



2021 Comprehensive Conservation and Management Plan for the Barnegat Bay-Little Egg Harbor Estuary: A Summary



THE BARNEGAT BAY

is an **estuary**, a semi-enclosed body of water where freshwater from rivers mixes with saltwater from the sea. Estuaries are among the most productive **ecosystems** on earth, supporting unique communities of plants and animals specially adapted for life at the margin of the sea.

Formed by barrier islands, the Barnegat Bay estuary extends over 42 miles from the Point Pleasant Canal to the Little Egg Harbor Inlet. Freshwater flows into the bay from its **watershed**, a land area of over 660 square miles encompassing most of Ocean County and portions of Monmouth and Burlington Counties. Saltwater enters through the Barnegat and Little Egg Harbor Inlets and the Point Pleasant Canal.

Bay habitats (*e.g.*, salt marshes, seagrasses, and shellfish beds) are home to an amazing diversity of fish and wildlife species. People who live, work, and play in the region rely on the estuary's resources for food, jobs, and recreation. The Barnegat Bay and its watershed support one of the most valuable economies of any estuary in the nation, contributing \$2 to \$4 billion annually to New Jersey's economy.

What happens on land affects the water quality and health of the bay's ecosystem. Over the last 50 years, the watershed has experienced a tremendous increase in population and development, leading to increased pollution loads, stressed water supplies, and loss of wildlife habitat. These changes in the bay's condition have environmental, cultural, and economic impacts.

THE BARNEGAT BAY PARTNERSHIP (BBP) is one of 28 National Estuary Programs established by the U.S. Environmental Protection Agency to protect and restore the water quality and living resources of nationally significant estuaries. The *COMPREHENSIVE CONSERVATION AND MANAGEMENT PLAN FOR THE BARNEGAT BAY-LITTLE EGG HARBOR ESTUARY* is our long-term, community-developed plan for tackling the environmental threats to the estuary and ensuring clean water and a healthy bay for future generations.



Development along the Barnegat Bay.



2021 COMPREHENSIVE CONSERVATION AND MANAGEMENT PLAN FOR THE BARNEGAT BAY-LITTLE EGG HARBOR ESTUARY (CCMP)

Establishes four main priority areas for action: Water Quality, Water Supply, Living Resources, and Land Use.

Sets eight ecosystem-based targets.

The targets are specific environmental outcomes which combine actions across multiple priorities and can be monitored to measure progress. The plan targets an increase in the acreage of key habitats in the bay (tidal wetlands, **submerged aquatic vegetation**, and **riparian buffers**); acreage open to shellfish harvesting; number of hard clams in Little Egg Harbor; and number of bay beaches open for swimming. The plan also targets maintaining adequate freshwater flows to the bay and reducing the amount of water withdrawn for human use.

Identifies actions vulnerable to climate change risks.

Some actions in the plan are more vulnerable than others to the risks of climate change and sea level rise. The CCMP identifies the most vulnerable actions and strategies for minimizing the impacts.

Promotes science as the foundation of the plan.

Research and monitoring help us track changes in the bay's condition over time, make informed management and restoration decisions, and assess our progress towards achieving CCMP goals and objectives.

Highlights the important role of education and outreach.

Public participation is the key to the plan's success. Education and outreach advance understanding of the estuary and engage individuals and communities in actions to protect its valuable resources.



Tidal Flooding on Long Beach Island.



Monitoring Tidal Wetlands.



Learning To Fish.

Ecosystem: community of living organisms, their physical environment, and their interrelationships within a particular area.

Ecosystem services: benefits to people provided by the natural environment.

Estuary: body of water where freshwater from rivers and streams mixes with saltwater.

WATER QUALITY

Our Goal: Protect and improve water quality throughout Barnegat Bay and its watershed by reducing the sources of water pollution to achieve swimmable, fishable, and drinkable water, and support aquatic life.

Most of the pollution in the bay comes from land-based sources (e.g., lawn fertilizers, litter) carried by stormwater into the bay's tributaries. CCMP actions target the 1) reduction of pollution sources, 2) improvement of stormwater management, and 3) development and implementation of **Total Maximum Daily Loads** (TMDLs) for pollutants.



Tree filters installed on a road capture and clean stormwater.

WATER SUPPLY

Our Goal: Ensure adequate water supplies and freshwater flows in the Barnegat Bay watershed for ecological and human communities, now and in the future.

