



A Partnership To Restore And Protect The Sound

UPDATE

FALL 1997

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MESSAGE FROM THE TECHNICAL DIRECTOR

It seems that we just finished thanking people for providing input on the Long Island Sound Study's proposed *Habitat Restoration Strategy*. Well after 12 public meetings during the first two weeks in September to solicit public input on the Long Island Sound Study's *Proposal for Phase III Actions for Hypoxia Management*, it's time to thank people again. Two hundred sixteen people attended the meetings and another 112 submitted written comments.

The heart of the proposal is a 58.5 percent reduction in nitrogen discharges to be achieved over the next 15 years. Much of the response to the proposal was positive and supportive. Concerns have been raised, as well, by some of the entities responsible for sewage treatment, particularly in regard to costs. Having attended all the meetings, I can also say that many of the questions and comments were insightful and constructive, reflecting a sophisticated knowledge about the Sound and the scientific, economic and political interests at work.

As with the *Habitat Restoration Strategy*, all the comments on the *Proposal for Phase III Actions for Hypoxia Management* are being compiled and will be summarized in a report. The goal is to present both proposals to the Long Island Sound Policy Committee for adoption by the end of the year. The challenge is what, if any, policy changes should be made to Phase III in response to the comments.

First, some perspective. The states of New York and Connecticut, through the Long Island Sound Study, have been managing nitrogen since 1990, starting with adoption of the Phase I "no-net increase" policy. Phase II, announced in 1994, went beyond the freeze by committing to actions to reduce the annual load of nitrogen. As a

result, projects completed or underway to retrofit sewage treatment plants for nitrogen removal at 16 plants in Connecticut and New York have already reduced loadings by 1,900 tons per year from peak levels. In spite of the increase in nitrogen loading that occurred in 1992 as a consequence of implementing the Ocean Dumping Ban Act, nitrogen discharges from sewage treatment plants are now below 1990 levels.

The phased process adopted by the Long Island Sound Study has succeeded in biting off digestible pieces of a complex issue. But the time for difficult decisions has arrived. It's time to set a long-term goal for reducing nitrogen loads to the Sound. The specifics of the goal and how to implement it await full review and consideration of the public comments. But one thing is certain, continued progress will depend on a credible, deliberate management program that continues to improve the base of information upon which decisions are made and involves the public in those decisions. That's why I believe the part of the proposal that identifies the need to periodically reevaluate the program is so important. In science and technology, today's "State-of-the-Art" quickly becomes obsolete. After ten years of study, we have an excellent basis from which to proceed. But we will know far more five years hence. The key, then is to begin the next phase of actions to reduce nitrogen and continue to improve our understanding of Long Island Sound and our impact upon it. After all, the best way to learn is by doing.

-Mark Tedesco

Nitrogen Reduction For LIS Challenged

by David Miller

I have been involved in the Long Island Sound Study and program for close to a decade. In that time, many things have changed while other circumstances have remained the same. We have made great progress in the clean-up of Long Island Sound and established a *Comprehensive Conservation and Management Plan* that is grounded in science while also being cost-effective.

We have seen projects for Long Island Sound Restoration move forward, Governors' Agreements signed with the U.S. Environmental Protection Agency, legislation introduced in the U.S. Congress and historic investment of dollars from the State of New York and Connecticut to implement the clean-up plan. The citizens of Long Island Sound have come together in a coalition effort that is a model for the rest of the country.

Unfortunately, with all of these great studies, there remains a troubling item that has not changed. This item is the reluctance of some sewage treatment operators to embrace the clean-up of Long Island Sound.

While the citizens have shown their support for the plan, these operators continue to oppose nitrogen removal from their sewage treatment plants to stop the choking effects of hypoxia. The State of New York has provided

money for nitrogen removal to these operators through the Clean Water Bond Act, but some municipalities want to use it for their on-going secondary treatment needs. The State of Connecticut has already begun the Phase III Nitrogen Reduction Program showing it can be done with the local operators, while in New York, opponents say it can't be done. Something is wrong with this picture.

No matter what scientific evidence is presented, what cost estimates are given, what funds are made available, these New York sewage treatment plant operators say no to a clean Long Island Sound. They have even proposed the idea of a tidal gate in the East River to avoid controlling their nitrogen pollution, which is reminiscent of boondoggles like the damming of the Grand Canyon.

