

NEMO Rising

Back to the Beach

This summer, dune stewards were back on the beaches and hard at work educating visitors about the 17 miles of beaches, sand dunes and wetlands along the eastern shore of Lake Ontario.

Molly Thompson, a Dune and Habitat educator with New York Sea Grant, coordinated the program. Thompson, whose efforts were supported by an NYSG-Nature Conservancy partnership, says, "This opportunity provided the stewards with some great on-the-ground training. And, while they benefited from the learning experience, the shoreline benefited from the steward's contact with the public on its value."

Like last summer (2001), NYSG, The Nature Conservancy, NYS-DEC, and NYS Office of Parks, Recreation and Historical Places partnered to hire five stewards from a competitive pool of students. The stewards, who received college credit and a stipend, worked with everyone from children to seniors, summer to year-round and life-long residents. They helped to curb dune walking, bonfires, and other damaging activities to the lakeshore's ecosystem.

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From Buffalo to Montauk, nonpoint source pollution, or contaminated runoff, is perhaps New York's leading water quality problem. In response, Sea Grant began New York's Nonpoint Education for Municipal Officials (NEMO) project in May 2000. New York's marine district NEMO project, one of 20 NEMO network programs across the country, delivers educational support to Long Island's local governments. NEMO assists officials in mitigating the impacts of nonpoint source pollution on coastal resources. Why? Because local governments control the vast majority of land use decisions that affect water quality.

New York Sea Grant educator Eileen Keenan oversees New York's marine district NEMO project which was modeled after a successful program that started at Connecticut Sea Grant. "Activities on land generate the primary contaminants to the Long Island Sound today," says Keenan. "In order to minimize the impacts of contaminated runoff, or nonpoint source pollution, it is necessary to plan and manage local land use within a regional geographic context that recognizes opportunities to protect natural resources."

Initially, the program focused on assisting watershed protection committees for Hempstead Harbor and Manhasset Bay. These two watersheds lie within heavily developed areas of western Nassau County along Long Island Sound. NEMO is now expanding the program eastward. Five key subwatersheds along Suffolk County's north shore are the focus: Huntington/Northport Harbor, Stony Brook Harbor, Port Jefferson Harbor, Mount Sinai Harbor, and the Nissequogue River. For each of these watersheds, Keenan has initiated a strategy to create and conduct locally customized "Linking Land Use to Water Quality" workshops.



The contaminants that are generated on land find their way to bays, beaches and harbors through storm water outfall pipes like this one, pictured upper right. Outfalls tend to be hidden but the contaminants they discharge result in serious impacts to our special places along the coast. Photos courtesy of Eileen Keenan

Local workshops are about to get a boost. New funding will allow Keenan to create eye-catching artwork to draw attention to how land use and nonpoint source pollution are related in these five areas. She will use Geographic Information System (GIS), a computer-based tool for mapping and analysis that transforms mere statistics into a colorful display of an area's population, vegetation, and land use over time. NOAA's *Development and Enhancement of Coastal NEMO Network Projects* initiative will provide funds to generate GIS graphics for the Nissequogue River watershed. The Long Island Sound Study (LISS) will fund similar efforts for the four other Suffolk County LIS subwatersheds. The one-year funding totals to about \$30,000. Artwork is slated for completion by early 2003.

GIS technology is a highly effective visual tool. It helps those without technical training to see the "big picture" concepts. Decision makers can apply such concepts to local issues as they formulate new evaluative

criteria for long range land use planning. "The GIS visuals will enable us to convey our nonpoint source pollution management strategy with greater clarity," says Keenan. This strategy integrates natural resource-based land use planning, site design, best management practices and land stewardship.

Keenan says the need for NEMO's educational support is abundantly evident. Many stresses on Long Island Sound that stem from land use and contaminated runoff yet remain. "Utilizing GIS maps and artwork of the Sound's localities, we will provide municipal decision makers with the educational support they need to protect their coastal resources while accommodating growth."

While broadening the scope of the program into Suffolk County, Keenan continues to work with Nassau officials. In October, the NY Sea Grant NEMO program, the Long Island Sound Study and the Coalition to Save Hempstead Harbor will sponsor a stormwater conference in Nassau County.

The success of the NEMO project in New York Sea Grant's marine waters has now spread to the Great Lakes. With NYSG's Dune/Habitat Specialist **Molly Thompson** at the helm, nonpoint source pollution education will soon be underway in several counties bordering Lake Ontario. In May, Thompson met with the Water Quality



This fall, Sea Grant will educate local officials in Pulaski, NY about contaminated run off into the Salmon River, a popular fishing destination. Similar water quality activities have already proven successful in the state's marine waters.

Courtesy of Molly Thompson

Coordinating Committees for Jefferson and St. Lawrence Counties. With them she introduced the roles and successes of the NEMO network of programs. Thompson also defined LEAPE, Locally Led Education and Action for Protecting the Environment, a program developed by Cornell Cooperative Extension and Sea Grant.

Because these localities are relatively rural, nonpoint source pollution issues are very different from those facing citizens in New York's marine waters. As Thompson explains, "Impervious surfaces and urban sprawl are of minimal concern in these areas. Agricultural preservation and fisheries protection are much higher priorities." She adds that, due to lack of regulations, septic system pollution is another concern.

While these are simply observations at this point, Thompson intends to use responses generated by these initial discussions with water quality coordinating committee members to focus her NEMO efforts. Under consideration is the production of publications offering information about how to control nonpoint source pollution and who to contact in each upstate county. These materials would be useful to committee members and their interested clients. Thompson is also planning a nonpoint source education training session in Pulaski, located in Oswego County, for early October.

— Paul C. Focazio

Photo courtesy of Molly Thompson



Back to the Beach

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The stewards were enthusiastically wel-

comed back this summer by visitors to the dune sites. They included (pictured, l-r): Evan Proulx, SUNY Oswego; Kirstin Berben and Keren O'Brien Murphy, SUNY College of Environmental Science and Forestry; Barry Mahar, SUNY Gobleskill; and Kenny Smith, Rochester Institute of Technology.

During the summer, the stewards:

- ▶ Participated in Dune Fest, a program for local middle school students.
- ▶ Worked with high school students from New York City who interned with The Nature Conservancy.
- ▶ Wrote articles about the dune ecosystem for the local newspaper.
- ▶ Worked with the land managers to improve signage and trail systems.
- ▶ Led canoe tours through the wetlands and interpretive hikes along the beaches.

For more on the dune steward internship program, contact NYSG's SUNY Oswego office, 315-312-3042.

— Paul C. Focazio,
Molly Thompson