Supplies of freshwater are as important to the bay as they are to us. Freshwater flows to the bay maintain appropriate salinity levels and bring in nutrients that nourish bay life. CCMP actions address the 1) preservation of natural stream flows, 2) protection of riparian buffers, 3) efficient use and re-use of water, and 4) replenishment of groundwater supplies.



Healthy riparian buffers protect water quality and regulate stream flow.

WHAT YOU CAN DO

Go Native: Add native plants to your yard – they thrive in our local climate and soils, reducing the need to irrigate and fertilize.

Make Your Yard a Sponge: Plant a rain garden or set up a rain barrel to capture rain water in your yard.



A rain barrel collects water from the roof for later use in the yard.



Conserve water and reduce fertilizer use with native plants.

Green Infrastructure: use of vegetation, soils, and other elements to restore some of the natural processes for managing water on a site.

Riparian buffer: area of natural vegetation along a waterway that provides protection from excessive runoff and pollution.



LIVING RESOURCES

Our Goal: Protect, restore, and enhance habitats in the Barnegat Bay and its watershed as well as ensure healthy and sustainable natural communities of plants and animals, both now and in the future.

Habitats in the bay and its watershed support abundant wildlife and provide valuable **ecosystem services** (e.g., protecting water quality and safeguarding communities from flooding). CCMP actions include the 1) restoration of wetlands, seagrass beds, shellfish beds, and other sensitive habitats, 2) connection of habitats and creation of corridors for wildlife, 3) removal of barriers to fish passage, and 4) management of invasive and nuisance species.



Juvenile oysters on shells are added to the Tuckerton reef restoration site.

LAND USE

Our Goal: Improve protection of open space throughout the watershed, and develop collaborative regional approaches to responsible land use and resilient communities.

Sustainable and healthy watershed communities depend on responsible land use decisions. CCMP actions address 1) open space preservation, 2) responsible land use planning, and 3) sustainable land use practices (e.g., **green infrastructure**) which capture stormwater, reduce pollution, minimize soil disturbance, conserve natural habitats, and increase resiliency to the impacts of climate change and sea level rise.



Potter Creek Crusaders explore one of the open space properties in Ocean County.

WHAT YOU CAN DO

Landscape for a Healthy Environment:

Follow the 8 steps to a Jersey-Friendly Yard (www.jerseyyards.org) to make your yard and the Barnegat Bay watershed healthier for people and wildlife.



Submerged aquatic vegetation: rooted plants that grow completely underwater except for periods of brief exposure at low tides.

Total Maximum Daily Load (TMDL): maximum limit on the quantity of pollutant a waterbody can receive while still meeting water quality standards.

Watershed: area of land draining to a specific body of water.



Ocean County
Mayors'
Association



The Barnegat Bay Partnership is one of 28 National Estuary Programs working to protect, restore, and enhance the water quality and living resources of the nation's estuaries. The Partnership comprises government, academic, business, nonprofit, and private entities working together with local communities for clean water and healthy habitats in the Barnegat Bay and its watershed.

For more information and to read the entire 2021 plan, visit www.barnegatbaypartnership.org/about-us/ccmp/.

Acknowledgements

We thank our partners and others who have worked tirelessly to protect the Barnegat Bay and its watershed. We especially thank members of the CCMP Steering Committee who coordinated the review and revision of the 2002 CCMP.

Photo Credits

Front Cover: Common Reeds inset photo courtesy of New Leaf Photography.

Flap page: Bay Aerial by David Broad.

Inside page 1: Eelgrass inset photo by Chris Claus; Tidal Flooding by Angela Andersen.

Inside page 2: Tree Filters and Healthy Riparian Buffer photos courtesy of Brick Township MUA; Rain Barrel photo courtesy of NJDEP.

Inside page 3: Bay Scallop inset courtesy of JCNERR; Snowy Egret inset by Becky Laboy; Hummingbird inset courtesy of US Fish & Wildlife Service; Shell Distribution on Tuckerton Reef courtesy of Stockton University; Potter Creek Crusaders photo courtesy of Potter Creek Crusaders. All other photos provided by Barnegat Bay Partnership.

Contact Us

Barnegat Bay Partnership • www.barnegatbaypartnership.org

Ocean County College, PO Box 2001, Toms River, New Jersey 08754

Email: bbp@ocean.edu Phone: 732-255-0472

EPA Although the information in this document has been funded wholly or in part by the United States Environmental Protection Agency pursuant to a grant agreement with Ocean County College, it has not gone through the Agency's publications review process and may not necessarily reflect the views of the Agency; therefore, no official endorsement should be inferred.

