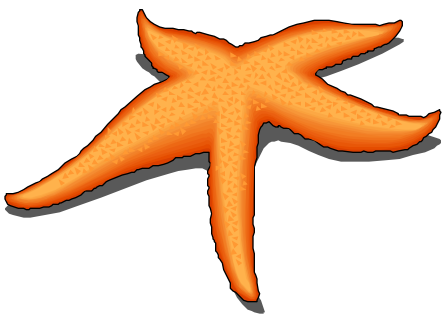
LONG ISLAND SOUND STUDY
A Partnership To Restore And Protect The Sound

UPDATE

SUMMER 1997

MESSAGE FROM THE EXECUTIVE DIRECTOR

IN THIS ISSUE



Thanks to all who took the time to provide input on the proposed Habitat Restoration Strategy! Nearly 350 people took advantage of the opportunity to attend one of the nine public meetings held around the Sound during May, or submitted written comments.

The reaction to the proposed Habitat Restoration Initiative has been very positive, with the overwhelming majority of people agreeing that habitat restoration should remain a priority for Long Island Sound. All comments are currently being compiled for review and discussion by the Habitat Restoration Team. The Team plans to meet during August to revise the draft based on public comments, and expect to forward a final plan to the Management and Policy Committees for approval by the end of the year. Though the ink is barely dry on the draft plan, this effort has already met with success! Nine of the projects identified in the Habitat Restoration Strategy have been approved for funding. Turn to page 6 for details.

As we reported in the Winter/Spring issue of *UPDATE*, the proposal for Phase 3 Nitrogen Reduction Actions is ready for public review. A series of meetings has been scheduled for the first two weeks in September, and I hope you will all take advantage of the opportunity to come and learn more about this effort and provide input.

It's been ten years since UCONN researcher Barbara Welsh first documented the severity and extent of low dissolved oxygen conditions in the Sound. Since then, LIS managers have supported extensive research to identify excess nitrogen as the cause of the problem, evaluated impacts on marine life, constructed a sophisticated computer model to help define solutions, and taken short-term, low-cost actions to prevent the problem from getting worse and begin to improve oxygen levels. The Phase 3 Plan is aimed at achieving the significant reductions in nitrogen loads from sewage treatment plants, industrial facilities and nonpoint sources required to restore dissolved oxygen to levels that support healthy habitat conditions.

The Phase 3 Plan represents a major turning point for the Sound, and we need to hear from all of you! Please check the schedule for the public meetings, mark your calendars, and plan to attend one of the meetings. Also, tell your friends and neighbors so they can get involved! The future health of the Sound depends on it.

Just as the Sound is at a major turning point, I have also reached a crossroad in life. After eighteen years in government, working on environmental issues, I have decided to make a transition into the private sector. While this has been a difficult decision to make, I am convinced that it is the right one for me at this point in my life. Although I am leaving the Long Island Sound Office, my interest in the issues will continue. I plan to personally monitor the progress of clean-up efforts from my kayak! Maybe I'll see you out there!

I have enjoyed the opportunity to meet and work with so many of you over the past two and a half years. With the tremendous energy and enthusiasm focused on solving the Sound's problems, the restoration and protection goals outlined in the *Comprehensive Conservation and Management Plan* can't fail to be achieved.

Best Wishes.

–Carolyn Hughes

Long Island Sound Congressional Hearing

by John Atkin

Representatives Christopher Shays (R-CT) and Nita Lowey (D-NY), co-chairs of the Congressional Long Island Sound Caucus, held an informational hearing in Washington, DC last month. They invited advocates and government officials from around the Sound to discuss various aspects of the Sound's clean-up.

The hearing began with presentations from individuals who discussed the planning process and the advocacy role to date. Mark Tedesco, Technical Director for the EPA Long Island Sound Study, gave a comprehensive overview of the planning process of the Study, and how the conclusions were drawn in the *Comprehensive Conservation and Management Plan* (CCMP). He also updated the caucus on the revised nitrogen reduction targets and the new cost estimates for the targets. The members present were particularly interested and focused their questions and comments on the reduced costs for decreasing nitrogen loads from sewage treatment plants.

