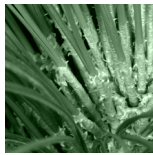


SERPPAS Involvement in Implementing the Range-wide Conservation Plan for Longleaf Pine

SERPPAS Subcommittee on Longleaf Forest Conservation

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A report to identify the potential roles of the Southeast Regional Partnership for Planning and Sustainability in range-wide conservation of longleaf pine forests in the South





Background

The *America's Longleaf Initiative* was established to seek opportunities to maintain, improve, and restore the longleaf pine ecosystem across its historic range. The initiative directly supports and converges with interests of the SERPPAS project “Sustaining the Land of the Longleaf Pine”. The Conservation Plan for restoring longleaf pine was formally released at the North American Wildlife and Natural Resources Conference on March 19, 2009. The release of the Plan is the culmination of input by more than 120 resource professionals and several years’ effort by the Regional Working Group formed under the banner of America's Longleaf. The Regional Working group is a voluntary collaborative of Federal, state and non-government organizations with interests and efforts to restore longleaf forests.

Identifying the SERPPAS Role in Longleaf Conservation

At the November 12, 2008 meeting of the SERPPAS Principals in Raleigh, NC, The USDA Forest Service agreed to lead an effort involving interested Principals or their representatives to determine specifically how SERPPAS could engage in implementation of the Conservation Plan. Recommendations resulting from this process are the subject of this report.

Members of SERPPAS with an interest in longleaf ecosystem restoration constituted a Longleaf Subcommittee. Members of the Subcommittee met three times (March 12, and April 7 and 28, 2009) *via* net conference to identifying SERPPAS roles and responsibilities in achieving the actions laid out in the Conservation Plan (See Appendix C for participants).

Seven areas were identified by the subcommittee (including specific key actions from the Plan) that would be appropriate for SERPPAS to lead. These specific key actions are necessary to further the goals of the Longleaf Conservation Plan and will capitalize upon the unique assemblage of organizations in SERPPAS working at a multi-state or regional scale. These key actions cannot be accomplished by one entity alone, but will require coordination and support of multiple players of SERPPAS.

The seven areas for action are:

1. Address Smoke Management and Air Quality (Fire Management Strategy)
2. Continue “Contributions Matrix”- (Implementation and Monitoring)
3. Expand and Coordinate Inventory and Mapping (Public and Private Lands, Fire Management and Significant Geographic Areas Strategies and Themes)
4. Support Landscape Implementation Teams (Implementation)
5. Coordinate Assistance to Private Lands (Private Lands Strategy)
6. Coordinate Climate Change Research (Climate Change Strategy)
7. Coordinate Tree Seedling and Understory Plant material Supply (Overstory and Understory Strategy)

Issue papers on each of these subjects are included in Appendix A identifying specific actions called for in the Conservation Plan.

It is envisioned that each issue area would be led by one or more SERPPAS Principals. Team leaders would be designated on a voluntary basis for each of the issue areas. The team leaders will assume responsibility for recruiting other team members and for moving the issue areas toward implementation over the next 12-18 months. Lead SERPPAS Principals would be responsible for helping guide and support team leaders and would report action implementation status at future SERPPAS meetings. Team leaders are encouraged to recruit additional members with relevant skills or resources, including those who may offer diverse perspectives. Additional team members may be recruited

from the longleaf subcommittee of SERPPAS, from other SERPPAS participants or from other sectors, including the NGO community. Involvement of and coordination with those entities already actively involved in the *America's Longleaf Initiative* (see Conservation Plan and www.americaslongleaf.org) is expected. Over time, additional roles and responsibilities may be identified, implementation actions will be taken, and progress reports will be made to the SERPPAS Principals periodically.

In addition, activities currently underway or planned were documented and compiled by representatives of the agencies and organizations participating on the subcommittee. The results of the ongoing activities are compiled in Appendix C of this report. This compilation is not a comprehensive list of all activities underway in the five state SERPPAS region, nor does it identify efforts for longleaf conservation in the four states not currently covered by SERPPAS. However, the "Contribution Matrix" tables provide a snap-shot of the broad range and diverse efforts underway to help maintain, improve or restore longleaf by those responding to the subcommittee's request for information. The following agencies and organizations are shown in the matrix:

- ▷ The Alabama Forestry Commission
- ▷ the Georgia Forestry Commission
- ▷ the Georgia Department of Natural Resources
- ▷ the Florida Division of Forestry
- ▷ the North Carolina Division of Forest Resources
- ▷ the US Fish and Wildlife Service
- ▷ the USDA Forest Service
- ▷ the Natural Resource Conservation Service
- ▷ the Environmental Protection Agency
- ▷ The Nature Conservancy, and
- ▷ The Conservation Fund.



