



THE NATURE CONSERVANCY

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The Nature Conservancy:

- TNC has whole systems project areas to help coordinate efforts across states and make effective conservation impacts at scale
- Specified risk linkages:
 - Southern Appalachian CBA
 - Native Longleaf Pine Systems
 - Late-Successional Bottomland Hardwoods

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Longleaf Pine

Our **Longleaf Pine** Whole System spans 9 states from east Texas to southern Virginia in what was once the historic range for longleaf pine habitat. In this project area there are 17 teams (Local Implementation Teams) working on the ground to enhance and restore longleaf pine habitat. Eleven of those teams are led by TNC

<http://www.americaslongleaf.org/implementation/implementation-teams/>. The strategic actions that TNC conducts on the ground in those locations aligns with a bigger vision to restore 8 million acres of longleaf across the range per America's Longleaf Restoration Initiative.

Priority projects available to invest in include:

- Prescribed fire personnel and implementation
- Landowner outreach and education
- Prescribed fire equipment
- Planting longleaf pine trees
- Longleaf restoration and site preparation
- Species monitoring and/or habitat improvements
- Investment in key land acquisition and protection through easements of fee simple purchases
- Organization of fire training opportunities for partners and/or private land owners
- Invasive species removal

In the Florida Panhandle specifically:

- Restore groundcover where needed on public and private lands (could include equipment purchase, lab expenses, labor)
- Treat cogon grass and other priority invasives on public and private lands
- Invest in a better understanding of mesic and wet flatwoods conversion from off site pine plantation to longleaf forest

Specific NC projects ready to be implemented:

Sandhills LIT:

Increasing Fire Capacity in Sandhills LLP - Funding an additional one or two months of time to a 4-person winter fire crew (including supplies) (currently the winter crew is funded from January to April by NFWF). This would allow the crew to burn into the growing season and increase the acreage burned in LLP by 1000 – 2000 acres on TNC and Partner lands and would allow for approximately 10-40 acres of TSI depending on the duration of funding and weather. One month of fire crew time (including benefits, OT, housing, travel and supplies) would cost approximately \$17,500/month (\$35,000 for two months)

Ground layer Restoration in LLP Restoration Moses Tract- Funding 60 acres of wiregrass plug planting at Moses Preserve would be completed with tree planting next spring. This site will be thinned this year and will also be planted with LLP seedlings. Currently the planting of wiregrass at Moses, a matrix

ground layer species and critical part of the fuel for controlled fire in LLP, is not funded. Planting (Labor and Materials) would cost \$12,000.

Ground layer Restoration in LLP Restoration Antioch Bay – TNC was only able to fund a portion of the wiregrass plug planting needed at Antioch Bay (100 acres cleared of loblolly to be planted to Longleaf in the spring of 2020). To complete the wiregrass planting, an additional \$9000 is needed (Labor and Materials).

Griffin LLP Restoration in Old Fields - Recent acquisition includes ~55 acres of pasture planted to exotic cool season grasses. Restoration to longleaf habitat may include multiple herbicide treatments to kill pasture grass, ripping the soil to break hard pan, site-prep burn, no-till planting native grasses and forbs, mowing to control invasive weeds, and planting longleaf pines. The exact treatments, sequence and timing will be highly dependent upon to results of each step in the process. Currently this project is unfunded. An estimated cost for restoration of 55 acres is \$55,000.

Onslow Bight LIT:

Increasing Fire Capacity in Coastal LLP – Currently TNC does not have enough funding to reach fire management goals in the Shaken Creek preserve, adjacent to Holly Shelter. Fire management in this preserve requires contracting a helicopter with the USFS for ignition. To reach our goals of burning an additional 300 – 800 acres at Shaken Creek, \$25,000 of funding is needed.

