

A NEWSLETTER OF THE CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION

EXPLORING LONG ISLAND SOUND – ISSUES AND OPPORTUNITIES

Forging Partnerships: Sound Decisions

ong Island Sound is one of the largest urban estuaries in the United States. Its watershed, which encompasses parts of four New England states and reaches into Quebec, is home to more than eight million people. Many individuals who live, work and recreate in and around the Sound and throughout the watershed, as well as private organizations and public agencies, have come together over a period of several decades as a community dedicated to restoring and protecting this unique environment.

To address these goals, concerned citizens have formed partnerships across societal and governmental lines. The National Environmental Policy Act of 1969 (NEPA) and the federal Coastal Zone Management Act of 1972 (CZMA) have fostered collaborative coastal management, involving policy makers, the regulated community, and coastal property owners and users. The Long Island Sound Study (LISS) National Estuary Program, formed in 1985 by the federal Environmental Protection Agency (EPA) and the states of Connecticut and New York, includes as partners more than 70 agencies, municipalities, educational institutions, and public and private environmental organizations committed to ensuring the overall health of the Long Island Sound ecosystem.

Connecticut is involved in regional initiatives that benefit our scientific knowledge of the Sound and enable responsible management of development around the estuary. Such initiatives include the New England Climate Coalition and the Northeast Regional Ocean Council (NROC). NROC focuses on ocean ecosystem health, offshore renewable and non-renewable energy development, and coastal hazards preparedness. The Council includes representatives of all New England States, and fosters cooperation and collaboration with the Eastern Canadian provinces on all aspects of oceans-related research and development, exploration, observation, education and management.

Connecticut is a partner in two geographically overlapping regional initiatives that monitor oceanic environmental conditions, the Northeastern Regional Association of Coastal Ocean Observing Systems (NERACOOS) and the Mid-Atlantic Regional Coastal Ocean Observing System (MARCOOS). Both operate under the umbrella of the National Oceanic and Atmospheric Administration's (NOAA's) national Integrated Ocean Observing System (IOOS). Environmental data, which are obtained through the Long Island Sound Integrated Coastal Observing System (LISICOS), are shared between MARCOOS and NERACOOS. The state has also benefited from grant programs such as the Long Island Sound Fund, the Long Island Sound Futures Fund and the Dissolved Oxygen Fund have provided much needed monetary support for cooperative projects to monitor, restore, preserve and provide access to the Sound.

By combining resources, staff and money, partners can work together to leverage their effectiveness to successfully restore and protect Long Island Sound. The articles that follow in this issue of *Sound Outlook* highlight some of these partnerships and the results of their collaborative efforts.



"We Cannot All Do Everything"

he Dutch scholar Desiderius Erasmus observed in 1500 that, "Many hands make light work." This is certainly true when it comes to restoring and protecting Long Island Sound, the beneficiary of cooperative management and research initiatives stretching back more than three decades.

The Connecticut Coastal Management Act (CCMA), passed in 1980, first established a multi-level cooperative process for protecting the state's vital coastal resources and uses. Formalizing a partnership between the state and the National Oceanic and Atmospheric Administration, Connecticut's new Coastal Area Management Program drew upon the federal Coastal Zone Management Act of 1972 to devise policies for state review of coastal development activities. The CCMA, in turn, provided parallel guidance for use by coastal cities and towns in preparing their own Municipal Coastal Programs and Harbor Management

The Long Island
Sound Study (LISS) provided the basis for another longlasting environmental partnership. Subsequent related federal legislation provided funding for the two states and EPA to monitor and characterize environmental conditions in the Sound and to develop the ecosystem-based Comprehensive

Plans.



Supply Ponds Fishway, Branford, CT

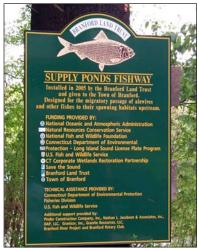
Conservation and Management Plan (CCMP). The new partnership also enlisted public assistance through formation of a Citizens Advisory Committee (CAC), and engaged the academic community through a Science and Technical Advisory Committee (STAC).

The CCMP, adopted in 1994, identified key problems and established priority goals for restoring the Sound. Accomplishments since that time have included establishment of the LIS Total Maximum Daily Load (TMDL) for nitrogen, implementation by Connecticut and New York of over \$1.3 billion in sewage treatment plant upgrades, cooperative habitat restoration agreements, establishment of grant programs for research and public participation, and coordination of data sharing for benthic habitat mapping.

