

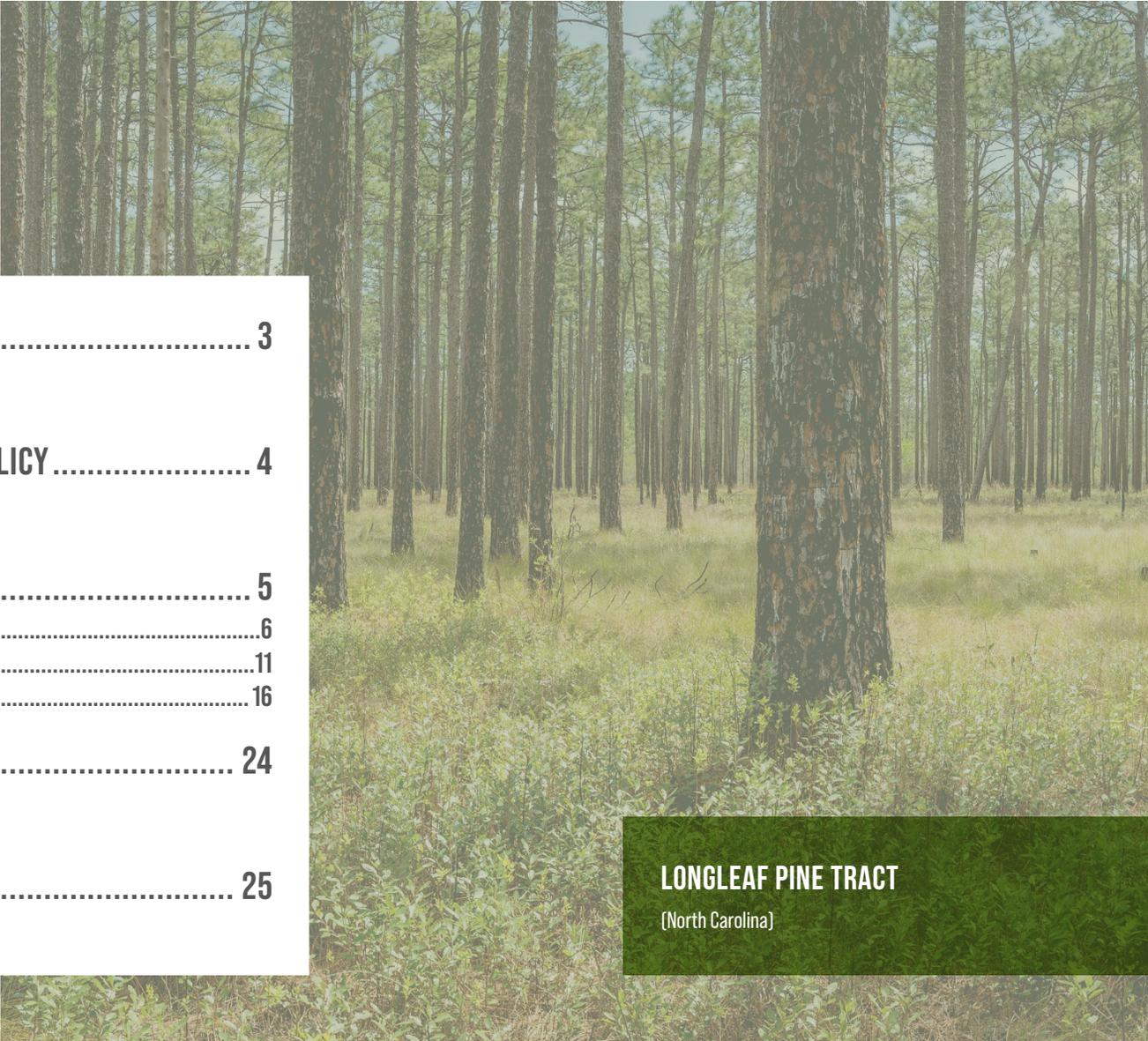


# 2019 IMPACT REPORT



February 26, 2020

# CONTENTS



- LETTER FROM THE CHIEF SUSTAINABILITY OFFICER ..... 3
  
- OVERVIEW OF ENVIVA’S RESPONSIBLE SOURCING POLICY ..... 4
  
- 2019 IMPLEMENTATION PLANS ..... 5
  - SUSTAINABLE FORESTRY STANDARDS ..... 6
  - VERIFICATION AND TRANSPARENCY ..... 11
  - PLEDGES IN CONSERVATION LEADERSHIP ..... 16
  
- THANK YOU TO OUR PARTNERS ..... 24
  
- ENVIVA’S RESPONSIBLE SOURCING POLICY ..... 25

**LONGLEAF PINE TRACT**  
(North Carolina)

# LETTER FROM THE CHIEF SUSTAINABILITY OFFICER



**Jennifer Jenkins, PhD**

Vice President and Chief Sustainability Officer

Dear All,

We launched our enhanced and expanded global Responsible Sourcing Policy (RSP) in 2019, which clarifies Enviva's commitment to forest stewardship in three critical areas: **1) at the tract level, with strict standards for forest sourcing; 2) throughout our supply chain, with provisions for verification, transparency, and reporting; and 3) in pledges for conservation leadership on landscape-level challenges and opportunities.**

Within the RSP framework, our annual Implementation Plans set measurable goals by which we seek to make demonstrable progress toward the commitments made in our RSP. We are excited to share our progress and results in this 2019 Impact Report, which was made possible, in large part, by our collaboration with key partners.

