



America's Longleaf Restoration Initiative
Longleaf Partnership Council

Strategic Priorities and Actions 2019-2021



Introduction

Since the 2009 release of the *Range-wide Conservation Plan for Longleaf Pine* (Conservation Plan), which identified an ambitious goal of increasing longleaf acreage to eight million acres by the year 2025, a diverse partnership of natural resource management agencies, non-governmental organizations, institutes of higher learning, forest industry, and private landowners have joined forces to promote longleaf conservation and restoration in an effort referred to as the America's Longleaf Restoration Initiative (ALRI). The Longleaf Partnership Council, which includes representation from all of these stakeholder groups, was formed in 2011 to increase communication, collaboration, and leverage for implementation of the Conservation Plan. This partnership has gained national recognition as a model of collaborative landscape-scale conservation.

This document is a follow-up to *Strategic Priorities and Actions 2016-2018*, which was ALRI's second step-down planning document designed to provide a more focused look at short-term activities needed to advance the goals and objectives of the Conservation Plan. More specifically, the purpose of the *Strategic Priorities and Actions 2019-2021* is to:

- Identify strategic priorities and recommend actions needed over the next three years that move ALRI toward reaching the restoration goals in the Conservation Plan.
- Provide mechanisms and metrics to track, measure, and demonstrate progress toward reaching these goals.
- Provide outreach information describing ALRI's accomplishments to Longleaf Partnership Council members and other interested parties.
- Affirm and potentially expand the roles and contributions of current Longleaf Partnership Council members and supporters. Identify opportunities to engage additional proponents in the longleaf conservation effort as well as opportunities to align with and leverage complementary conservation efforts such as State Wildlife Action Plans, State Forest Plans, and others.

The Longleaf Partnership Council considers this document to be an increasingly important one because the planning period encompasses the 10-year anniversary of the Conservation Plan, with an increased urgency to meet the 2025 goal. Analyses show that the 8-million-acre goal is still obtainable, provided current demonstrated effective activities are accelerated, such as longleaf establishment and prescribed burning, and new, innovative efforts are also successfully launched. Increases in potentially powerful strategies such as comprehensively identifying and converting mixed stands with a longleaf component to longleaf-dominant stands are also called for. Fortunately, substantial public and private investments to date have resulted in a maturing restoration infrastructure, including the development of Local Implementation Teams that now cover all 17 of the identified Significant Geographic Areas for longleaf. That network is now poised and ready to tackle the next critical steps toward full Conservation Plan implementation, even as its capacity and effectiveness is increased by enhanced mapping and conservation planning.

Continued success in accomplishing the actions outlined in this document will require the involvement and commitment of the large and collaborative partnership now in place. It is important that the agencies, organizations, and individuals involved with ALRI understand and be able to explain how the collective partnership will work toward those goals. This document demonstrates to a broad audience the level of commitment of ALRI's partners and supporters toward reaching these common goals. The strategies and actions summarized in this plan will help maintain and build upon the substantial momentum for longleaf pine conservation that has continually developed over the past two decades and help ensure continued support for longleaf restoration and conservation efforts (See Appendix A).

Range-Wide Partnership Framework

Strategic Priorities and Actions 2019-2021 focuses on collaborative approaches of the involved partner agencies and organizations at all scales. ALRI and involved partners operate at the national, range-wide, state, or regional scale, and perhaps most importantly, often at the local scale. Each scale offers an opportunity to coordinate and collaborate for different purposes.

- **Local** - At the local scale, Local Implementation Teams work to bring landowners, managers, and other partners together to deliver results on the ground. These teams are typically centered on Significant Geographic Areas or Significant Sites identified in the Conservation Plan. They are responsible for identifying boundaries for focused restoration and maintenance activities, bringing key stakeholders together, defining and implementing priority management actions, and tracking and reporting results of local efforts. They coordinate with other Local Implementation Teams across the range as part of a network to share their approaches as well as help identify priority issues that need addressing at larger scales.
- **State** - At the state level, State Coordination Teams serve to coordinate actions of Federal and State Agencies, NGOs, and Local Implementation Teams and help define programs, allocate funds, and report accomplishments. State Coordination Teams work through existing organized entities to identify state goals, track and report accomplishments, and coordinate and leverage opportunities among programs at both public and private levels.
- **Regional** - At the regional scale, agencies and multi-state organizations represent regional partners working together in a coordinated fashion. The Longleaf Partnership Council works primarily at this level. Many key issues such as planning, development of strategies to increase prescribed burning, accomplishment reporting, monitoring seedling supplies, and development of understory plant material supply chains are best addressed at the multi-state or range-wide scale. Technical teams, typically staffed by Council members and other regional partners, address range-wide issues and work with the members of the Council and the State and Local Teams to implement their key actions.
- **National** - Three federal departments (Interior, Agriculture, and Defense) have committed to advancing the goals of the Conservation Plan. Federal agency coordination is accomplished through the Federal Coordinating Committee. In addition, several non-governmental organizations that operate at the national level have adopted longleaf restoration as priorities. This national profile offers the opportunity to bring national resources, programs, and policies to bear in order to achieve the goals of the plan.

Communication and coordination are necessary across all of these scales to effectively achieve the goals of the Conservation Plan by leveraging resources, replicating successes, and avoiding common mistakes. This collaboration is typically conducted through the Longleaf Partnership Council and individual agency/organization members' staff that support ALRI. See Appendix B for a list of commonly used acronyms used to identify many of the partners or programs listed in this document.