Longleaf Pine Smoke Management and Air Quality

Background

The 15-year goal for the Range-wide Conservation Plan for Longleaf Pine (RCPLP) is to increase longleaf from 3.4 to 8.0 million acres, with commensurate increases in prescribed burning expected. As described in the RCPLP, the issues surrounding air quality transcend jurisdictional boundaries and organizational authorities. Fire is one of the most essential components of natural longleaf ecosystems. Restoring fire as a management tool involves many challenges. Some are regulatory in nature such as the need to address air quality. Other challenges such as applying fire to an increasingly urban and fragmented landscape where landowner objectives vary are more practical in nature. Even more fundamentally, a lack of public understanding of the positive role of fire is widespread. Neither the essential, ecological role of fire nor the tradeoffs between fire management smoke and wildfires are universally recognized. In order to meet the goals of the RCPLP, each of these challenges must be addressed and solutions found to allow the expanded use of fire management.

Applicable RCPLP Key Actions:

Fire Management Strategy, Objective B, Key Actions 3 and 4 (page 17):

- ▷ **RCPLP Key Action**—Through education and outreach, advance awareness of fire’s influence in shaping and sustaining native ecosystems, as well as the benefits of frequent fire management as opposed to wildfire.
- ▷ **RCPLP Key Action**—Work cooperatively with the U.S. EPA and the state air quality agencies to address smoke management for fire management and to facilitate increased burning while complying with state air quality laws. Recognize the positive aspects of fire management on air quality in state plans. A key activity is the participation in the development and/or updating of Smoke Management Programs prepared by state air quality and land management agencies.

Subcommittee Recommendations

It is the opinion of the SERPPAS Subcommittee on Longleaf Pine that only a concerted effort by the SERPPAS Principals can overcome the many challenges that impact this essential component of longleaf. Therefore, the Subcommittee recommends the issue of air quality, relative to the management of the longleaf ecosystem, be adopted as a SERPPAS organizational priority. Furthermore, the Subcommittee recommends that EPA Region 4 and the South Carolina Department of Health and Environmental Control be asked to take leadership in reinvigorating earlier discussions on air quality and convening key stakeholders, including State Air Quality Agencies, State Foresters, USDA Forest Service, Department of Defense, representatives of State Fire Councils, USFWS, and other interested parties, with the goal of identifying and resolving potential sources of conflict between Longleaf Pine ecosystem restoration and improving the Region’s air quality.



Longleaf Pine Continue “Contributions Matrix”

Background

The Range-wide Conservation Plan for Longleaf Pine (RCPLP) offers cross-cutting approaches that guide actions related to all of the strategies in the Plan. The RCPLP calls for organizing to:

1. target limited resources to Significant Geographic Areas,
2. communicate, educate, and reach out to support all strategies, and
3. evaluate conservation outcomes of efforts and actions. 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.

Upon committing to this vision, the SERPPAS Principals asked USDA Forest Service to lead interested members in determining specifically how SERPPAS could effectively engage in implementation. A product of this effort is the compilation of member organization activities, current and planned, that contribute to achieving the goals of the Plan. Even as the information was being collected, it became apparent the report would add value by helping members improve coordination, leverage resources, and identify opportunities to implement the RCPLP.

Applicable RCPLP Key Actions:

Public Lands Strategy, Objective A, Key Action 1 (page 10):

RCPLP Key Action 1

- ▷ Agencies will determine ongoing and planned management and restoration on public lands. Common definitions and metrics for forest conditions will be developed and a common repository of the information will be established.