Nancy Seligson, wearing several hats including those of a founding member of the clean water/jobs coalition and past president of Save the Sound, then spoke on the history of the program from the public perspective. She reminded the committee of the struggle getting the comprehensive plan adopted by the states and the EPA, and of the DeLauro-Lowey bill submitted in previous Congresses which would provide set asides for State Revolving Fund loans to estuaries such as the Sound that have management plans.

The second panel focused on "where do we go from here?". It featured representatives of the environmental departments of New York and Connecticut and citizen's perspectives from the co-chairs of the Citizens's Advisory Committee. David Miller represented New York and I represented Connecticut. Art Rocque, Connecticut DEP Deputy Commissioner for Air, Water and Waste Programs, talked of the aggressive action the state has taken over the years to upgrade sewage treatment plants to remove nitrogen from effluent, restore habitat, and implement major upgrades of a number of plants around the state including Norwalk, Waterbury and Bridgeport. He also spoke of the need for the continued state/federal partnership to make sure the process of restoring the Sound continues.

Phil DeGaetano, of New York's DEC, representing Commissioner John Cahill, and David Miller of National Audubon, also spoke of the need to continue the state/federal partnership, and pointed in particular to the recent passage of the New York State Clean Water/Clean Air Bond Act. Both speakers indicated that with this state money now available, there was an increased ability to leverage various federal monies to help with infrastructure improvements and habitat restoration.

David and I spoke of the need to increase the State Revolving Fund, and seriously consider the set aside provisions called for in the DeLauro-Lowey legislative proposal. I also suggested to the committee that they consider new funding avenues, such as the "polluter pays" concept. Additionally, I spoke of the need for Congress to take the lead on setting habitat restoration targets nationwide.

The final panel included Barbara Jean Pollo of American Oceans Campaign, and Peter Shelley of the Conservation Law Foundation, representing Restore America's Estuaries. Barbara Jean spoke of the need to maintain adequate funding for all 28 National Estuary Programs, even while in the implementation phase. EPA presently funds the Estuary Programs in their planning stages, but has been resistant to continued funding after a plan is adopted. Peter Shelley spoke of Restoring Americas Estuaries's efforts to establish and achieve a national goal of restoring one million acres of habitat by 2010. He pointed out the value of habitats including their overall ecological and economic values to the regions around estuaries.

I believe the caucus members present and their staffs gleaned valuable information from the hearing and recognized that there are issues specific and unique to Long Island Sound and others that are critical to all estuaries and other water bodies around the country.

John Atkin is executive director of Save the Sound, Inc. and the Connecticut Co-Chair of the LISS's Citizen's Advisory Committee.

Environmentally Sound Gardening Programs

Are you interested in safe use of fertilizers and pesticides, how to irrigate properly, selection of disease and insect resistant plant species, and using plants adapted to local environmental conditions?

New York Sea Grant and Cornell Cooperative Extension have been working together on a program called *Environmentally Sound Gardening*. The goal of the program is to teach people best management practices for their home landscapes in order to protect water quality. A speaker from New York Sea Grant is available to visit your group or organization and to present an *Environmentally Sound Gardening* slide show developed to illustrate gardening principles.

A *Environmentally Sound Gardening* demonstration garden has been established at a Master Gardener's home in Oyster Bay. Tours of the demonstration garden are available. During the tour, visitors see environmentally sound gardening practices first hand. The tours will go through October of 1997 and then reopen in 1998.

There is also a fact sheet, *A Guide to Sound Gardening in the Oyster Bay - Cold Spring Harbor Outstanding Natural Coastal Area* developed by New York Sea Grant and NY State Department of State, that is available.

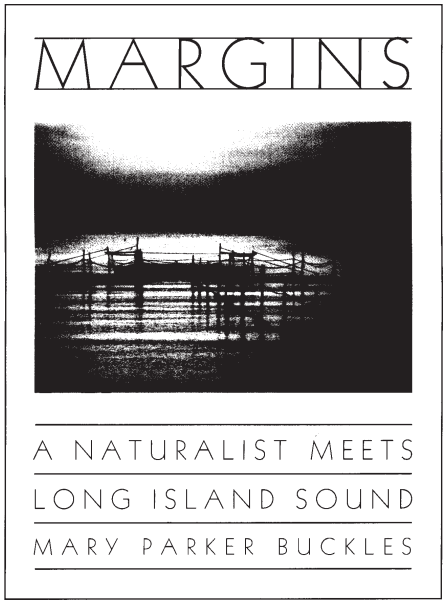
To obtain a speaker, a tour, or a fact sheet, please contact Robert Kent, New York Sea Grant Marine District Program Coordinator, at (516) 727-3910.

