## According to New York Sea Grant publications, *nonpoint source pollution*, or

contaminated runoff, affects just about everyone living in a watershed. Examples of runoff that may come from local land-use decisions include:

- Soil erosion from construction sites
- Fertilizer and pesticide runoff from improper lawn and landscape care
- Bacteria and viruses from the improper disposal of pet waste
- Materials washing off roads and other paved surfaces

Photo of a Manhasset Bay locale by Rafael Bellber



Reaching the millions of people living in New York's marine district with information about nonpoint source pollution and motivating them to change their behaviors is a daunting task. In some cases, we know the sources and input levels and need to focus on educating the public to recognize the problems or participate in their solutions.

-Bob Kent, NYSG's Marine District Extension Program Coordinator

Over the past ten years, New York Sea Grant's extension program has educated a variety of audiences on ways to control nonpoint source pollution (NPS), which occurs when rainfall, snowmelt, or irrigation flows over land or through the ground, picks up pollutants, and delivers them into rivers, lakes, coastal waters or ground water. Through fact sheets and posters, workshops and announcements

Eileen Keenan (top photo, left), NYSG's water quality specialist, at a September 2001 follow-up workshop on **EPA Phase II Stormwater Regulations with North Hempstead Councilwoman Doreen Banks at Roslvn's** Bryant Library. The locale (bottom photo) was also the setting for two inaugural nonpoint source education workshops held in February 2001. During each workshop, Keenan provided municipal officials with an effective, integrated approach to meeting land-use needs while protecting fisheries, beaches, and coastal habitats.

Photos courtesy of Eileen Keenan and Barbara Branca



in newspapers, radio and television, NYSG gets the word out on improving water quality to community groups, businesses, educators, and local government officials.

In addition to addressing water quality and sustainable coastal development issues in three National Estuary Programs (NY/NJ Harbor Estuary, Long Island Sound, and Peconic Estuary), NYSG also supports related research and education efforts in the Hudson Estuary and through Long Island's South Shore Estuary Program. In May 2000, NYSG received a NYS Department of Environmental Conservation (NYSDEC) grant to begin a Nonpoint Education for Municipal Officials (NEMO) program on Long Island. Now a national network of approximately 20 programs, NEMO began in 1991 as a pilot project of Connecticut Sea Grant and the University of Connecticut Cooperative Extension that used geographic information systems, remote sensing, and the Internet to educate municipal officials about the correlation between land use and coastal resource degradation.

So why does NEMO primarily target planning and zoning board officials? "These local officials make important landuse decisions every day that determine the social, economic and environmental health of their communities," says **Eileen Keenan**, NYSG's water quality specialist. "People serving on these boards are volunteers and few have training in marine sciences or water quality issues. Also, reaching planning and zoning board officials is considered a priority need by the

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Environmental Protection Agency, DEC, and others involved in water quality issues."

In the wake of the EPA's 2000 Phase II mandate requiring the development of municipal stormwater management plans, New York Sea Grant held two NEMO educational workshops for local decision makers in Long Island's north shore watersheds of Hempstead Harbor and Manhasset Bay. Since then, Keenan has conducted another half-dozen water quality workshops in other Long Island locales, such as Riverhead, to support municipal officials in their evaluation of local policies, proposals and regulations. "It is my hope that the workshops will continue to help Long Island's coastal villages enhance their vitality and aesthetic character while, at the same time, preserving the rich natural resources that are so important to them," she says.

Water quality education is a challenge New York Sea Grant has faced in New York's metropolitan area as well. Last fall, Sea Grant made its move into Manhattan, now one of 10 offices statewide. **Laura Bartovics** was named the outreach specialist for the New York-New Jersey Harbor Estuary Program. The estuary is a large dynamic and interactive ecosystem encompassing the waters of New York Harbor and the tidally influenced portions of all rivers and streams that empty into it.