Subcommittee Recommendations

It is the opinion of the SERPPAS Subcommittee on Longleaf Pine that a continually updated understanding the nature and extent of member longleaf activities is important to the development of a coordinated effort to implement the range-wide RCPLP. In addition, consolidated reporting would help communicate the impact that SERPPAS and its members have on achieving the Plan’s 8 million acre goal. Therefore, the Subcommittee recommends the continued collection of member longleaf activities as a SERPPAS organizational priority. Furthermore, the Subcommittee recommends the SERPPAS Co-chairs (Office of Secretary of Defense and the South Carolina Department of Health and Environmental Control) be asked to take leadership in overseeing completion of the contributions matrix to fully capture partner efforts supporting longleaf pine.

Longleaf Pine Expand and Coordinate Inventory and Mapping

Background

The Range-wide Conservation Plan for Longleaf Pine (RCPLP) calls for improved, comprehensive and coordinated efforts to identify existing longleaf forests, their overstory and understory condition, fire regimes and conservation values. The RCPLP also calls for mapping and data management in order to refine Significant Geographic Areas, monitor progress in meeting goals, support more detailed conservation planning, and identify management needs within specific Landscapes or Sites. Improved inventory and mapping is central to both longleaf restoration and to better address many of the broader questions of forest sustainability as southern forests. The current Plan's longleaf forest acreage estimates were largely based on the USDA Forest Service's Forest Inventory and Analysis (FIA) data supplemented with stand level data from three agencies. Precision estimates are low at the county or sub-state levels, and lack detail to address inventory and monitoring needs for the ecosystem.

Applicable RCPLP Key Actions:

Public Lands Strategy, Objective A, Key Action 1 (page 10):

- ▷ **RCPLP Key Action 1**—Agencies will determine ongoing and planned management and restoration on public lands.

Private Lands Strategy, Objectives A and B, Key Actions 4 and 11 (page 12-13):

- ▷ **RCPLP Key Action 4**—Develop a robust system to inventory those lands under publicly held conservation easements and determine their current and potential support for active management and restoration of longleaf with particular attention to those easements within Significant Geographic Areas.
- ▷ **RCPLP Key Action 11**—Develop a comprehensive database capturing in a spatially explicit manner the longleaf-related activities of all federal and state agencies administering landowner assistance as a means of promoting coordination and measuring success within the Significant Geographic Areas and across the range.

Fire Management Strategy, Objective A, Key Action 1 (page 16):

- ▷ **RCPLP Key Action 1**—Work with USDA Forest Service (Forest Inventory and Analysis), State forestry and State wildlife agencies and others to develop estimates of longleaf acres by ecological condition class and management category.

Significant Geographic Areas, Objectives A and B, Key Actions 2a and 3 (page 23):

- ▷ **RCPLP Key Action 2a**—Complete a long-term sustainability assessment of the first iteration of 16 Significant Landscapes for Longleaf Pine Conservation for (a) ecologically appropriate boundaries, landownership, current condition, and management needs (maintain, improve, restore).
- ▷ **RCPLP Key Action 3**—Complete a more thorough remote sensing assessment and ground validation of extant stands of longleaf pine throughout the historic range of the species.

Subcommittee Recommendations

It is the opinion of the SERPPAS Subcommittee on Longleaf Pine that a concerted effort by the SERPPAS Principals can substantially address challenges and provide coordination that draws upon expertise of many of the agencies and organizations represented in SERPPAS. The concept of producing the “Good Map” has been central to SERPPAS. This is, in part, a continuation of that approach. Therefore, the Subcommittee recommends the issues of inventory and mapping relative to the longleaf ecosystem be adopted as a SERPPAS organizational priority. Furthermore, the Subcommittee recommends that US Fish and Wildlife Service and North Carolina Department of Environment and Natural Resources be invited to take leadership in overseeing implementation of key actions listed above.



Longleaf Pine Coordinate Assistance to Private Lands

Background

The 15-year goal for the Range-wide Conservation Plan for Longleaf Pine (RCPLP) is to increase longleaf from 3.4 to 8.0 million acres. As described in the RCPLP, the vast majority of forestland potentially available for restoration across the longleaf range is privately held. The success of the Plan depends on delivering science-based technical advice and financial incentives to the people that will restore and take care of the ecosystem—private landowners. The front-end costs of longleaf restoration are significant as is the need for technical assistance from those knowledgeable about longleaf systems. Many landowners would find these costs prohibitive but for some form of public support. Fortunately, an array of publicly funded landowner assistance and incentive programs also exists (many authorized in the federal Farm Bill) to improve stewardship of forestland. In some cases, actions are needed to optimize the programs' utility for the non-industrial landowners seeking to restore longleaf. Some programs are inadequately funded while others have not been designed or implemented in ways that maximize participation or effectiveness.

of achieving the goals of the Plan but also helping to assure the wise use of tax dollars. Therefore, the Subcommittee recommends that the issue of enhancing assistance to private landowners be adopted as a SERPPAS organizational priority. Furthermore, the Subcommittee recommends that NRCS and Alabama Forestry Commission be invited to take leadership in overseeing implementation of key actions listed above.