Publishing this Impact Report annually is part of our commitment to transparency and accountability and is intended to keep our stakeholders informed of our work. It is divided in sections describing the plans that we made in 2019 to implement our policy provisions, the actions we took to carry out those plans, and the impact that resulted from this work. We also learned that in some cases we have more work to do and how we can continue to improve and innovate in our business.

We look forward to continuing our progress in 2020 and we enthusiastically welcome your feedback, questions, and suggested opportunities for partnership to achieve our goals.

Yours in forest stewardship,

A handwritten signature in green ink, appearing to read 'Jennifer Jenkins'.

# Overview of Enviva's RESPONSIBLE SOURCING POLICY



LEGALITY



RESPECT FOR  
HUMAN RIGHTS



SUSTAINABLE FORESTRY  
STANDARDS



VERIFICATION



TRACEABILITY, TRANSPARENCY,  
AND REPORTING



PLEDGES IN  
CONSERVATION LEADERSHIP

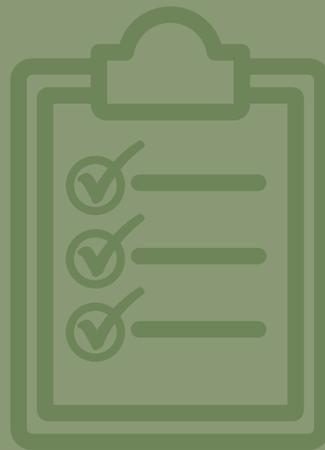
## INTRODUCTION

Our Responsible Sourcing Policy (RSP) is part of our long-standing pledge to continuously improve environmental performance. Our revised RSP was developed in conjunction with independent organizations, including non-governmental organizations, state wildlife agencies, foresters, and other stakeholders. Ongoing collaboration with these organizations has resulted in specific tangible goals for which we have made specific implementation plans and taken the actions we discuss in this Impact Report.

# 2019 IMPLEMENTATION PLANS



**SUSTAINABLE  
FORESTRY STANDARDS**



**VERIFICATION &  
TRANSPARENCY**



**PLEDGES IN  
CONSERVATION LEADERSHIP**

# SUSTAINABLE FORESTRY STANDARDS

In the Sustainable Forestry Standards section of our policy, we describe our commitments to ensure that, when we make an affirmative decision to purchase wood from a given harvest, that harvest has a positive impact on the forest landscape from which we source. Following are the policy provisions and related plans that we focused on in 2019.

## POLICY PROVISION AND STATUS

The forests from which we source will be replanted or regrown as forests and will not be converted to non-forest use.



Policy in Action #1: Partnering to Keep Forests as Forests



Policy in Action #2: Using Geospatial Technology to Monitor Forest Regeneration

Water quality in a harvest area is protected through adherence with forestry Best Management Practices (BMPs).



Policy in Action: Ensuring Compliance with Forestry BMPs in Harvesting Operations

High Conservation Values (HCVs) are not threatened by harvest activities.



Policy In Action: Improve Identification and Protection of HCV Forests

LEVEL OF COMPLETION

Policy Status   

## POLICY PROVISION:

The forests from which we source will be replanted or regrown as forests and will not be converted to non-forest use.

Policy in Action #1: Partnering to Keep Forests as Forests

## PLAN:

After purchasing wood from a portion of a tract known as Rhea's Landing along the Roanoke River in North Carolina, the site did not regenerate naturally due to prolonged flooding brought on by higher-than-normal rainfall combined with poor drainage at the site. To ensure the tract regenerated successfully, we set out to replant the tract with baldcypress trees, which are an important forest type that's been in decline.

## ACTION:

We worked with the North Carolina Forest Service to develop a planting plan. They grew the baldcypress seedlings and incubated them in nurseries to ensure they would grow to tolerate the accustomed high flooding in the area, and we planted them in December 2019 under the Forest Service's guidance and supervision.

*A crew planting baldcypress seedlings mature enough to withstand the high flooding at the site.*

## IMPACT:

Baldcypress were planted along the Roanoke River, and we will monitor the site to ensure successful regeneration.



LEVEL OF COMPLETION

*Achieved*

Policy Status



## POLICY PROVISION:

The forests from which we source will be replanted or regrown as forests and will not be converted to non-forest use.

Policy in Action #2: Using Geospatial Technology to Monitor Forest Regeneration

### PLAN:

We set out to develop and implement an enhanced methodology for a monitoring system to track forest regeneration and land use change in the tracts we purchase from.

### ACTION:

We partnered with [terraPulse Inc.](#), builders of data-driven geospatial solutions, to develop a methodology for assessing the regeneration status of forests that we sourced from in the past. Using satellite imagery and machine learning, we carried out a proof of concept assessment of the regeneration status of thousands of our historical harvest tracts set up in 2016. We also assessed our historic tract geodatabase to inform our methodology with more accuracy about our tracts and their forest regeneration monitoring.

### IMPACT:

Our post-harvest audits provide us with assurance that the forestland from which we source is being regenerated, but it is not always feasible for Enviva personnel to check the status of all of the harvest sites year after year. Remote sensing allows us to scale our monitoring in order to confirm that our sourcing is achieving our policy goals. Utilizing technology in developing this methodology provided us with valuable insights and better information for making decisions today about how we work with stakeholders to ensure positive harvest outcomes in the forest landscape.