In Connecticut a speaker from Connecticut Sea Grant is available to visit your group or organization to present a new slide show *Clean Waters: Lawn and Yard Care Starting in Your Home and Yard*. To arrange for a speaker contact Heather Crawford at (203) 432-5118.

A Naturalist Meets Long Island Sound

by Mary Parker Buckles

I am an inlander. The place against which I measure all others is a three-quarter-acre plot of ground in the middle of Mississippi. My parents bought it in 1950, when its low-lying half was planted in cotton. The upper half, where they built our suburban house, afforded a view of trees that had grown up between the furrows.



So begins my book Margins: A Naturalist Meets Long Island Sound. Oddly enough, this Southern, land-based background prepared me to appreciate the Sound's cornucopia of living things -- from the crusty horseshoe crab to the endangered roseate tern.

The book's story is far more than my own, however. The water, the intertidal zone, the air, and the land that form the obvious margins of the book's title provide the basic organization for natural history essays on shorebirds and salt marshes, shellfish and cormorants, tides, islands, owls, and more. To me, the most interesting aspect of writing Margins has turned out to be the interplay between trying to assimilate scientific research on these subjects and trying to impart a sense of discovery consistent with an intuitive, first person perspective.

I didn't actually set out to write a book about the Sound. Soon after my husband and I moved into a small house on this water several years ago, I simply began jotting down impressions of what I was finding right around me. Later I participated in excursions that took me farther afield. I continued to make notes, and as I read and talked to scientists and other knowledgeable people, I began to piece together a lay person's picture of what makes this estuarine ecosystem work.

At some point I began to realize that one of the dominant media messages I was hearing about the Sound was that though impressive progress has been made toward mending it, it was, nevertheless, broken. Yet brokenness was not what I was seeing. I've not glossed over the Sound's problems in my writing. But the main focus of Margins is the intricate beauty I've seen unfolding even in the midst of abuses. It seemed to me that this beauty deserved to be celebrated in print while the Sound was undergoing repairs.

I hope that Margins will serve as an invitation for more people to express their feelings about this magnificent body of water, and so to contribute to an ongoing celebration. To the 8.5 million of us who live in the Sound's watershed, this is home -- an alive and sacred home. Writing Margins has helped me know this.

Margins: A Naturalist Meets Long Island Sound is published by North Point Press, a division of Farrar, Straus Giroux. It is currently available in area bookstores. Mary Parker Buckles is a fomer editor with the National Audubon Society. This is her fourth book.

Dredge Sediment Disposal in Long Island Sound

by Eric Alletzhauser

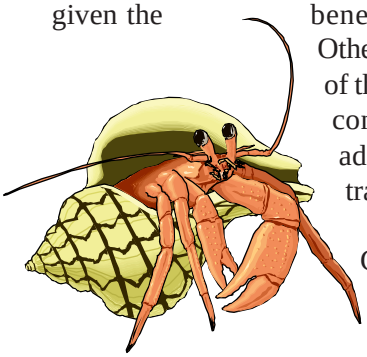
On April 24, 1997, a workshop on alternative methods for dredged sediment disposal was held at the Connecticut Audubon Coastal Center in Milford. The workshop was sponsored by Connecticut Department of Environmental Protection (CTDEP) as part of the Dredged Sediment Management Study, funded by the EPA Long Island Sound Study (see Winter/Spring 97 UPDATE, page 6.) Officials from the EPA, the Army Corps of Engineers, the National Marine Fisheries Service, CTDEP, CT Department of Transportation, NYS Department of Environmental Conservation, LIS Citizens Advisory Committee members, marine trades representatives, and environmental and other interests from around the Northeast attended the workshop.

The dredged sediment management study will provide important technical background information to update the "1980 Interim Plan for the Disposal of Dredged Material from Long Island Sound." The alternatives-analysis, investigating alternative ways to open water disposal, assessing environmental, technical and economic feasibility in Long Island Sound. The workshop was a first step in discussing the alternatives. Long Island Sound currently has four active open water disposal sites used for dredged sediments originating from the Sound and its tributaries in Connecticut and New York.