Applicable RCPLP Key Actions:

Private Lands Strategy, Objective B, Key Action 5 (page 12):

- ▷ **RCPLP Key Action 5**—Encourage federal and state agencies, (e.g., State Technical Committees) that provide technical assistance and cost-share to forest landowners to increase support for landowners (especially those in the Significant Geographic Areas) willing (a) to improve poor quality longleaf stands through thinning and burning, (b) to convert forests back to longleaf on appropriate sites and (c) to plant new acres of longleaf trees and restore understories.

Subcommittee Recommendations

Many SERPPAS members provide technical and/or financial assistance to private landowners. It is the opinion of the SERPPAS Subcommittee on Longleaf Pine that a coordinated effort by the SERPPAS Principals whose agencies provide financial or technical assistance to landowners would pay dividends not only in terms



Longleaf Pine Support Landscape Implementation Teams

Background

The 15-year goal for the Range-wide Conservation Plan for Longleaf Pine (RCPLP) is to increase longleaf from 3.4 to 8.0 million acres. As described in the RCPLP, a major guiding principle is in the absence of unlimited resources the conservation of longleaf pine needs to be spatially focused to reach the ultimate goals of biodiversity conservation at meaningful scales. A targeted approach capitalizes on the greatest opportunities and maximizes the potential for success. The RCPLP identifies 16 Significant Geographic Areas where resources, expertise, partners, and policy implementation, can optimally be focused to conserve longleaf pine ecosystems. It is at these Significant Geographic Areas that more detailed conservation planning, implementation and evaluation must take place through a collaborative approach with partnerships of public agencies, conservation organizations, and private landowners.

Applicable RCPLP Key Actions:

Implementation Strategy, Objective A, Key Action 2 (page 27):

- ▷ **RCPLP Key Action 2**—Initiate actions to stand up local teams within Significant Geographic Areas to further area-specific planning and on-the-ground actions.

Public Lands Strategy, Objective C, Key Action 7 (page 10):

- ▷ **RCPLP Key Action 7**—Support local teams under *America's Longleaf Initiative* as a structure and mechanism to guide restoration through public/private coordination within Significant Geographic Areas. Establish or expand efforts in two to four Significant Geographic Areas in the next three years in order to demonstrate implementation of and accelerate conservation efforts on the ground. Institutions such as the Gulf Coastal Plain Ecosystem Partnership (GCPEP) can serve as a model of public/private coordination at a sub-regional, landscape scale.

Subcommittee Recommendations

It is the opinion of the SERPPAS Subcommittee on Longleaf Pine that the SERPPAS Principals can play a leadership role in implementing collaborative landscape planning and management of longleaf at the landscape scale by supporting local implementation teams. Therefore, the Subcommittee recommends that 2-4 Significant Geographic Areas be adopted as a SERPPAS organizational priority, and that SERPPAS Principals play a leadership role in establishing these as demonstration areas to accelerate and test models for landscape longleaf conservation. Furthermore, the Subcommittee recommends that Department of Defense and Florida Department of Environmental Protection be invited to take leadership in overseeing implementation of key actions listed above.



Longleaf Pine Coordinate Climate Change Research

Background

Scientific studies are needed to better understand the future effects of climate change on forests in general and longleaf in particular. Such information can serve to better inform longleaf restoration efforts. The Climate Change Tree Atlas (2007) developed by the USDA Forest Service predicts the relative frequency, density, and dominance of various tree species under future climate conditions. The conclusion of that study was longleaf pine would be the clear “winner” among all the southeastern pines (including loblolly, shortleaf and slash) by a very wide margin in response to climate change. This is consistent with the fact that longleaf is more resistant to drought and high temperatures. However, many questions remain in understanding the likely effects of climate change on the longleaf pine ecosystem as well as the role longleaf restoration could possibly play in mitigating climate change or adapting to such change.