*Our policy seeks to keep forests as forests in order to ensure a healthy forest landscape. We understand that land use conversion of tracts we source from may still occur because land may be sold or transferred to new owners or private landowners' circumstances may change. While we perform our post-harvest audits to assure that forests are regrown as forests in our region, we also seek to improve our ability to monitor forest regrowth in a more accurate and thorough way by utilizing the latest technology.*

*In the last year and a half, we went from a system that relied solely on tract site visits to a scalable system of remote sensing capabilities. While we have come a long way in being able to monitor harvest sites, we are still learning how best to apply these systems in practice. We faced challenges this year developing a method for confirming forest regeneration with only a few years of regrowth after a harvest event, but we have learned a great deal about the tools available to us through remote sensing. We are applying lessons learned to a system that will ensure we know as much as we can about every harvest site from which we purchase wood.*

LEVEL OF COMPLETION

**Achieved**

Policy Status



## POLICY PROVISION:

**Water quality in a harvest area is protected through adherence with forestry Best Management Practices (BMPs).**

**Policy in Action: Ensuring Compliance with Forestry BMPs in Harvesting Operations**

### PLAN:

To confirm that BMPs are met, Enviva Sustainability Foresters conduct post-harvest audits. In 2019, we set out to achieve 100% BMP compliance for our audits.

### ACTION:

We used a random site selection process to inspect post-harvest sites across our supply regions. In 2019, we inspected 11% of the tracts we sourced from for BMP compliance, almost triple the amount of inspections compared to 2018. That translates into our team successfully auditing over 300 individual tracts for BMP compliance, the largest number of audits we have performed in a single year to date.

### IMPACT:

We have confirmed 100% compliance with BMP policies and procedures in all of our audits, mitigating negative impacts to water quality and soil health at our harvest sites. We are also pleased to have the opportunity to support continuous education and professional development in the forestry sector through BMP trainings we sponsor and provide to the landowners.

*The Clean Water Act requires protection of water quality. Forestry agencies and other experts develop state-specific forestry Best Management Practices (BMPs), such as leaving buffers of trees standing along streams or properly constructing trails on harvest sites to minimize soil movement and protect water quality. In addition to the state agencies monitoring BMP implementation, Enviva requires loggers to be BMP trained and to also receive Sustainable Forestry Initiative approved training.*



LEVEL OF COMPLETION

**Achieved**

Policy Status



## POLICY PROVISION:

# High Conservation Values (HCVs) are not threatened by harvest activities.

## Policy In Action: Improve Identification and Protection of HCV Forests

### PLAN:

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

We committed to using the [HCV Network Approach](#), which involves three steps:

- I. Identifying the six types of HCVs in our sourcing regions, which are:
  - i. species diversity,
  - ii. landscape-level ecosystems,
  - iii. ecosystems and habitats,
  - iv. ecosystem services,
  - v. community needs, and
  - vi. cultural values;
- II. Developing sourcing procedures to maintain or enhance those HCVs; and
- III. Developing a monitoring program to assess the effectiveness of HCV policies and procedures on an ongoing basis.

### ACTION:

Working with NatureServe, we developed a methodology to rank and prioritize HCVs, particularly for imperiled species and communities, which we successfully applied as a pilot in Virginia. Some of the states we source from have higher concentrations of imperiled species and communities, and we encountered significant variations across the states in the prioritizations produced by the application of the ranking methodology. In fact, the rankings between states varied so starkly that we re-evaluated our approach to understand whether it was a function of the actual distribution of imperiled species and communities or variations in the application of the methodology due to multiple state agencies and their differing datasets.

Forests with outstanding biological, ecological, social, or cultural values are known as High Conservation Values (HCVs). When we began our work to identify and protect HCV forests, we focused on [bottomland hardwoods](#). However, in 2018, thanks to feedback from conservation experts on our [Bottomland Hardwood Task Force](#), we began to understand we had gaps in our HCV policy, particularly for rare and imperiled upland forest types.

### IMPACT:

In 2019, we obtained NatureServe's mapping of longleaf forests, which we will apply in 2020 as part of our HCV expansion and restoration work. We also revised our methodological approach and will instead use element occurrence data on rare and imperiled species and forest types so that we can develop a better understanding of the variations in the state data.

*In 2019, we set out to improve the identification and protection of HCV forests, especially in upland areas. We did not make as much progress as we would have liked, but we learned that there are areas of HCV that are not explicitly protected in our sourcing procedures, and we are working to ensure that our practices are fully aligned with our values. Working together with conservation organizations, through this process we have gathered valuable and important information about the precise characteristics and hierarchy of HCV ecosystems in our sourcing region, which will help us to develop our procedures going forward.*

LEVEL OF COMPLETION

*In Progress*

Policy Status



# VERIFICATION AND TRANSPARENCY

Our Responsible Sourcing Policy details the ways in which we seek to enhance the transparency of our operations and the verification of our information through technological solutions and third-party sustainability certification systems. Following are the policy provisions and plans we chose to focus on in 2019.

## POLICY PROVISION AND STATUS

We will continue to seek out innovative and credible methods of verifying that our sourcing meets and exceeds our standards.



Policy In Action #1: Enhance Track & Trace® Audit Capabilities



Policy In Action #2: Increase Forest Management Certification in Our Sourcing Regions

We commit to report twice annually on the progress that we and our residue suppliers and third-party pellet producers have made against our Sustainable Forestry Standards, as well as the progress we've made on our annual Implementation Plans related to our Sustainable Forestry Standards and Pledges in Conservation Leadership.

Policy In Action: Establish New Reporting on Sustainability for Greater Transparency and Stakeholder Engagement



A. Corporate Sustainability Reporting



B. Periodic RSP Reporting

LEVEL OF COMPLETION

Policy Status 

## POLICY PROVISION:

We will continue to seek out innovative and credible methods of verifying that our sourcing meets and exceeds our standards.

