PHOTO CREDIT: NWF

THE NATIONAL WILDLIFE FEDERATION'S RECOMMENDED PROJECTS

San Antonio & Matagorda Bays

THE NAME "MATAGORDA," which loosely translates to "dense cane," reflects the abundant marsh grasses that the Spanish explorers found lining the bay's shores. Today, wetlands are still the dominant feature of the Matagorda and San Antonio bay systems and these wetlands are critical for shrimp, blue crab and many species of fish.

The area is also the winter home of the last wild flock of the critically endangered whooping crane. As the crane's population increases, it is expanding into new territories. Deepwater Horizon funds have already been used to purchase Powderhorn Ranch which protects more than 17,000 acres of marshes, grasslands, and woodlands. This historic investment can be supported by projects to protect freshwater inflows, protect shorelines and restore important nesting and nursery habits. The Colorado, Guadalupe, and San Antonio Rivers provide the largest amounts of freshwater inflows to the Matagorda and San Antonio systems. However, multiple large dams, increasing water use upstream, and extended periods of drought have all reduced the amount of fresh water that reaches the coast, impacting the system's overall health. Options for restoring flows from the major rivers are somewhat limited; protecting existing inflows from smaller tributaries offers more immediate potential.

SAN ANTONIO/MATAGORDA BAY
Recommended Projects

OYSTER REEFS & SHORELINES

Aransas National Wildlife Refuge Erosion Protection

Significant erosion of emergent marsh and upland habitats has taken place along the shorelines of the Aransas National Wildlife Refuge (ANWR). This marsh habitat serves as the winter feeding grounds for the highly endangered whooping crane. A total of 15 miles of shoreline have been identified as needing erosion control measures in total. This project would fund engineering, design and construction costs necessary for the full suite of shoreline protection actions needed in St. Charles Bay, including 2.5 miles of shoreline protection and 90 acres of coastal marsh restoration. Restoration actions will include re-contouring the surface to establish a more natural flow pattern and planting with native vegetation. This project complements similar work being done on the Blackjack Peninsula at ANWR funded through Hurricane Harvey recovery funds.

PROJECT COST: $2,100,000
LEAD ORGANIZATION: US Fish & Wildlife Service
PARTNERS: ANWR, CBBEP, SABP

Additional Benefits:

+ Potential population benefiting: 5,300
+ Potential carbon storage: 78 tons CO2
+ Critical facilities in vicinity: 17

HYDROLOGIC RESTORATION

Matagorda Bay Tributary Inflow Protection

Freshwater inflows to the Matagorda Bay system are continuing to decline dramatically from historical levels as more and more water is impounded and withdrawn for use upstream of the coast. Purchasing as much as 10,000 acre-feet a year of existing water rights on tributary streams to Tres Palacios Bay would improve conditions for oysters and near-shore aquatic species within the estuarine portion of the Tres Palacios River and would enhance approximately 840 acres of wetland habitat adjacent to that section of the river. The project will also benefit the ecological health of the entire Matagorda Bay estuary system by protecting these types of habitats—and the species that rely on them—during times of drought when other inflows to the system are significantly reduced.

PROJECT COST: $15,000,000
LEAD ORGANIZATION: The Nature Conservancy
PARTNERS: National Wildlife Federation, Ducks Unlimited, Meadows Center for Water and the Environment, Harte Research Institute, NFWF

Additional Benefits:

+ Supports an estimated $2.4 million in annual oyster harvests
+ Acres supporting recreational and commercial fishing: 200
+ Potential carbon storage: 731 tons CO2

OYSTER REEFS & SHORELINES

Mad Island Shoreline Protection and Ecosystem Restoration

The Mad Island Marsh Preserve has experienced high erosion rates of 5 to 10 feet per year since the construction of the Gulf Coast Intracoastal Waterway. The goal of the project is to install 2.3 miles of a nearshore breakwater to reduce persistent erosion at the Mad Island Marsh Preserve. Slowing shoreline loss is critical in maintaining the salinity gradient in this estuarine system and protecting marsh integrity within the Mad Island Wildlife Management Area, in order to benefit nursery habitat for many species. This project supports part of an larger ongoing effort to protect over 6,000 acres of coastal prairie and marsh habitat at Mad Island Marsh Preserve.

