



FY17-18 IMPLEMENTATION STRATEGY

Longleaf pine ecosystems are one of the most biologically diverse on the planet.



Longleaf pine forests once encompassed more than 90 million acres across the Southeast, stretching from eastern Texas through central Florida to southern Virginia. These forests represent some of the world's most unique and biologically diverse ecosystems. They are home to an estimated 900 different plant species and provide habitat to about 100 bird species, 36 mammal species and 170 species of reptiles and amphibians.

Over the past two centuries, development, conversion to other industrial forest types, and fire suppression have reduced the longleaf pine forests to less than 5 percent of their original range. The extensive loss of longleaf pine has caused a noticeable change in the Southeast, demonstrated by the fact that more than 30 species associated with longleaf pine forests, such as the red-cockaded woodpecker, gopher tortoise and black pine snake are listed by the U.S. Fish and Wildlife Service (USFWS) as threatened or endangered.

The At-Large Restoration Effort

Public and private sector leaders have recognized the need to address the substantial decline in longleaf pine forests across the historic range in the Southeast United States. In 2005, America's Longleaf Restoration Initiative (ALRI) was formed to support a focused, range-wide restoration approach across public and private lands. ALRI includes USDA's Natural Resources Conservation Service (NRCS) and its partners like the National Fish and Wildlife Foundation (NFWF), Longleaf Alliance, The Nature Conservancy, U.S. Department of Defense, U.S. Forest Service, USFWS and others. In 2009, ALRI released the Range-wide Conservation Plan for Longleaf Pine (ALRII range-wide plan), which provides a framework for longleaf pine ecosystem conservation and includes a goal to increase the extent of longleaf pine forests on public and private lands from 3.4 to 8 million acres by 2025.

NRCS' longleaf conservation efforts support the ALRI range-wide plan, including working in targeted counties near Significant Geographic Areas (SGAs).

The success of the ALRI range-wide plan depends significantly on the expansion of longleaf forests on private lands. ALRI estimates that 80 percent of the overall longleaf pine forest increases will have to occur



Restoring longleaf. NRCS District Conservationist Corby Moore works with landowners in Beauregard Parish to restore and protect longleaf forests.

on private lands and targets 50 percent of the increases within 17 SGAs as delineated in the ALRI range-wide plan. SGAs are areas that contain large existing blocks of longleaf pine, many of them anchored by public lands such as military installations, national forests, national wildlife refuge, state forests or heritage reserves. Targeting restoration activities in SGAs increases the value of longleaf habitats by building the footprint of existing forest blocks. Partners across the historic range are working in teams, known as local implementation teams (LITs), to coordinate local on-the-ground restoration efforts needed in their designated SGAs.



One-on-one assistance: A NRCS staff member looks at a restored longleaf forest with a landowner in Atmore, Alabama.

Assistance to Private Landowners

NRCS works with agricultural producers and conservation partners to restore longleaf pine forests through its Longleaf Pine Initiative (LLPI), which was launched in 2010. Through LLPI, NRCS works with producers on private lands in nine states (Alabama, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Texas and Virginia) to improve the sustainability and profitability of longleaf pine forests. NRCS provides technical and financial assistance to producers, helping them identify and implement a variety of conservation practices to restore, improve, or maintain understory and over-story of longleaf pine ecosystems. These practices include forest stand improvement, prescribed burning, restoration and management of rare or declining habitats, and tree and shrub establishment.

Since 2010, landowners have restored and protected more than 400,000 acres to support longleaf goals through LLPI.

PRACTICES THAT SUPPORT LLPI GOALS



Both NRCS and landowners invest in the implementation of conservation practices to assist communities in re-establishing healthy longleaf pine stands and managing those stands to maximize a balance between environmental benefit and economic return. Financial assistance comes from a variety of Farm Bill programs, which cover a portion of the costs for implementing conservation practices. Farm Bill programs include:

- Environmental Quality Incentive Program (EQIP)

 provides financial and technical assistance to
 agricultural producers to plan and implement con servation practices that improve soil, water, plant,
 animal, air and related natural resources on agri cultural land and non-industrial private forestland.
 LLPI is funded through EQIP.
- Conservation Stewardship Program (CSP) assist producers in undertaking additional conservation activities beyond those typical to LLPI and EQIP in improving, maintaining and managing existing conservation activities. NRCS recently updated the program, which included several enhancements that benefit the management of longleaf pine forests.
- Regional Conservation Partnership Program (RCPP) - offers new opportunities for the NRCS, conservation partners and agricultural producers to work together to harness innovation and expand the conservation mission. NRCS implements RCPP through four existing NRCS programs authorities: Agricultural Conservation Easement Program (ACEP), Healthy Forests Reserve Program (HFRP), EQIP and CSP.