In 1998, LISS partner agencies, together with other local, state and federal organizations, committed to implementation of a Habitat Restoration Initiative, with the goal of restoring at least 2,000 acres of coastal habitat and 100 miles of riverine migratory corridor (RMC) in a period of ten years. By 2006 over 632 acres of coastal habitat had been restored and the goal for river miles had been accomplished, with a new goal of 50 more miles set for 2011. As of 2009, over 145 miles of RMC have been opened. Several grant programs have been established to fund projects benefitting the Sound. Connecticut's Long Island Sound Fund has raised \$4.9 million in license plate revenues since 1991 for 314 projects across the coast to further habitat restoration, research, public access, and education, with each project

leveraging additional dollars and resources from project partners. The Long Island Sound Futures Fund, established in 2005 by the LISS and administered by the National Fish & Wildlife Foundation, has awarded \$3.6 million and leveraged over \$10 million from project partners, including federal agencies, for projects in Connecticut and New York. Examples of cooperative efforts

involving these and many other cooper-



Supply Ponds Fishway, project sign.

ating organizations include installation of the Branford Fishway, restoration of tidal wetlands at Hammonasset Beach State Park in Madison and land preservation at Barn Island Wildlife Management Area in Stonington (see the article on the next page).

In addition to such cooperative financial support, the successful completion of these projects has depended equally upon the expertise and physical assistance of local interest groups. An example of such efforts is that of the Friends of Hammonasset, Inc., a non-profit organization that applied for and received a \$16,500 Long Island Sound Fund grant to produce 14 educational signs for placement

at Hammonasset Beach State Park. The signs depict marine organisms and natural processes that can be observed at the

site. The Friends provided matching funds consisting of in-kind services for sign design, illustrations, text and installation. This local/state partnership constituted a significant contribution to the DEP's outreach and education efforts. The partnerships and collaborative efforts



Educational signage, Hammonasset Beach State Park

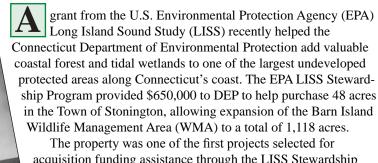
described above have benefited the Sound, the states, their residents and visitors.

Erasmus also said, "We cannot all do everything." As caretakers of Long Island Sound, particularly during these times of limited financial capacity, it is essential that we seek and build upon opportunities to maximize our individual effectiveness and our joint success. For more information on partnerships in Long Island Sound, contact Mark Parker at 860-424-3276 or mark.parker@ct.gov, or Kate Brown at 860-424-3652 or katebrown@ct.gov.

2 SOUND OUTLOOK

SPOTLIGHTED Coastal Access:

Addition to Barn Island Wildlife Mangement Area Secured



acquisition funding assistance through the LISS Stewardship Program, in part because of its value in protecting rare habitat and coastal water quality within the abutting Barn Island WMA. Efforts to conserve the property began in 2007 when DEP, in partnership with the Stonington Conservation Commission, approached the Crowley family, who have owned the property since the nineteenth century and have operated it as a dairy farm until the 1950s. The Crowleys were receptive to the idea of a "conservation sale" of the land for the purpose of preserving its existing character and habitat value. Despite

interest from other prospective buyers with lucrative competing offers, exclusive negotiations between DEP and the Crowley family continued through 2007-2008 as property appraisals were completed and an acquisition financing package was

assembled. In August 2008, The Nature Conservancy of Connecticut (TNC) played a critical role in the transaction by agreeing to purchase and hold the 48-acre parcel until DEP could secure financing. In February 2009, DEP was able to use the recently awarded EPA funds to purchase the Crowley property from TNC and to subsequently ensure its permanent protection by adding it to the Barn Island WMA. A ceremony was held in Stonington on February 19, 2009 to celebrate this important achievement.

Connecticut



Barn Island Wildlife Management Area

The Crowley addition to Barn Island includes 38 acres of forest and 10 acres of inland and tidal wetland that will help to protect habitat for 25 plant and animal species that are listed as State endangered, threatened or of special concern, including least tern, piping plover, peregrine falcon, and New England cottontail. The Barn Island habitat complex is considered a critical stopover area for birds during spring and fall migrations, and is a nationally-recognized scientific research site, supporting over 34 academic research projects.

The acquisition also helps to protect water quality in one of the few local watersheds along Connecticut's coast that is not impacted by development. Numerous studies have indicated that streams become adversely affected by polluted runoff when more than 10-12 percent of land within the surrounding watershed is covered by impervious surface such as roads, parking lots and rooftops. Although the Barn Island area local watershed is presently less than 5 percent developed, it is surrounded by some of the fastest growing communities along Connecticut's shore. By adding the 48-acre Crowley property to the Barn Island Wildlife Management Area, the DEP, the Town of Stonington, and other local project partners are protecting one of the last remaining near-pristine coastal landscapes bordering Long Island Sound. For more information about Connecticut's coastal public access program, contact Dave Kozak at 860-424-3608 or david.kozak@ct.gov.

