



Hopkins Dairy Farm Stream Enhancement Project

A project to improve water quality in Love Creek by restricting cattle access to one of its headwater streams.

In 2011, we partnered with the Hopkins Dairy Farm (Green Acres Farm, Inc.) in Lewes on a project to improve water quality in Love Creek by restricting cattle access to one of its headwater streams. The Hopkins family operates the largest dairy farm in Delaware and a popular dairy-made ice cream store at their farm in Lewes.

Background

Since the 1970s, the project area has been used to keep young cows (heifers) until they are old enough to join the milk-producing herd. The stream that runs through the project area is a small tributary that drains into Goslee Millpond, which drains into Love Creek and then into Rehoboth Bay.

Project Objective

The project objective was to keep the cows and their manure out of the stream channel, and to buffer the stream to limit nutrient-rich runoff from entering it.

Timeline

Design and permitting started in the fall of 2011. The installation of the stone stream crossings was completed in September 2012. Installation of fencing and gates continued through late 2012 and 2013. The project was completed in the late summer of 2013.



Project Description

Approximately 850 feet of stream channel is protected by fencing that was erected at least 35 feet on either side of the stream channel. Three stone stream crossings, gates, and fencing were built to allow the cows to move to and from the feeding areas and the loading corral.

Project Manager

Eric Buehl, Land Conservation and Restoration Coordinator
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Partners

- Hopkins Dairy Farm
- DE Department of Natural Resources and Environmental Control (DNREC) Nonpoint Source Pollution Program
- Ducks Unlimited
- Sussex Conservation District
- Design and technical assistance was provided by the US Department of Agriculture (USDA) Natural Resources Conservation Service

Funding Partners

- DNREC Nonpoint Source Pollution Program
- Ducks Unlimited
- U.S. Environmental Protection Agency (EPA)

Interesting Facts

- Hopkins Dairy Farm is the largest dairy farm in the state of Delaware.
- It took over 200 fence posts and almost 2 miles of wire to complete the fencing on the project.

Approximately 850 feet of stream channel and two acres of land were enhanced.

The total project cost including construction, materials, and labor was \$23,000.

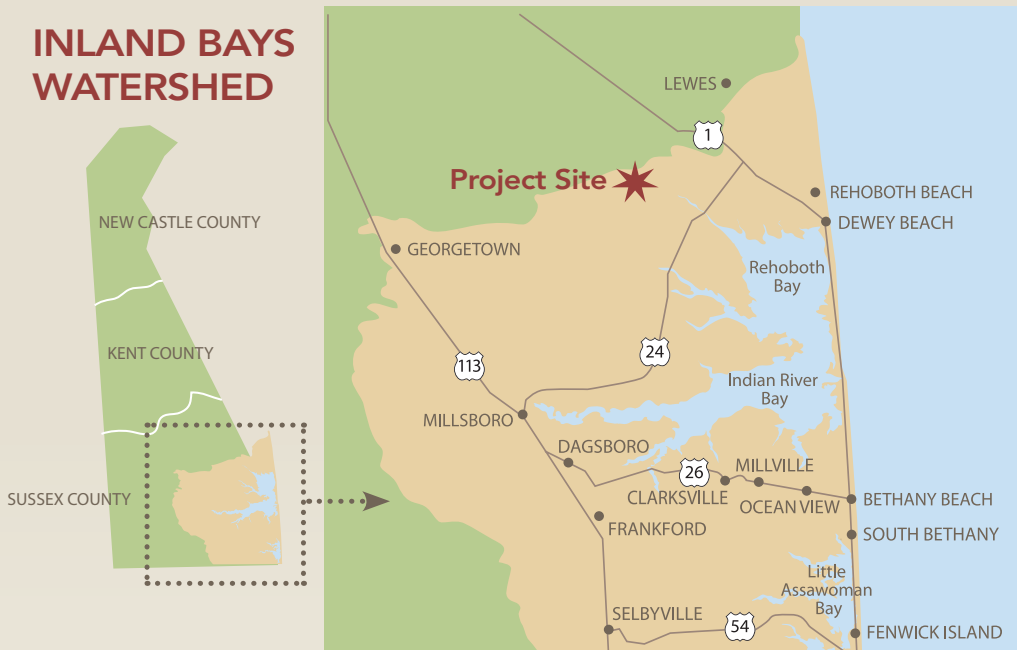


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INLAND BAYS WATERSHED



"We are really proud to have completed this project with the Hopkins Farm. Agriculture is an important part of the Inland Bays watershed, so we want to recognize them for all the work they did. The next time you stop by to get ice cream, be sure to thank them for helping improve water quality in the Inland Bays."

— Project Manager, Eric Buehl,
Land Conservation and Restoration
Coordinator for the CIB

This project helps to fulfill objectives of the 2012 Addendum to the Comprehensive Conservation Management Plan (CCMP) for the Delaware Inland Bays.

NUTRIENT MANAGEMENT Objective 1—

Monitor the effectiveness of the nutrient management program and Concentrated Animal Feeding Operations (CAFO) regulations, and suggest and implement revisions as needed.

Action B. Target and prioritize Best Management Practice (BMP) implementation to areas of the watershed where they will be most efficient and effective.

Outputs and Outcomes

- 2 acres of stream corridor enhanced
- 314 pounds of nitrogen eliminated from entering Rehoboth Bay annually
- 15 pounds of phosphorus eliminated from entering Rehoboth Bay annually



Burl Hopkins, our partner at Hopkins Dairy Farm on this project.



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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.