At the workshop, seven speakers presented alternatives to open water disposal including containment, decontamination technologies, beneficial uses and borrow pit or in-channel disposal. A synopsis of the various alternatives discussed follows.

Containment Technologies

Containment alternatives range from in-filling of large, abandoned and bulkheaded slips, to marsh and island creation, to "fast land" nearshore filling. Dr. Thomas Fredette of the New England Army Corps of Engineers presented the results of a feasibility study conducted by the Corps in the late 70's and early 80's for several containment sites in Long Island Sound. Since containment alternatives frequently occur in the nearshore, some were rejected because the loss of shallow water habitat or tidal wetlands was not acceptable, even given the benefits of a disposal alternative. Other sites were not pursued because of the high initial cost for expensive containment construction, which adds to the costs of dredging or transporting material.



John Henningson, of Hart Crowser, Inc., presented successful containment projects conducted around the US. These involved the in-filling of existing unutilized slips, which were used to dispose of contaminated sediments below the water table upon which clean material was placed as cap. The cost advantage in this type of project was that three sides, comprised of the existing slip, were already constructed, leaving only one waterward dike to be constructed. Recontamination was a major concern and Henningson stressed the importance of retaining contaminated material below the water table in an anoxic state to prevent leaching of contaminants. In order to ensure containment, stability of the containment structure, especially the newly constructed berm, was essential. Often, this requires a large and expensive structure. Adjacent land use was an additional consideration, both as a concern for exposure and as a factor in beneficial use of the filled slip.

Decontamination Technologies

Kerwin Donato from the NY Division of the Army Corps of Engineers reviewed the many new and emerging sediment decontamination technologies. These are technologies which reduce contaminant concentrations or mobility and the toxicity of the dredged material by destruction, separation or extraction, blending, and physical or chemical stabilization. Examples include thermal destruction, chemical treatment, bioremediation (phytoremediation), soil washing, solvent extraction, thermal desorption, and stabilization processes. Each of these technologies requires bench-scale modeling to demonstrate their effectiveness at a scale of five to ten gallons, followed by pilot projects at the 25 cubic yard volume. The technologies then require implementation through a demonstration project.

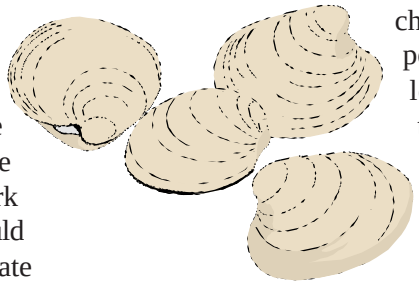
Many of these technologies are currently employed to treat contaminated soils, but their application for dredged sediments is affected by the unique chemical make-up of dredged sediments. For instance, while thermal desorption may work for organic contamination of certain upland soils, it is less effective for contaminated marine sediments because it does not address heavy metals. However, with the need for alternatives and the continuing study and modeling of these new technologies, some could be on line in the near future. To date, the Port of New York and New Jersey has conducted 12 bench scale studies and five pilot scale studies.

Beneficial Re-Use

John Henningson presented an overview of beneficial re-use of dredged sediment. He emphasized the need to evaluate projects based on a holistic approach and to examine environmental risks from the time of dredging through to the final product. Beneficial re-use options include beach nourishment, habitat creation, upland and near shore fill for development projects, sanitary landfill cover and roadbed material. Environmental issues raised by beneficial re-use include

dust and volatilization, direct exposure to sediments, uptake of contaminants by plants, contaminant leachate, length of time to complete a project, the physical and chemical characteristics of the sediments and the end use requirements. Currently, there is not enough public money available to pursue these initiatives.

One way in which to attract financing is for beneficial re-use to be profitable. Dr. Keith Jones of the Brookhaven National Laboratory presented a potential project where a cement plant could be retrofitted to handle dredged sediments and utilize them as a raw material for various products. The sediments would be mixed with other materials at high temperatures and the final product could be a marketable cement-like composite material for construction. With the increasing cost of disposal in the New York metropolitan area, this type of operation could be developed with investment by the private sector, charging a use fee for dredged sediment and potentially turning a profit. Dr. Jones noted that air emissions would result from the hot batching process and that incineration by-products would need to be disposed of.



