LIVING SHORELINES

Fowl River Private Shorelines

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Over 80% of Alabama's shoreline is privately owned and a large proportion is armored with bulkheads, which are known to degrade near shore habitats. Starting in 2014, The Nature Conservancy in Alabama began working with two private landowners to develop and implement a living shoreline technique to retrofit existing bulkheads with gabion baskets to help restore near shore marsh habitat and return the ecosystem services lost when bulkheads are installed.

FOWL RIVER FACTS

CONSTRUCTED IN **2014**

240 FEET OF SHORELINE PROTECTED

550 LINEAR FEET OF HESCO© BASKETS

300 CUBIC YDS BENEFICIAL DREDGE SEDIMENT

.4 ACRES OF MARSH RESTORED

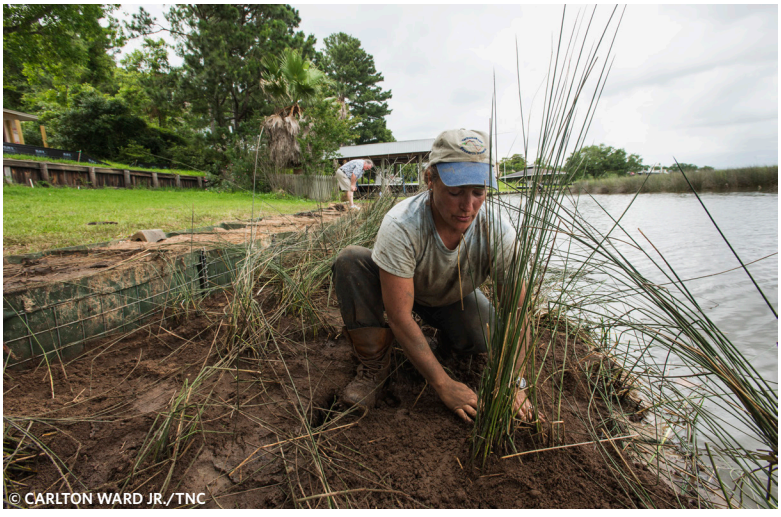
1 VOLUNTEER

8 VOLUNTEER HOURS

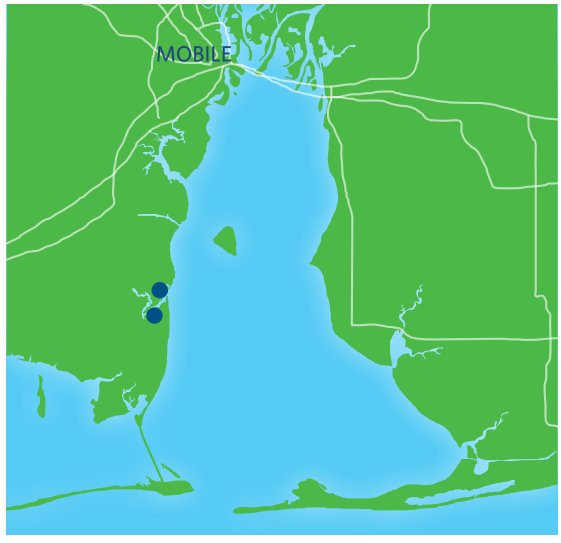
550 PLANTS PLANTED

THE NATURE CONSERVANCY IN ALABAMA
118 North Royal Street, Suite 500 | Mobile, AL 36602 | nature.org/alabama

The Nature Conservancy



Planting juncus grass as part of a restabilization on the Fowl River shoreline.



LOCATION Mobile County, AL

PARTNERS Dauphin Island Sea Lab, HESCO

FUNDER Private: $125,000

100% PRIVATE

In 2014, The Nature Conservancy used private funds to implement a living shoreline for a private landowner on Fowl River. The project protected 40 feet of shoreline using gabion baskets attached to an existing, but failing, bulkhead. The bulkhead is left in place to save the cost of removal and reduce property loss following its demolition. The gabion baskets were used to construct a tiered structure that mimics the slope of a natural shoreline and retain sediment that can be planted with native marsh plants. Monitoring at the site showed healthy plant growth and within eighteen months the restored shoreline had 100% plant coverage.

Building on the success of the first project, in 2017, The Nature Conservancy worked with a second landowner on Fowl River to retrofit an 85-foot long bulkhead with a tiered gabion basket structure and protect an additional 115 feet of shoreline and marsh habitat with nearshore breakwaters. In addition, this project incorporated beneficial dredge sediments from a neighboring canal to fill the gabion baskets and fringing marsh habitat. Native marsh grasses were planted and their growth continues to be monitored. Beneficial use of dredge sediments provided a significant cost savings to the dredging and the construction of the living shoreline.

These projects serve as demonstration sites and provide real-world examples of nature-based shoreline protection to interested stakeholders, like land owners, regulatory agencies, and local municipalities.

The Future of Fowl River Private Shorelines

On-going monitoring at these sites will continue to measure plant growth. The living shorelines will continue to be used as demonstration projects to inform stakeholders about the possibility of private living shorelines for landowners with bulkheads.

NEXT STEPS

- Oyster Castle™ construction in front of bagged shell reefs
- Pursue funding for second tier of reefs