

Barnegat Bay Watershed Inventory of Management Actions

Stormwater Management Action Projects

Metedeconk Watershed Restoration and Protection Plan. NJDEP provided \$666,000 of CBT funds to Brick Utilities in 2009 to undertake a Watershed Restoration and Protection Plan for the Metedeconk Watershed. **A grant agreement was executed on June 22, 2009** to develop a USEPA nine element Watershed Restoration and Protection Plan that is designed to address approved TMDL's, lake management, enhance the C-1 designation and to identify and implement the highest priority stormwater BMP projects throughout the watershed. This grant agreement includes nearly \$470,000 to initiate implementation of the highest priority projects to be identified in the plan.

Barnegat Bay Stormwater Basin Retrofit Project. NJDEP has provided \$371,482 of discretionary Clean Water Act Section 319 funds to Ocean County Planning Department to implement nonpoint source pollution control projects targeted at reducing pathogen and nutrient loads to Barnegat Bay. A grant agreement was officially executed with the Ocean County Planning Department on September 23, 2009. The grantee is coordinating a summary of existing stormwater basins with input from the watershed partners in conjunction with the optical remote sensing technology efforts (LIDAR) completed by Rutgers University Center for Remote Sensing and Spatial Analysis (CRSSA). This list of potential stormwater basins will be evaluated by the watershed partners in order to select the highest priority basins for restoration. A final selection of projects is anticipated in the late summer of 2010.

Sub Watershed Action Plan and Stormwater Retrofit Projects in Long Swamp Creek.

NJDEP provided \$256,150 of CBT funds to the Ocean County Soil Conservation District in 2007 to undertake implementation of stormwater BMP's in the Long Swamp Creek Watershed. Two stormwater basins were retrofitted in 2009 to address recharge and nutrient impairments within the watershed.

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In 2009, EPA Region 2 also made available \$426,177 of discretionary Clean Water Action Section 106 STAG funds to support projects and partnerships in the States of New York and New Jersey that demonstrate and document the effectiveness of **green infrastructure techniques** to control, manage and reduce wet weather associated pollution that is impairing, stressing, or threatening water quality, habitats and living resources. This money will be given to the New England Interstate Water Pollution Control Commission. Through a competitive

announcement, NEIWPC will seek proposals for multiple small (under \$20,000) and large (\$200,000 or more) projects in New York and New Jersey focusing on nutrient and pathogen inputs in watersheds where EPA and the states have geographically targeted efforts, consistent with approved management plans. Monitoring of new or existing projects will be encouraged but not required with these or leveraged funds. A focus will be projects emphasizing training and stakeholder and community involvement, where wet weather associated pollution is impairing, stressing, or threatening water quality, habitats and living resources. These funds can complement American Recovery & Reinvestment Act (ARRA) funds (used to implement green infrastructure projects) by engaging the public and involving private landowners in efforts to reduce both pollutant loadings and stormwater volume. ARRA funds will likely fund municipal projects that are ready to go, whereas these discretionary funds can address needs where additional planning, education and outreach is necessary before projects (including those done in cooperation with the public and private landowners) are implemented on the ground.

Fisheries/Shell fisheries

The NJDEP and BBNEP have been working together via a Fishery Workgroup to prioritize data gaps and other information needs to better manage the bay's major fisheries. A conference on Jellyfish was held in April and the Bureau of Marine Fisheries has provided assistance in developing an RFP which will fund research on **blue claw crabs**. In addition, the Bureau of Shellfishery has provided technical support to Rutgers Marine Extension for the creation of a Shellfish Growers certification program.

Water Quality (Ecosystem)

New Jersey Clean Vessel Act Program is ongoing and continues to fund pump out facilities, pump out boats and provide funds for operation and maintenance at existing facilities throughout the estuary. NJDEP funded the fifth pump out boat for Barnegat Bay in 2009 through the New Jersey Clean Vessel Act Program. This vessel ("Bay Sweeper") was dedicated on June 14, 2010 will service the wastewater needs of boaters in the middle portions of Barnegat Bay and will be operational this boating season.

In 2009, EPA Region 2 made available \$150,000 of discretionary Clean Water Act Section 319 funds to support the State of New Jersey in conducting an **integrated wetlands assessment** of condition and function and in implementing a monitoring project in Barnegat Bay, where wetlands play a critical role in maintaining water quality by functioning as non-point source pollution capture and treatment zones. A grant agreement with Ocean County College was officially executed on June 17, 2010. The project is designed to provide assessments of those wetlands that are most functional and critical for restoration, protection and preservation thereby providing better long term permitting and restoration decision making. This project will support and supplement a large scale statewide initiative to assess the condition of all coastal wetlands.

NJDEP has funded the development of a **benthic index** (set of biological indicators) under an EPA REMAP funded project. This vital study will give us information on the ecological health

of the Bay's living resources that we now lack and which will help us more accurately evaluate the health of the Bay.

Nutrients/DO

In 2008, EPA Region 2 made available \$90,000 of discretionary Clean Water Act Section 106 funds to collect **salt marsh cores from the tidal region of Barnegat Bay** and determine the chronology of nutrient changes and associated ecosystem level responses. Information collected will further provide knowledge of changes in nutrient loading and land use throughout the watershed.

The NJDEP conducted an assessment of the water quality information generated by the BBNEP's **continuously operating and recording dataloggers** and determined that there were daily decreases in oxygen levels in summer that won't sustain aquatic life leading to the upper Barnegat Bay being listed as "impaired" in the State's Integrated Water Quality Report.

Landuse

The NJDEP has developed a technical group, which includes representatives of the fertilizer industry and other key stakeholders, to reduce the amount of nutrients getting into the bay from **fertilizers**. The NJDEP have reviewed draft fertilizer ordinances as part of this effort.