Policy In Action #1: Enhance Track & Trace® Audit Capabilities

## PLAN:

We committed to build on the audit capabilities of our existing Track & Trace® (T&T®) system as well as to develop and implement enhanced methodology for real-time monitoring and auditing of our T&T data.

## ACTION:

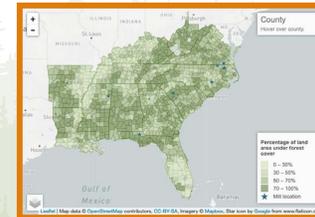
In 2019, we developed and implemented enhanced methodology for real-time monitoring and auditing of T&T data using geographic information system mapping, as well as working with [NEPCon](#) to develop the first T&T third-party audit standard.

## IMPACT:

The real-time monitoring improved the efficiency of our systems while providing our foresters and procurement staff a way of quickly verifying if a tract met the relevant standards of our Responsible Sourcing Policy, prior to visiting the tract. This system also enhances our ability to conduct auditing and analysis and greatly improves the transparency of our T&T system.

## Track the timber

### Forest Trend Map



Based on historic data from the U.S. Forest Service, the forest trend map displays changes in overall forest conditions in the Southeast and in each of Enviva's forest supply areas.

### Wood Supply Map



Enviva's Wood Supply Map provides detailed information on actual timber harvests that supply each of Enviva's facilities.

LEVEL OF COMPLETION

*Achieved*

Policy Status



## POLICY PROVISION:

We will continue to seek out innovative and credible methods of verifying that our supply base meets and exceeds our standards.

Policy in Action #2: Increase Forest Land Certification in Our Sourcing Regions

### PLAN:

Because we understand that some landowners and customers may prefer one certification scheme over another, we saw a need to expand our offerings for forest certification. In 2019, we pledged to build our capacity to support [Forest Stewardship Council® \(FSC®\) Forest Management \(FM\) certification](#), under our license number FSC® C110565, with a goal to add 10,000 acres to FSC FM certification.

*Note that all the pellets we produce are certified to both the [Sustainable Biomass Program \(SBP\)](#) and [FSC Controlled Wood risk-based schemes](#).*

### ACTION:

In 2019, we added 26,329 acres to our Independently Managed Group (IMG) under the American Tree Farm System (ATFS), bringing our total IMG acres to 90,486. One in seven ATFS certified acres in North Carolina is now enrolled in our IMG. In addition, working with our staff, landowners, and the Milliken Forestry Company, we enrolled 14,038 acres (nearly 40% more than our goal of 10,000 acres) in FSC.

### IMPACT:

As more landowners enroll in certification, we believe that markets will recognize the value of certified land, thus encouraging more landowners to achieve forest management certified status. Landowners should have access to the professional certification scheme of their choice, which is why we have worked to provide FSC certification options in addition to the ATFS IMG that we established in 2016.

*For decades, third-party forest management certifications have provided globally recognized standards for sustainable sourcing of forest products and assurance that these standards are met throughout the supply chain. Today, about 15-20% of forestland in the Southern U.S. is certified under the major forest management certification schemes ([Sustainable Forestry Initiative \(SFI\)](#), [Forest Stewardship Council \(FSC\)](#), and the [American Tree Farm System \(ATFS\)](#)). Since 2016, Enviva has worked to increase the amount of certified forest land in our sourcing regions through our ATFS Independently Managed Group (IMG).*

### Total Acres Enrolled In Enviva Sustainable Forest Management Certification Groups

Year	American Tree Farm System (ATFS)	Forest Stewardship Council (FSC)
2016	4,000	N/A
2017	38,000	N/A
2018	66,000	N/A
2019	90,000	14,000

LEVEL OF COMPLETION

**Achieved**

Policy Status



## POLICY PROVISION:

**We commit to report twice annually on the progress that we and our residue suppliers and third-party pellet producers have made against our Sustainable Forestry Standards, as well as the progress we've made on our annual Implementation Plans related to our Sustainable Forestry Standards and Pledges in Conservation Leadership.**

**Policy In Action: Establish New Reporting on Sustainability for Greater Transparency and Stakeholder Engagement**

### A. Corporate Sustainability Reporting

#### PLAN:

We committed to issue our first corporate sustainability report in 2020.

#### ACTION:

In 2019, working with BSR, a global nonprofit that develops sustainable business strategies and solutions through consulting, research, and cross-sector collaboration, we conducted a materiality assessment to learn what issues are of greatest strategic importance for us, as well as what topics our stakeholders feel are most important. We are now preparing our disclosures on these topics, which we will make public in our first annual corporate sustainability report in 2020.

#### IMPACT:

We believe that our corporate sustainability reporting will provide greater transparency and engagement with a broader set of stakeholders as well as continue to inform and enhance our sustainability strategy going forward.

*The increasing emphasis on corporate sustainability has created a dramatic shift in the way that companies communicate and disclose relevant environmental, social, and governance information, causing significant changes to how they assess risk, performance, and investment opportunity - using environmental performance as a crucial indicator.*

*Because of the nature of our company and our mission, Enviva has seen increased recognition, interest, and scrutiny from a number of stakeholders with respect to our sustainability performance. We believe it is important to report on the sustainability impact of our business and how we continue to improve it.*

LEVEL OF COMPLETION

*In Progress*

Policy Status



## POLICY PROVISION:

We commit to report twice annually on the progress that we and our residue suppliers and third-party pellet producers have made against our Sustainable Forestry Standards, as well as the progress we've made on our annual Implementation Plans related to our Sustainable Forestry Standards and Pledges in Conservation Leadership.

