



January 27, 2009

Federal grant to allow study of Barnegat Bay pollution

By *KIRK MOORE*
TOMS RIVER BUREAU

A new \$480,562 federal grant obtained by Rutgers University scientists could be the long-sought bankrolling of comprehensive research into the causes of — and potential solutions to — nutrient pollution that's disrupting the ecosystem of Barnegat Bay.

"We're trying to develop something new here to get to the bottom of our problems," said Michael Kennish, a research professor at the Rutgers Institute of Marine and Coastal Sciences, who is leading the new project. "This is going to provide some answers."

For years scientists, state environmental workers and activists have grappled with how to attack the bay's nutrient overload, an excess of nitrogen compounds flushed into the bay watershed from lawn fertilizers, air pollution and other suburban sources.

Money has been a barrier to the kind of sweeping science needed for the state to impose nutrient load limits in the watershed, and "we nurtured a couple of different groups" seeking the federal Clean Water Act funding, said Stan Hales, director of the Barnegat Bay National Estuary Program.

"We're happy there's that much money being committed to the watershed. This will definitely help move us forward," Hales said. There's been extensive discussions of the nutrient issue between the estuary program, its parent, the U.S. Environmental Protection Agency and the state Department of Environmental Protection, he said.

Nutrients drive a process called eutrophication, with symptoms including the dieback of native eelgrass and shellfish, and the proliferation of stinging sea nettle jellyfish. The two-year project, funded with federal money channeled through the New England Interstate Water Pollution Control Commission, will quantify nutrient loading to the bay with hard numbers, and use that data along with measured biological effects of nutrients to support management measures in the watershed, according to Kennish and project proposal documents.

The Barnegat Bay grant opportunity came about unexpectedly late last year, when the commission put out a request for proposals to develop "nutrient management plans" for shallow coastal bays in New York and New Jersey.

"We turned this around in about three weeks. They had a really short fuse on this funding," Kennish said.

"Even though our name is 'New England,' we cover seven states including New York," said Susy King, a project manager for the pollution control commission. She said the commission also has strong ties to the EPA Region II office in New York City, which covers New Jersey and the estuary program.

Researchers at Rutgers and the affiliated Jacques Cousteau National Estuarine Research Reserve will be joined by water experts with the U.S. Geological Survey, who will do much of the work on a nutrient-loading model and zeroing in on the biggest nitrogen contributors. Those are now thought to be tributary streams in northern Ocean County, including the Metedeconk and Toms rivers.

Investigators aim to get down to a "sub-watershed" scale, Kennish said. That level of localized findings could point DEP and Ocean County officials toward stormwater drainage systems that need to be fixed, or other measures to reduce nutrient loads.

Ocean County officials are already talking to estuary program workers about adopting restrictions on lawn fertilizer use, a measure that could come as a sanitation ordinance through the Ocean County Health Department. Environmental groups have called for a ban on using anything but slow-release fertilizers, but county officials are also considering a seasonal limit that would allow fertilizer applications only from April through October.

"We are working on an ordinance dealing with the lawn fertilizer. . . . It affects the health of the people of Ocean County because of the effect it's having on the bay," said Edward Rumen, a spokesman for the Health Department.
