

Governor Christie's Pledge to Clean Up and Restore Barnegat Bay:

**Comprehensive Plan of Action
Action Item #10
Reducing Water Craft Impacts**

**NJ Department of Environmental Protection
Barnegat Bay Initiative**

**November 9, 2011 Stakeholder Meeting
Cattus Island County Park
Toms River, NJ**

Action Item #10-Reducing Water Craft Impacts

Boats and personal water crafts can harm the Bay by damaging submerged aquatic vegetation and disrupting aquatic habitats. The DEP will review existing research that identifies the locations of these sensitive areas to evaluate the designation of a Conservation Zone.

Team of Experts Assembled

NJDEP Professionals and Rutgers Professors

- Brandon Muffley, Division of Fish and Wildlife, Marine Fisheries
 - Michael Celestino, Division of Fish and Wildlife, Shellfisheries
 - Dave Jenkins, Division of Fish and Wildlife, Endangered and Non-game Species
 - Christina Kisiel, Division of Fish and Wildlife, Endangered and Non-game Species
 - Tom Belton, Division of Science and Research
 - Chris Dolphin, Division of Land Use Regulation
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- Dr. Rick Lathrop, Rutgers University
 - Dr. Mike Kennish, Rutgers University

Identification of Ecologically Sensitive Aquatic Habitats in Barnegat Bay

- Submerged aquatic vegetation (SAV), primarily eelgrass (*Zostera marina*) and widgeon grass (*Ruppia maritima*)
- Natural Shorelines (vegetated uplands and wetlands adjacent to the bay).
- Habitat for food, shelter and nesting: long legged wading birds, shorebirds, terns, Black Skimmers, Yellow and Black-crowned Night Herons, Osprey
- Shellfish beds: Clams and Scallops

Submerged Aquatic Vegetation (SAV)

- Primarily eelgrass (*Zostera marina*) and widgeon grass (*Ruppia maritima*).
Important habitat for aquatic animals living on or within the bottom of the bay. SAV beds serve as valuable spawning, nursery and feeding grounds for finfish. SAV helps to alleviate substrate erosion.

NOTE: Staff Responsible for Action Item #10 Recognizes

- The impact of increased development within the watershed coupled with the increases in nutrient runoff has sparked concern about the status of eelgrass (*Zostera marina*) and other seagrasses in the Barnegat Bay - Little Egg Harbor system.
- The other parts of the action plan will be addressing development and water quality while this action item will help to identify and protect the remaining SAV beds in the bay.

Natural Shorelines

- Absorb impacts from flooding by naturally storing floodwaters
- Shoreline Vegetation helps to filter pollution
- Vegetation helps to keep soil together to prevent erosion
- Provides habitat for both terrestrial and aquatic wildlife

Critical Habitat for Birds

- Habitat that provides food, shelter and nesting for endangered and threatened bird species
- Habitat that provides food, shelter and nesting for long legged wading birds, shorebirds and terns

Shellfish Beds

- Important nursery grounds for shellfish to reproduce and develop
- Shellfish are filterfeeders and can help improve the water quality of the bay
- Shellfish are an important recreational and commercial resource of the bay

Ecologically Sensitive Areas in the Bay Identified and Mapped

- After meeting with both NJDEP Team of Experts and Rutgers Professors Dr. Lathrop and Dr. Kennish, NJDEP mapped areas onto the Department's Watershed map of Barnegat Bay
- Mapping was based on existing research and GIS/aerial assessment mapping by Dr. Lathrop and Dr. Kennish
- Mapping is also based on existing research and surveys by the Division of Fish and Wildlife and the Division of Science and Research

Ecologically Sensitive Areas Selected

- 16 areas have been selected based on existing mapping, research and surveys

Map handouts

- | | |
|----------------------|------------------------|
| ■ NW Point Island | Ship Bottom |
| ■ Mosquito Cove | Egg Island |
| ■ Island Beach North | Long Beach Central I |
| ■ Island Beach South | Long Beach Central II |
| ■ Barnegat Light | Long Beach Central III |
| ■ Long Beach North | Story Island East |
| ■ Forsythe North | Story Islands West |
| ■ Forsythe South | Long Beach South |

Many Efforts have occurred in Past

- | Jersey Coast Anglers Association February 25, 1999 Publication
- | Barnegat Bay Personal Watercraft Task Force May 1, 2000 Publication
- | Senators Chris and Len Connors introduced Bills to regulate power vessels in certain environmentally sensitive areas in 1998, 2000, 2002, 2004, 2006, and 2008. Never introduced into legislation
- | Creation of the Sedge Island Conservation Zone in 2002. Assignment of management rights to the Division of Fish and Wildlife and the Division of Parks and Forestry by the Tidelands Resource Council

Proposed Research

Tom Belton's presentation on
Sedge Island Conservation
Zone

What is the Best Course of Action to Protect these Ecologically Sensitive Area?

- | Educate the Boating Public About these areas
- | Provide signage to make public aware
- | Encourage low impact boating behavior

What is the Best Course of Action to Protect these Ecologically Sensitive Area-Continued

- | If possible use existing regulatory tools to minimize impacts such as minimum headway speed within 100 feet of the shoreline
- | On a trial basis try to create several Low Impact Boating Areas. Monitor selected sites on a regular base to determine if areas are making any improvements
- | Provide Funding for Stewardship and Enforcement.

Are We Headed in the Right Direction?

- Other ideas and suggestions
- Are we missing other stakeholders?

NJDEP-Barnegat Bay Initiative

- www.nj.gov/dep/barnegatbay

Many Thanks to Dr. Lathrop and
Dr. Kennish

- <http://crssa.rutgers.edu/projects/coatal/sav>