Other private sector driven projects include the Orion site in New Jersey. Mr. Larry Schmidt of the New Jersey DEP delivered a broad perspective on alternatives to open water disposal and noted that private capital often drives the process. He explained two projects in New Jersey where dredged sediment alternatives were being explored. The first, the Orion site, utilized dredged sediment mixed with other products, including kiln dust, for use in a parking lot at a large development. He noted that this is a "learn as you go" process and that proponents ran into problems such as too much debris in the sediment, the pace of development outstripping the capacity to deliver dredged sediment and environmental problems such as water and leachate control. From an environment point of view he noted that the project spurred development of the Sequential Batch Leachating Test (SBLT) as a new and better way to predict the potential of dredged sediments to leach contaminants when placed in upland environments. Mr. Schmidt also noted that a large, 110 acre site could potentially process dredged sediments for use in strip mine remediation in Pennsylvania, a single solution to two separate environmental problems.

In-Channel Disposal

Mr. Jim Bajek of Normadeau Associates presented the Boston Harbor Navigation Improvement Project, in-channel disposal for sediments which were not approved for open water disposal. First, 54 pits containing 1.84 million cubic yards of clean sediment, primarily blue clay, will be dug and the material disposed of at an open water disposal site. This leaves capacity in the borrow pits to handle one million cubic yards of contaminated sediment. An additional 460,000 cubic yards of clean cap will be brought in to cover the pits. At their final elevation, the pits would still be beneath the bottom depth of the federal channel. Site factors which had to be accounted for include bedrock, utilities, a tunnel and bridges. One benefit of this in-channel disposal of contaminated sediments is that no further benthic impacts would occur since the channel was being dredged anyway and the pits were underneath the channel. Contaminated sediments which now lie within the channel would be buried beneath the channel and capped with clean material, reducing potential exposure. The transport costs would be less because careful sequencing would mean that contaminated sediment would be placed directly in a dredged pit rather than stored or transported for long distances. Permitting is not difficult since the pits lie beneath an existing channel and formerly exposed contaminated sediments would be capped. The drawbacks of in-channel disposal include its availability only for one project, no potential for expansion, and monitoring is required to ensure success of capping.

Borrow Pits

The final speaker was Dr. Angela Cristini of Ramapo College, New Jersey. She discussed the Newark Bay borrow pit, a solution to dispose of contaminated sediments in Newark Bay. Since the material was unsuitable for open water disposal, eight alternative options were explored and the borrow pit option was chosen. In Newark Bay, 1.9 million cubic yards of clean sediment are being dredged to create capacity for 1.5 million cubic yards of contaminated sediment. The clean sediment is transported to another site as cap, while contaminated sediment unsuited for open water disposal is disposed of and capped in the borrow pit. In order to finance the project, a tipping fee is being considered. During the project development, proponents encountered unexpected contamination in the clean sediment, reducing the borrow pit capacity. Other problems included the unreceptive attitude of the community in which the pit was located.

Planning Considerations

Some common themes emerged from the presentations. First, successful alternatives require partnerships and coalitions. Alternatives often require more start up capital than traditional open water disposal necessitating federal, state, local and private financial support and coordination. While large scale dredging projects have an economic advantage because of the volume of material dredged, smaller projects such as marinas are unable to pursue alternatives. The current dredger-pays approach to sediment disposal, as

Continued on page 6.

Continued from page 5.

opposed to a broader distribution of disposal costs, does not provide adequate coordination or capitalization to pursue large scale alternatives. In addition, partnerships are required to overcome regulatory and siting difficulties. Alternatives are difficult to implement without local support and regulatory acceptance.

In general, Long Island Sound dredged sediments are clean when compared to those of Newark Bay, the Port of New York/New Jersey and Boston Harbor. However, Long Island Sound does have areas of elevated contaminants which are not scheduled to be dredged. Eliminating these "hot spots" through new or existing dredging techniques was discussed. One key factor discussed at the workshop was the tendency of dredged material to leach contaminants when removed from the anoxic marine environment and placed on the upland where they are exposed to oxygen and acidic rain. Other environmental factors which need to be assessed are the by-products and potential impacts on air and water quality from various alternatives, especially treatment technologies. The long-term picture for dredged sediments looks good since toxic contaminants have been nearly eliminated in effluent. Current dredged material contains historic contamination which could eventually be eliminated.