In May 2014, USDA demonstrated its commitment to restoring longleaf pine by designating the longleaf pine historical range as a Critical Conservation Area (CCA) for RCPP. With the CCA designation, RCPP provides additional funding opportunities for the partners to continue to work with private landowners to increase restoration activities throughout the longleaf pine range. Since its creation, RCPP longleaf pine related projects have enrolled nearly 50,000 acres of longleaf habitat into voluntary conservation easements.

Conservation for the Gopher Tortoise

NRCS also provides another avenue to assist private landowners with longleaf restoration — the Working Lands for Wildlife (WLFW) partnership for the gopher tortoise.

In 2012, the gopher tortoise was selected as a target species. The partnership provides participating landowners with Endangered Species Act (ESA) predictability for their conservation activities for up to 30 years. In addition to regulatory peace of mind, WLFW provides technical and financial assistance to voluntarily implement conservation practices for the gopher tortoise, largely in longleaf ecosystems, while continuing to manage the property as working lands.

Through WLFW, NRCS has worked with landowners to restore 278,000 acres for the direct benefit of gopher tortoises.

Technical Assistance

NRCS also uses the Conservation Technical Assistance Program (CTA) to assist individuals, groups, tribes or other partners that are working to support conservation, such as NRCS provides support to NFWF for the Longleaf Stewardship Fund, a public-private partnership working to expand and enhance longleaf pine restoration. NRCS staff and conservation partners will continue working together in the targeted areas to assist landowners and managers in developing forest management plans, implementing conservation practices, and certifying practices completed.



Keystone Species The gopher tortoise is a keystone species of longleaf pine forests, and more than 350 species depend on their burrows, for which the digging reptile gets its name.



Ethel and Jamastican Parham have worked with their local NRCS staff to manage longleaf stands in their certified Treasure Forest in Sunny South, Alabama.



Priority Counties. LLPI targets the historic range of longleaf with extra emphasis in priority counties, which align with ALRI SGA target areas.

NRCS Targets in the Longleaf Pine Historic Range

NRCS has developed geographic priority areas for use in the LLPI, WLFW and RCPP to better target restoration activities in the historic longleaf pine range. For the LLPI, NRCS has identified priority counties where longleaf pine restoration will provide the most environmental and economic benefits. The priority counties are aligned with the ALRI range-wide plan SGAs. NRCS has established a goal that 90 percent of the LLPI restoration activities will occur in the priority counties. NRCS also targets funds to support private lands restoration through the RCPP. Partners, working closely with landowners and communities, define and propose projects that will achieve regional natural resource goals while also meeting complementary local conservation priorities. Currently, there are nine RCPP projects for longleaf restoration located within the historic range to address stakeholder priorities.

LONGLEAF PINE RESTORATION







Critical Conservation

Area. The Longleaf Pine Range is one of the critical conservation areas in this partnership program. Nine ongoing projects are furthering conservation efforts for the ecosystem.

Both NRCS and landowners invest in the implementation of conservation practices to restore and protect longleaf pine forests.





NRCS FY17-18 Implementation Strategy

The NRCS Longleaf Pine Restoration Implementation Strategy links together the efforts of the LLPI, WLFW and RCPP to help private landowners improve both the quantity and quality of longleaf pine forests in the Southeast. Working with NRCS leadership from the nine participating states and longleaf pine restoration partners, this strategy was developed to coordinate actions for longleaf pine restoration on private lands. This strategy summarizes conservation actions that address site-specific threats to the longleaf pine ecosystem and establishes objectives and milestones for FY 2017 and FY 2018.

NRCS aims to restore, create and protect more than 400,000 acres of longleaf pine by the end of fiscal year 2018.

To address site-specific threats, NRCS is focusing on four conservation actions:

- Improving vegetation management (chemical and mechanical) in existing longleaf pine stands (57,472 acres);
- Increasing use of prescribed fire (222,024 acres);
- Establishing longleaf forests (75,260 acres); and
- Protecting working forests and habitat through **conservation easements** (48,990 acres).

NRCS plans to use the LLPI to support private landowners' interest centered on restoring, improving or maintaining longleaf pine ecosystems.

CONSERVATION ACTIONS



Through WLFW, NRCS will focus on actions that will occur within longleaf forests that benefit gopher tortoises. With the addition of RCPP, partners can provide leverage and secure voluntary conservation easements to benefit at-risk species by protecting longleaf habitat blocks, especially in rapidly developing areas and in the vicinity of military installations.