2019-2021 Strategic Priorities and Actions

1. Advance Key Outcomes

- A. *Significantly increase acres of longleaf pine ecosystems through establishing new longleaf forests.*** Fully functional longleaf pine stands provide quality habitat for at-risk species, economic returns for landowners, enhanced landscape resilience, improved water quality/quantity, and other societal benefits. The Conservation Plan established a goal of increasing acreage of longleaf-dominated forests, forests with greater than 50% longleaf composition, to 8 million acres by 2024, with a majority of that increase occurring on private lands and prioritized landscapes in designated Significant Geographic Areas. Establishment of new longleaf stands through planting has been enormously successful, averaging about 150,000 new acres annually over the past five years. In total, over 1 million acres of new longleaf has been established since 2010. Increasing the annual establishment rate, which has been tapering off, and dropped 6% again in 2017 to 131,000 acres, to the aggressive 190,000 acre target set forth in this document would result in approximately 413,000 additional new longleaf acres over the next 7 years, over and above the 2017 establishment rate. ALRI is currently reporting 4.7 million longleaf-dominated acres, based on the 2010 FIA data of 4.3 million acres plus a modest annual increase over 5-7 years. Maintaining the accelerated 190,000 acre annual establishment rate could alone result in reaching an overall total of 6 million acres of our total eight million acre goal by 2025. This estimate however, does not factor in losses of longleaf pine due to development or land use conversions. Quantification of these losses is difficult, but FIA data can help us understand the loss trends over time. With appropriate management applied, such as frequent prescribed fire, establishment of new longleaf forests can dramatically increase the population sizes and abundance of desired wildlife species, particularly when these forests reach the desired Maintenance Condition Class adopted by the Longleaf Partnership Council. Certainly, not all acreage planted or improved will ultimately reach this condition (much is not even intended to), but longleaf managed with this objective has the potential to provide optimal habitat for a large variety of endangered or at-risk plants and animals, migratory birds, or game species (see Appendix C). Needless to say, this is an aggressive goal and one the partnership will have to attack in partnership with the longleaf nurseries to achieve.
- B. *Improve and maintain existing acreage of longleaf pine ecosystems, with an emphasis on increasing the acreage of prescribed fire accomplished annually.*** The Conservation Plan prioritizes improving the condition of existing longleaf ecosystems, with a goal of doubling the acreage classified as maintenance condition class from 1.5 to 3 million acres. These improvements will require increased fire acreage and fire frequency, commercial and non-commercial thinning, mid-story treatments, native understory restoration, and treatment of invasive exotic plants. Our initial accomplishment reports have shown significant information gaps in accounting for these activities on private lands outside of cost-share or incentive programs, and reporting mechanisms need refinement.
- C. *Comprehensively identify and convert existing mixed stands with a longleaf component to longleaf-dominant stands.*** Recent analysis shows that identifying mixed stands in which longleaf is a secondary component (< 50% of stand composition) and converting them to longleaf-dominant stands is another potentially powerful approach that should be taken to reach our 8 million acre goal. By working on our public lands and with private landowners to identify these acres, reduce the non-longleaf component, plant longleaf where needed, and institute prescribed fire on a regular basis, we can reach maintenance class objectives with a component of older trees much more rapidly than by planting

alone. In conjunction with the annual establishment rates described above, we will need to identify and convert 1,970,000 acres of mixed stands over the next 7 years, or approximately 280,000 acres per year, to achieve our 8 million acre goal. This focus provides an opportunity to reduce restoration costs and achieve the desired stand structure and composition more quickly.

Actions	Implementation	Timeline
<p>1.1 To achieve the 3-year projections for longleaf pine ecosystem acres, increase annual establishment on private lands to 150,000 acres by 2021 while maintaining annual establishment of 40,000 acres on public lands. Seek commitment from state partners and federal land managers to restore longleaf to all appropriate longleaf sites. These targets should aggressively, and urgently, move us towards the stated 8 million acre goal.</p>	<p>LPC/FCC member agencies State Forestry and Wildlife Agencies NFWF</p>	<p>2019-2021</p>
<p>1.2 Develop a range-wide approach to analyze available data and identify opportunities to convert stands with a minor longleaf component to longleaf-dominant stands on public and private lands. Aggressive increases to 50,000 acres of annual conversion by 2021 are a necessary first step.</p>	<p>LPC/FCC member agencies USDA-FS – FIA</p>	<p>2019-2021</p>
<p>1.3 Over the next 3 years, increase the acreage and frequency of prescribed fire on private lands, with a target of annually burning 500,000 acres by 2021. This can be accomplished through federal and state incentive programs, privately funded programs, and by increasing capacity of qualified prescribed fire practitioners. Expand, and codify, collection of reported burning numbers from states.</p>	<p>LPC/FCC member agencies State Forestry and Wildlife Agencies TNC LIT Coordinators NFWF</p>	<p>2019-2021</p>

Actions	Implementation	Timeline
<p>1.4 Utilize prescribed fire to improve and maintain 3.3 million acres of longleaf ecosystems on public land over the next 3 years by annually burning 1.5 million acres, with a burn frequency target of every 3 years. Engage in partnerships to increase prescribed fire application within SGAs and expand prescribed fire training opportunities for both public and private land managers.</p>	<p>LPC/FCC member agencies State Forestry and Wildlife Agencies SERPPAS Prescribed Fire Working Group NFWF LIT Coordinators NGOs</p>	<p>2019-2021</p>
<p>1.5 Advance restoration and conservation of lands with the goal of precluding the need to list species under the Endangered Species Act, and recovering threatened or endangered species (including, but not limited to longleaf-associated species).</p>	<p>LPC/FCC member agencies</p>	<p>2019-2021</p>
<p>1.6 Increase capacity and technical information needed to restore native understory plant communities by: (1) continuing development of seed transfer guidelines for key species and (2) encouraging commercial production of native understory plant material of appropriate provenance from native plant populations across the longleaf range.</p>	<p>NRCS LLA Jones Ecological Research Center USDA-FS – Southern Research Station USDA-FS – S&P National Seed Laboratory Nurseries/Native seed providers</p>	<p>2019-2021</p>
<p>1.7 Emphasize treating high-priority non-native invasive plant species, with a goal of treating 30,000 acres/year, with special attention paid to cogongrass and climbing fern.</p>	<p>LPC/FCC member agencies USDA-FS – S&P Forestry State Forestry and Wildlife Agencies LIT/other Ecosystem Support Teams</p>	<p>2019-2021</p>

2. Understand and Prioritize the Longleaf Landscape

Complete range-wide longleaf pine mapping to guide planning efforts. Since the Conservation Plan was released in 2009, the absence of baseline information on the location, extent, and condition of longleaf pine has limited our ability to adequately prioritize restoration strategies. Efficient use of limited resources will require a detailed, science-based, objective mapping and assessment effort to develop spatially explicit conservation plans to identify priority conservation areas. The Conservation Plan identified the following key actions related to addressing this information gap: 1) detailed spatial assessment of Significant Landscapes and initial condition classification, 2) range-wide identification of Significant Sites for longleaf conservation, and 3) spatial prioritization within each Significant Geographic Area of conservation efforts to leverage response of focal wildlife species. Addressing this need, incorporating principles of conservation biology and landscape ecology to leverage connectivity, buffering,

and wildlife species response, is critical for further refinement and prioritization of regional strategies as well as developing spatially explicit restoration and conservation priorities and plans for Local Implementation Teams.