LOOK OUT for upcoming events!

Denison-Pequotsepos Nature Center

109 Pequotsepos Road, Mystic, CT Visit http://www.dpnc.org/index.html or call 860-536-1216 for information.

Summer programs and events for children, adults and families.

Learn about birds, bats & butterflies. Explore coastal habitats. Take a canoe or kayak trip, or a day or night- hike, offered throughout southeast Connecticut.

Norwalk Maritime Aquarium

10 North Water St., Norwalk, CT Call 203-852-0700 x2206 for times, costs and registration.

Marine Life Study Cruises

Saturdays in June; Saturdays and Sundays in July and August.

Collect and study marine life in Norwalk Harbor aboard RV Oceanic. Passengers must be 42 inches tall.

Connecticut Audubon Coastal Center

Milford Point, Milford, CT

Call 203-878-7440 for times and registration. Family Canoe Program

Saturdays and Sundays, June through September.

Take a guided tour of Charles E. Wheeler Salt Marsh. Time and route weather dependent - call for schedule. Bring water and sunscreen, and wear shoes that can get wet.

Tidepool Explorers

Saturday, June 20, 3-4 p.m.

Discover "Life Between the Tides." Seaweeds, hermit crabs, slipper snails and possibly a few sea stars await discovery!

Charles Island Explorations

Sat., Sept. 12, 11 a.m.-12:30 p.m. Fri., Sept. 18, 5:15-6:45 p.m. Sat., Sept. 26, 11:15 a.m.-12:45 p.m. Take a half-mile hike to Charles island. Wear comfortable sneakers or boots that can get wet. Bring water, snack, hat and sunscreen.

Coastweeks Events

International Coastal Clean-up Day

Saturday, September 19.

Call Kierran Broatch at Save the Sound, 203-787-0646, x113 for information. National Estuaries Day

Saturday, September 26.

visit http://www.estuaries.gov

Please be sure to check the Calendar of Events listed on DEP's website: www.ct.gov/dep

Putting Your LISF Plate Money to Work: Partners Engage to Expand LISICOS to the Connecticut River

n June of 2008, Dr. James O'Donnell of the University of Connecticut, Dept. of Marine Sciences, was awarded a Long Island Sound Fund grant of \$24,866 to initiate expansion of the current Long Island Sound Integrated Coastal Observing System (LISICOS) to the Connecticut River. The organizational lineage of LISICOS is described on page 1 of this issue of *Sound Outlook*.



LISICOS buoy

LISICOS data are acquired from a series of surface and subsurface sensors mounted on buoys anchored at various locations throughout Long Island Sound. The system is intended to provide for sustained monitoring of environmental conditions in the Sound and to develop an adequate capability for understanding and predicting the ecosystem's response to both natural and anthropogenic changes. Dr. O'Donnell's project, specifically, would use LISICOS equipment to generate a long-term record of temperature, salinity and sea level observations in both Long Island Sound and the Connecticut River. Such records are instrumental in assessing the effects of global climate change on those ecosystems.

Presently, new sensors are being installed in the river at the DEP Marine Headquarters facility in Old Lyme and at the Connecticut River Museum in Essex to monitor water salinity and temperature. The data generated will be combined

with ongoing river stage (volume and flow rate) data from the U.S. Geological Survey (USGS) and existing LISICOS meteorological measurements. The project involves collaboration with the USGS and the Connecticut River Museum to provide long-term LISICOS observations and public education opportunities. Specifically, the data obtained would be coordinated and presented to the Museum via a web interface hosted by LISICOS for use in a new exhibit that would engage the general public in the study.

LIS Funds will be used to pay for administrative and personnel costs, and for the purchase of field sampling and data transmission equipment. Matching and in-kind support from UConn and USGS will pay for the deployment of instruments and configuration of the data system. The exhibit is scheduled to be completed by the end of 2009. The project thus represents a successful partnership between state and federal agencies and a private non-profit organization to improve both our knowledge and management of Connecticut's coastal environment. For more information about LISICOS, contact Kevin O'Brien at 860-424-2431 or kevin.obrien@ct.gov.