Policy In Action: Establish New Reporting on Sustainability for Greater Transparency and Stakeholder Engagement

### B. Periodic RSP Reporting

#### PLAN:

As part of our continued commitment to transparency and adherence to the RSP, we committed to set forth our Implementation Plan at the start of each year, provide a midyear progress update, and report on our progress and impact at the end of the year.

#### ACTION:

This 2019 Impact Report provides an annual summary of the plans we have made, actions taken to implement them, our accomplishments, and/or challenges for the year with a self-assessment.

#### IMPACT:

Transparent reporting enables us to solicit feedback that will better inform and guide our strategy in the future. Increased disclosure encourages partnerships, assures stakeholders, and provides valuable resources for our partners.



LEVEL OF COMPLETION

*Achieved*

Policy Status



# PLEDGES IN CONSERVATION LEADERSHIP

We pledge to go beyond our tract-level sustainability standards in order to progress toward our vision of sourcing wood in ways that promote the sustainability of forest ecosystems at the landscape level. Because the regional forest products industry is an integrated system, in which different grades of wood are created from each harvest and delivered to various local markets, this requires collaborative work with a variety of other stakeholders.

## POLICY PROVISION AND STATUS



Keep the amount of forestland stable or increasing at regional scales.

Policy In Action: Support Legislative Measures Aimed at Conservation



Conserve wetland forest ecosystems, peatland forests, and high-carbon tropical forests.

Policy In Action #1: Establish the Enviva Forest Conservation Fund to Conserve Bottomland Hardwood Forests



Policy In Action #2: Encourage Use of Tax Credits for Conservation of Wetlands



Address the conversion of forest types that provide high-quality habitat for at-risk species.

Policy in Action: Undertake Scientific Analysis of Forest Conversion Trends



Restore critical, threatened, or declining forest types.

Policy In Action: Develop Longleaf Restoration Plan and Manage Its Restoration with Landowners



Plan #1: Longleaf Restoration Plan

Plan #2: Longleaf Restoration Activities

### LEVEL OF COMPLETION

Policy Status 

## POLICY PROVISION:

**Keep the amount of forestland stable or increasing at regional scales.**

**Policy In Action: Support Legislative Measures Aimed at Conservation**

### PLAN:

The [Land and Water Conservation Fund](#) (LWCF) is regarded by many in the conservation community as the single most important conservation program in the U.S. We've therefore advocated for protection of the LWCF as critical and worked with partners to support reauthorization of the LWCF in 2019.

### ACTION:

Although the LWCF does not directly impact our business operations, it is consistent with our policies and values and so we supported the reauthorization of the LWCF, meeting with key members of Congress and explaining its benefits for helping to maintain the amount of forestland in our regions.

### IMPACT:

In March 2019, the John D. Dingell, Jr. Conservation, Management, and Recreation Act was signed into law. Among other things, this legislation permanently reauthorized the LWCF, which means this important program will continue to protect our national treasures indefinitely.

The LWCF provides matching grants to federal, state, and local governments to support important conservation projects.

*Strong forest markets in our sourcing regions have led to steady forest growth year after year, but this is not the case in other regions of the U.S. or the world. In some regions, private landowners lack the economic incentive to keep their forests as forests. There is risk of forest conversion in the Southeastern U.S., especially in areas where there is population pressure and urban development is likely.*

*The LWCF was permanently reauthorized with bipartisan support and signed into law on March 12, 2019. It requires at least 40% of its funds to be used by federal agencies and at least 40% to be allocated to the states.*



LEVEL OF COMPLETION

**Achieved**

Policy Status



## POLICY PROVISION:

# Conserve wetland forest ecosystems, peatland forests, and high-carbon tropical forests.

## Policy In Action #1: Establish the Enviva Forest Conservation Fund to Conserve Bottomland Hardwood Forests

### PLAN:

In 2015, we created the Enviva Forest Conservation Fund (EFCF) in partnership with the U.S. Endowment for Forestry and Communities. The Fund pledges \$5 million over 10 years to help conserve at least 35,000 acres of bottomland hardwood forests. These matching grants provide government agencies and non-profit organizations with leverage to obtain additional funding and conserve these areas through easements and other mechanisms.

### ACTION:

We awarded four grants that included protection for forestland in Southampton County, Virginia, as well as North Carolina's Carteret and Granville Counties and property adjacent to the Uwharrie National Forest. For more information about each of these grants, please read our [2019 EFCF Newsletter](#).

### IMPACT:

In 2019, we helped conserve 7,450 acres of forestland through our partnerships with the Virginia Outdoors Foundation, the N.C. Coastal Land Trust, the Three Rivers Land Trust, and the Tar River Land Conservancy. These projects were successfully made possible thanks to collaboration with landowners and funding from other organizations such as the North Carolina Clean Water Management Trust Fund, the Open Space Institute, the Duke Water Resource Fund, Conservation Alliance, Ducks Unlimited, and the U.S. Fish and Wildlife Service. When completed, and combined with projects previously funded, our 2019 projects will bring the total EFCF acreage cover to over 24,000 acres.