After obtaining input from NY and NJ community stakeholders during a dozen "Help the Harbor" public meetings held earlier this year, the next step was to host "Making the Vision a Reality," a June 2001 conference on priorities for implementing the NY/NJ Harbor Estuary Program. "Our intent was to use the conference and the series of public meetings leading up to it to ensure that the program's future directions consider the voices of the public and the scientific community," says Bartovics. EPA's Robert Nyman, Director of the Harbor Estuary Program (HEP), adds, "Informing the public about the complex problems that the Harbor faces and what can be done to address them is a challenging task. Encouraging public participation is a key element in the restoration of the Harbor and Sea Grant has made this a reality by bringing the expertise they have demonstrated in other programs to the Harbor Estuary Program."

Planned by **Eugenia Flatow** from NYC Soil and Water Conservation District and the Hudson River Foundation's **Dennis Suszkowski**, the "solution-oriented" conference, as Flatow called it, provided a forum for perspectives from the scientific community, environmental and civic sector, and government agencies and a discussion of how to begin setting targets for the program. The event, as well as the series of meetings leading up to it, was based on *"Success and* 



*Challenges: Highlights of Program Accomplishments and Challenges for the Future,*" a report published by HEP's Citzens Advisory Committee and Science and Technical Advisory Committee that was widely distributed among the Program constituents.

"This was the next logical step in what we hope will be a collaborative effort to make the vision of the Program's Comprehensive Conservation and Management Plan a reality for the Harbor Estuary," says Flatow. In 1996, the Harbor Estuary's CCMP was completed and, a year later, it was signed by the Governors of New York and New Jersey as well as EPA's Regional Administrator Jeanne Fox. The CCMP focuses on protecting, restoring, and enhancing habitat and forming public/private relationships in the region and coordinating with other geographic plans to protect and restore the environment. The plan also emphasizes the need to develop management strategies to, among other things, prevent pollution, reduce contaminants at the source, and integrate plans across land, water and air.

New York Governor **George Pataki**'s statement reconfirmed his commitment to the program since taking part in the CCMP's 1997 approval, citing the conference as "a sign of the spirit of cooperation." Pataki commended "the contributions made by the citizens, scientists and representatives of the many public agencies," recognizing that "thanks to those efforts, improvements in water quality and aquatic habitat that enhance the resource in this highly populated and economically important area have taken place."

In a statement read at the conference, then NJ Governor and current EPA head **Christie Todd Whitman** said the Harbor Estuary Program "has made great strides in implementing the plan. I congratulate [the HEP] on the work it has done . . . and encourage its continued efforts. The Harbor is an extraordinary vibrant ecosystem, supporting the many diverse uses demanded by a densely populated metropolitan area."

As a result of the conference, possible future directions include port development and further environmental restoration efforts, a stronger focus on air, water, and hazardous waste programs, a high priority on enhanced interaction between involved organizations and agencies, and a renewed belief that public outreach for HEP will lead to increased support.



"Making the Vision a Reality," a June 2001 conference of the NY/NJ Harbor Estuary Program (HEP) held at the World Trade Center. NY Governor George Pataki, who considers the estuary as both an ecological vital and economically viable resource, cites the restoration of tidal wetlands such as those at Healy Avenue on Jamaica Bay as one of the current successes the HEP should build on.

Photos courtesy of Don Riepe (Jamaica Bay) and Barbara Branca

Want more information on land use impacts and non-point source pollution?

Check out NYSG's NEMO site: www.seagrant.sunysb.edu/nemo

> The EPA. the Harbor **Estuary Program's Citizens** Advisory Committee and **Science and Technical** Advisory Committee, and the NY/NJ Port Authority made "Making the Vision a Reality" possible. New York Sea Grant, which supports these endeavors through its HEP outreach coordinator, would like to express its condolences to the families and friends of the victims of the tragedy our nation suffered on September 11, 2001, including those lost by the Port Authority.