Recent mapping and analysis by the Florida Natural Areas Inventory (FNAI) and a more detailed analysis of Forest Inventory and Analysis (FIA) data by USDA-FS suggest that more intact longleaf pine forests may exist than are currently known. Much of this acreage appears to have sufficient longleaf stocking to achieve structural goals for wildlife habitat more rapidly than through afforestation or reforestation. In addition, some portion of this acreage likely contains remnant longleaf groundcover elements, facilitating more efficient ecosystem restoration as a whole. Knowing the location and condition of all of these acres, including those with only a minor component of longleaf, is essential for adding this important tool to the longleaf restoration portfolio. Spatially-explicit knowledge of the location and condition of existing and potential longleaf habitat will also allow more strategic targeting of conservation action to achieve wildlife species’ response, which is of great importance to federal and state partners.

While FIA does a good job of estimating overall acres of longleaf across the range, it is limited in detail just by the very nature of the way FIA sample plots are widely distributed across the landscape. To obtain the very local detail of longleaf mapping needed, the LPC has embarked on an ambitious new project to physically map stand-level longleaf across the range through the use of current technology and a network of cooperators. The success of the Florida Natural Areas Inventory in doing just that in 2012-13 (first iteration) across Florida, has shown that what initially appears to be an overwhelming task, can in fact be accomplished through “windshield” surveys in the field. The FNAI Longleaf Pine Ecosystem Geodatabase successfully mapped 2.15 million acres of longleaf ecosystems across Florida, roughly half of the known longleaf across the range. Utilizing grant funds from the NRCS, administered through the U.S. Endowment for Forestry and Communities, the LPC is partnering with FNAI to expand their efforts across the entire range of longleaf. Initial work will focus on adapting the FNAI Rapid Assessment Protocols to the variety longleaf systems across the range and re-developing the mobile data collection applications that will be used in the field, with either smartphone or tablet technology. It is important to the LPC that the right data be collected, that the methods can be repeated over time, and that other existing efforts to map longleaf can be easily incorporated. This exciting Rapid Assessment will be piloted in a few of the LIT landscapes and expanded across the range as funds and on-the-ground cooperators are identified.

Actions	Implementation	Timeline
<p>2.1 Develop and populate the Southeast Longleaf Ecosystem Occurrence Geodatabase with longleaf location and condition data.</p> <ul style="list-style-type: none"> • Accumulate and merge all existing datasets • Develop mobile data collection applications • Develop rapid field assessment protocols and implement in 3-4 SGA's 	<p>Florida Natural Areas Inventory U.S. Endowment for Forestry and Communities LPC/FCC member agencies LPC Leadership Team LIT Coordinators</p>	<p>2019-2021</p>

Actions	Implementation	Timeline
<p>2.2 Improve prescribed fire in longleaf reporting methods, particularly through use of state permitting/notifications systems.</p> <ul style="list-style-type: none"> • Explore opportunities to remotely monitor and assess burning on the southern landscape via periodic change detection analysis. • Include quantification of type and effectiveness of burn. 	LPC/FCC member agencies State Forestry Agencies LPC Leadership Team LIT Coordinators	2019-2021
<p>2.3 Prioritize and expand prescribed burning research opportunities including effects of scale, intensity, and timing of burns.</p>	LPC/FCC member agencies	2019-2021
<p>2.4 Qualitatively and quantitatively describe annual losses in LLP acreage.</p>	USDA-FS – FIA LPC/FCC member agencies	2019-2021
<p>2.5 Continue to work with FIA to utilize their data for assessment, monitoring, and reporting. Explore opportunities to more effectively use FIA data to inform minor longleaf component stand conversion potential and distribution.</p>	USDA-FS – Southern Research Station USDA-FS – FIA LPC Leadership Team	2019-2021
<p>2.6 More clearly define Significant Sites outside of the SGA's and establish list/map of these Sites.</p>	NFWF FCC member agencies LPC Leadership Team LIT Coordinators	2019-2021

3. Expand and Advance Longleaf Restoration on Public Lands

Continue and expand opportunities to advance longleaf restoration on public lands. Since the Conservation Plan's release in 2009, public lands continue to contribute significantly to the restoration and management of longleaf pine. The majority of this has taken place on Department of Defense installations and National Forests, but National Wildlife Refuges and state and local lands have also made significant contributions. While these areas contain significant intact longleaf acreage, they also present some of the best opportunities to restore and permanently maintain longleaf forests due to their protected status. However, obstacles persist that prevent more rapid progress on public lands for both restoration and management, as funding cuts and subsequent staffing reductions threaten to reduce current capacity and resulting accomplishments. Longleaf pine restoration needs to be targeted and prioritized on all appropriate public lands and unique tools need to be employed to advance and accelerate this activity.

Actions	Implementation	Timeline
<p>3.1 Support the “Million Acre Challenge” effort of committing 1 million acres of National Forest System lands on the path to longleaf restoration by 2025. In addition, promote expansion of stewardship contracting to accelerate longleaf pine restoration on National Forests.</p>	<p>USDA-FS LITs NGOs</p>	<p>2019-2021</p>
<p>3.2 LITs should engage with National Forests in their SGA, as well as other Federal agencies, in land management planning and project implementation. Ensure LITs are engaging with their National Forest counterparts.</p>	<p>USDA-FS LIT Coordinators</p>	<p>2019-2021</p>
<p>3.3 Promote inclusion of longleaf restoration in management planning for lands administered by state wildlife and forestry agencies, the USACE, state parks, heritage areas, and other public lands.</p>	<p>LIT Coordinators DoD State Forestry and Wildlife Agencies State/County Water Management Districts State Parks NPS USACE</p>	<p>2019-2021</p>
<p>3.4 Advance land protection priorities through submission of projects to the LWCF, Forest Legacy, REPI, ACUB, CFLRP, Acres for America, and other funding programs.</p>	<p>USDA-FS USFWS DoD State Forestry and Wildlife Agencies State Depts. Of Natural Resources NGOs</p>	<p>2019-2021</p>