If you are viewing this issue of *Sound Outlook* on the DEP website and would instead like to receive this newsletter by email, you may sign up for our new listserv. Each time the newsletter is published, you will receive it as a PDF attachment. To subscribe to the listsery:

- Send an e-mail message to imailsrv@list.state.ct.us
- Leave the subject line blank. In the body of the message type:
- Subscribe DEP-SoundOutlook FirstName* LastName* (*Substitute your first and last name).

You will receive an e-mail confirming that you have successfully subscribed to the listserv. If you experience difficulty in subscribing, please contact Tom Ouellette at 860-424-3612 or tom.ouellette@ct.gov.

Sound Tips

Become a Partner in Protecting LIS

There are many volunteer opportunities to become involved in ongoing projects to monitor and protect Long Island Sound. Several of those are:

Connecticut Audubon Coastal Center Milford, CT

Help as docents, and with grounds management and recycling. Call Louise Crocco, 203-878-7440.

CT DEP, Kellog Environmental Center Derby, CT

Wildlife Monitoring Projects: Amphibian Monitoring; Project Nest Box; Project Feeder Watch.

Environmental Monitoring: Adult volunteers may work in environmental monitoring, inventorying and research. Contact Christiana Soares at (203) 734-2513 or christiana.soares@ct.gov. Visit www.ct.gov/dep/kellogg for more information.

Earthplace-The Nature Discovery Center,

Westport, CT

Assist staff members with their Harbor Watch/River Watch water quality monitoring program. Visit http://www.earthplace.org/environment/water_quality.html or call 203-227-7253 for more information.

Save the Sound

Join other volunteers to clean Long Island Sound beaches and build fish ladders to allow fish to migrate up rivers throughout Connecticut. Visit http://www.ctenvironment.org/index.php?option=com_content&view=article&id=2&Itemid=3 or call (203) 787-0646 for more information.

Purchase of a LIS License Plate supports the LIS Fund



As of March 31, 2009:

- Plates sold: 141,652
- Funds raised: Over \$4.95 million
- Projects funded: 314

The LIS Fund supports projects in the areas of education, public access to the shoreline, habitat restoration, and research.

For information on ordering a Long Island Sound license plate, call 1-800-CT-SOUND.

4 SOUND OUTLOOK

SPOTLIGHTED Coastal Resource:

Sound Health and the Economy

ith the winds of the national economic stimulus program blowing like a breath of fresh air, the partners of the Long Island Sound Watershed Alliance (LISWA) held their 19th Annual Long Island Sound Citizens Summit on March 6, 2009 in Bridgeport, Connecticut. The theme of this year's Summit, "Investing in Clean Water for Sound Health, Jobs and the Economy," brought together national and regional experts, legislative leaders from Connecticut and New York, and representatives of the private sector to discuss clean water infrastructure needs in the Long Island Sound region and to consider how projects might be financed and completed.

Keynote speaker Terry Backer, Executive Director of Soundkeeper and Connecticut State Representative from Norwalk, noted that, "...[a]fter upgrading our sewage treatment plants and combined sewage overflows,...the next big challenge will be fixing the problem of our increasing stormwater pollution." He observed that storm drain filters work to remove silt and debris, but do not effectively remove harmful bacteria, and that if we do not implement end-of-pipe solutions to capture bacteria and other contaminants, we will continue to damage our tidal rivers and the Sound. Connecticut Senator Chris Dodd, who also attended the Summit, further stated that, "Investing

in projects to keep Long Island Sound clean is essential to the quality of life for the thousands of residents of the state's shoreline."

Panels on clean water investment, job creation, and infrastructure sustainability met to discuss priority projects and key initiatives that would facilitate regional cooperation and safeguard the viability of the Sound's economy.

Attendees came away motivated to work with municipalities and agencies to reduce nonpoint source pollution through low impact development (LID) and green stormwater infrastructure. The members of LISWA and Summit attendees are planning to draft a series of "next steps" aimed at taking advantage of federal stimulus dollars and investments from both New York and Connecticut to ensure that Long Island Sound continues to be a healthy and vital resource for all its stakeholders.

For more information about LISWA and the Long Island Sound Citizens Summit, visit the Long Island Sound Study web site at http://www.longislandsoundstudy.net/press/3-6-09.LISCitizensSummit.pdf and http://www.longislandsoundstudy.net/pubs/news/Winter09_low%20res.pdf.

Farmington River Enhancement Grants

he Long Island Sound Citizens Summit described above is an example of a proactive initiative to identify resource management opportunities. An alternative basis for collaborative management, albeit a no less productive one, is that represented by Governor M. Jodi Rell's recent award of \$758,905 in Enhancement Grants for 16 projects in 14 communities in the Farmington River watershed. The availability of those funds resulted from court settlements involving violations of federal clean water laws by two companies, Hamilton Sundstrand and Tyco. The Hamilton Sundstrand violation caused environmental damage to the Farmington River and its watershed. The grant funds will therefore be used to improve water quality, restore aquatic life, improve public access for river recreation, and strengthen local land use planning in the watershed, ultimately benefiting Long Island Sound.

