

Gulf Forest Projects Template

Submit to Peter@usendowment.org no later than Thursday, December 12

Project Name: *(Concise and descriptive)*

Graham Creek Nature Preserve Demonstration Forest and Research Facility

Contact Person, Organization, and Email: Leslie Gahagan, City of Foley, lgahagan@cityoffoley.org

Project Location: *(as specific as possible)* Graham Creek Nature Preserve, 23460 Wolf Bay Drive, Foley, AL

Approximate Project Cost and Matching Funds: 5 year project at a total cost \$1,600,000 – Initial Cost \$935,000 – Match for Initial Year \$145,000

Start/End Date: Start 10/1/2014; End Date for 5 year objectives – 9/30/2019

Project Description: *(Specific actions to be undertaken)* Graham Creek Nature Preserve is a 500 acre City owned property that includes bottomland hardwoods, longleaf forests and pine savannas. The Preserve is immediately adjacent to Wolf Bay and is managed for education, passive recreation and conservation. Auburn University has collected data at the Preserve for numerous research projects related to forested wetlands, land use and water quality over the past five years. The Alabama Forestry Commission has partnered with the Preserve to perform prescribed burning operations since 2009. The US Fish and Wildlife Service has funded several years of invasive plant species removal within the Preserve.

The project will fulfill five goals. The first goal is to undertake a prescribed burn program. The program will include the promotion of a Fire Wise campaign for south Baldwin County, AL which will be advertised on websites and media outlets regarding the benefits of prescribed burning. The program will also include hosting workshops annually to include a prescribed burn manager certification. As part of this program, monitoring will be conducted pre and post burns in the Preserve to assess plant and animal population changes and documentation of water quality. The second goal is a program to control and eradicate invasive species within the Preserve. These nuisance species would include cogongrass, privet, Chinese tallow tree and Japanese climbing fern. The objective would include using various methods of control and eradication for each species for a five year period. Prescribed burning operations would be monitored as well for invasive species control. Documentation of success and failure rates for each method would be published. The third goal of the program is forest restoration. The objective would be to dedicate 10 acres of the Preserve as a longleaf pine nursery. The nursery could supply the Alabama Forestry Commission and local communities up to 25,000 bare root seedlings per year at no cost. The other objective would be to reforest 75 acres of the Preserve. This demonstration longleaf forest would be monitored for five years for survival rates of the seedlings. Management practices would be employed to demonstrate proper techniques to private landowners and forestry students. The fourth goal of the program would be assessment of water resources in forested areas. The objective would include monitoring water quality as a comparison in properly managed forests with riparian buffers and urbanized areas with low tree canopies and minimal riparian buffers. The program would also include an aquifer assessment for drinking water supplies in coastal Alabama, namely beachfront communities. The objective would be water well sources in or near

forested areas for these communities. Auburn University would lead the efforts of this objective as there has been related research conducted locally over the past five years. The final goal of the program would be a demonstration forest and training facility located at the Preserve. The facility would include an auditorium for classes and educational seminars, several offices for Preserve staff and a local nonprofit group, a small laboratory for Auburn University research students, a bunk area for the students and an interpretive display area. The facility would serve federal, state and local meetings and trainings.

Description of Need for Project: *(Research or other basis to demonstrate the need for project)* Forested lands, particularly longleaf and pine savannas, are quickly disappearing from the landscape of Baldwin County due to increased tourism and urbanization. The publicly owned lands allow for a unique area for restoration, research and training. There is a need for locally grown longleaf pine seedlings for restoration and reforestation efforts. Auburn University began monitoring the urbanization effects on coastal watersheds several years ago but much of their work was halted after a couple years due to lack of funding.

Connection to Gulf of Mexico: *(Ties to water quality/economics/wildlife/injured resource--provide a specific compelling case)* The project is situated immediately adjacent to Wolf Bay and about 6 miles from the white sandy beaches of the Gulf in a heavy tourism area that is quickly becoming urbanized. The urbanization effects on the watershed have been evident with increased invasive species, lack of prescribed burning and reduction of wildlife and pine savanna plant species populations. The Preserve is a large tract of publicly owned coastal lands that is unique to Baldwin County and provides optimum areas for research, conservation and training. Graham Creek, an estuarine stream, transects the Preserve and drains into Wolf Bay which is designated as an Outstanding Alabama Water by the AL Dept. Environmental Management.

Current Baseline and Projected Outcomes: *(What is the baseline condition against which improvement will be measured and what is the projected outcome?)* The baseline includes pristine forested areas and agriculturally altered forest areas. The projected outcomes would be conservation and management of the pristine areas and restoration and management of the altered areas to include a demonstration forest and training facility for use in coastal Alabama. The research would give a greater insight to proper forest management techniques in coastal areas and the benefits to water quality, wildlife and plant populations.

Sustainability: *(How will the outcomes be sustained after settlement funding has ended?)* The City would maintain the property following all settlement funding and continue the efforts of management of the forests, nursery area and training facilities.

Implementing Organization: *(Who will do the work?)* City of Foley and Auburn University

Project Partners: City of Foley, Auburn University, Alabama Forestry Commission, Wolf Bay Watershed Watch, Mobile Bay National Estuary Program