I sincerely hope that these municipal operators will change their tune and become part of the solution for Long Island Sound. In the meantime, we as citizens must let them know how out of tune their song has become. It is time for them to stop playing their broken record and get on with the restoration of Long Island Sound.

David Miller is the executive director of New York State National Audubon Society and is the New York Co-Chair of the LISS's Citizens Advisory Committee.

Long Island Sound Ecology Cruise

by Mel Cote

The small sailboat slid down one wave and crashed into the next one, spraying salty water over the bow and into the cockpit, soaking the crew. We had left Manhasset Bay early that Wednesday morning, hoping to explore the northern shore of Long Island before anchoring off the Norwalk Islands. As we motored into the open Sound, it soon became apparent that we would have to deviate from our itinerary. The 15-20 knot winds blew with a vengeance from the northeast kicking up 4-6 foot swells that pounded our hull. The skies were dark and threatened rain. We hoisted the mainsail, opened the throttle on the 10-horsepower outboard motor, and set a heading for the Norwalk Islands. It would be a day of discovery, but not the kind we had anticipated. That day we discovered how quickly the forces of nature can transform this often tranquil, inland sea into a watery roller coaster. We also discovered that the Bristol 24 we were sailing deserved its reputation as one tough little boat.

We finally arrived in the lee of our destination islands at around noon, having decided to seek refuge from the storm in Norwalk Harbor. Along the way, we had contemplated several alternatives, among them continuing on to safe haven in Southport or the Housatonic River estuary. By the time we reached the islands, however, our spirits (and bodies, despite foul-weather gear) had been dampened, and we were worn out. Weather reports called for more of the same -- high seas, strong winds, and rain -- through the next day. The Bonine we had all ingested when the seas picked up had prevented any serious seasickness, but my stomach was tensed and my hands were stiff from holding on so tightly during the crossing. As we entered the harbor a couple hours later, we consulted the *1997 Embassy Cruising Guide for Long Island Sound* and turned on the VHF radio to find a marina with showers, and if possible, laundry facilities. We

Calendar of Events

November 17, 1997 Trade show to highlight Innovative Stormwater Treatment Technologies. For further information call Chris Stone at the CTDEP (860) 424-3850 or Phillip Renn at the NRCS (860) 487-4016.

November 20, 1997 Management Committee Meeting Stamford, CT contact Mark Tedesco for more information at (203) 977-1541.

November 24, 1997 NEMO: Linking Land Use to Water Quality at CT Mental Health Building in Norwich. For more information call (860) 345-4511.

December 11, 1997 CAC Meeting Old Lyme, CT contact Kimberly Zimmer for more information at (516) 632-9216.

December 1, 1997 David Doubilet internationally-renowned underwater photographer will be at SUNY Stony Brook Student Activities Center at 7pm call (516) 632-8693 for more information.

December 19, 1997 the LISS Small Grants application deadline.

would play our departure by ear, but my experienced crew mates expected that we would probably be there until Friday morning. We had been planning the trip for more than two years, since my Aunt Gail, my mother's older sister, and Uncle Bob Shields decided to retire and move to their second home in Narragansett, Rhode Island. Finally, last spring my aunt and uncle announced that the summer of 1997 would be their last in New Jersey, and that the *Windrush* would sail this year. Uncle Bob researched the tides, currents, and prevailing winds using the *Eldridge Tide and Pilot Book* and other references, and established a tentative schedule that had us departing Mantoloking at 7:00 a.m. on Monday, September 8 and arriving in Watch Hill, R.I. at 11:50 a.m. on Sunday, September 14. Joining us would be my uncle's boyhood friend, Bob Becher, a surgeon and sailing enthusiast who had become reacquainted with my uncle several years ago at their fortieth high school reunion. I marked the dates in my calendars, mail-ordered some boat shoes, and eagerly informed my friends and family of the upcoming trip.

Friday morning dawned bright, with only a few clouds scudding their way up the Connecticut coast on a slight wind from the southwest. Our layover had allowed us to explore the revitalized South Norwalk (SoNo, for those "in the know") waterfront area, including an educational visit to the Maritime Aquarium. Now we were back on our way up the Sound to our final destination. Unfortunately, while the wind direction was now in our favor, its weakness forced us to rely primarily on the motor for the remainder of our trip. That evening we anchored among the Thimbles, a group of small, granite islands off the coast of Branford that reminded us of Downeast Maine. Unlike Maine, however, the water was 68 degrees, as it had been for most of the trip, and very inviting. My uncle and I went for a swim, and found the water very pleasant and refreshing after a hot, sunny day on the boat. That night I slept under the stars in the open cockpit of the

boat. It was cramped, but the experience was well worth the slight discomfort.

