BACK TO FPL LIST

Activity: Money Bayou Wetlands Restoration (Implementation)
Unique Identifier: DOC_RESTORE_001_009_Cat1
Location: Florida, Gulf County
Type of Activity: Implementation
FPL Category: 1 – Funding Approved
Cost Estimate: $ 852,653
Responsible Council Member: Department of Commerce (DOC)/National Oceanic and Atmospheric Administration (NOAA)
Partnering Council Member(s): Florida Department of Environmental Protection (FDEP) **Originally submitted by:** The DOC as a component within the proposal "Connecting Coastal Waters: Restoring Coastal Wetland Hydrology"

Executive Summary: The Money Bayou Wetlands Restoration project is part of the Connecting Coastal Waters (CCW) initiative NOAA will lead with partners to restore the extent, functionality, and resiliency of Gulf Coast wetlands. NOAA will work with partners to implement this project to restore a natural hydrology to approximately 1,000 acres of wetlands on the St. Joseph Bay State Buffer Preserve in Florida. NOAA will also work with partners to monitor restoration outcomes and conduct outreach activities to share restoration practices and engage stakeholders.

PROJECT DESCRIPTION:

Specific Actions/Activities: The Connecting Coastal Waters initiative will restore and enhance ecosystem resilience, sustainability, and natural defenses by reestablishing natural hydrology and connectivity between freshwater and marine habitats in priority areas across the Gulf Coast. This project will implement restoration activities, conduct monitoring to assess restoration outcomes, and engage in outreach and educational activities with restoration practitioners and stakeholders. Restoration will include activities to restore natural sheet- flow and hydrologic connectivity of wetlands by filling over 1 mile of ditches; filling and grading over 3000' of elevated, unpaved roads; installing or repairing 15 to 23 low-water road crossings; and replacing 1 culvert with a low water crossing. Heavy equipment will be used to excavate segments of elevated road to restore natural grade; the excavated material will be used to fill in adjacent ditches when possible. Mechanical restoration to remove invasive and nuisance plant species, prescribed burning, and/or planting of native species may be conducted if any funds remain after primary hydrologic restoration actions are completed. A monitoring plan will be implemented before and after construction to support an adaptive management approach. The project-monitoring plan will include pre-construction monitoring to provide baseline information, during construction monitoring to ensure the project is being implemented as designed, and post-construction monitoring to evaluate whether the project meets success criteria. Outreach and educational activities will be conducted to share restoration practices and project results.

Task 1: Planning and Local Involvement: A project team will be assembled to provide technical input and expertise during the construction and monitoring of this project. Team members will provide a multi-disciplinary approach to evaluate monitoring data and recommend any corrective actions necessary to meet restoration goals.

Deliverable 1: Project team member's list, roles, and team description.

Task 2: Construction: NOAA will develop a contract statement of work, select a construction contractor, determine a schedule, and finalize construction plans. The construction task includes both the action of restoring the site and post-construction management including monitoring of the construction. Monitoring will occur before, during, and after construction to ensure work is progressing and completed as designed.

Deliverable 2.1: Construction Plan of Work and Bid Documents.

Deliverable 2.2: Final construction as-built drawings and construction completion report.

Task 3: Monitoring and Evaluation: This task will implement a monitoring and evaluation plan developed through the project planning phase. The data collected before and after project construction will document progress toward achieving restoration project goals and objectives and inform adaptive management decision-making. Three types of monitoring will be conducted: 1) pre-implementation monitoring—provides baseline information to compare with post implementation data to determine whether the restoration is having the desired effect; 2) implementation monitoring—ensures the project is being implemented as planned and identifies needed modifications; and 3) effectiveness monitoring—enables evaluation of whether a project has met its objectives.

Deliverable 3.1: Semi-annual Monitoring Reports and Data Sheets.

Deliverable 3.2: Final Monitoring and Evaluation Report.

Task 4: Outreach and Education: The project team will implement the Outreach and Education Plan developed through the project planning phase in cooperation with partners and existing community groups. Strategies may include site tours, presentations, interpretive outreach materials, videos, and other efforts to share project success. Activities conducted will be documented, including copies of materials produced, and compiled into a final report.

Deliverable 4.1: Outreach and Education Report.

Ecological Benefits/Outcomes and Metrics: The St. Joseph Bay State Buffer Preserve (Preserve) protects 5,019 acres in Gulf County. The St. Andrew Bay watershed, the Apalachicola River Basin, and the Money Bayou watershed all converge within the Preserve. The Money Bayou basin occupies over 1,800 acres, including hundreds of acres of emergent estuarine and freshwater marsh that grade into wet prairie interspersed with cypress strands and islands of pine flatwoods in a complex mosaic of habitats. By protecting the Money Bayou basin, the Preserve also helps to protect nearshore waters where Money Bayou flows into the Gulf of Mexico; these nearshore waters are designated as critical winter feeding and migration habitat for Gulf Sturgeon, a federally endangered species. Preserve lands are of special biological significance and were acquired to protect a full range of threatened coastal habitats and species. Three globally imperiled plant species and 18 other confirmed rare, endangered, or threatened plants species occur within the Preserve. Extensive hydrological disruption has occurred

on the Preserve since the early 1900s. Removing prior disturbances that have altered wetland community structure would promote natural water flow and restore historic wetland function by reconnecting natural drainage pathways within the watershed. This will improve the water quality of surface water flows and runoff discharge to surrounding waters. Restoring historic drainage patterns and hydrologic connectivity will conserve soil and decrease turbidity into these water bodies during significant rainfall. Enhancing wetland hydrology and function will restore a mix of natural ecological communities that have been impacted across the Preserve, including wet prairie, seepage slope, floodplain marsh, strand swamp, basin swamp, and dome swamp. In addition, this project will improve freshwater flows and reduce the amount of sediments transported to nearshore Gulf waters from the Money Bayou watershed, improving critical winter habitat for the Gulf Sturgeon.

