

Status of Barnegat Bay Action Plan

Background

In 2008, the Department conducted an assessment of the data and research on the ecological conditions of Barnegat Bay collected over the years by state scientists as well as scientists from our state academic institutions. The assessment of these studies revealed that without question, there is evidence of ecological decline in the Barnegat Bay.

Despite excellent water quality in some parts of the Bay, there is evidence of increased loads of Nitrogen to the Bay from groundwater (as recorded by USGS), decline of historic sea grass beds (as recorded by Rutgers researchers) decline of shellfish as recorded by our own Shellfish program and increased occurrences of sea nettles. In addition, the magnitude and intensity of different land uses in the Barnegat Bay watershed is having significant, and often degrading, effects on the Bay, and nonpoint source pollution is affecting the estuary's fisheries, resulting in habitat loss.

To address this observed decline, the NJDEP announced an Action Plan for the Barnegat Bay that would be facilitated through the Barnegat Bay Estuary Program (BBNEP) of which NJDEP and EPA Region II are partners.

On a parallel path, the BBNEP with the partnership of NJDEP, developed and completed a comprehensive three year strategic plan for the Bay that specifically identifies the priorities for addressing the problems in the Bay. This now provides the road map needed to pursue the same goals.

Since the announcement of the NJDEP's BB Action Plan last June and the implementation of BBNEP Strategic Plan, Department scientists have met on several occasions with stakeholders and scientists from across the region to discuss eutrophication and the loss of fisheries and habitat. Priorities in terms of data gaps, research, restoration and resources to do the work have been identified and discussed with several projects funded and underway.

Some of these efforts include:

- NJDEP has funded the development of a benthic index (set of biological indicators). 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.
- 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.

Current Status: The scope of work is being finalized and the contract should be executed in one to two weeks.

* Several eutrophication meetings been convened by the BBNEP with state scientists present. The outcome has been the funding from the New England Interstate Water Pollution Control Commission of a project to conduct an Assessment of Nutrient Loading and Eutrophication in Barnegat Bay-Little Egg Harbor in support of nutrient management planning awarded to Rutgers University and the U.S. Geological Survey in the amount of \$480,562.

Current Status: Rutgers is making the final changes to the draft QAPP in order to satisfy EPA's QA requirements and will be submitting it to NEIWPC in the very near future.

- 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.

Current Status: NJDEP hopes to begin sampling next week.

- 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.
- 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.

Current Status: NJDEP is planning on passing this money through to the BBNEP office and is putting together a workplan for the PPG.

* In 2009, EPA Region 2 made available **\$381,715** of discretionary Clean Water Act Section 319 funds to support the State of New Jersey in demonstrating and documenting the effectiveness of green infrastructure techniques to control, manage and reduce wet weather associated nonpoint

source pollution that is impairing, stressing, or threatening water quality, habitats and living resources.

* 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.

Current Status: NEIWPC will be issue a RFP for competitive award this fall, 2010.

- 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.
- NJDEP is working with the BBNEP and its stakeholders to develop public education and stewardship programs to highlight how everyone can make a contribution to improving the conditions of the Bay.
- 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.