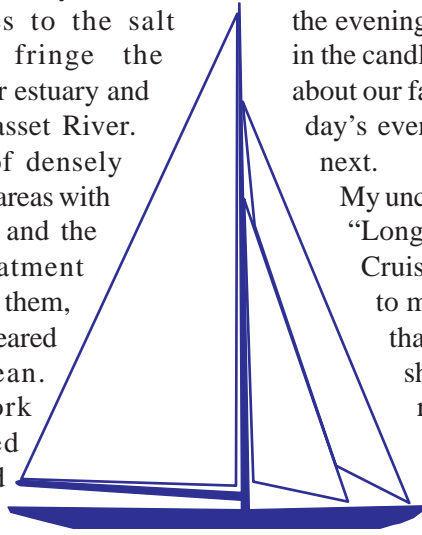
Despite the delay caused by the poor weather, we reached Avondale Boat Yard on the Pawcatuck River at precisely 11:40 a.m. on Sunday, ten minutes ahead of schedule. So the trip was over -- we had traveled approximately 197 miles in accomplishing our "mission." Along the way we saw important historical landmarks, including the many old forts that guarded harbor entrances, the Statue of Liberty and Ellis Island in New York Harbor, and the lighthouses that guided us for the entire trip. We passed under nine bridges, all of them different, the day we passed through New York Harbor and the East River. We saw natural beauty, from the rocky Thimbles to the salt marshes that fringe the Housatonic River estuary and lower Hammonasset River. We saw a lot of densely developed urban areas with industrial plants and the wastewater treatment plants that serve them, but the water appeared remarkably clean. Even New York Harbor seemed amazingly devoid of floating debris, due in part I

suppose to the lack of recent rainfall and the banning of open-ocean garbage disposal. The worst water quality, particularly in regard to aesthetics, was in the harbors and marinas we visited along the way. Oily slicks and floating debris were common sights in most marinas, although it was good to see boat sewage pump-out stations at many of them. I would guess that the rough weather during the middle of the week might have helped break up whatever hypoxic conditions might have persisted in the western Sound (and CT DEP's water quality data seems

to back that up). We saw a lot of boats, mostly fishing and lobstering during the week, with the fishermen centering on the numerous ledges and reefs that dot the offshore waters. We all had time to peruse the numerous Long Island Sound reference materials I had brought along, including *The Urban Sea*, by Lee Koppelman et al, *A Moveable Shore*, by Peter Patton of Wesleyan University, *The Face of Connecticut*, by Michael Bell, and the series of articles Steve Grant of the Hartford *Courant* wrote about his kayak trip around the Sound earlier this summer. Although we weren't able to do a lot of pure sailing, I learned a lot about navigation, the different types of boats, and various nautical terms. In the evenings, we would sit and talk in the candlelit cockpit, reminiscing about our family ties, discussing the day's events and planning for the next.

My uncle had dubbed the trip the "Long Island Sound Ecology Cruise," in part so I could try to make the case to my boss that at least part of my trip should be counted as work, rather than vacation. He didn't buy it, but I'd have to say that the trip has helped me with my job. We had seen the many faces of the Sound, and in so doing, had gained a new perspective on the Sound and its surroundings. And I had gained a new appreciation for the magnitude and importance of the ongoing effort to restore and protect this inland sea, and a new sense of purpose in my role in this effort. It's something I'll always remember.

Mel works in the U.S. Environmental Protection Agency, New England Regional Office as the Regional Program Manager for the Long Island Sound Study and Connecticut Nonpoint Source Program.



Long Island Sound Study Public Participation, Information and Education Small Grants Program

by Kimberly Zimmer

As part of the ongoing efforts to preserve, protect and restore Long Island Sound, the Long Island Sound Study has funded three years of Public Participation, Information and Education Small Grant Projects and recently announced the availability of funds for the fourth year. During those three years, 22 projects have been funded. These projects have created public awareness, developed a sense of stewardship, and increased public participation in protection of the estuary. Nonprofit organizations, local governments, public agencies, private businesses, educational institutions and classroom teachers have taken the opportunity to submit proposals.