4. Expand and Advance Longleaf Restoration on Private Lands

Continue to expand opportunities to advance longleaf restoration on private lands. Since the Conservation Plan was published in 2009, more acres of longleaf pine have been established on private land than public land (83% from 2013-2017). Over half (56%) of the acreage planted on private lands in 2017 was accomplished without cost-share or incentives. These numbers highlight how critical private lands are for the success of the Initiative and demonstrate the scale of opportunities working with motivated landowners. At the same time, longleaf acres are continuing to be cleared for industrial, residential, and agricultural development. To convince non-industrial and industrial private landowners to plant longleaf forests on lands currently growing loblolly or slash pine, we need to work with them and increase incentive opportunities on these lands to encourage the desired activities.

Actions	Implementation	Timeline
<p>4.1 Continue to support education and outreach to private landowners by annually hosting 35 longleaf-specific landowner field days throughout the range. Provide technical, financial, and/or staffing assistance to annually support 15 or more comprehensive educational opportunities such as Longleaf Academies for landowners, forestry consultants, and agency personnel.</p>	<p>NRCS LIT Coordinators LLA NWTF TNC Jones Center at Ichauway State Forestry and Wildlife Agencies</p>	<p>2019-2021</p>
<p>4.2 Encourage stronger partnerships among LITs and NRCS to increase technical and financial assistance to private landowners. Establish MOUs, Declarations of Partnership, and/or engage with State Technical Committees and Soil and Water Conservation Districts. Promote NRCS incentive programs to private landowners and work with NRCS to streamline delivery of these programs.</p>	<p>LIT Coordinators NRCS State Conservationists LLA TNC NWTF NGOs State Forestry and Wildlife Agencies</p>	<p>2019-2021</p>
<p>4.3 Continue to identify and promote other incentive programs and funding opportunities for longleaf restoration, such as RCPP, state programs, and local cost-share.</p>	<p>LPC/FCC member agencies LIT Coordinators LLA</p>	<p>2019-2021</p>
<p>4.4 TIMOs and REITs manage large acreages of forests that are suitable for longleaf restoration. Continue current efforts to engage these landowners, as well as other types of large private landowners.</p> <ul style="list-style-type: none"> • Seek and promote opportunities to incentivize large landowners that don't qualify for traditional incentive programs. • Address issues of higher liability insurance requirements to conduct prescribe burns on TIMO lands. • Encourage development of perpetual easement programs for working forests that value conservation actions above traditional easement valuations. 	<p>LPC/FCC member agencies LIT Coordinators TIMO and REIT representatives SFI AFF LLA NRCS</p>	<p>2019-2021</p>

Actions	Implementation	Timeline
<p>4.5 Continue efforts to produce growth and yield models for planted longleaf pine to accurately assess opportunity costs of converting production-oriented forests to longleaf pine.</p> <ul style="list-style-type: none"> • Develop a prospectus of needs for G&Y modelling • Seek funding to implement the project/study 	<p>LPC/FCC member agencies TIMO and REIT representatives Jones Center at Ichauway</p>	<p>2019-2021</p>
<p>4.6 Continue engagement with non-industrial private forest landowners and private forestry consultants on longleaf pine, including economics, by improving coordination with organizations such as the Association of Consulting Foresters, the American Tree Farm System, Forest Stewardship Council, Sustainable Forestry Initiative, Forest Stewardship Programs, and State Forestry Associations. Continue efforts to develop markets for longleaf-specific products and/or longleaf restoration-related activities.</p>	<p>LPC/FCC member agencies LIT Coordinators AFF FLA LLA</p>	<p>2019-2021</p>
<p>4.7 Continue to work with partners and agencies to increase land protection for longleaf forests. In particular, explore opportunities to promote longleaf restoration on easement-protected lands by working with local land trusts and the Land Trust Alliance.</p>	<p>TNC TCF TPL Land Trust Alliance (Southeast)</p>	<p>2019-2021</p>
<p>4.8 Advance land protection priorities through submission of projects to the Forest Legacy, REPI, ACUB, RCPP, Acres for America, and other funding programs.</p>	<p>USDA-FS USDA-NRCS USFWS DoD State Forestry and Wildlife Agencies NGOs</p>	<p>2019-2021</p>

5. Strengthen the Partnership

Look for opportunities to strengthen the Partnership and expand the effort to bring in new partners and stakeholders that are supportive of the goals established in the Conservation Plan. It is widely recognized that the key to the success of the America's Longleaf Restoration Initiative to date has been the diversity and collaborative efforts of the partners who support it.

Actions	Implementation	Timeline
<p>5.1 Work to assess longleaf seedling needs and communicate needs through appropriate channels to keep producers informed of increases in seedlings needed. Promote genetic improvement of longleaf to increase survival, growth, yield, and quality of planted longleaf.</p>	<p>LPC member agencies State Coordination Teams LLA Southern Nursery Management Cooperative – Auburn USDA-FS – Southern Research Station State Tree Improvement Cooperatives</p>	<p>Ongoing</p>
<p>5.2 Enhance and/or develop new programs and funding sources to respond to natural disasters as opportunities for longleaf restoration. Promote research and develop informational materials on longleaf resiliency and risk aversion. Promote research on contributions of healthy, actively managed longleaf forests to water quality/quantity.</p>	<p>FCC member agencies FSA NFWF State Coordination Teams LIT Coordinators Jones Center at Ichauway USDA-FS – Southern Research Station</p>	<p>2019-2021</p>
<p>5.3 Promote effective, timely communications and outreach through existing partner capacity: 1) develop policy outreach strategy to promote awareness among political leaders of longleaf success stories, 2) promote in-reach activities to further engage LPC member agencies, and, 3) update website to better reflect progress and strategic plan.</p>	<p>LPC Communications Team</p>	<p>2019-2021</p>
<p>5.4 Improve State Coordination Team and LIT coordination by continuing range-wide and regional LIT coordination meetings to increase collaboration.</p>	<p>LPC LIT Consul LPC member agencies State Coordination Teams LIT Coordinators NFWF State Forestry and Wildlife Agencies</p>	<p>Ongoing</p>
<p>5.5 Update and recruit Declaration of Partnership Signatories (Appendix A in 2013-2015) to more fully and comprehensively include appropriate state agencies and NGOs that are not currently listed.</p>	<p>LPC/FCC member agencies</p>	<p>Ongoing</p>