The Farmington River Enhancement Grants will be implemented through cooperative efforts by the state, the Farmington River Watershed Association, individual watershed towns, the Central Connecticut Regional Planning Agency, and the Farmington Land Trust. The projects include:

- design of fishways at Spoonville Dam in Bloomfield and East Granby, and at Winchell-Smith Dam in Farmington for passage of American shad, alewife, blueback herring and other anadromous species;
- evaluation of options for improving fish access by removal of Middle Street Dam on the Pequabuck River in Bristol;
- stabilization of a handicapped fishing pier on the Farmington River in Unionville;
- streambank stabilization, eradication of invasive plants and creation of a canoe and kayak launch area at Sycamore Park on the Farmington River in Simsbury; and
- preparation of a Master Plan to study sediment removal from, and improvement of, Upper Collinsville Mill Pond on the Farmington River.

In addition, ten Farmington River towns will receive funding to review and analyze their current land use ordinances in order to identify barriers to Low Impact Development (LID) techniques and, where possible, to remove those barriers and incorporate such techniques into municipal zoning and subdivision regulations and municipal Plans of Conservation and Development. LID techniques are intended to decrease the volume of stormwater runoff and improve water quality by infiltrating, filtering, storing and evaporating stormwater.

As Governor Rell noted, "These funds will improve water quality, restore aquatic life, improve public access to the river for recreation and strengthen local land use planning. As an added benefit, some of the projects will create much-needed jobs for our residents." For more information about projects listed above, please contact Kate Hughes Brown, Long Island Sound Fund Coordinator, at 860-424-3652 or kate.brown@ct.gov.





What's New Around the Sound? A Seasoned Friend in a New Role

n 1999, the Connecticut Department of Environmental Protection (DEP) hired the first Public Outreach Coordinator assigned to provide public outreach and staff support for the Long Island Sound Study (LISS) National Estuary Program in Connecticut. After ten years, DEP has handed over those responsibilities to one of its LISS partners, Connecticut Sea Grant. On April 6, 2009, Sea Grant announced that Judy Preston of Old Saybrook will become Connecticut Sea Grant's new Long Island Sound Outreach Coordinator.

Judy will lead an outreach program that serves the LISS objectives of fostering public involvement and support for the restoration and protection of Long Island Sound and its watershed. She will work with other LISS partners to develop and disseminate

information and educational resources about the Sound to citizens of the region and to expand opportunities for environmental stewardship.

Judy is no stranger to the Long Island Sound community. She founded the Tidewater Institute, a community-based non-profit conservation organization striving to implement collaborative resource protection and management in the Connecticut River estuary region. She is the founder and first president of the Old Saybrook Land Trust, and has served on the LISS Citizens Advisory Committee. She has also worked for The Nature Conservancy's Connecticut Chapter, as adjunct faculty for Three Rivers Community College in Norwich, Connecticut, and as a geologist for the



Judy Preston, LIS Outreach Coordinator

American Stratigraphic Company in Denver, Colorado. Judy will be based at the Connecticut Sea Grant College Program office located at the University of Connecticut's Avery Point Campus in Groton. Please join DEP in welcoming Judy Preston to Connecticut's Long Island Sound outreach team.

Visit the DEP website at www.ct.gov/dep.

Published by The Connecticut Department of Environmental Protection, Office of Long Island Sound Programs and Bureau of Water Management.

Editor: Tom Ouellette; Illustrations by Tom Ouellette; Contributing Editor: Mark Parker; Layout: Caryn Furbush; Contributors: Kate Brown, David Kozak, Mark Parker. Printed on 100% post-consumer recycled paper using vegetable-based ink.

Financial assistance for **Sound Outlook** was provided by the Coastal Zone Management Act of 1972, as amended, administered by the Office of Ocean and Coastal Resource Management, National Oceanic and Atmospheric Administration (NOAA). Financial assistance was also provided by the federal Environmental Protection Agency under the National Estuary Program.





The Department of Environmental Protection is an affirmative action/equal opportunity employer, providing programs and services in a fair and impartial manner. In conformance with the Americans with Disabilities Act, DEP makes every effort to provide equally effective services for persons with disabilities. Individuals with disabilities needing auxillary aids or services, or for more information by voice or TTY/TDD. call 860-424-3000.