On the following pages you will find articles about the projects. I encourage you to contact any of the organizations to learn more about their projects or how you can adapt them to your area. I also encourage you to submit a proposal. Copies of the Request For Proposals can be obtained by contacting me (516) 632-9216, or it can be downloaded from the Long Island Sound Study World Wide Web page (<http://www.epa.gov/region01/eco/lis/>). All proposals must be postmarked by December 19, 1997 and maximum funding for each proposal is \$4,000.

Kimberly Zimmer works for New York Sea Grant and is the New York Public Outreach Coordinator for the Long Island Sound Study.

Sound Bites

by Barbara Toborg

Over 1,260 New York volunteers around Long Island Sound took a "bite" out of pollution on September 20, 1997, by participating in the 11th Annual International Coastal Cleanup. The event was coordinated by the American Littoral Society in New York and brought scouts, students, corporate volunteers, civic groups, environmental organizations, and dive clubs to the cleanup which includes as an integral part, the documentation of all marine debris removed.

The main goals of the annual cleanup are to raise the consciousness of the public to the state of pollution of our beaches and waterways and alert them as to what they can do in their daily lives to help solve the problem of floatable debris, such as recycling and refraining from littering. Comments written on the data cards by the volunteers indicated that the message was received: "The garbage takes away from the beautiful"... "So much glass at the low water mark"... "Too many cigarette butts"... "Sad to see how inconsiderate people are about keeping

the environment clean"... "Thought it was fun to help animals"... "We felt good cleaning up the beach"... "The beach was cleaner than last year!"

The restoration and preservation of Long Island Sound was enhanced by the work of the beach cleanup volunteers, on land and underwater. Over 905 bags (23,300 pounds) of debris were removed, from 40 sites, thus making the shore area a cleaner and safer place for people and wildlife. The data recorded by the volunteers will help devise improved strategies to combat marine pollution. Summary statistics will be sent to the Long Island Sound Study, the Center for Marine Conservation and the New York State Department of Environmental Conservation.

The American Littoral Society was pleased to receive funding from the Long Island Sound Study "Public Participation, Information and Education Small Grants Program" for the Long Island Sound component of the statewide beach cleanup.

Contact: Barbara Toborg, American Littoral Society, 28 West Ninth Road, Broad Channel, NY 11693.

Final reports and products on the following projects are still in preparation.

Fairfield Conservation Commission

A Tidal Wetlands Brochure

Contact: Thomas Steinke, Director, Fairfield Conservation Commission, Independence Hall, 725 Old Post Road, Fairfield, CT 06430.

Port Washington Chamber of Commerce

HarborSafe Project: Spartina Grass Planting

Contact: James Eisenman, Director, HarborSafe, Port Washington Chamber of Commerce, PO Box 121, Port Washington, NY 11050.

Connecticut Sea Grant Sound Facts Booklet

Contact: Peg VanPatten, Communications Director, Connecticut Sea Grant, UCONN, 1084 Shennecossett Road, Groton, CT 06340.

Ward Melville Heritage Organization Learning Kits for the Coastal Ecology Program and The "Discovery" Wetlands Cruise

Contact: Gloria Rocchio, Ward Melville Heritage Organization, PO Box 572, Stony Brook, NY 11790.

Clean Sound, Inc. Restoration of the Clean Sound Mobile Environmental Learning Center

Contact: Richard Jager, Clean Sound, Inc., 20 Ojibwa Road, Shelton, CT 06484.

Central Connecticut State University A Long Island Sound Rocky Intertidal Transect on the World Wide Web

Contact: Clayton Penniman, Department of Biological Sciences, Central Connecticut State University, New Britain, CT 06050.

Smithtown High School

Designs, Constructs and Erects Interpretive Signs for Four Long Island Sound Habitats

by Max Strieb

Students at Smithtown High School recently completed a project in which they designed, constructed, and erected five professional quality interpretive signs at Short Beach along Long Island Sound in Smithtown. The signs provide information about the local marine habitats at Short Beach (salt marshes, tidal flats, beaches, dunes) and the plants and animals that live in them. The project was designed to enable students to learn about Long Island Sound marine habitats in a nontraditional way, use technological tools to design and build structures that would withstand harsh beach conditions, learn about educating the public, and participate in community activities.

Funding for the project came from a \$3,000 grant from the Long Island Sound Study to Smithtown High School teachers Max Strieb, Larry Hall, and Dennis Kramer. These funds were used to purchase necessary building and maintenance supplies.

