



A living shoreline was installed at Sassafras Landing to reduce erosion and restore habitat.

## Living Shoreline at Sassafras Landing in the Assawoman Wildlife Area

Project Status:  
Completed in July 2019

### Project Summary

#### Background

Sassafras Landing in the Assawoman Wildlife Management Area is located on Miller Creek, a tributary of Little Assawoman Bay, and is adjacent to 35-Acre Pond, a freshwater impoundment managed for waterfowl habitat. The berm that separates the two water bodies was eroding and in danger of failure, and sea level rise threatened the tidal wetlands along the shoreline.

#### Project Description

The living shoreline design included a low rock sill to dampen wave energy, sand fill, and shoreline profile grading to promote establishment of marsh vegetation. Delaware Department of Environmental Control (DNREC) Division of Fish and Wildlife staff constructed the project. Over 5,000 plugs of marsh grasses were planted by volunteers in July 2019. An interpretive sign explaining the benefits of the living shoreline was installed at the site the following spring.

#### Objective

The project stabilizes the shoreline, provides long-term protection for the freshwater impoundment, restores and enhances tidal wetlands, and provides important habitat for fish and shellfish, Diamondback terrapins, and water birds. It will also help improve water quality in Miller Creek by removing excess nutrients from the water. This project serves as a living shoreline demonstration site for the Inland Bays, as well.

#### Project Timeline

The design was developed in 2018 and construction completed in summer 2019.

#### Project Contact:

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#### Project Partners:

- DNREC Division of Fish and Wildlife, Shoreline and Waterways Management, and Wetlands Monitoring and Assessment

#### Funding & Partners:

Design/construction cost: \$82,000

#### Funding Partners:

- DNREC 319 Nonpoint Source Program grant
- DNREC Division of Fish and Wildlife
- U.S. Environmental Protection Agency

#### Contractors:

- Cardno, Inc. – Design
- DNREC Division of Fish and Wildlife – Construction





Volunteers helped install more than 5,000 plants at the SassafRAS Landing living shoreline site.

### Project Highlights

- Cardno Inc. and DNREC's Shoreline and Waterway Management Section collaborated on the living shoreline design. DNREC's Wetlands Monitoring and Assessment Program contributed site survey services.
- 375 linear feet of shoreline protected
- 13,068 square feet of tidal wetlands restored and/or enhanced
- Estimated nutrient load reductions of 61.5 pounds of nitrogen and 2.7 pounds phosphorus annually
- 234 tons of stone and 950 tons of sand installed
- 5,190 plants installed by 19 volunteers

### Outcomes/Conclusions

This project has increased the availability of wildlife habitat for shorebirds, fish, and aquatic invertebrates in this area, while also increasing the number of shorelines that are managed with living shoreline techniques. The project also protected 35 acres of an important freshwater impoundment.

This project supports the Center's living shoreline initiative efforts to increase awareness and acceptance of living shorelines among waterfront property owners.

### CCMP Focus Area

This project fulfills objectives outlined in the Comprehensive Conservation Management Plan (CCMP) for the Delaware Inland Bays:

- Focus Area: Managing Living Resources and their Habitat
- Objective: Halt the continued loss of wetlands and reverse these loss trends by promoting projects to mitigate for previously lost wetlands.
- Action: Develop a living shoreline initiative that includes demonstration sites and innovative techniques and the use of native plants



The living shoreline at SassafRAS Landing after only one year of growth.



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The Delaware Center for the Inland Bays is a nonprofit organization established in 1994 to promote the wise use and enhancement of the Inland Bays and its watershed. With its many partners, the Center conducts public outreach and education, develops and implements restoration projects, encourages scientific inquiry and sponsors research. To learn how you can get on board with the bays, please visit [www.inlandbays.org](http://www.inlandbays.org) and follow us on Facebook @deinlandbays!