CONSERVATION ACTION: VEGETATION MANAGEMENT

Site-specific Threat Addressed: Over-growth of vegetation competing with longleaf pine also degrades habitat for at-risk species



Purpose and Need: There are currently more than 30 species associated with longleaf pine ecosystems and approximately 40 additional species under review for listing. Continued declines in populations of these at-risk species and habitat loss elevate the risk of regulatory controls, which would create economic impacts on both public and private lands. These at risk species, including the keystone species, the gopher tortoise, need open understory areas of longleaf pine to secure food and reproduce.

Conservation Objective: NRCS will increase opportunities for landowners to use vegetation management within the gopher tortoise PACs and the LLPI priority counties to manage growth of native and non-native plants on private lands. For areas outside of the PAC, NRCS offers assistance to forest landowners with implementing conservation practices that will improve wildlife habitat.

• NRCS will provide assistance for brush management in conjunction with prescribed burning in order to help reduce fuel loads and promote native vegetation.

• In forests where existing tree stands require management to support the gopher tortoise and other longleaf pine dependent species, NRCS will provide assistance for thinning of forest stands to reduce canopy closure which will enhance timber growth and encourage herbaceous ground layer.

• In all landscapes, controlling undesirable and invasive plant species will be a priority through the brush management, including mechanical and chemical control techniques.

Funding Source: EQIP, CSP, CTA

Milestones: In fiscal years 2017 and 2018, NRCS aims to support targeted conservation vegetation management activities on more than 57,000 acres of private lands to improve habitat for at risk species.

VEGETATION MANAGEMENT

| State | FY17-18 Acres |
|----------------|---------------|
| Alabama | 11,240 |
| Florida | 12,700 |
| Georgia | 10,945 |
| Louisiana | 4,255 |
| Mississippi | 12,094 |
| North Carolina | 602 |
| South Carolina | 5,375 |
| Texas | 0 |
| Virginia | 261 |
| TOTAL | 57,472 |

CONSERVATION ACTION: PRESCRIBED FIRE

Site-specific Threat Addressed: Fire suppression



Purpose and Need: Longleaf pine ecosystems depend on frequent prescribed fire to maintain their basic structure and function. Altered fire regimes result in excessive fuel loading and wildfire danger, adversely affecting the regeneration of longleaf pine, preventing the development of open longleaf pine-dominated forests and woodlands, and causing wildlife habitat quality to decline.

Conservation Objective: NRCS will work with partners to increase the use of prescribed fire on private lands through technical and financial assistance, creating and maintaining an open understory to benefit wildlife and pine stand health.

• NRCS will develop conservation plans for private lands that recommend prescribed burning within the first 18 months post-planting and the implementation of prescribed burning that mimics a natural fire frequency for the life of the stand. Monitoring and evaluation of vegetation response will determine the fire frequency.

• NRCS will further prioritize the use of prescribed fire through its project ranking process that favors burns during the growing season and in stands where use of prescribed fire has not occurred in recent years.

Funding Source: EQIP, RCPP, CSP, CTA

Milestones: In fiscal years 2017 and 2018, NRCS aims to support more than 222,000 acres of prescribed fire on private lands.

| PRESCRIBED FIRE | |
|-----------------|---------------|
| State | FY17-18 Acres |
| Alabama | 56,062 |
| Florida | 41,000 |
| Georgia | 19,528 |
| Louisiana | 23,230 |
| Mississippi | 22,495 |
| North Carolina | 9,500 |
| South Carolina | 49,200 |
| Texas | 300 |
| Virginia | 709 |
| TOTAL | 222,024 |

CONSERVATION ACTION: LONGLEAF ESTABLISHMENT

Site-specific Threat Addressed: Conversion to other agricultural and forestry uses



Purpose and Need: Market prices for agricultural commodities are fueling conversion of longleaf pinedominated stands to agriculture uses in many areas. These losses affects not only longleaf pine, but also the many species of flora and fauna that depend upon longleaf pine-dominated ecosystems.

Conservation Objective: NRCS will provide assistance to establish economically viable longleaf pine as working forests that support non-game and game species and regional longleaf pine partnership goals.

• In landscapes where pine stands were recently harvested, NRCS is working with landowners to prepare sites and plant with soil-appropriate trees, predominately longleaf pine trees. NRCS will use ecological site descriptions to match pine species to the site, and longleaf pine will be favored wherever it is appropriate to meet historic plant community conditions.

• To maximize benefits for wildlife, NRCS recommends tree plantings of 454 to 605 trees per acre.

• In plantings of greater than 500 trees per acre, NRCS recommends that wildlife openings equal to 15 percent of the planned area be left unplanted to support growth of herbaceous forage. If openings are linear in nature, NRCS recommends a minimum of 36 feet between tree rows.