PROJECT COST: $7,400,000
LEAD ORGANIZATION: The Nature Conservancy
PARTNERS: TPWD, Texas Sea Grant

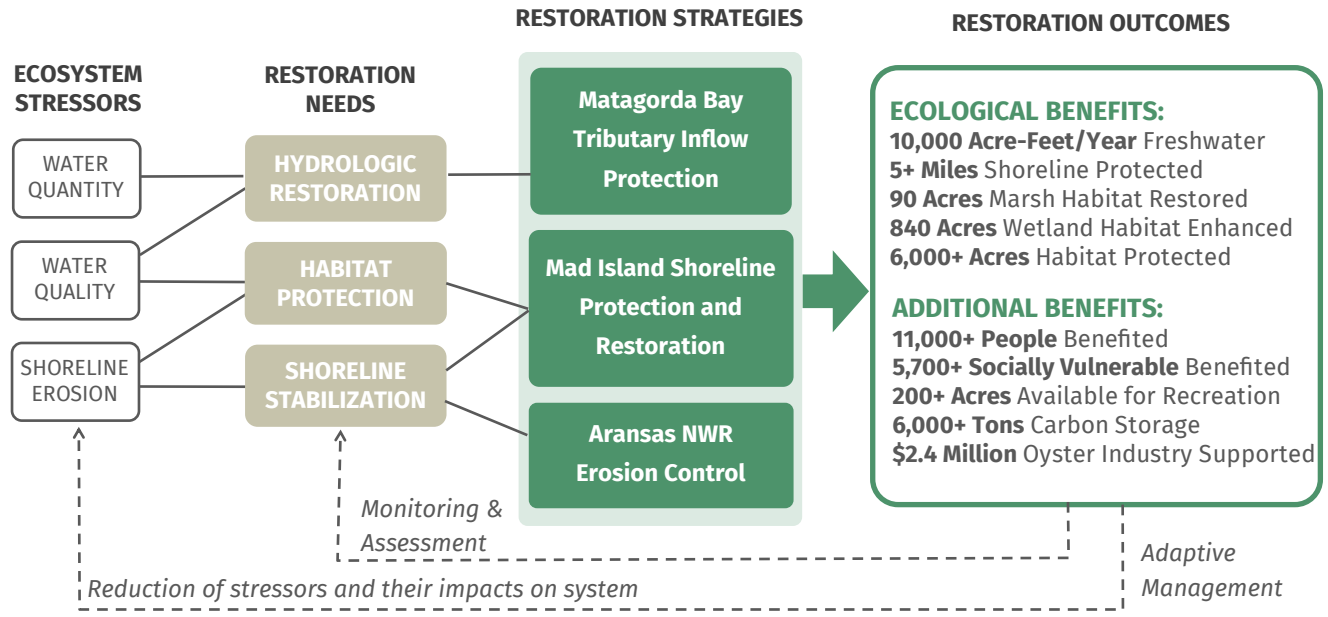
Additional Benefits:

+ Socially Vulnerable Population Benefiting: 5,700
+ Potential carbon storage: 5,220 tons CO2
+ Critical facilities in vicinity: 1

PHOTOS: ISTOCK, CHRIS KUHLMAN/RAE, TPWD, KAILA DRAYTON/NWF

Our Approach to Project Evaluation

The National Wildlife Federation's Gulf of Mexico Restoration Program developed a science-based and systematic approach to evaluate estuarine restoration needs. This approach assesses critical stressors, identifies focal areas, determines restoration needs, and establishes restoration targets to make recommendations. The diagram below illustrates the application of this process for the San Antonio/ Matagorda Bay estuary complex and demonstrates the benefits that the suite of restoration projects could collectively achieve.



Ryan Fikes, STAFF SCIENTIST
GULF RESTORATION PROGRAM
FikesR@nwf.org | (361) 792-4334

Amanda Fuller, DEPUTY DIRECTOR
GULF RESTORATION PROGRAM
FullerA@nwf.org | (512) 610-7773