



Evaluating restoration opportunities along one section of the stream channel prior to the start of the project.

A few miles south of Georgetown, hidden in the forest of the state-run Stockley Center, is Cow Bridge Branch, one of the Inland Bays' most pristine tributaries. It flows into Millsboro Pond and then to the Indian River.

Background

To help protect water quality in Cow Bridge Branch, the Center for the Inland Bays recently completed a project to enhance the stream channel along part of an unnamed, degraded tributary that runs through the Stockley Center and into Cow Bridge Branch.

The stream channel is an intermittent stream which flows during the winter and spring and during periods of heavy rainfall. Prior to the start of the project, the area had been mowed during dry periods and was almost entirely comprised of turf grass which was ineffective at slowing down and filtering storm-water that entered the channel.



Prior to construction, stakes were placed to identify the centerline of the stream channel.

Project Objective

To restore the channel, 5,000 native plants including trees, grasses, shrubs, and wildflowers, were planted to create a buffer along the channel banks to slow and filter runoff before it entered the stream. A large rain garden was created to capture and filter water during periods of high rainfall, and some minor grading was done along the edge of the stream channel to increase the stream's floodplain area.

Stockley Center Stream Channel Enhancement Project

Improving water quality in the Inland Bays begins upstream

Project Completed 2014

Project Contact

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Partners

- Design and technical assistance was provided by the Department of Natural Resources and Environmental Control's (DNREC) Division of Watershed Stewardship and the Wetland and Subaqueous Lands Section
- Ducks Unlimited
- Wesley College Environmental Studies Program
- U.S. Department of Agriculture Natural Resources Conservation Service
- Contractors included the Sussex Conservation District and Sussex Landscaping

Budget and Funding Partners

The total cost of the project was approximately \$42,000. This included grading and excavation, stabilization materials, labor, and plants. Funding was provided by DNREC's Community Water Quality Improvement Grant Program and a US Environmental Protection Agency Grant.

INTERESTING FACTS

The property also encompasses the Doe Bridge Nature Preserve, one of the most biologically unique areas in the State of Delaware. The Stockley Collaborative is working to expand the uses of the 750 acres of state-owned land to benefit the health and wellness of citizens of the state.

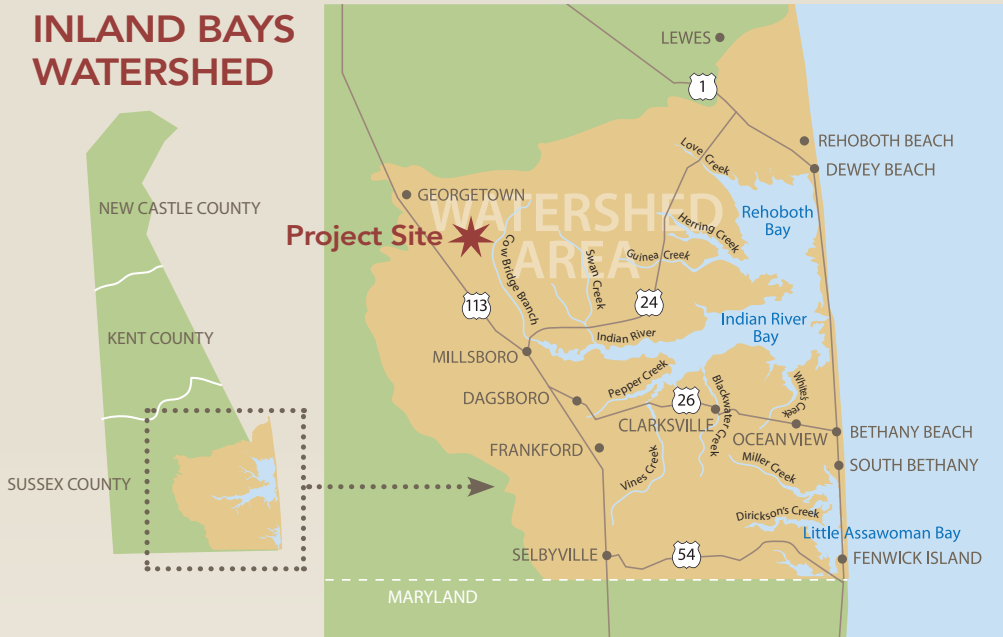
The Stockley Center includes a 50-bed skilled nursing facility operated by the Department of Health and Social Services, and residences for Delawareans with developmental disabilities.



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INLAND BAYS WATERSHED



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

CCMP Action Plan Objective

Manage and plant forested/vegetative buffers

CCMP Action Plan Objective

Protect, restore, and enhance living resources by improving water quality and protecting and enhancing habitat

Intended Results

- Improve water quality in a head water stream
- Increase habitat for wildlife and aquatic species

Why does this matter?

This restoration project is designed to improve water quality in a stream channel that empties into Cow Bridge Branch—a creek that flows into Millsboro Pond, then into Indian River, then into Indian River Bay. Because much of the land along each side of Cow Bridge Branch is state-owned and protected with extensive natural buffers of native vegetation on both sides, Cow Bridge Branch has much better water quality than most tributaries of the Inland Bays creeks.

This restoration project addresses erosion and runoff problems in a stream channel that flows through the Stockley Center property so that we can further protect one of the most pristine areas of the Inland Bays watershed. Natural buffers of vegetation along the shorelines of waterways are an important defense in protecting and improving water quality in the Inland Bays.



Cow Bridge Branch

Outputs and Outcomes

- Approximately 900 feet of stream channel was re-stored
- Two acres of riparian/vegetative buffer restored
- 62 lbs. of nitrogen and 2 lbs of phosphorus will be removed per year as a result of the restoration



CIB Volunteers assisted in the planting of native plants along the banks of the stream channel.



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The Delaware Center for the Inland Bays is a non-profit organization established in 1994 to promote the wise use and enhancement of the Inland Bays and its watershed. With its many partners, the CIB 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 go to inlandbays.org.