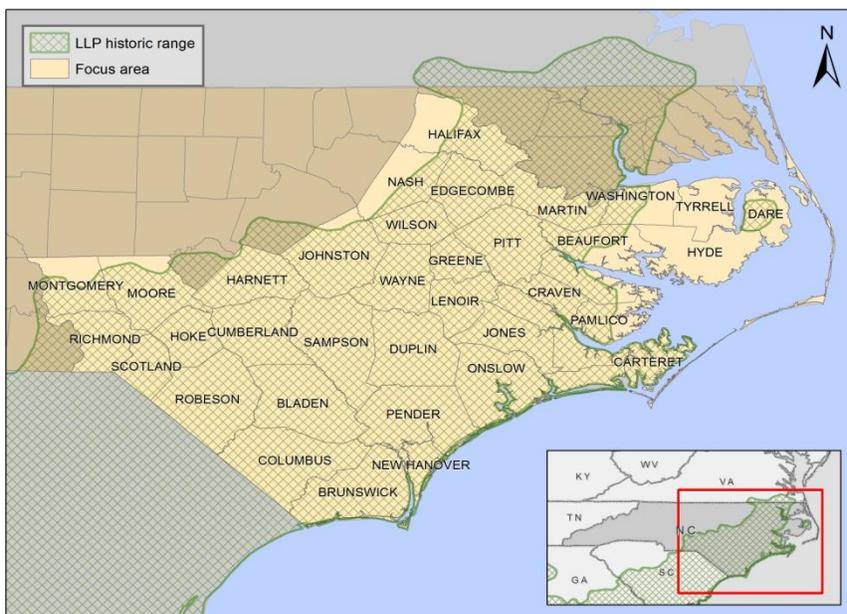


**Exploring Alternative Methods for Threatened and Endangered Species Habitat Improvements
in the Longleaf Pine Ecosystem of Eastern North Carolina
An Introduction 5.9.14**

The NC Foundation for Soil and Water Conservation obtained a USDA Natural Resources Conservation Service Conservation Innovation Grant in 2013 entitled “Determine Certainty Program Framework of a Market Based Conservation Initiative for Longleaf Pine Habitat Improvements in Eastern North Carolina”. Collaborating partners include; NC State University’s College of Natural Resources, Texas A&M University’s Institute of Renewable Natural Resources, Environmental Defense Fund, NC Department of Agriculture and Consumer Services, NC Farm Bureau Federation, and the NC Association of Soil and Water Conservation Districts. This document will serve as a summary for the project goals and the proposed process to achieve the goals.

On a national scale, mitigation for impacts to the habitats of threatened or endangered species has focused on a single species approach with a strong emphasis on permanent habitat protection. The questions that have not been analyzed include: Is there a way to design a program that takes into account climate change and multiple species benefits? If such a program were developed what are the economic and wildlife lifecycle dynamics to be considered? What types of regulatory assurances would private landowners and industry need to before participating? What type of regulatory framework needs to be developed to support the legal aspects of such a program, including permitting? What organizations in North Carolina can serve as the program delivery points at the county and state level?

North Carolina has a long history of supporting conservation and restoration initiatives for the iconic longleaf pine ecosystem. Many diverse groups have come together through the years to promote the establishment of longleaf pine acreage to its former historic range within the state and across the region. In addition, North Carolina is considered the birth place of soil and water conservation, with the first local soil and water conservation district established in 1937 in Anson County. The same core partners that support this project are part of a larger partnership currently working together to support a market based conservation pilot program in eastern North Carolina focused on testing alternative preservation tools for military mission critical airspace not directly adjacent to the bases (Sentinel Landscapes; for more information on this project please visit <http://ncsoilwater.org/mbci/>). The partnership believes with the combined strengths of the coalition of entities that promote longleaf pine habitat, the strength of the conservation district movement in North Carolina, and experiences gained through the military pilot market based program, the state would be an ideal place to put the above questions to the test.



The project will focus on the development of a habitat exchange system framework for wildlife species mitigation at an ecosystem level. It will emphasize market-based conservation and Certainty Program models within the traditional range of the longleaf pine ecosystem in eastern North Carolina (see map). The integration of these approaches will present a substantial innovation in the delivery of wildlife habitat conservation on a landscape scale and provide a pilot

model approach that can be expanded and replicated regionally within the ecosystem and nationally to address other ecosystem needs. What is missing from the current wildlife mitigation models is the integrated ecosystem approach where habitat improvements for other species of concern and secondary ecological benefits are folded into a mitigation crediting system. The proposed voluntary incentive based approach also reflects the successful methods utilized by local soil and water conservation districts in delivering locally led conservation efforts. However, to date, conservation districts have not taken on an active role in the threatened and endangered species arena.

The project will focus on several key components in order to achieve an integrated market based, certainty program as a prototype for eastern North Carolina including the following;

1. Overarching Stakeholder Process – Identify and establish a stakeholder advisory board to be actively engaged for the entire process with specific emphasis on science, economics, and policy aspects as well as conservation district and private landowner involvement.
2. Longleaf Pine Ecosystem Conservation Credit Creation and Development – Identify and develop quantifiable metrics and the framework to craft marketable credits for the conservation of specific habitats and related ecosystem services.
3. Longleaf Pine Ecosystem Conservation Credit Supply – Assess the willingness of private landowners to provide a supply of conservation ecosystem credits and related ecosystem services under various types of incentives and levels of regulatory certainty.
4. Longleaf Pine Ecosystem Conservation Credit Demand – Identify the demand and end uses for conservation credits for longleaf pine and other open forest ecosystem habitat improvements. Organizations that anticipate the need to offset impacts to specific habitat and targeted species will be identified within the public and private sector.
5. Policy Development – Identify and catalogue existing federal, state, local and nongovernmental programs that provide incentives for the longleaf pine ecosystem. Determine any private landowner adoption hindrances related to the existing programs.
6. Program Delivery / Aggregators – Determine how delivery of ecosystem credits for a large number of small and dispersed privately held lands can be encouraged through an innovative delivery mechanisms, such as the aggregator framework that is currently used for carbon mitigation credit programs or wetlands banking. Local soil and water conservation districts will be evaluated as potential aggregators.
7. Third Party Tracking and Verification – Develop methods to track and verify credits in the program in order to ensure program compliance and success.

The focus of the project is to enhance discussions in North Carolina regarding the future promotion of the Longleaf Pine Ecosystem and the best delivery system for ecosystem services at the county level. This project is a scoping exercise, which does not yet intend to enroll landowners into a crediting system or offer mitigation impact credits to industry. At the end of the project the partners will have developed an innovative process for handling impacts to threatened and endangered species on a multiple species approach that has been vetted with the existing community that supports Longleaf Pine habitat preservation.

For more information about this project please contact the NC Foundation for Soil and Water Conservation at 919.510.4599 or ncfswc@gmail.com or visit <http://ncsoilwater.org> for project updates.



Other Project Partners: NC Department of Agriculture and Consumer Services and Environmental Defense Fund

This material is based upon work supported by the Natural Resources Conservation Service, U.S. Department of Agriculture, under number 69-3A75-13-229. Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the views of the U.S. Department of Agriculture.