



Dewey Beach Stormwater Master Plan (Phase II)

Project Completed August 2017



Project Contact

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Partner

Town of Dewey Beach
Delaware Dept. of Transportation

Contractor

RK&K Engineering

Budget and Funding Partners

The total cost of the project: \$99,617

- DNREC Surface Water Matching Planning Grant SWMPG 16-06
- Town of Dewey Beach
- US Environmental Protection Agency

Project Timeline

Work began in May 2016. The final Phase II Stormwater Master Plan report was completed in August 2017.

Dewey Beach

To protect water quality in Rehoboth Bay and alleviate flooding in the Town of Dewey Beach, a plan was developed that identifies and prioritizes innovative green stormwater treatment practices and living shoreline projects throughout the Town.

Background

The Town of Dewey Beach's low elevation and high percentage of impervious cover makes it particularly vulnerable to the impacts of coastal storms and sea level rise. Shorelines are eroding, and many areas experience frequent flooding due to stormwater runoff, high bay tides, and storm surges. Untreated stormwater delivers nutrients and other pollutants to Rehoboth Bay. Resilient and sustainable stormwater infrastructure is critical to the future economy and quality of life in Dewey Beach.

Project Description

Building upon earlier efforts, the Phase II Stormwater Master Plan identifies and prioritizes green infrastructure practices that will mitigate nuisance flooding in the Town and reduce nutrient pollution in the Inland Bays. The final plan includes 40+ stormwater treatment and living shoreline practices, cost estimates, concept designs, and policy and ordinance recommendations.

Objective

The plan uses innovative stormwater practices to reduce and treat runoff, and will implement living shorelines to both reduce the force of erosive wave energy and restore bayside beaches and wetlands. This includes the installation of pervious pavement and walkways and the creation of bioretention/infiltration facilities. These projects will reduce the frequency and severity of flooding in the Town, improve water quality in Rehoboth Bay, stabilize shorelines, and provide habitat for fish and wildlife.



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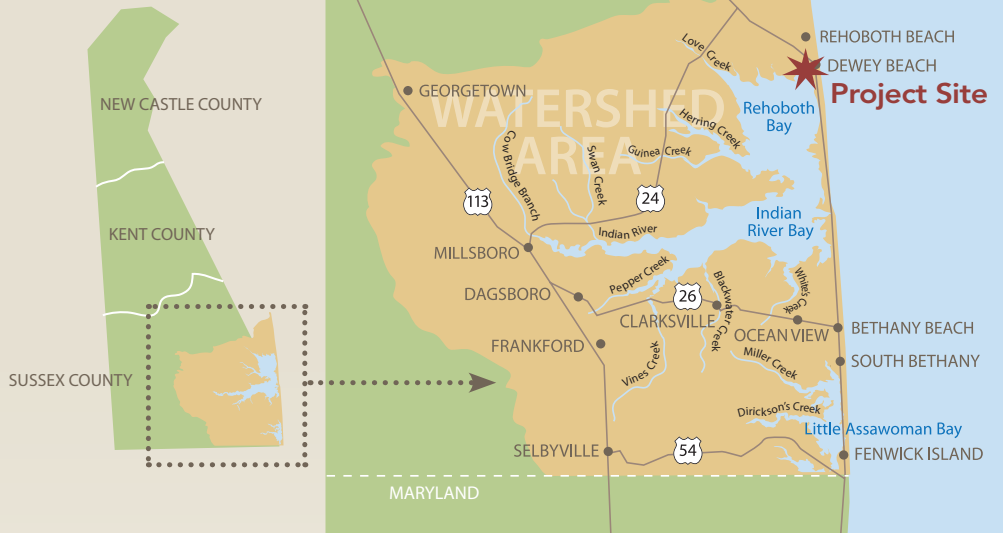
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INTERESTING FACTS

Nearly 78% of the portion of the Town covered in this planning study is covered by impervious surfaces such as roadways, parking lots and rooftops.

INLAND BAYS WATERSHED



WHAT YOU CAN DO

Anyone can help to reduce pollution and flooding from runoff by controlling stormwater on their own properties. Diverting roof downspouts to pervious areas or creating a rain garden of beautiful native species to intercept runoff are two simple methods of getting involved.

CCMP Focus Area

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

Focus Area: Stormwater Management

Objective: Reduce nutrient contributions from Stormwater to help achieve TMDLs.

Clean Water Act Objectives

Water quality in Rehoboth Bay is impaired by elevated nutrient levels and low dissolved oxygen concentrations, causing algae blooms, large daily swings in dissolved oxygen, habitat loss, reduced populations of aquatic life, and fish kills. Implementation of the green infrastructure practices identified in this plan will result in significant nonpoint source nutrient load reductions, through runoff filtration and the trapping of sediment and pollutants.

Outputs and Outcomes including Standard Metrics

Altogether, the practices recommended by this plan would remove an estimated 328 pounds of nitrogen and 44 pounds of phosphorus annually from runoff entering Rehoboth Bay.

“Dewey Beach is a tiny coastal town that has a long and rich history of bringing people to the water’s edge. Working with the Delaware Center for the Inland Bays, the town of Dewey Beach is building new partnerships and strategies to develop comprehensive Stormwater Master Plans designed to reduce the impact of coastal storms.”

—TJ REDEFER, MAYOR OF DEWEY BEACH



Permeable pavement



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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.