Ground layer Restoration in LLP, Black River Preserve- Funding 250 acres of wiregrass plug planting at the Citadel tract in the Black River Preserve would complete this phase of restoration. This 550 ac project site was thinned last year and a portion (300 ac) will be planted with wiregrass next spring. We are hoping to receive a USFW Partners grant for the 300 acres, but that has yet to be awarded. The additional 250 acres of wiregrass planting needed is unfunded and we have no prospects for funding. Planting the last 250 acres (Labor and Materials) would cost \$32,500.

CFA LIT:

Rare Plant and Community Monitoring in LLP– TNC works with faculty from UNCW to conduct long-term rare plant monitoring, including Venus flytraps (7 years of data collection), and community monitoring in LLP restoration areas (over 20 years of monitoring) to help inform stewardship decision making. For example, we know that there is little long-term impact of large timber equipment to the ground layer in our mesic LLP savannas under the conditions in which we allow cutting. We have also learned that Venus flytraps need periodic late summer fire to stimulate increased flowering. Required funding to continue this monitoring next growing season is \$5500 -\$7000 depending on how many locations we monitor.

Southern Appalachians

We also have a team of TNC staff working collaboratively on strategies to enhance forests in the **Southern Appalachians** (Southern Blue Ridge Whole System). Priority projects available to invest in include:

- Prescribed fire personnel and implementation
- Prescribed fire equipment
- Prescribed fire line establishment and maintenance
- Investments in ecological restoration of stands that are dominated by uncharacteristic tree species (but are not necessarily commercially viable)
- Rehabilitation of important but badly eroded roads/networks of roads
- Installation of aquatic organism passages, streambank stabilization, or hydrologic restoration
- Investments in nearly old growth stands to create more biological legacies (creating tip up mounts, large CWD, etc.)
- Focus on creation and maintenance of woodland habitats via thinning and controlled burning
- Monitoring focused on impacts of management and measuring progress towards desired conditions
- Southern Appalachian bog hydrologic restoration
- Management of wildfires for ecological benefit
- Public outreach on any of these topics
- Conduct a regional feasibility analysis for mechanical restoration in cooperation with partners in order to prioritize silvicultural work.

Mechanism: The feasibility analysis should consider return on investment including mill locations, existing USFS roads, ecozone data, burn blocks data, valuation of merchantability for a variety of products.

Metric: Completion of analysis. Adoption by partners

Bottomland Hardwood Restoration

-Hydrological Restoration/Improvements along Lower Mississippi River

-Reforestation for Longleaf

-Reforestation for Bottomland hardwoods

-Bottomland hardwood restoration on private lands

Specific projects ready to go in NC:

Bottomland Hardwood Restoration at Martens Tract – This is a 9 acre low lying wet agricultural field owned and managed by TNC near the floodplain of Quewhiffle creek. The appropriate restoration target for these soils is bottomland hardwoods. Currently this project is unfunded. To begin the first phase of the restoration (includes site prep, invasives control, hardwood tree planting and cover crop seeding) funding in the amount of \$9000 is needed.

Bladen Lakes State Forest Bottomland Hardwood Restoration

BLSF is partnering with TNC to evaluate improving wildlife habitat in bottomland hardwood forests through timber operations (small patch clearcuts and selective thinning) and subsequent herbicide applications to control invasives and resprouting of less desirable tree species, and planting of cherrybark oak. Phase 1 demonstration project was completed in 2019. Phase 2 will be initiated in 2020 and may result in the need for herbicide treatments on ~ 105 ac and tree planting on ~60 ac. The total funding needed to complete phase II is \$22,500.

Bottomland Hardwood Protection in the Black River Preserve – TNC has protected over 17,000 acres on the Black River. The Bridger tract supports bottomland hardwood forest and helps connect a protected corridor along the main steam of the Black River, a highly significant conservation site. The owners are willing to do a conservation easement which would protect the bottomland hardwoods from timbering. The site is approximately 17 acres. An estimate of the funds needed to purchase the conservation easement is \$30,000.

To learn more about these projects in the southeast, please contact Colette DeGarady Colette.degarady@tnc.org, 843-640-1489 Longleaf Pine Whole System Director.