Applicable RCPLP Key Actions:

Climate Change Strategy, Objective A, Key Actions 1-3 (page 20):

- ▷ **RCPLP Key Action 1**—Promote more extensive scientific study of the potential effects of climate change on the longleaf ecosystem, including the tree species, plants and animals, and ecosystem function.
- ▷ **RCPLP Key Action 2**—Promote further study of the contributions that longleaf restoration and management could play in carbon sequestration and adaptation to climate change. Such study should include development of a standardized carbon accounting system and baseline inventories for longleaf systems to promote marketing and crediting of longleaf sequestration efforts.
- ▷ **RCPLP Key Action 3**—Promote further study of the potential climate change impacts from the increased level of prescribed burning done to restore and maintain healthy longleaf ecosystems. Also, promote further study to gain a better understanding of the climate change impacts of frequent fire management versus catastrophic wildfires.

Subcommittee Recommendations

In Spring 2008, a Memorandum of Partnership (MOP) was signed between SERPPAS and the Cooperative Ecosystem Studies Unit (CESU) network to provide research and technical assistance as needed for the SERPPAS partners. To date, this partnership has supported several SERPPAS projects including the RCW Translocation Project (University of Georgia/Clemson University researchers), regional planning research in eastern North Carolina (UNC/NCSU researchers), and longleaf pine mapping (Auburn University researchers), just to name a few. It is the opinion of the SERPPAS Subcommittee on Longleaf Pine Ecosystem Restoration the SERPPAS-CESU Partnership can serve to coordinate climate change-related research between universities, federal agencies, and other CESU partners to better understand the effects of climate change on the longleaf ecosystem. Furthermore, the Subcommittee recommends that US Forest Service and NOAA be invited to take leadership in overseeing implementation of key actions listed above along with the CESU.



Longleaf Pine Tree Seedling and Understory Plant Material

Background

As described in the Range-Wide Conservation Plan for Longleaf Pine, supplies of ecologically appropriate plant material are essential to achieve goals of the Plan. Both understory seeds and plant materials are essential in supporting the vast biodiversity and provide the ecological structure to support fire regimes called for in the Plan. Shortage of longleaf tree seedlings and understory plant material will be bottlenecks in meeting restoration goals.

Applicable RCPLP Key Actions:

Understory and Overstory Restoration Strategy, Objective C, Key Actions 13 and 15 (page 18):

- ▷ **RCPLP Key Action 13**—Dramatically increase longleaf tree seed and seedling production in the public and private sectors. This requires support for existing nurseries, expanding capacity of existing or new nurseries, coordinating seed collection and related seed collection work, and exploring new technologies in seedling production.
- ▷ **RCPLP Key Action 15**—Coordinate the development of a native seed market in the longleaf pine range. Encourage private landowners to participate in efforts to provide additional incentives for landowners to manage, improve, and restore longleaf.

Public Lands Strategy, Objective C, Key Action 7 (page 10):

- ▷ **RCPLP Key Action 7**—Support local teams under *America's Longleaf Initiative* as a structure and mechanism to guide restoration through public/private coordination within Significant Geographic Areas. Establish or expand efforts in two to four Significant Geographic Areas in the next three years in order to demonstrate implementation of and accelerate conservation efforts on the ground. Institutions such as the Gulf Coastal Plain Ecosystem Partnership (GCPEP) can serve as a model of public/private coordination at a sub-regional, landscape scale.

Subcommittee Recommendations

Select SERPPAS members provide technical and/or financial assistance in nursery, seed orchard and other plant material management. In addition, many member organizations manage public lands that can be a source and vital link in supplying native seed, both tree and ground cover. It is the opinion of the SERPPAS Subcommittee on Longleaf Pine Ecosystem Restoration, that a concerted effort by the SERPPAS Principals would pay dividends not only in terms of achieving the goals of the Plan but also helping to build additional capacity in the public and private sectors. Therefore, the Subcommittee recommends that the issue of tree seedling and understory plant material production be adopted as a SERPPAS organizational priority. Based on expertise, interest and connections with communities of interest (nursery managers, botanist, reforestation specialists, *etc.*), the Subcommittee recommends the US Forest Service and the Georgia Forestry Commission co-lead this effort.