Measures of Success: Specific metrics to evaluate the ecological benefits and outcomes will be established in the planning phase of this project. Potential measures of success include:

- **Construction Verification:** Construction was completed as designed.
- **Restoration extent:** Acres of wetlands with restored freshwater flows and/or hydroperiod.
- **Hydrology Parameters:** Water flow pattern.

Leveraging and Co-Funding:

- **Building on prior or other investments**: This project will build upon significant prior investments at the St. Joseph Bay Buffer Preserve made to protect and restore this important coastal area. The Preserve will provide staff expertise and basic equipment needs such as ATV/UTV vehicles during restoration. Preserve staff will also expand surface water level monitoring to include additional Money Bayou sites, and install photopoints at restoration locations. NOAA and FDEP will leverage existing Preserve partnerships with the Apalachicola Regional Stewardship Alliance, The Nature Conservancy, FDEP State Parks, Florida Forest Service, and Tyndall Air Force Base to maximize synergy with existing programs for prescribed burning and ground cover restoration and to involve stakeholders in many ways including providing volunteers to assist with post-restoration monitoring.

Duration of Activity: Approximately 3 years.

Life of Activity: By restoring coastal wetlands within the St. Joseph Bay State Buffer Preserve, this project will provide ecological benefits in perpetuity. Preserve staff are in place to continue the monitoring and outreach of these restoration activities and have the following on- going programs underway: prescribed burning, invasive species monitoring/mapping, groundwater monitoring, photopoint monitoring, and rare plant monitoring.

RESPONSE TO SCIENCE REVIEWS:

Comment: External science review of the Connecting Coastal Waters proposal, which included a total of eleven projects, resulted in all or mostly positive comments, but with a request for more information. Reviewers requested information related to outcomes of planning, engineering,

design, and permitting including, site-specific conditions, evaluation of uncertainties, risk and mitigation, measures of success, and data quality standards.

Response: This project would implement restoration activities based on detailed restoration plans, certified engineering and design, and approved permits completed by the project planning phase. The project's construction design, as well as the monitoring and evaluation plan, would incorporate necessary steps to mitigate for project uncertainties and risks that would be identified in greater detail through the permitting and environmental compliance process conducted under the planning phase (see additional information below). This project would also implement a detailed monitoring and evaluation plan developed under the planning phase that would collect data to evaluate project specific measures of success. Monitoring data collected for this project would undergo verification to ensure the quality, utility, and integrity of information collected.

ENVIRONMENTAL COMPLIANCE:

To comply with National Environmental Policy Act (NEPA), the Council is adopting the 2015 PEIS developed by NOAA's Restoration Center. This PEIS provides a programmatic-level environmental analysis to support NOAA's restoration activities throughout the coastal United States, including the Gulf of Mexico. The NOAA PEIS includes a programmatic-level analysis of restoration alternatives by activity type and the associated environmental consequences. In addition to providing a programmatic analysis, the PEIS can be used to cover site-specific actions, including funding awards, provided that the activity being proposed is within the range of alternatives and scope of potential environmental consequences and does not have significant adverse impacts. NOAA has determined and documented, in a NEPA Inclusion Analysis dated September 7, 2022, that the Money Bayou implementation activities for which Council funding is being sought meet these criteria and that no further NEPA review is needed. NOAA has also provided the Council documentation demonstrating compliance with the Endangered Species Act (ESA), National Historic Preservation Act and the Magnuson-Stevens Act.

The Florida Department of Environmental Protection (FDEP) has determined and documented in a letter dated October 8, 2021, that the project also meets the requirements for the General Permit (GP) to the Department and Water Management Districts for Environmental Restoration or Enhancement (Rule 62-330.485, Florida Administrative Code (F.A.C.). Any activities performed under this GP are subject to general and specific conditions required in Rule 62-330.405, F.A.C. FDEP has determined and documented in a letter dated February 16, 2022, that the project meets the requirements for a General Permit pursuant to Rule 62-331.225 F.A.C. (State 404 Program Review).

The Council has reviewed the applicable environmental compliance documentation. Based on this review, the Council has adopted the PEIS to support the approval of implementation funds for the Money Bayou project provided it is implemented in accordance with the terms and conditions of the issued FDEP 404 permit, the issued FDEP state GP, the informal ESA consultation with the USFWS, and the consultation with the Seminole Tribe of Florida – Tribal Historic Preservation Office (STOF-THPO).

The associated documentation can be found at https://www.restorethegulf.gov/funded-priorities-list. See: Money Bayou Wetlands Restoration (Implementation).