The teachers used a multi-disciplinary approach to carry out the objectives of this project. Approximately 80 Smithtown High School students in the Marine Science, Drawing and Design, and Woodworking classes and the Art and Technology Honor Societies participated in the project.

As part of their course work, while studying Long Island marine habitats, students in the Marine Science classes worked in groups to research salt marshes, tidal flats, dunes, beaches and the organisms that inhabit them. Using one of the school's computer labs, they designed, wrote text for, and laid out the signs. In addition, several students from these classes visited Smithtown Middle School to present rough drafts of the signs to younger students to get their input on text and writing level.

The High School Drawing and Design class designed the six foot tall wooden structures on which the metal signs were placed. Students were given a project assignment to design, draw, and build a scale model of an environmental sign to be placed on a local beach. Students had to incorporate the effects of harsh weather conditions, including wind and salt spray, and aesthetic considerations into their designs.

Students from the High School Art Honor Society prepared artwork of local plants and animals living on Short Beach. Pictures of local organisms were painted directly on the metal signs using enamel paints. The signs were constructed from scratch and erected by the Technology

Honor Society. Additional help was provided from the High School Wood working classes.

A partnership was developed between Smithtown High School and the Town of Smithtown, which owns and operates Short Beach. Students, teachers, and Town officials had meetings during which rough drafts of the text and artwork, and models of the structures were presented and appropriate placement of the signs was discussed. Students benefited from experiencing local government in action, firsthand.

Signs were erected on one of the last school days in June by proud and eager students. Local officials of the Town of Smithtown were present, and there was significant coverage of the placement of the signs in the local press.

This was a highly successful project, integrating mathematics, science, technology, the arts, government, and community service. Students, Smithtown High School, The Town of Smithtown, the local community, and the Long Island Sound environment all benefitted from the construction and placement of these signs. *Contact: Max Strieb, Smithtown High School, 100 Central Road, Smithtown, NY 11787-1696.*

Shoreham Science Museum Wading River Watershed Project

The Science Museum, and teachers at Shoreham Wading River Middle Elementary School, showed third graders the relationship between freshwater, saltwater and upland environments. Students developed map reading skills; visited the duck ponds, high and low saltmarsh, the beach and school grounds to determine the elevation, and drainage patterns; identified plants and animals; observed turbidity of water samples; measured water temperature and salinity; and conducted a trash transect. An evaluation of the students showed an increase in understanding that Long Island Sound is downhill from the school and that the duck ponds are not filled with seawater.

Building on the Estuarine Education Program, the Science Museum applied for a second year of funding to do similar activities for the community during Duck Pond Day, May 4, 1997. More than 300 residents came to understand the relationship between topography, surface water runoff, Long Island Sound and the Wading River watershed. Activities included a canoe trip on Wading River Creek, tours of Wading River marsh and Reppa Pond. Surveys were administered with the following results: no one knew what a watershed was, half knew how to find Wading River Creek, 70% thought water flowed into the duck ponds, 30% of the adults and 50% of the children thought the duck ponds were filled with sea water.

Contact: Science Museum, Shoreham Wading River Central School District, 250 Route 25A, Shoreham, NY 11786.



SoundWaters Urban Ecology Project at Carver Center, Port Chester, NY

by Chris Hadin

In 1994 a grant from the Long Island Sound Study Small Grant Program allowed SoundWaters to bring to Port Chester its successful Urban Ecology Project. This after-school program has made it possible for SoundWaters to reach 80 children who live in urban communities that border Long Island Sound.

The Urban Ecology Project is designed to increase children's awareness of their surrounding environment. Many children get the message from television that imperiled habitats only exist in tropical rain forests or coral reefs. The goal of the Urban Ecology Project is to demonstrate that you don't need to live in the wilderness to care about the environment.

In the Urban Ecology Project, children travel to ecological points of interest in and around their community that relate to Long Island Sound and its watershed. Beaches, saltmarshes, forests, ponds and rivers are visited and thoroughly explored in the way that children do best-- with their hands. Rocks are turned over at the beach as well as in streams. Kitchen strainers are employed to catch larval insects in ponds and butterfly nets are used to catch them in the air. Children are able to recognize the plight of urban watercourses and urban trees, and learn to identify poison ivy in all its guises.

