



AMERICA'S WETLAND RESTORATION EXCHANGE

Adaptation For Gulf Coast Resiliency & Sustainability Program

DEMONSTRATION PROJECT

CONCEPT

The America's WETLAND Restoration Exchange (AWRE) is an environmental sustainability fund in which private donors may contribute to finance restoration projects consistent with Louisiana coastal master plan and that meet private or public sustainability and/or business objectives. The America's WETLAND Foundation is establishing the fund in response to the need to restore critical coastal ecosystems that may be lost due to low priority status for funding in the state's master plan. These are often valuable estuaries that provide habitat for wildlife and marine species and, in many cases, offer buffer protection for critical infrastructure vulnerable to storm events and rising tides. The AWRE provides a way for companies and organizations to invest in projects designed to sustain environmental assets. These investments may meet company sustainability missions and benchmarks to address coastal and climate challenges, including sea level rise, that puts at greater risk highly productive coastal, marine & wildlife, infrastructure, community and energy assets.

HOW DOES IT WORK?

AWRE is created as a discrete fund of the America's WETLAND Foundation (AWF) and advisors to the fund will include: Ducks Unlimited, Louisiana Mid-Continent Oil & Gas Association, America's Energy Coast Industry Council and the state of Louisiana.

Prior to the funding of the operation and granting schedule, the Foundation will conduct a program that includes a list of eligible restoration projects. Solicitations for fund development sponsors will be made following research to determine funding targets and goals. The following steps are envisioned for AWSE implementation:

- Establish the exchange and its advisory committee, with legalities put in place to enable AWF to offer 501(c)(3) tax exemptions to sponsors
- Secure initial grant monies that provide financing for development of the fund and O&M costs for AWF, including:
 - \$50,000 planning grants to each Louisiana coastal parish to prioritize restoration projects that will form the initial inventory of potentially funded projects,
 - Support for legal assistance to parishes for prioritization efforts and legal liabilities,
 - Engineering and execution of demonstration project(s).

The demonstration project will illustrate the following:

- More efficient restoration timelines at lower costs
- Application of innovative solutions that can be adapted for future projects
- Cost/benefit for investment in such projects that enable carbon sequestration, possible incentives for land owners, and scaled up mitigation
- Utilization of private resources, including conservation NGOs, for project development and implementation, with assessment of time and cost benefits of privately funded project completions
- Advancement of ecosystem valuing monetization standards to help in quantifying the value of such programs
- Benefits to the environment of the use in projects of recycled materials and green innovations
- Operating AWRE established through private/public contributions. (Public contributions may be invested in the form of options for private implementation of public projects.)
- Process of Advisory Committee and AWF to match up donors with restoration projects, including resources for implementation of solutions.
- An annual schedule of performance by the Exchange with attendant public awareness to build shared success in progress.
- Development of policy to establish an American Energy Coastal Trust Fund for restoration and coastal sustainability, including a formula for funds development and disbursement to be established by appropriate federal/state agencies, along with potential provisions for Land and Water Conservation Fund support for all American states.

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The purpose of the AWRE is to serve as a means to develop and fund projects consistent with Louisiana's Coastal Protection and Restoration Master Plan but not prioritized for early funding in estuarine areas that may be lost as coastal degradation advances beyond the capacity of a state to take on such projects. The program will not take the place of state or federal obligations prioritized by the master plan.

Demonstration projects are envisioned to prove the viability of such restoration approaches and will serve to demonstrate:

- Reconstructing living boundaries of the Gulf Intracoastal Waterway to maintain the commercial viability of the asset and to shore up eroded areas that allow saltwater creep into valuable habitat, agriculture and freshwater wetlands
- Low tech solutions including transport of dredge spoils matched with high tech solutions, such as use of recycled bi-products to hold and settle native grasses for reestablishing land
- Beneficial use of dredge materials as carbon sequestration, with credits supporting greater use of dredge materials for restoration
- Artificial oyster reef development and placement to benefit freshwater assets and provide essential buffers from storm surge and tidal action.

AWRE Demonstration – Shoring up the GIWW

In Southeast Louisiana's Lafourche Parish near the town of Larose, due to water surge destroying an embankment along the Gulf Intracoastal Waterway (GIWW), erosion is advancing on the opposite side of the channel, creating a widening of the waterway and loss of native habitat. This occurrence is common in many areas of the GIWW and threatens the viability of the largest navigation asset in the Gulf region, second only to the Mississippi River, and jeopardizes thousands of acres of land and wetlands that border the waterway. Many critical species of marine and wildlife find habitat along the 350-mile canal and are vulnerable as the shorelines erode and saltwater advances inland.

In nearby Terrebonne Parish, deterioration of fresh and intermediate marshes has been attributed to sustained elevated saltwater levels. In addition, floating marshes in some areas have become directly exposed to increased circulation through channel bank deterioration. Conversely, losses in the central Terrebonne Parish marshes have been attributed to the elimination of riverine inflow, coupled with subsidence and altered hydrology from canal dredging that has facilitated saltwater intrusion. Increased flow of the GIWW and wave pulses from navigation traffic are causing additional breakup and loss of floating marshes in unprotected areas. *(2001 CPRA/NRCS)

The GIWW is the lifeline for industries in Louisiana, with both small and large craft using the route to reach channels into the Gulf of Mexico. It is at the Port of New Orleans where the GIWW has its major connection with the interior of the U.S. All along the waterway, a variety of local industries and interests are served by the GIWW, including fishing, oil and gas, commodities, recreation and wildlife conservation. As embankments along the route become compromised, the threat to private landowners, aquatic and wildlife species, communities and commerce grows, creating urgency for cost-and-time-efficient solutions.

Solid embankments play a large role in fortifying wetland areas for habitat and commerce along the GIWW. A demonstration project in this region applying new technology of vegetated recycled plastic materials and utilizing methods of carbon sequestration to form new land mass will establish proof of concept for future private and public land owner restoration. *(U.S.A.C.E.)

Nature of the Project

Organizing a core working group of parties with vital interests in demonstration outcomes, AWF and its America's Energy Coast Industry Council will work with Ducks Unlimited (National NGO), Restore or Retreat (Local NGO), the state of Louisiana, the U.S. Army Corps of Engineers, Martin Ecosystems, Louisiana Mid Continent Oil and Gas Association, and private land owners to develop the project, addressing a two-to-four-mile stretch of north embankment shoreline of the GIWW north of Larose. Both traditional and innovative technology will be utilized in the form of low cost bucket dredges and vegetated recycled PET plastic matrix material to fortify the embankment and advance vegetative growth. The project will also demonstrate the cost and time effectiveness of this approach, working with the U.S.A.C.E. and private land owners to establish parameters for utilization of private sector investment in shoring up GIWW embankments, thus stemming current and ongoing erosion. The project will further demonstrate the ecosystem values of the natural environment and habitat, solutions for uninterrupted flow of commerce through navigation routes, sustainability of wetland and land resources and sequestration of carbon through beneficial use of dredge material.