Actions	Implementation	Timeline
<p>5.6 Seek opportunities to complement and align with other conservation collaboratives such as State Wildlife Action Plans, State Forest Plans, NBCI, LCC conservation blueprints, critical watershed designations, SERPPAS, the Sentinel Landscapes Partnership, Keeping Forests as Forests, etc. Explore and utilize funding for ongoing and new mitigation opportunities, and other increasing opportunities in the marketplace.</p>	<p>LPC/FCC member agencies LIT Coordinators</p>	<p>2019-2021</p>

Conclusion

In order to maintain and build upon the substantial momentum for longleaf pine conservation that has developed since establishment of the America’s Longleaf Restoration Initiative, this three-year implementation document was developed to identify the priority actions that need to be accomplished in order to reach the long-term goals identified in the Conservation Plan. This blueprint for priorities and actions provides a basis to leverage existing cooperative efforts within the Longleaf Partnership Council as well as a platform for the development of new collaborative relationships. Implementing the action items identified in this document will not only increase the overall acreage of longleaf pine and improve the condition of existing longleaf pine ecosystems, it will also lay the groundwork to make even greater advances toward our goal by improving outreach, better coordinating on-the-ground restoration activities, and expanding the resource base in order to broaden the scope and efficiency of our activities. Continued effective communication, engagement of policy-makers, and demonstrated success in restoring longleaf pine are crucial elements required for ALRI to maintain its momentum and reach our restoration goals.

Appendices

Appendix A: America's Longleaf Restoration Initiative: Key Milestones and Accomplishments

Appendix B: List of Acronyms Used

Appendix C: Species Response to Longleaf Restoration Activities

Appendix D: Glossary

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The Team is extremely grateful to those who provided reviews and comments in preparation of this document.

Appendix A. America's Longleaf Restoration Initiative Key Milestones and Accomplishments

In the 1990s, conservation efforts began to halt the century-long, range-wide decline of longleaf pine ecosystems. Based on growing interest in this forest type, the Longleaf Alliance was created in 1995 and quickly became the leading advocate for longleaf restoration and a clearing house of information for agencies, organizations, landowners, and businesses involved in longleaf conservation work. Federal land management agencies began taking landscape approaches to restoring longleaf ecosystems, implementing efforts to establish new longleaf pine acreage as well as to improve and maintain the estimated 1.2 million acres of existing longleaf pine on federal lands. State and federal cost share programs applicable or targeted to longleaf restoration provided valuable assistance to landowners, including over 340,000 acres of longleaf established on marginal agricultural land through the Conservation Reserve Program (CRP) administered by the USDA Farm Service Agency. Local partnerships, such as the Gulf Coastal Plain Ecosystem Partnership (GCPEP), began looking beyond ownership boundaries at larger landscapes to conserve longleaf pine and associated plants and animals. The work of the USDA-FS Southern Research Station, forest nurseries, and academic institutions led to advances in management techniques, greater seedling availability, and increased planting survival rates, which made longleaf pine a more attractive alternative for public and private land managers.

Cumulatively, these efforts slowed the loss of longleaf pine ecosystems, with acreages stabilizing at about 3.4 million acres. However, it was clear much more needed to be done in order to restore and sustain longleaf pine ecosystems long-term, as longleaf on private lands and natural stands continued to show decline. Major accomplishments and milestones are documented below:

2007

- A Regional Working Group comprised of 22 agencies and organizations forms, identifying the need for a range-wide conservation effort.

2008

- A planning charrette involving over 100 natural resource professionals and landowners was held to begin the scoping process for the strategic plan.

2009

- The *Range-wide Conservation Plan for Longleaf Pine* was released at the North American Wildlife and Natural Resources Conference in Washington, DC, and the America's Longleaf Restoration Initiative was launched.
- An \$8.9 million American Recovery and Reinvestment Act (ARRA) Regional Longleaf Restoration Project was awarded, resulting in approximately 70,000 acres of improvements on state-owned and private lands.

2010

- An MOU was signed by the Departments of Agriculture, Defense, and Interior during an America's Great Outdoors listening session, committing the signatories to implementation of the Conservation Plan and establishing the Federal Coordinating Committee for longleaf pine.
- The Osceola National Forest was awarded a Collaborative Forest Land Restoration (CFLR) project totaling between \$1.5 and \$2 million annually to restore longleaf pine.

2011

- Conservation leaders across the South created the Longleaf Partnership Council, which includes 33 members representing federal agencies, state agencies, NGOs, private industry, universities, and private landowners.
- State Coordination Teams were formed in Texas, Louisiana, Mississippi, Alabama, and North Carolina. The states of Florida, Georgia, Virginia, and South Carolina began efforts to formalize similar teams.
- Eleven Local Implementation Teams began working in Significant Geographic Areas and Significant Sites identified in the Conservation Plan. Eventually, more LITs were formed to cover all these areas.
- The USDA NRCS Wildlife Habitat Incentive Program provided approximately \$30 million for longleaf restoration in 2010 and 2011, resulting in over 150,000 acres of longleaf improvements on private lands.

2012

- The USDA Forest Service designated the America's Longleaf Restoration Initiative as a High Performance Partnership within its Public-Private Partnership Strategy.
- USDA announced that the Desoto National Forest was awarded \$2.7 million for an accelerated landscape longleaf restoration project, closely coordinated with the Mississippi Army National Guard and The Nature Conservancy.
- The National Fish and Wildlife Foundation (NFWF) announced the establishment of the Longleaf Stewardship Fund, with \$3 million in funding from USDA, DOI, DoD, the Southern Company, and NFWF, available for the 2012 grants. Over 40 pre-proposals totaling \$7 million and 95,000 acres of proposed restoration activities were submitted.
- The America's Great Outdoors initiative was formed, and the longleaf pine ecosystem was one of five focal landscapes highlighted in the report.