The message that children learn from the program is that nature surrounds them

every second of the day. From the plankton in Long Island Sound to the insects on the sidewalk to the birds flying overhead, children come to know that they are part of the complex workings of the cosmos. Long Island Sound and its watershed becomes the classroom from which to explore and learn.

Another message that the Urban Ecology Project addresses is that of responsibility. Children learn that decisions they make affect the world around them. Kids are made aware of excess packaging and its alternatives. The effects of litter and debris on marine life are made evident by cleaning up a stretch of local shoreline. Learning to make responsible decisions for the environment has long-standing benefits for the community. A child who has learned that his or her decisions are important to the environment is a child who is empowered to act as a steward in other ways as well. The way these lessons of environmental education weave into their lives in the community is truly amazing. By taking care of the environment, children learn to care for their own quality of life.

Contact: Chris Hadin, Urban Ecology Coordinator, SoundWaters, Inc., Brewers Yacht Haven Marina, Washington Boulevard, Stamford, CT 06902.

Westchester County Department of Planning

Westchester County Department of Planning designed and printed a 37 page *Sound Advice: A Long Island Sound Resident's Guide to Reduce Water Pollution at Home*. Each chapter contains valuable information regarding ways that individuals can reduce water pollution in and around their homes, including a "What you can do" section which provides a quick list of actions that can be taken immediately to reduce nonpoint source pollution. This guide is meant as a first step reference to



incorporate good water quality actions into an individuals' everyday life. Copies of the Sound Advice Guide can be obtained from the Westchester County Planning Department by either calling (914) 285-4422 or writing to Westchester County Department of Planning, 432 Michaelian Office Building, White Plains, NY 10601.



Hempstead Harbor Protection Committee - Storm Drain Stenciling and Monitoring around Hempstead Harbor

The Hempstead Harbor Protection Committee project focused on storm drain monitoring and stenciling in the communities surrounding Hempstead Harbor. In the spring of 1997 a storm drain monitoring training session was held at Bryant library in Roslyn for volunteers. The training session included presentations on locating storm drains to monitor, what types of information to collect and a slide presentation on how and why storm drain stenciling was being done. Five aluminum stencils were created with the saying "The Harbor Starts Here". Glen Cove, Sea Cliff, Roslyn, Flower Hill and Roslyn Harbor stenciled and monitored a total of 411 storm drains.

Contact: Hempstead Harbor Protection Committee, North Hempstead Town Planning Department, 220 Plandome Road, PO Box 3000, Manhasset, NY 11030.

Milford Youth and Family Service

Marine Ecology Program

A total of 46 children from third and fourth grade participated in two sessions during the spring and summer of 1997. The students went on field trips of the Briarpatch Enterprises Inc.'s shellfish grading and sorting operation, the Mondo Ponds, Milford Point Coastal Audubon Center's beach walk, the National Marine Fisheries Service Laboratory, the inner Gulf Pond and a beach walk at Gulf Beach, and a trip aboard the schooner SoundWaters. These field trips were reinforced with reading material, videos, games and projects done in the classroom.

Contact: Donna Metty, Program Coordinator, Milford Youth and Family Services, 70 West River Street, Milford, CT 06460.

New York Water Environment Association

Adopt-A-School Program

The Long Island Chapter of the New York Water Environment Association expanded its Adopt-A-School Program to the middle schools in the drainage areas of Long Island Sound. The program involved the purchase of videos with workshop manuals and teacher guides from the Water Environment Federation for distribution to middle schools. The videos covered water conservation and wastewater treatment and were distributed to the schools by a chapter member for presentation and discussion. Seventeen schools in Nassau and Suffolk County were adopted.

Contact: Ben Wright, Chief Engineer, Division of Sanitation, LI Chapter of the New York Environment Association, c/o Suffolk County Department of Public Works, 335 Yaphank Avenue, Yaphank, NY 11980.

Soundshore Ecology for Urban Youth

by Susan O'Handley

Save the Sound's *Soundshore Ecology for Urban Youth Project* educates urban youth to restore, protect, and appreciate the Sound and its watershed by training teachers to incorporate conservation education about Long Island Sound into the upper-elementary curricula. In the 1996/97 school year, Save the Sound naturalists worked with Bridgeport and Stamford school districts. Save the Sound prepared *Sound Connections, A Long Island Sound Curriculum Guide* to complement the 6-10 hour training workshop and furnished the guide to 48 teachers. The guide and training focused on how to teach urban youngsters to understand and appreciate the plant, animal life, and habitats of Long Island Sound and its watershed; sources of marine pollution; how individual behavior effects the Sound; and what can be done to conserve its wildlife and habitats. Save the Sound provided ten schools with a small salt-water aquarium to support their in-class activities. This project enabled the teachers to involve more than 1200 urban students in hands-on learning about Long Island Sound. The teachers also received the Project WET curriculum guide, a national curriculum focused entirely on water and water issues.