*Sensitive bottomland hardwood ecosystems can be ecological hotspots, which is why we have robust processes in place to allow us to ensure that harvest is the best outcome for the specific tracts we source. But when we do not accept wood from a tract, we also know that our decision does not ensure that they will be protected because the landowner may choose to sell to another forest products company.*



LEVEL OF COMPLETION

*Achieved*

Policy Status



## POLICY PROVISION:

# Conserve wetland forest ecosystems, peatland forests, and high-carbon tropical forests.

## Policy In Action #2: Encourage Use of Tax Credits for Conservation of Wetlands

### PLAN:

Working with our suppliers and landowners, we set out to increase landowner adoption and use of the Virginia Riparian Buffer Tax Credit Program by 50% in the eight Virginia counties around our Southampton facility.

### ACTION:

We began promoting the Virginia Riparian Buffer Tax Program, which offers qualifying landowners a tax credit to partially offset the value of trees they leave standing along streams. To help address barriers and promote landowner participation, we:

- arranged with the Department of Forestry to pay the \$150 program registration fee on behalf of landowners in Southeast Virginia that we help get certified in the American Tree Farm System (ATFS) or Forest Stewardship Council (FSC) programs;
- conducted outreach and education with landowners, foresters, major logger/suppliers, and natural resource professionals who work with landowners; and
- convened a stakeholder group which identified and is implementing additional strategies to boost participation statewide.

### IMPACT:

Our outreach yielded positive responses. We'll have an accurate measure of our success in April 2020, when last year's tax filings become available, but we feel confident that we're on track to achieve this goal.

*Tree cover zones are an important feature of wetland forest ecosystems and are critical to protecting water quality and mitigating impacts of flooding or other events. Landowners whose land abuts a body of water can seek available financial incentives to keep tree cover in wetlands intact.*

*“The riparian buffer tax credit program is a win-win for Virginia's forest owners and for water quality, so we'd like to see a lot more landowners enroll. The program provides an incentive to landowners who are harvesting timber to voluntarily retain a forest buffer during a timber harvest. This is the most important practice for the protection of water quality. Enviva is helping the Department of Forestry in a big way to get the word out on this program to key landowners, loggers, and consulting foresters in SE VA and continues to be an important partner in the effort to protect water quality and practice sustainable forest management for Virginia's forest resource.”*

*Matt Poirot, Assistant Director of Forest Management at the Virginia Department of Forestry*

LEVEL OF COMPLETION

*In Progress*

Policy Status



## POLICY PROVISION:

# Address the conversion of forest types that provide high-quality habitat for at-risk species.

## Policy in Action: Undertake Scientific Analysis of Forest Conversion Trends

### PLAN:

We set out to understand background trends in conversion of high-quality habitat for at-risk species in our sourcing region.

### ACTION:

We commissioned a study from North Carolina State University to analyze background trends in forest type conversion in the U.S. South. From this work, we learned, first, that definitions for forest types can be quite variable. Within the broad “pine plantation” category, for example, there are forests with multiple pine species and variable degrees of structural diversity.

We also learned that forest landscapes are dynamic systems, such that land transitions frequently into and out of various forest types. For example, in Alabama, while 1,054,000 acres were converted from other forest types to pine plantation over the last decade, 1,056,000 acres were converted out of pine plantation to other forest types over the same time period. Taking into account all of these transitions across the U.S. South, the net increase in pine plantations over the last decade was 370,000 acres. This means that the cumulative conversion rate of other forests to planted pine over the last decade has been less than 0.2% of the total forest landscape in the U.S. South.

Finally, we learned that where conversions do occur, they are most likely from natural pine to planted pine, and from upland hardwoods to planted pine. There were also significant conversions out of the planted pine categories into both upland hardwood and natural pine. Many states, particularly in the pine-heavy region of the deep South, have actually experienced a net loss of pine plantations.

### IMPACT:

Results from this study provide information on background rates of conversion that we can use to develop sourcing strategies and other collaborative work in order to enhance protection of high-quality habitat for at-risk species.

*One historical and ongoing concern in the Southeastern U.S. is the reduction in quality and quantity of forest habitat for species that are at risk, which is why we included a provision in our RSP to address forest type conversion and habitat loss for these species. Our work in 2019 sought to better understand baseline trends in forest type conversion in our states and across the region. We chose to work with publicly available Forest Inventory and Analysis (FIA) data from the U.S. Forest Service for this analysis because it is the best source of consistent regional data, though we know that the forest types from FIA are not explicitly linked to habitat quality. As a result, we emphasize that this analysis is a first step toward our ultimate goal of being able to address conversion of forest types that provide high-quality habitat for at-risk species. In 2020, we will assess options for how we might begin to influence outcomes relative to high-quality habitat for at-risk species, particularly in our expanding high conservation value policy and procedures.*

LEVEL OF COMPLETION

**Achieved**

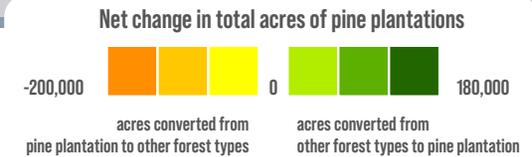
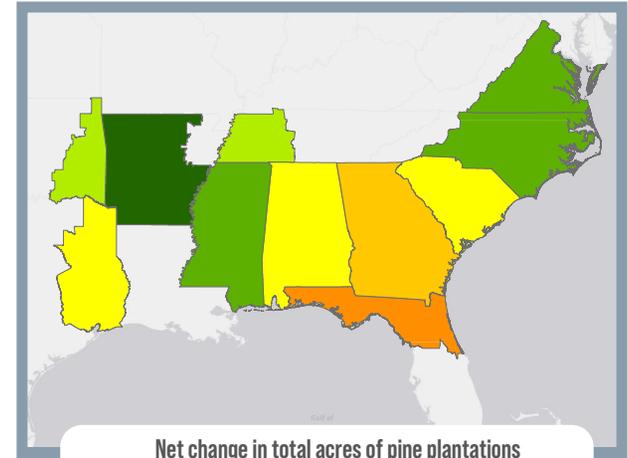
Policy Status