• Wildlife openings may be planted in native grasses and forbs or left unplanted with one-third of the site managed annually with prescribed fire, herbicides, mowing or haying. • Site plans may include options for daylighting roads. Note: This is a technique that may benefit northern bobwhite, too.

Funding Source: EQIP, RCPP, CTA

Milestones: In fiscal years 2017 and 2018, NRCS aims to add over 75,000 acres of longleaf plantings on private lands.

| LONGLEAF ESTABLISHMENT | | |
|------------------------|---------------|--|
| State | FY17-18 Acres | |
| Alabama | 19,812 | |
| Florida | 8,900 | |
| Georgia | 11,366 | |
| Louisiana | 4,255 | |
| Mississippi | 8,812 | |
| North Carolina | 3,050 | |
| South Carolina | 18,200 | |
| Texas | 575 | |
| Virginia | 290 | |
| TOTAL | 75,260 | |

CONSERVATION ACTION: WORKING FORESTS PROTECTION

Site-specific Threat Addressed: Conversion to non-agricultural and non-forestry uses



Purpose and Need: Longleaf pine forests across the historic range continue to be lost to nonagricultural and non-forestry uses, significantly affecting rural communities and many species of flora and fauna that live in this valuable ecosystem. Atrisk species need healthy, open longleaf forests with varied shrub and herbaceous understory vegetation. Voluntary conservation easements help protect private lands from rapid development and they potentially provide a means to help improve habitat connectivity and secure agricultural ownership, especially around military installations.

Conservation Objective: NRCS will increase opportunities for landowners to use Farm Bill conservation easement programs that help landowners maintain their working forests and restore and protect suitable habitats, especially those valuable to at-risk species.

In all landscapes with potential suitable habitats, NRCS will pursue voluntary conservation leases and easements to protect and restore those sites to support the long-term survival of the at-risk species.

Funding Source: EQIP, ACEP, CTA, RCPP, HFRP

Milestones: In fiscal years 2017 and 2018, NRCS aims to use easements to protect almost 49,000 acres of privately-owned longleaf pine forests in rapidly developing areas. RCPP and WLFW conservation easements will focus more on working lands inhabited by at-risk species. Six of the nine states will pilot conservation easements under this strategy as a conservation action in FY 2017-2018, with hopes of expanding in future years.

WORKING FORESTS PROTECTION

| State | FY17-18 Acres |
|----------------|---------------|
| Alabama | 11 700 |
| Alabama | 11,700 |
| Florida | 10,020 |
| Georgia | 18,300 |
| Louisiana | 6,370 |
| Mississippi | 2,500 |
| North Carolina | 100 |
| South Carolina | 0 |
| Texas | 0 |
| Virginia | 0 |
| TOTAL | 48,990 |

Benefits and Outcomes

The conservation activities described in this strategy may provide natural resource and economic benefits. Through the use of forest management and prescribed burning systems, the longleaf forests become a more efficient operation. In addition to the environmental benefits of restoring and planting longleaf pine, such as cleaner water and air and healthier soil, landowners are recognizing the economic benefits of producing high-quality timber and supporting wildlife habitat for game and non-games species. A healthier longleaf pine forest also provides ample recreational opportunities such as hunting and birding.

Many wildlife species like the gopher tortoise, protected under the ESA in part of its range, depend on these forests for habitat. Private landowners who volunteer to take conservation actions to benefit at-risk or federally listed species can receive regulatory peace of mind with agency support. In WLFW, this is achieved for properties with gopher tortoise through an inter-agency agreement between USFWS and NRCS that protects landowners from regulation as long as they continue to manage their project sites according to conservation measures in their contracts. In LLPI or RCPP similar assurances can be obtained through other ESA mechanisms that are available to individuals and communities from USFWS.

NRCS Longleaf Investments Moving Forward

NRCS and partners' planning efforts are continuing to pay off, resulting in more requests from landowners and contracts for longleaf pine restoration activities. Since 2010, NRCS investments in the LLPI alone have exceeded over \$65 million and have supported restoration activities on nearly 400,000 acres. This effort has allowed NRCS to strengthen its involvement with the forestry sector and forest related resource concerns in the Southeast.



Clemente Rodriguez of Johnson County, Georgia worked with NRCS to improve the health of longleaf pine on his property.

Although NRCS and partners have begun to achieve remarkable positive impacts to benefit the longleaf pine ecosystem, many challenges remain. Existing longleaf pine acreage is still being lost to land use change and habitat quality continues to decline due to inadequate management. Species continue to be listed potentially causing further constraints on management and use of public and private lands. Therefore, NRCS will work with its partners to accelerate the pace of longleaf establishment and management. NRCS aims to work with landowners to restore and protect more than 400,000 acres of longleaf pine forests by the end of fiscal year 2018.







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