Next Steps

Over the summer, SAIC, the consultant hired to assist CT DEP on the Dredged Sediment Management Study, will complete draft reports on the current regulatory process for dredged sediment disposal, alternatives to open water disposal, and research needs relating to dredged sediment management. The draft reports will be made available for review. The final reports will be used as background information by state and federal agencies to update the 1980 plan.

Eric Alletzhauser works for the Connecticut Department of Environmental Protection Office of Long Island Sound Programs and serves as the Coordinator for the LIS Dredge Sediment Management Study. Eric can be reached at (860) 424-3034.

Restoration Projects Funded
Nine Down, 450 To Go!!

EPA has announced $119,400 in funding for six Long Island Sound restoration projects. A coastal grassland, two tidal wetlands, and three anadromous fish streams will benefit from enforcement settlement funds. The key criteria for funding projects was that they have matching funds, were already planned and in some cases even had completed site plans and permits. The funds will supplement a significant state and local contribution to the environmental restoration activities at the following sites:

In Connecticut

Eight Mile River, Lyme: $22,000 for a fish ladder at Rathburn Dam. This project will restore access for anadromous fish to six miles of habitat, and will result in all natural habitat being reopened (the next barrier on the Eight Miles, is a falls--a natural barrier.) Species which will benefit from this project include Atlantic salmon, American shad, alewives, blueback herring, and searun brown trout.

Little River, New Haven: $30,000 for restoration of a 150 - acre tidal wetlands, including restoring full tidal flushing, providing anadromous fish passage, and controlling the invasion of the common reed *Phragmites*. The project will restore biodiversity of the site as well as critical wetland functions.

Mill Brook, Old Lyme: $15,000 for fish passage facilities at Lower Mill Pond. This project will reopen two miles of habitat to the next man-made barrier. Species that will benefit include alewives, blueback herring and searun brown trout.

Trading Cove Brook, Montville: $21,400 for fish passage facilities at the Route 32 dam. This project will reopen five miles of habitat, to the next man-made barrier. Species that benefit include alewives, blueback herring and searun brown trout.

In New York

Orient Point, Southold: $21,000 for restoration of a 50 acre coastal maritime grassland, a globally rare habitat with only two known occurrences in the Sate of New York. This project will provide habitat for grassland breeding birds, small mammals and rare plant and insect species.

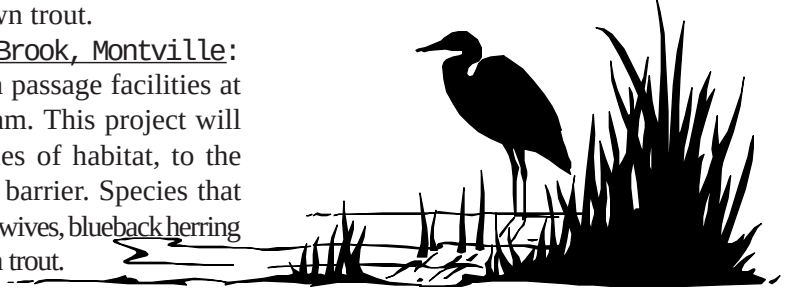
Sheets Creek, Manorhaven: $10,000 for restoration of a six acre tidal wetland, including regrading, controlling invasive species, and replanting *Spartina alterniflora*. This project will provide excellent habitat and feeding area for winter flounder, young of the year striped bass, wading birds and diamondback terrapins.

FY97 New York Bond Act Funds $665,000 for three Habitat Restoration Projects. There is a fifty percent match provided by the agency that submitted each proposal.

Harrison Pond Park: $90,000 for a two phased project at this public nature preserve. The first phase will improve upland erosion from stormwater runoff in the watershed. The second phase will dredge 4,000-5,000 cubic yards from the pond. Then wetland vegetation will be replanted such as grass/sedge mix and shrubs such as button bush, elderberry, witch hazel, high bush blueberry, willow and shrubby dogwood.

Phelham Bay Park, Bronx: $300,000 to restore the aquatic habitat by removing the invasive vegetation *Phragmities*.

Forest Park, Queens: $275,000 to restore kettle-type forest and shrub swamp habitat. Species that will benefit include frogs and other amphibians.



