



*The Anchorage Canal pond immediately after construction.*

## Project Summary

### Background

Extremely poor water quality in canals within the 125-acre Anchorage Canal drainage basin has led to algal blooms and fish kills, caused in part by untreated runoff carrying pollutants to these waterways. This stormwater pond and wetland is the sixth, and last, major project to be implemented in the Anchorage Canal Drainage Area Stormwater Retrofit Initiative, which is a collaborative effort among the Center, DelDOT, Bethany Beach, Sea Colony, South Bethany, and Middlesex Beach communities. The Initiative has demonstrated a variety of coastal stormwater retrofits with a focus on low-cost solutions and native coastal vegetation. DelDOT managed the design and construction while the Center coordinated the grant proposal for the project and provided partner coordination and outreach.

### Project Description

A stormwater treatment facility was constructed in the state-owned right-of-way between Coastal Highway and the Sea Colony high-rise complex. It includes wet pond and wetland components designed to remove excess nutrients, bacteria, and other pollutants from stormwater runoff from a roughly 40-acre urban drainage area. Soils were amended with biochar (a special type of charcoal) to enhance pollutant removal. Safety improvements for pedestrians and bicyclists also were included in the project. The South Pennsylvania Avenue slip ramp off of Coastal Highway was closed, and a new right-hand turn lane was created at the existing intersection. The former slip ramp is now a bike and walking path. Landscaping with native vegetation provides food and habitat for pollinators.

### Objective

The project improved safety for pedestrians and cyclists, beautified the area with landscaping and native plants, and will reduce the pollutant loads to the Anchorage Canal and Little Assawoman Bay by an estimated 95 pounds of nitrogen and 21 pounds of phosphorus per year.

# Anchorage Canal Drainage Area Stormwater Pond and Wetland

Project Status:  
Completed in July 2020

### Project Contact:

Dr. Marianne Walch, Science & Restoration Coordinator  
[science@inlandbays.org](mailto:science@inlandbays.org)

### Project Partners:

- Sea Colony Recreational Association
- Delaware Department of Transportation (DelDOT)

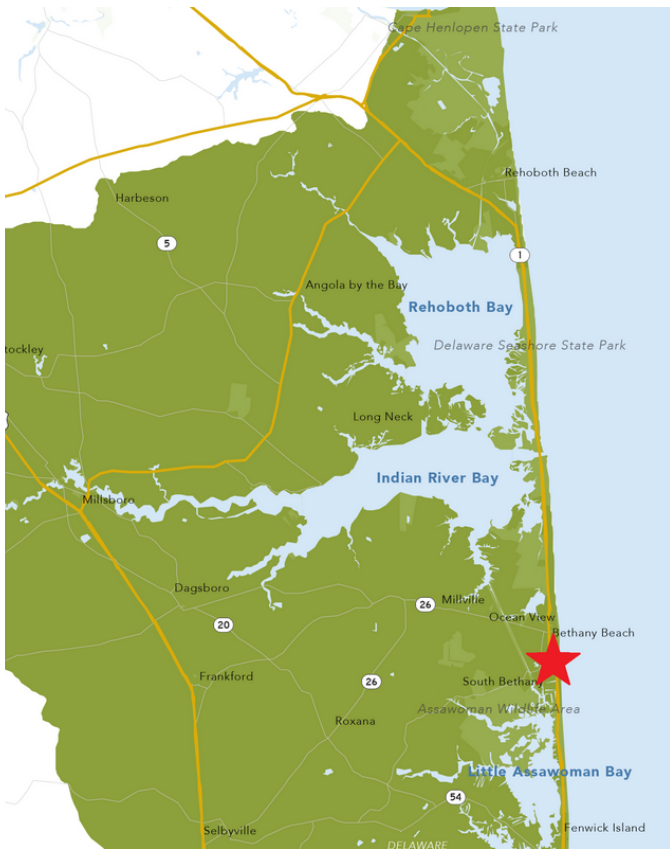
### Funding:

- Federal Highway Administration's Transportation Alternatives Program
- Sea Colony Recreational Association
- U.S. Environmental Protection Agency

### Contractor(s):

- RK&K – Design
- A-Del Construction Company, Inc.





The project site is located just south of Bethany Beach.

### Project Highlights

Biochar is a charcoal-like substance that's made by burning waste organic materials such as crop residues and animal manure. University of Delaware research shows that, when added to soils in stormwater treatment practices, 50-80% more water is retained, and nitrogen removal is greatly enhanced. Twenty-three tons of biochar were mixed into the pond's soil to enhance nitrogen removal. The project also removed 0.18 acres of impervious surface.

### Project Timeline

Project planning began in July 2016, with the design completed in early 2019. Construction occurred in spring/summer 2020, and native plants were installed in spring 2021.

**"It's been a pleasure to work with the Center for Inland Bays, their consultants, the local beach Community, and DeIDOT in developing this important project. It serves two key objectives by improving pedestrian and cyclist safety and removing pollutants from runoff that goes into Anchorage Canal."**

*-Sea Colony Recreation Association*

### CCMP Focus Area

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

- Focus Area: Water Quality Management
- Objective: Reduce nutrient input to residential canals and lagoons
- Action: Filter runoff from roofs, driveways, and other impervious surfaces



Biochar, the darker material shown in the photo above, was incorporated into the pond and wetland soil.



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39375 Inlet Rd  
 Rehoboth Beach, DE 19971  
 (302) 226-8105

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!