SUPPORTING MUNICIPAL NATURAL RESOURCE PROTECTION

Municipal stormwater management and nonpoint source pollution control on Long Island are of vital importance to protecting estuarine resources. Polluted runoff has been identified as a primary cause of Long Island Sound, South Shore Estuary Reserve, and Peconic Estuary impairments. Among the issues, pathogen-contaminated beaches pose threats to human health, with far-reaching effects on the economy, while sediment can cause wetland degradation and disappearance of wildlife.

The New York Sea Grant (NYSG) Nonpoint Education for Municipal Officials (NEMO) Program has responded to these issues since 2001, providing technical expertise and assistance concerning EPA Phase II Stormwater Program compliance to nearly 100 Long Island municipalities. Using its primary tools: a list serve, consultations, presentations, and written feedback, NYSG NEMO has helped LI municipalities to improve their Phase II stormwater programs.

Following NYSG NEMO outreach, communities have improved construction and post-construction requirements, and procedures for site plan review and inspections. Changes include an ordinance for retention of rainwater from new driveways, and erosion and sediment controls for projects smaller than an acre. Nassau County strengthened its drainage requirements by limiting the volume of runoff allowed to be discharged into its stormsewer system and by further encouraging development practices that reduce impacts. Nassau and Suffolk counties, as well as several towns and villages, have initiated storm drain retrofit projects.



Long Island Sound, Southold, NY. The health of Long Island's estuarine resources is vital to New York's economy.

Photo by Eileen Keenan

NYSG NEMO support and feedback have prompted municipalities to improve their stormwater programs in a multitude of ways. Examples include development of sustainable funding mechanisms, a septic system inspection program, equipment procurement, and interdepartmental work groups.

Given today's challenging economic times, perhaps NYSG NEMO's most enduring impact is how it facilitates cost-effective inter-municipal stormwater management. Over the years, the number of such cross jurisdictional efforts has grown; the most recent effort currently underway is in the Peconic Estuary drainage area on the Island's East End.

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TRACING SOUND INPUTS VIA GROUNDWATER

It's well understood that too much nitrogen in the water is not healthy for aquatic life in Long Island Sound. But until now it's been hard to estimate how much nitrogen has actually been coming from submarine groundwater discharge (SGD), particularly along the sandy sediments off LI's north shore. In a newly funded project, **Drs. J. Kirk Cochran** and **Henry J. Bokuniewicz** of the School of Marine and Atmospheric Sciences (SoMAS), Stony Brook University, will use naturally occurring radioactive isotopes to gauge the impact of this groundwater discharge, enabling planners to better reach their goals of improving water quality for Long Island Sound.

In a recently completed NYSG funded project, these same researchers looked at SGD into Jamaica Bay, NY. Although only a relatively small fraction of the total nitrogen that goes into the Bay via sewage treatment facilities, SGD provides the Bay with an unseen (and uncontrolled) source from both the leakage of groundwater from land and from the recirculation of seawater through the Bay's sediments.

At press time we learned that the SUNY Board of Trustees has named SoMAS Professor Henry Bokuniewicz to the title of *Distinguished Service Professor*, the highest honor that SUNY bestows upon faculty. Hearty congratulations, Dr. Bokuniewicz!

- Barbara A. Branca

Currents