PUBLIC MEETING SCHEDULE
for Long Island Sound
Nitrogen Reduction Targets

New York

Tuesday, September 2	Oyster Bay Library, Oyster Bay*
Wednesday, September 3	New Rochelle City Hall, New Rochelle
Thursday, September 4	NYS DEC Division of Marine Resources, East Setauket

Connecticut

Tuesday, September 9	Norwalk Town Hall, Norwalk
Wednesday, September 10	CT Agriculture Experiment Station, New Haven
Thursday, September 11	Groton Public Library, Groton*

Afternoon (3:00 - 5:00 pm) and evening (7:00 - 9:00 pm) sessions are planned for each site. All members of the general public are invited and encouraged to attend and provide comment on the draft proposal on establishing nitrogen reduction targets for Long Island Sound. For more information and directions please call Mark Tedesco (203) 977-1541 or Kimberly Zimmer at (516) 632-9216.

* Please Note that meetings at the Oyster Bay and Groton Libraries must end promptly at 8:55 pm.

Calendar Of Events

From July through October SoundWaters is offering public sails from Stamford aboard their schooner SoundWaters. Fees are $25 for adults and $15 for children age 12 and under. For more information and a schedule contact SoundWaters at (203) 323-1978.

September 11, 1997 LISS CAC Meeting in New York. Call the LISS Office for more details (203) 977- 1541.

September 20, 1997 International Beach Clean Up Day! In New York contact Barbara Cohen of the American Littoral Society at (718) 471-2166 and in Connecticut contact Peg VanPatten of Connecticut Sea Grant at (860) 405-9128 for more information on how to get involved at a beach near you.

October 12-16, 1997 The Estuarine Research Federation's 14th International Conference at the Rhode Island Convention Center in Providence, Rhode Island. Contact Jonathon Garber at (401)782-3154 or Veronica Berounsky at (401) 783-8437 for more information.

November 15, 1997 Citizens Water Quality Monitoring Quality Assurance/Quality Control Workshop in Connecticut. For more information contact Joan Leeds at SoundWatch (212) 885-2566.

November 17, 1997 Trade Show to Highlight Innovative Stormwater Treatment Technologies at the Hartford Marriot Hotel/Farmington from 8 am to 3:30 pm. The registration fee is $30 and includes a continental breakfast and lunch. For further information and registration materials, call Chris Stone at the CT DEP (860) 424-3850 or Phillip Renn at the Natural Resources Conservation Service (860) 487-4016.

Water-Wise Gardener Program and Handbook

The *Water-Wise Gardener Program and Handbook* focuses on proper landscape management as a way to reduce homeowner contributions to nonpoint source pollution. The 52-page handbook covers planning, implementation, data evaluation, and reporting as well as examples of surveys, impact sheets and marketing materials that have been successfully used in public education. Contact: The Water-Wise Gardener, Office of Consumer Horticulture, 407 Saunders Hall, Blacksburg, VA 24061-0327, (540)231-6254.

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.

Editors:
Kimberly Zimmer, NY Sea Grant Extension Program
Mark Tedesco, LIS Technical Director

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Long Island Sound Study Supporting Agencies:

U.S. EPA CT DEP NYS DEC

If you would like to be placed on the mailing list or make changes to your address please contact the NY LIS Office.

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

Check Out These World Wide Web Pages

http://www.lisfoundation.org The Connecticut LIS Councils have developed a directory of federal, state, local governments, academia and environmental organizations around Long Island Sound. The directory identifies the organization's mission, contact person, and the services they provide. A hard copy is also available from LIS Councils, 501 Crescent St, JENN 335, New Haven, CT 06515, (203) 392-6266.

Travel through a virtual bog with a *Digital Field Trip in the Wetlands.* Locate flora and fauna. Point and click to learn more about the animal, insect or plant you've selected. Visit the web site at **http://www.digitalfrog.com**

Test your watershed IQ on the Know Your Watershed web site. Log onto **http://www.ctic.purdue.edu** and click on the Know Your Watershed icon to see the latest Watershed IQ Quiz. Then test your knowledge and compare your score to those who have taken the test before you. There's a new quiz every couple of weeks. And there's a whole lot more like the latest calendar of events, state contacts, National Watershed Library, and the National Watershed Network... with your choice of point and click, watershed keyword search, or Mentor search engines.

Check out what is new on CTDEP's World Wide Web Site: **http:\\dep.State.CT.US.**

LONG ISLAND SOUND STUDY **UPDATE**

A Partnership To Restore And Protect The Sound

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