2013

- The Longleaf Partnership Council released its first 3-year action plan (*Strategic Priorities and Actions 2013-2015*) that established priorities for capturing and reporting range-wide restoration progress.
- NRCS began implementing the Working Lands for Wildlife Program, which enabled landowners to receive technical and financial assistance for voluntarily restoring and improving longleaf habitat on their land for the gopher tortoise.
- The Longleaf Partnership Council released the *Longleaf Pine Planting Density Fact Sheet* to clear up widespread misconceptions and help guide landowner longleaf pine planting rate decisions.
- International Paper and NFWF announced the Forestland Stewards Initiative, a \$7.5 million effort aimed at restoring and protecting landscapes in three priority regions in the South over a five-year period. This Initiative will benefit longleaf restoration efforts in the Carolina Low Country (both NC and SC) and the Piney Woods of TX and LA.

2014

- NRCS announced the establishment of the Regional Conservation Partnership Program (RCPP), a comprehensive and flexible program that uses partnerships to stretch and multiply conservation investments and reach conservation goals on a regional or watershed scale. The longleaf pine ecosystem was one of eight Critical Conservation Areas designated by the Secretary of Agriculture for greater emphasis under the RCPP.
- The Longleaf Partnership Council adopted *Longleaf Pine Maintenance Condition Class Definitions: A Guide*

to Assess Optimal Forest Habitat Conditions for Associated Plant and Wildlife Species to help guide restoration efforts.

- The Longleaf Partnership Council released the *2013 Range-wide Accomplishment Report*, the first of comprehensive annual accomplishment summaries. This first report documented 156,000 acres of longleaf establishment and 1.38 million acres of overall longleaf ecosystem improvement activities.
- The longleaf cone crop was one of the most prolific in recent years at an estimated 98 cones/acre. This near-bumper crop helped relieve seed shortages range-wide.
- A ceremony to mark the Five-Year Anniversary of the release of the ALRI Range-wide Conservation Plan took place in Washington, DC. An estimated 200 participants attended the Progress and Promise themed events to celebrate ALRI's past successes and look to the future for ways to maintain the momentum needed to achieve the eight-million-acre restoration goal.

2015

- The Longleaf Partnership Council's *2014 Range-wide Accomplishment Report* documented 153,000 acres of longleaf establishment and 1.5 million acres of overall longleaf ecosystem improvements.
- The Department of Interior awarded \$770,000 to implement prescribed fire in longleaf ecosystems in the South Atlantic Landscape Conservation Cooperative through its Resilient Landscape program.
- The Longleaf Stewardship Fund expanded to provide a total of \$4.6 million in funding available for longleaf restoration efforts.

2016

- The Longleaf Partnership Council's *2015 Range-wide Accomplishment Report* documented 151,000 acres of longleaf establishment and that restoration activities were reported on 1,926,456 acres of public and private lands. Approximately, 1.58 million acres of prescribed burning was reported in longleaf pine for all ownerships.
- The Longleaf Partnership Council released its second 3-year action plan (*Strategic Priorities and Actions 2016-2018*) that established priorities for capturing and reporting range-wide restoration progress.
- The U.S. Departments of Agriculture, Defense and Interior, through the Sentinel Landscapes Partnership, designated Eastern North Carolina and Avon Park Air Force Range, Florida as Sentinel Landscapes.
- The documentary, *Secrets of the Longleaf Pine*, was released by Red Sky Productions and premiered on Public Broadcasting System in Georgia, Alabama, and South Carolina. Directed by Rhett Turner, the documentary went on to receive the Southeast Regional Emmy Award in 2016. The documentary is available at <http://video.gpb.org/video/2365587919/> and <http://longleafpine.org/>

2017

- The Longleaf Partnership Council's *2016 Range-wide Accomplishment Report* documented that 139,500 acres of longleaf pines established (an 8% decrease from 2015), more than 433,000 acres of prescribed burning was reported on private lands in 2016, an increase of 88,000 acres over the record total reported in 2015. This increase can be directly attributed to improved reporting by the State of Georgia, who began its first full year of a revised prescribed fire permitting process that specifically asked whether the planned operation would take place in longleaf pine stands. Total restoration activities were reported on a record 2,023,214 acres of public and private lands.
- Recognizing the need to reinvigorate and accelerate the pace and scale of restoration to achieve the 8 million

acre goal by 2025, the Longleaf Partnership Council identified and released seven “Game Changers,” defined as specific, action-oriented strategies that will significantly accelerate the pace of restoration.

- The National Fish and Wildlife Foundation (NFWF) announced that \$5.5 million in grants awards to support the restoration of the longleaf ecosystem in nine states. NFWF’s Longleaf Stewardship Fund reached a historic milestone, surpassing 1 million acres of longleaf pine restored or enhanced.
- The U.S. Departments of Agriculture, Defense and Interior, through the Sentinel Landscapes Partnership, designated a significant southern part of Georgia as a Sentinel Landscape. The state of Georgia, and a number of private conservation organizations have identified about 1.3 million acres as critical to important natural resources, working economies, and military readiness within the landscape’s boundary.

2018

- The Longleaf Partnership Council’s *2017 Range-wide Accomplishment Report* documented 131,000 acres of longleaf establishment, 1.37 million acres of burning in longleaf stands, and 1,703,391 acres of overall longleaf ecosystem improvements.
- The USDA Forest Service launched the Million Acre Challenge, to put an additional 1 million acres on the path towards longleaf restoration.
- NFWF announced a record \$6.5 million in grants to benefit longleaf pine forest and wildlife in eight states across the Southeast. Twenty-eight grants will support efforts to conserve more than 350,000 acres of longleaf pine habitat and recover populations of at-risk wildlife.

