 6 HCV types, but only 4 are applicable to the southeast US.

HCV Network Approach HCV Types	Enviva HCV Policy Focus
13) Species Diversity	Imperiled Species (G1,G2,S1,S2)
14) Landscape Level Ecosystems	Not Applicable in the SE US

15) Ecosystems and Habits	Bottomland Hardwood, Longleaf Pine
16) Ecosystem Services	Water Quality, BMP's
17) Community Needs	Not Applicable in the SE US
18) Cultural Values	Native American Sacred Sites

HCV Type 2 (Landscape Level Ecosystems) applies to large and undisturbed landscapes similar to Intact Forest Landscapes as defined by the World Resources Institute (WRI). Any areas in the southeast US meeting this criteria are already under federal protection. HCV Type 5 (Community Needs) describes forest that are solely relied upon for survival of indigenous people groups without assistance from outside resources, and those areas do not exist in the southeast US.

Mitigation measures for Category 3 High Conservation Values
To address mitigation of Category 3 High Conservation Values Enviva adopted the High Conservation Value Approach. HCVNA involves 3 steps: identification of the HCV, management of the species or ecosystem, and monitoring to verify the effectiveness of the management practices. For identification of HCV's, Enviva will utilize internally developed mapping data for critically imperiled/imperiled species (G1, G2, S1, and S2), the US Fish and Wildlife Service Wetlands Mapper for bottomland hardwood, Longleaf Pine mapping data from the Longleaf Alliance, and sacred site mapping provided by Earthworm. Management of identified HCV's within harvest areas will be on a case by case basis utilizing in-house forestry expertise. Monitoring will be conducted through inspections of with the Longleaf Pine assessment plots reviewed by the Longleaf Alliance, and Enviva's BMP assessment process. Based upon monitoring results, management practices will be improved as needed.

After Commodity Managers have collected Track & Trace® data for the prospective harvest location, they will check the tract boundary in ArcGIS. All the mapped HCV data layers will be available in ArcGIS and the Commodity Manager will compare the harvest area with the map layers to see if overlap exist. If a stand overlaps an HCV Area, there are a series of due diligence workflows in place to guide harvest and management guidelines. Site visits, harvest options, and secondary triggers are all part of these workflows. The Bottomland Hardwood Workflow ultimately requires executive approval for harvest, but the other workflows do not since they are based on conservation community recommendations.

Outreach and Education
Enviva requires all primary suppliers to complete an online course titled Enviva Responsible Sourcing Guidance for Suppliers. The training covers Enviva's commitment to protecting HCV areas of concern – Enviva does not harvest or source from areas of special concern that we have identified in partnership with leading conservation organizations. We use a High Conservation Value (HCV) Network approach to determine and protect HCVs. All tracts are required to undergo a pre-delivery assessment for the presence of HCV features. Those tracts found to contain HCV features must pass through our HCV field assessment and approval process before fiber may be delivered to one of Enviva's facilities. HCVs are:

- Bottomland Hardwoods,
- Low Pocosins,
- Atlantic White Cedar,
- Carolina Bays,
- Cypress Tupelo swamps,
- Longleaf Pine,
- Imperiled Species ,
- Cultural HCVs.

The goal of the HCV Network Approach is to identify areas of exceptional value and make sure those HCV's persist on the landscape over time and that they are maintained and / or enhanced by harvest operations.

- Best Management Practices – Suppliers must adhere to state BMPs. To comply with BMPs, Logger Training must be maintained in order to deliver to any Enviva facility. Enviva Procurement and Sustainability Foresters will conduct random site visits on a selection of active and non-active harvests to verify BMP compliance.
- Certification support – Enviva maintains multiple forestry certifications, including the Sustainable Forestry Initiative® (SFI), Forest Stewardship Council® (FSC), Programme for Forest Stewardship (PEFC), and the Sustainable Biomass Program (SBP).
- Track & Trace – Track & Trace is a requirement to deliver primary volume to Enviva. Primary volume is considered to be inwoods volumes, including fuel only purchases from tracts. Track & Trace is not required for volumes from mills as residual secondary or tertiary sources, chip mills, wood yards, nor arboricultural volumes.
-

Commodity Managers are trained to understand what Enviva identifies as an HCV, how to evaluate a potential source tracts to determine if there is overlap of potential HCV area and work with suppliers to avoid the HCV area or if harvesting can enhance the HCV then suggest management recommendations to do so.

Secondary and tertiary feedstock suppliers are evaluated through an in-person District of Origin audit. The audit confirms species used, procurement radius or counties, if the supplier has a sustainability policy, level of information collected from supplier regarding origin of wood, certification status, and other pertinent information to determine their understanding of their supply chain. Each mill is evaluated via mapping with known HCV areas. Each supplier is furnished with a map showing HCV overlap and appropriate HCV information.

Procurement Policy

Enviva's Master Wood Purchase Agreement clearly defines Enviva's procurement policies. Enviva requires all suppliers to sign a Master Wood Supply Agreement. The Agreement requires suppliers to abide by forest management activities regulations. 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 harvested 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 nonforest 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.

Additionally, the document includes Enviva land use change policy clearly describing the company's desire to avoid feedstock produced from land use change tracts

Implement Management Activities & Landowner Incentives

Enviva has been working with The Longleaf Alliance (TLA) to help restore Longleaf pine (LLP) to the southeast. The effort is multi-faceted.

- Landowner outreach through workshops
- Direct payment for Longleaf pine restoration plans through The Longleaf Alliance partner the Sandhill Prescribed Burn Association (SPBA)
- Documenting the restoration of Longleaf pine through feedstock purchasing from tracts that historically where but planted in a different species and the landowner wishes to convert the forest back to Longleaf
- Provide seedings each year to assist landowners in meeting their LLP objectives

BMP Monitoring

Enviva conducts field inspections including forestry BMPs at two stages. All inspections are scored and the score used to identify poor performers or areas where a supplier could improve

- Ongoing site inspection – to engage with suppliers while on-site to prevent potential BMP infractions

- Post-harvest site inspections – to ensure Enviva agrees the harvest site was properly closed out

Monitoring and outcomes:

Outreach and Education

a. Ensure Enviva primary suppliers complete and sign annual supplier education materials
b. Ensure Enviva Commodity Managers and Stumpage staff understand and sign annual education materials
c. Ensure forestry BMPs are properly applied through field inspections
d. Ensure secondary and tertiary suppliers complete their DOO audit and conform to Enviva's HCV policy

Procurement Policy

a. Ensure suppliers have signed an MWPA or similar document demonstrating they understand the procurement policy details pertaining to HCVs, BMPs and/or Track & Trace/DOO as appropriate
b. Monitor via tract set up, remote sensing, and field inspections

Implement Management Activities & Landowner Incentives

a. Continue working with TLA to
    v. Hold landowner workshops
    vi. Track the number of landowners receiving LLP restoration plans through the SPBA
    vii. Track the conversion of other pine forest types to LLP
    viii. Provide LLP seedlings to landowners assisting them in meeting their LLP restoration objectives

BMP Monitoring

a. Ensure Commodity Managers and stumpage staff complete the necessary field inspections
b. Where necessary work with suppliers to improve their BMP score