# Net Change in Pine Plantation Forest Types in Southern U.S. Forests Over the Last Decade

*In the U.S. South, there are about 200 million acres of forest land and, of that land, about 45 million acres are planted pine (about 23% of the landscape). In the last decade, the net change in forest types in the U.S. South has resulted in the conversion of about 370,000 acres of forest land from other forest types to pine plantation. That represents less than 1% of the total forest acres that existed as planted pine or 0.2% of the total forest landscape.*

Total highlighted area: 200 million acres of privately-owned forest land in the U.S. South



	Pine Plantation	Bottomland Hardwood Forests	Natural Pine Forest	Oak-Pine Forest	Upland Hardwood Forest	Agriculture/Developed	Total
Pine Plantation	87%	1%	5%	1%	4%	1%	100%
Bottomland Hardwood Forests	2%	92%	1%	3%	1%	0%	100%
Natural Pine Forest	8%	2%	72%	10%	6%	2%	100%
Oak-Pine Forest	2%	7%	27%	49%	13%	1%	100%
Upland Hardwood Forest	8%	4%	4%	18%	63%	3%	100%
Agriculture/Developed	0%	0%	2%	0%	0%	97%	100%

## Current Forest Type

*The transition matrix gives a summary of net land use and forest type transitions from the U.S. Forest Service's Forest Inventory and Analysis (FIA) in the Southern U.S. over the last decade based on best available FIA data. The rows (down the left side of the matrix) show previous land use/ forest type, while the columns (across the top of the matrix) show current land use/ forest type. Forest types like bottomland hardwood forests and oak-pine forests had the lowest rates of conversion to pine plantation.*

## POLICY PROVISION:

### Restore critical, threatened, or declining forest types.

Policy In Action: Develop Longleaf Restoration Plan and Manage Its Restoration with Landowners

Plan #1: Longleaf Restoration Plan

## IN 2019, WE HAD TWO SPECIFIC PLANS RELATED TO LONGLEAF RESTORATION

### PLAN # 1: LONGLEAF RESTORATION PLAN

To scale restoration efforts and to ensure that we'll support good, ecologically-oriented longleaf restoration, we set out to develop and release a 3-year plan to support longleaf restoration.

#### ACTION:

With technical input from The Longleaf Alliance, NatureServe, Milliken Forestry Company, and others, we developed a 5-year longleaf restoration plan, which we will release at the end of March 2020. Our longleaf restoration plan includes our longleaf high conservation value program, which sets procedures for the identification, conservation, restoration, and monitoring of longleaf stands as well as a set of strategies to increase our support of longleaf restoration in all our regions.

### IMPACT:

Our market for low-value wood helps landowners restore longleaf stands on their property. In North Carolina, we helped certify and enroll 532 acres of forestland into Forest Stewardship Council certification; and we identified 775 acres of longleaf stands needing restoration-oriented biomass harvesting. In Florida, we recruited landowners who have at least 249 acres they want to restore to longleaf around our Cottondale facility, and we helped certify and enroll their stands in our Tree Farm Independently Managed Group.

*Enviva's work in ecological forest restoration to date has focused on the longleaf pine ecosystem, one of the most biodiverse forest types in North America that is the focus of a long-term conservation and restoration effort, [America's Longleaf Restoration Initiative \(ALRI\)](#).*

*Many of our facilities are located in the historic range of longleaf pine. That presents us with a great opportunity and an important role in the restoration of longleaf stands as part of our sourcing. We have partnered with state and federal agencies to restore longleaf on public lands and improve habitat for threatened or endangered species. To date, we've supported longleaf restoration in two ways: 1) By providing markets for the low-value trees that need to be removed to let more light reach the understory plant community, including at the Croatan National Forest (NC), Fort Jackson (SC), Geneva State Wildlife Management Area (AL), and Eglin Air Force Base (FL). 2) Our sourcing has supported the planting of longleaf on suitable sites by providing a market for low-value loblolly or sand pine that needed to be clearcut, including at Torreya State Park (FL).*

LEVEL OF COMPLETION

**Achieved**

Policy Status



## POLICY PROVISION:

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Plan #2: Longleaf Restoration Activities

*Our pilot program did identify two key challenges: 1) Finding loggers who are willing to undertake thinning projects that produce less volume than more typical logging jobs. 2) Increasing the efficiency of working with landowners and local foresters to help write longleaf-focused management plans (or update existing management plans).*

## IN 2019, WE HAD TWO SPECIFIC PLANS RELATED TO LONGLEAF RESTORATION

### PLAN #2: LONGLEAF RESTORATION ACTIVITIES

We planned to help certify and restore 500 acres of longleaf forests around our Hamlet facility in North Carolina.

#### ACTION:

To connect with landowners who own longleaf that needs restoration-oriented biomass harvests, we hired a coordinator of the North Carolina Sandhills Prescribed Burn Association, who held a field day at the beginning of July 2019 for forest owners, foresters, and other partners. We also engaged with public land managers with longleaf stands needing restoration, particularly the removal of low-value mid-story hardwood component, to improve habitat conditions.

As part of our pilot, we also hired a consultant who worked with private landowners around our Cottdendale facility in Florida to restore longleaf on well-drained, drought-prone sites well-suited to longleaf.