Appendix B. List of Acronyms Used

ACF - Association of Consulting Foresters
ACUB - Army Compatible Use Buffer program
AFF - American Forest Foundation
ALRI - America's Longleaf Restoration Initiative
ARRA - American Recovery and Reinvestment Act
ATF - American Tree Farm program
CFLRP - Collaborative Forest Landscape Restoration Program (USFS)
CRP - Conservation Reserve Program (FSA)
DoD - Department of Defense
DOI - Department of Interior
FCC - Federal Coordinating Committee
FIA - Forest Inventory and Analysis program (USFS)
FLA - Forest Landowners Association
FNAI - Florida Natural Areas Inventory
FSA - Farm Service Agency
FSC - Forest Stewardship Council
GCPEP – Gulf Coastal Plain Ecosystem Partnership
LCC - Landscape Conservation Cooperative (USFWS)
LIT - Local Implementation Team
LLA - Longleaf Alliance
LPC - Longleaf Partnership Council
LWCF - Land and Water Conservation Fund
NBCI - National Bobwhite Conservation Initiative
NPS - National Park Service
NFWF - National Fish and Wildlife Foundation
NGO - Non-Governmental Organization
NRCS - Natural Resources Conservation Service
NWTF - National Wild Turkey Federation
RCPP - Regional Conservation Partnership Program (NRCS)
REIT - Real Estate Investment Trust
REPI - Readiness and Environmental Protection Integration (DoD)
RESTORE Act - Resources and Ecosystems Sustainability, Tourist Opportunities, and Revived Economies of the Gulf Coast States Act
SERPPAS - Southeastern Regional Partnership for Planning and Sustainability
SGA - Significant Geographic Area

SGSF - Southern Group of State Foresters

SNPRSIP - Southern Native Plant Restoration and Seed Increase Project

TCF - The Conservation Fund

TIMO - Timber Investment Management Organization

TNC - The Nature Conservancy

TPL - Trust for Public Lands

USACE - United States Army Corps of Engineers

USDA-FS - United States Department of Agriculture - Forest Service

USFWS - United States Fish and Wildlife Service

Appendix C. Species Response to Longleaf Restoration Activities

One of the major drivers for longleaf pine recovery efforts is to improve conditions for wildlife and enhance floral and faunal diversity. *The Range-wide Conservation Plan for Longleaf Pine* identifies a target of having three million acres (of the overall eight-million-acre goal) in or moving toward a maintenance state that provides forest conditions “that will provide ecosystem functions, processes, and assemblages of representative plants and animals.” Numerous partners involved in the America’s Longleaf Restoration Initiative are primarily engaged out of a desire or organizational mission to benefit wildlife populations by increasing the amount of suitable habitat through longleaf restoration. Some partners are specifically interested in rare and declining wildlife species and positively impacting recovery or listing decisions under the Endangered Species Act related to these species. With that in mind, the Longleaf Partnership Council identified parameters necessary for forests to be considered in this maintenance state and outlined these in the *Longleaf Pine Maintenance Condition Class Definitions* document released in October 2014. This document identified ranges of overstory, mid-story, and ground cover conditions that were indicative of fully functional and advanced-stage longleaf pine forested ecosystems.

The ALRI partnership is a diverse coalition whose members have equally diverse land management goals. While many partners are interested in longleaf because of its wildlife benefits, others focus more on economic considerations, recreational opportunities, and other attributes of longleaf pine. It is imperative when making estimates of species’ responses to longleaf restoration activities that we not assume that every acre established will automatically receive the ensuing activities or maturation time needed to move these young longleaf forests into the optimal maintenance condition class needed to support wildlife species of concern. For example, if we report restoring 100,000 acres of longleaf through establishment, there is nothing implied in that report that suggests that 100% of this planted acreage will ultimately move into the maintenance condition class. Not only are intermediate activities such as thinning operations and regularly applied prescribed fire necessary, long time horizons are required for newly established longleaf stands to mature into the type of forest desired by most wildlife species. A statement repeated frequently by longleaf proponents is that, “It takes 50 years to grow a 50-year-old tree.” Clearly, there is a complex and dynamic temporal gradient in longleaf forest development. Younger forests may provide preferred habitat for certain species, whose numbers may then decline as the forest matures into a denser canopy. Conversely, with other species, low numbers of individuals may inhabit younger stands and then increase their populations as these stands mature. Finally, some longleaf-associated species will not utilize stands until they are relatively mature, with open canopies, moderate stocking levels, and herbaceous-dominated understories.

Numerous efforts have been, or are currently being conducted, to further assess optimal open pine forest conditions for wildlife and to make inferences based on existing knowledge that can help quantify how restoration activities may impact species occurrence and population size. In 2012, a group collaborated on a project sponsored by the National Fish and Wildlife Foundation to synthesize existing knowledge of potential species response to longleaf restoration. Utilizing a literature survey and expert opinion, this work projected numerical population response from four indicator species based on current understanding of these species’ home range and habitat requirements. These parameters were incorporated into a Bayesian network model that also included variables of spatial and temporal dynamics as well as relative costs of management actions. While beyond the scope of this appendix to outline details of this model, the component of the model that captures potential population responses is relatively straightforward. These projections are predicated on several assumptions:

- Newly established longleaf stands will persist over relatively long spans of time, allowing full development of conditions outlined in the Maintenance Class document.
- These stands will be managed with the regular and frequent application of prescribed fire.
- Stocking levels and canopy closure will be maintained within the range of desired conditions for wildlife through regular thinning.
- Other management interventions will be employed as necessary to maintain all strata of the stand within the range of desired conditions for wildlife as outlined in the Maintenance Class document.
- Source populations of wildlife species are located within suitable dispersal distances to colonize restored sites, or translocation activities will be used to compensate if that is not the case.

Under these assumptions, it may be reasonable to expect that fully restored acres could, as an example, provide suitable habitat for the indicator species at the following rates:

Species	Average Density
Bachman's sparrow	10 acres/pair
Bobwhite quail	40 acres/covey (average 12 birds)
Gopher tortoise	3 acres/tortoise
Red-cockaded woodpecker	150 acres/group (average 3-4 birds)

It is important to remember that these projections are based on the wildlife research community's current understanding of presence/absence of a species under selected conditions of habitat structure. There is not adequate data to make informed estimates of reproductive potential or overall population trends for a given site, which are the true measures of wildlife population health. These projections were intended as a first step of an iterative process and will require more study to better understand the impact of our conservation investments. Researchers continue to explore these questions through modeling, field data collection, and monitoring and model validation, so these projections are subject to refinement as more information is gathered and evaluated. Ultimately, some assumptions will have to be made that a given percentage of acres established will be managed in a proper way and for a long enough period of time to provide appropriate habitat structure for wildlife species of interest. Once those assumptions have been quantified, we can begin to make confident estimates of potential wildlife response to restoration actions.

