Photo: Sam St. John

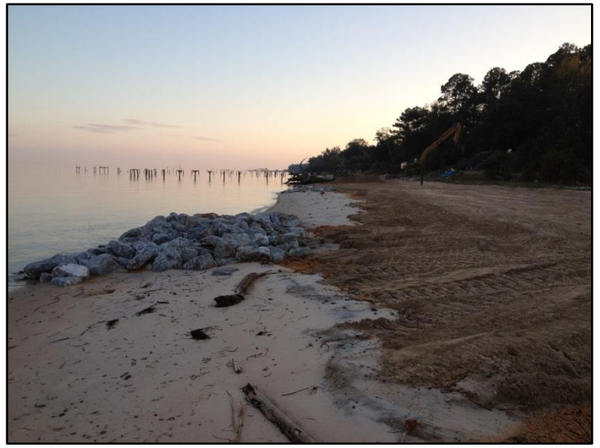
After three years of community education and planning, the Mobile Bay National Estuary Program is pleased to announce that the Mon Louis Island Shoreline Stabilization/Habitat Creation project has been completed.

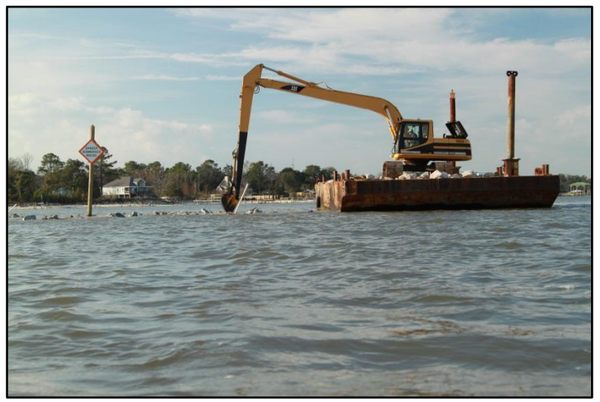
The Shoreline

The shoreline is stabilized by four rock headland breakwaters along with an existing fallen oak tree. The State approved placement of clean sand fill behind these structures in sufficient volume to provide a balance to the longshore sand transport system. Over time, a stable equilibrium will result in **five headlands with intermittent, crescent-shaped pocket beaches** along the properties owned by Lynn and Frank Foley, Joyce Summerlin-Wolfe, Leo and Maureen Hickman, Claude Doublet, Ron and Linda Lowe, and Greg and Dottie Lawley. Two submerged, marked reef structures were placed at distances of 600 and 900 feet from the shoreline, primarily to provide habitat for oysters, fish, and other shellfish. The project provides a template for habitat-friendly shoreline stabilization along non-vegetated, high-energy Bay shorelines. To date, it has withstood challenging winter/spring weather events in a predictable manner, with only debris delivered after northern rain events compromising aesthetics. Monitoring is being undertaken by Ashley McDonald of the Dauphin Island Sea Lab.

The Property Owners

Because this was a demonstration project undertaken with public funds, property owners agreed to fix ambulatory borders at the existing mean high water line, with any created uplands remaining State lands. Owners retained all riparian rights, including the ability to install piers or wharves across installed upland areas, but agreed to abstain from any armoring on a "beach zone" running sixty feet landward of installed breakwaters for a period of at least three years from conclusion of construction activities.





Photos, clockwise from top left: Pre-construction shoreline, 11.26.12 (Tom Herder); headland breakwater construction, 11.30.12 (Bette Kuhlman); reef construction, 01.24.13 (Christian Miller); and post-construction panorama, 01.15.13 (Bette Kuhlman).

The Cost of the Project

The final cost of the project was $159,757. The shoreline stabilization portion of the project was $88,725, including engineering and staging, purchase, and installation of clean sand and class III riprap, reflecting a unit cost of about $133/linear foot. This cost compares very favorably with installation of bulkheads (with unit cost for wooden bulkheads at about $175/linear foot and vinyl and concrete much costlier). Further, bulkheads degrade intertidal habitats and intensify erosion problems along neighboring properties. Appropriately designed and engineered living shorelines promote intertidal habitat and do not affect neighboring properties adversely.

Funded by the Gulf of Mexico Foundation, U. S. Fish & Wildlife Service Coastal Programs, and MBNEP, this project was designed by South Coast Engineers of Fairhope in collaboration with property owners. It was constructed by J & W Marine Enterprises of Bayou La Batre. Clean sand was donated by the Alabama State Port Authority, and the Alabama Department of Transportation provided riprap used to construct submerged reef structures and breakwaters.

Future Regulatory Changes

Currently, regulation 220-4-09 *Placement and Configuration of Piers and Other Improvements on State Submerged Land* only permits placement of fill on State water bottoms in reclamation activities. This project was undertaken to demonstrate to the State the value of promoting living shorelines as alternatives to shoreline armoring and the necessity of allowing the use of fill in undertaking such activity to ensure no negative impacts to neighboring properties. With this project now complete, MBNEP will continue to work with the State of Alabama to make this regulatory change permanent.

In its final draft, a ***Coastal Alabama Living Shorelines Policies, Rules, and Model Ordinance Manual*** has been prepared to assist the State with developing a case for this regulatory revision and educate municipalities and county governments about how living shorelines can be promoted at the local scale. In addition, MBNEP is working with the State to develop a homeowner's manual for building living shorelines. These two documents will provide the supporting documentation necessary to move forward with permanent regulatory changes to allow for the expansion of living shorelines in coastal Alabama.

MBNEP is committed to pursuing additional opportunities to create living shorelines that expand fishery habitats and work in concert with the surrounding environment as recommended in the actions of the soon to be adopted Comprehensive Conservation Management Plan for 2013-2018. We look forward to working with waterfront property owners along Mon Louis Island to promote the wise stewardship of our coastal resources.

Sincerely,

Roberta Arena Swann, Director

The Mon Louis Island Report #6

Prepared by the Mobile Bay National Estuary Program
May 28, 2013

Photo: Sam St. John

You are invited!

Fish Fry/Community Meeting
Thursday, June 13, 2013

Greg & Dottie Lawley's Residence
11951 Old Shipyard Road
5:30 till 8:30 p.m.

Donations of fish and desserts are welcome!

Dr. Scott Douglass and Dr. Bret Webb, USA coastal engineers who provided guidance and design services for the project, will be in attendance to eat seafood, answer questions, and discuss ideas.

Please RSVP at 251-431-6409 or flfoley@crimson.ua.edu