### IMPACT:

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LEVEL OF COMPLETION

*Achieved*

Policy Status



**THANK YOU** TO OUR  
PARTNERS, COLLABORATORS,  
AND SUPPORTERS.

We look forward to working together in 2020.

# ENVIVA'S GLOBAL RESPONSIBLE SOURCING POLICY AND PLEDGES IN CONSERVATION LEADERSHIP

This policy will serve as the guiding principle for Enviva's global sourcing, applying to our purchasing of trees and other forms of wood from forests, residues from forest product facilities, and biomass produced by other companies. Enviva seeks to preserve soil and water quality; to protect rare, threatened, and endangered species, habitats, and ecosystems; to promote the continuous growth of diverse, natural forests; and to contribute toward building a forest products industry that thrives on good practices.

With this policy, we build on our previous standards of sustainable forestry to better conserve key ecological values. We also adopt into this policy our critical view of Enviva as a steward of diverse, thriving forested landscapes, and as a key player in collaborative efforts to address landscape-level conservation priorities at scale.

We will define and communicate our continuous improvement process through annual implementation plans, which will include measurable goals and timelines, as we work to more fully realize our ambitions. We will work deliberately over time to ensure that 100 percent of our sourcing meets our expectations.

Our policy and pledges reflect our core commitments to the highest standards of sustainability, stewardship, and integrity. For years to come, our policy and pledges will guide our work and be the measure of our progress.

## 1. Legality

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.

## 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.

## 3. Sustainable Forestry Standards

The primary wood we purchase must be sourced from sustainably-managed forests and harvesting operations. Enviva will only source primary materials from a supplier when:

- a. the forest source will be replanted or regrown as forests and will not be converted to non-forest uses;
- b. water quality in a harvest area is protected through adherence with forestry Best Management Practices (BMPs) [or equivalent practices outside the U.S.]; and
- c. high Conservation Values (HCVs) are not threatened by harvest activities.

We understand that not all suppliers of residues or third-party pellet manufacturers will be able to fully and immediately comply with all our Sustainable Forestry Standards. We will work with our residue and third-party pellet suppliers to set ambitious but realistic timelines for them to achieve compliance and support them as necessary and feasible to reach our standards.

[find the policy online](#)

#### 4. Verification

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.

Independent forest product certification programs can provide a consistent and transparent framework for evaluating the sustainability of a company's operations, from forest to product. Enviva is chain-of-custody certified through several organizations, and we highly value sustainable forest management certification. We engage in ongoing landowner outreach and make direct investments to support landowners achieving sustainable forest management certification of their forestlands. We give preference in our procurement to wood from forests certified to be sustainably managed.

We recognize that other verification systems can provide important insight into our wood sources. We will continue to seek out innovative and credible methods of verifying that our supply base meets and exceeds our standards.

#### 5. Traceability, Transparency, and Reporting

We currently identify and publish the source of our primary wood supply through our [Track & Trace®](#) platform. We monitor and audit our primary purchases and supplier practices based on the data that we collect and publish, and we commit to report twice annually on the progress that we and our residue suppliers and third-party pellet producers have made against our Sustainable Forestry Standards, as well as the progress we've made on our annual implementation plans related to our Sustainable Forestry Standards and Pledges in Conservation Leadership.

We expect the percentage of our supply that fully meets our expectations to gradually increase year over year, with a goal of eventually achieving 100 percent.

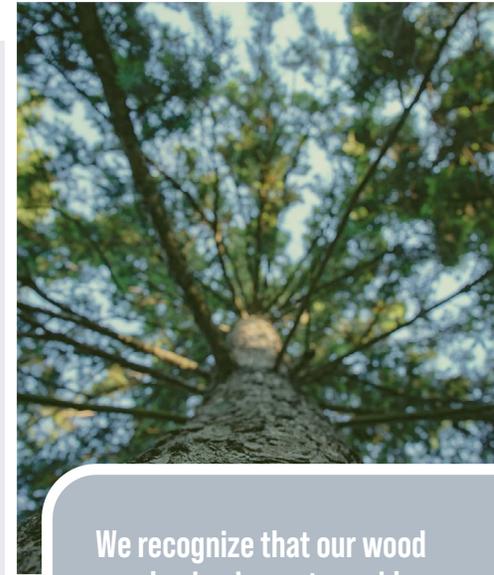
#### 6. Pledges in Conservation Leadership

As a leader, we pledge to go beyond our tract-level sustainability standards and progress toward our vision of sourcing wood and biomass in ways that promote the sustainability of forest ecosystems at the landscape level. For us, sustainability at the landscape level means doing what we can to conserve species, forest communities, and ecological processes and

functions. Our pledge to lead on landscape-scale sustainability issues means that our responsibility doesn't end once we have purchased wood. We support ongoing sustainable forest management after harvest by helping family forest owners obtain management plans and sustainable forest management certification. In addition, when we buy a larger portion of the volume from a harvested tract, we will make extra efforts to ensure that we are supporting sustainability at the tract and landscape level.

We recognize we can't accomplish our landscape conservation goals alone, so we pledge to collaborate with stakeholders to help:

- a. keep the amount of forestland stable or increasing at regional scales;
- b. conserve wetland forest ecosystems, peatland forests, and high-carbon tropical forests;
- c. address the conversion of forest types that provide high-quality habitat for at-risk species; and
- d. restore critical, threatened, or declining forest types.



**We recognize that our wood purchasing impacts a wide range of sustainability indicators and even land use. Because we take the responsibilities of leadership seriously, we will innovate our own sourcing practices and collaborate with stakeholders as we work to implement our policy and continuously improve.**