Appendix D. Glossary

America's Longleaf Restoration Initiative (ALRI): A collaborative effort of multiple public and private sector partners that actively supports range-wide efforts to restore and conserve longleaf pine ecosystems. The vision of the America's Longleaf Initiative is to have functional, viable, longleaf pine ecosystems with the full spectrum of ecological, economic, and social values inspired through a voluntary partnership of concerned, motivated organizations and individuals. Meeting this challenge will require the strategic coordination of conservation actions among many partners and sectors that influence land use, with the goal of ensuring long-term sustainability and resiliency of these systems, and their constituent biodiversity.

Conservation Reserve Program: The Conservation Reserve Program (CRP) is a voluntary program for agricultural landowners administered by the USDA Farm Services Agency. Through CRP, an individual can receive annual rental payments and cost-share assistance to establish long-term, resource-conserving vegetative covers on eligible farmland. Acreage enrolled in the CRP is planted to pre-approved, resource-conserving vegetation, making the program a major contributor to increasing wildlife populations in many parts of the country.

Conservation Stewardship Program: The Conservation Stewardship Program (CSP) helps agricultural producers maintain and improve their existing conservation systems and adopt additional conservation activities to address priority resource concerns. Participants earn CSP payments for conservation performance - the higher the performance, the higher the payment.

Environmental Quality Incentives Program: The Environmental Quality Incentives Program (EQIP) is a voluntary program that provides financial and technical assistance to agricultural producers through contracts up to a maximum term of ten years in length. These contracts provide financial assistance to help plan and implement conservation practices that address natural resource concerns and for opportunities to improve soil, water, plant, animal, air, and related resources on agricultural land and non-industrial private forestland. In addition, a purpose of EQIP is to help producers meet Federal, State, Tribal, and local environmental regulations.

Federal Coordinating Committee (FCC): In June 2010, the Departments of Agriculture, Defense, and Interior formalized their commitment to the America's Longleaf Restoration Initiative and the goal of restoring 8 million acres in a Memorandum of Understanding. This agreement established the FCC, which coordinates efforts among participating Federal Agencies.

Local Implementation Teams: These Teams are developed at the local level by those interested in longleaf restoration. Each group defines the range and scope of actions they will undertake with an emphasis on convening multiple local area stakeholders, meeting resource needs, and implementing on-the-ground conservation/restoration actions. It is anticipated that the bulk of restoration efforts will be carried out by Local Implementation Teams.

Longleaf Pine Priority Counties: The Longleaf Pine Priority Counties are those counties that have been identified by NRCS as designated focused areas for restoring longleaf pine ecosystems in the state and are usually located in the vicinity of a military installation, a national forest, national wildlife refuge, state forest, or heritage reserve.

Maintenance Condition Class: Longleaf pine forests in the maintenance condition class are considered to currently possess the fire regimes and ecological characteristics representative of the desired functioning longleaf pine ecosystem type. It is estimated that 1.4 million acres of longleaf pine forest type are in, or very near, this level. Retention of these areas is considered to be a priority in the Range-wide Conservation Plan for Longleaf Pine.

Range-wide Conservation Plan for Longleaf Pine: A comprehensive 15-year plan prepared by representatives of multiple State/Federal agencies and NGOs that provides the national framework for the longleaf pine restoration effort. This plan is currently available at <http://www.americaslongleaf.org/resources/conservation-plan/>.

Regional Conservation Partnership Program (RCPP): The RCPP is a new, comprehensive, and flexible program that uses partnerships to stretch and multiply conservation investments and reach conservation goals on a regional or watershed scale. Through RCPP, NRCS and state, local, and regional partners coordinate resources to help producers install and maintain conservation activities in selected project areas. Partners leverage RCPP funding in project areas and report on the benefits achieved.

Significant Geographic Areas (SGAs): The Range-wide Conservation Plan for Longleaf Pine identifies SGAs as sites “where resources, expertise, partners, and policy implementation can optimally be focused to conserve longleaf pine ecosystems.” Identifying these SGAs enables natural resource managers to target longleaf pine recovery efforts to locations where they will have the greatest impact and the optimal potential for success. SGAs may be divided into two distinct types based on size, complexity, and connectivity: 1) Significant Landscapes and 2) Significant Sites. Though Significant Sites are considerably smaller areas, they are considered to be of equal importance in that they provide extant examples of longleaf pine ecosystems.

Significant Landscapes for Longleaf Pine Conservation: A type of Significant Geographic Area that is greater than 100,000 acres, has a core area of intact longleaf pine forest, is under some type of long-term conservation management scheme, and lacks constraints for management activities such as application of prescribed fire.

Significant Sites for Longleaf Pine Conservation: A Significant Geographic Area of less than 100,000 acres that contains ecologically significant longleaf pine plant communities and provides an opportunity to protect and implement appropriate conservation activities.

Southeast Association of Fish and Wildlife Agencies (SEAFWA): The SEAFWA organization is composed of members representing the primary agencies involved in management of fish and wildlife resources in 15 States (plus Puerto Rico and the U.S. Virgin Islands) in the Southeastern U.S. The entire longleaf pine range falls within the SEAFWA boundaries.

State Coordination Teams: State Coordination Teams (SCTs) are made up of a wide assortment of representatives from Federal, State, and local level agencies/organizations/groups/stakeholders. SCTs serve to coordinate local/state level longleaf pine restoration/maintenance activities and integrate those activities with the range-wide effort.

Technical Teams: Teams of experts assembled at the request of the Longleaf Partnership Council to address existing or emerging range-wide issues that may impact longleaf pine conservation efforts.

Working Lands for Wildlife (WLFW): WLFW uses a voluntary, innovative approach to benefit high-priority habitat for seven species of wildlife that are declining, candidates for listing, or listed under the ESA. One of these species is the gopher tortoise, which inhabits longleaf pine ecosystems across a portion of the historic range. Through WLFW, NRCS works with agricultural producers to create and improve wildlife habitat with regulatory predictability from the U.S. Fish and Wildlife Service. Through WLFW, producers can receive technical and financial assistance to voluntarily restore and improve habitat on their land for the target species.



Longleaf Partnership Council



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