Each participating teacher created materials to use in their classrooms. They made costumes to show adaptations of common Long Island Sound animals. Finished products included harbor seals, hermit crabs, sea stars, squid, lobsters (with working segmented tails), periwinkles and piping plovers! Participants also learned about fish adaptations through a fish-printing

activity.

Teachers enthusiastically built 12" x 20" watershed models to use in the classroom. They enjoyed creating topographies and were excited about incorporating the models into classroom lessons on land use, geology and the environment.

The Soundshore Ecology for Urban Youth Project was conducted by Save the Sound, Inc., a non-profit, membership organization dedicated to the restoration, preservation and appreciation of Long Island Sound and its watershed through education, research and advocacy. The Soundshore Ecology for Urban Youth Project is seeking funding for 1998 to continue to provide urban educators with the resources to support classroom activities. Pending funding, teachers will be eligible for a free beach program for their students. Interested educators of urban children should contact Save the Sound's Education Department at (203)327-9786 or (516)759-2165 for eligibility, details and workshop dates.

Save the Sound's Urban Youth programs are funded in 1997 by the following: The Barnes foundation, National Fish and Wildlife Foundation, Paul L. Newman/Newman's Own, The Frances R. Dewing Foundation, United States Environmental Protection Agency, Long Island Sound Study Public Participation Information and Education Small Grants Program, Greater Bridgeport Area Foundation, United Illuminating Earth Partner Award, Daphne Seybolt Culpepper Memorial Foundation and CNE Energy Services Group, Inc.

Contact: Susan O'Handley, Save the Sound, Inc., Stamford Marine Center, 185 Magee Avenue, Stamford, CT 06902.

Roslyn High School

Roslyn High School conducted a survey of thirty homes in Roslyn to determine lawncare practices in the area. The results showed 73% of homeowners employed a lawncare service and 27% personally maintained their lawns. The homeowners who maintain their own lawns do not apply chemicals other than fertilizer. Of those who employ lawncare service only 27% know how their lawns are maintained. The students also surveyed ten lawncare services, and a golf course which use other chemicals besides fertilizers. The students propose future work to identify each chemical being used and to do testing and data collection to see if there have been any changes in recorded amounts.

Contact: Eugene Kutscher, Chairman, Roslyn High School Science Department, Roslyn High School, Roslyn, NY 11576.

UPDATE

THE LONG ISLAND SOUND STUDY *UPDATE* IS PUBLISHED QUARTERLY BY THE PUBLIC OUTREACH PROGRAM OF THE LONG ISLAND SOUND STUDY TO INFORM THE PUBLIC ABOUT ISSUES PERTAINING TO THE STUDY.

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For More Information: <http://www.epa.gov/region01/eco/lis/>

Project Oceanology Three "On-The-Water" Workshops

Three "On-the-Water" workshops for community leaders were held during the spring of 1997. During these three hour workshops, Long Island Sound Study, Connecticut Department of Environmental Protection and New York State Department of Environmental Conservation staff gave participants an overview of the Long Island Sound Study *Comprehensive Conservation and Management Plan*. Each workshop took place on board Envirolab, Project Oceanology's modern classroom and research vessel. Participants sampled marine life using a 40 foot otter trawl and measured different water quality parameters using the equipment on board. These activities stimulated lively discussions between community leaders and staff focusing on issues such as habitat restoration, dredging, competing fisheries and the importance of nitrogen reduction. Reaction by participants to the trips was very positive. The workshops were also used to promote Phase III nitrogen removal plans with EPA and state staff presenting the relationship between hypoxia, local nitrogen sources and what might be in store for management efforts. Elected officials, local agency staff and nonprofit representatives were excited by the opportunity to interact with experts and they enjoyed participating in hauling the net and examining the catch.

Contact: Howard Weiss, Project Oceanology,
Avery Point, Groton, CT 06340.



A Partnership To Restore And Protect The Sound

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UPDATE

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