

# SOUND OUTLOOK

A NEWSLETTER OF THE CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION  
EXPLORING LONG ISLAND SOUND – ISSUES AND OPPORTUNITIES

## Sustainable Use of Long Island Sound

**M**any of us have made conscious decisions in recent months to stay closer to home in our recreational pursuits in response to increases in fuel and other travel related expenses. Governor M. Jodi Rell suggested that state residents enjoy a summer “Staycation” in Connecticut in the face of these conditions rather than traveling longer distances. In the process, we have perhaps gotten to know or become reacquainted with the many scenic, recreational and cultural amenities that Connecticut has to offer. These circumstances, however, may create a “two-edged sword.” While we have enjoyed Connecticut’s hiking, canoe and kayak trails, beaches, fairs, museums and historical exhibits, staying local also increases certain pressures on those resources, including Long Island Sound. Those stresses result from increased traffic and parking along the shore and the routes to the shore, and the resulting impacts on air quality from auto emissions. The water quality of our rivers and the Sound is impacted by runoff from roads and parking lots of petroleum products and heavy metals that come from leaks, tire wear and corrosion of our automobiles. Once we reach our destination, impacts also result from our personal practices if the trash and other materials that we use are carelessly discarded during our visits, causing detriments to aesthetic, health and ecological conditions.

We need to find a new balance in these pursuits so that we do not wear out our coastal welcome, or overburden the very resources we want to enjoy.

This edition of Sound Outlook focuses on things that Connecticut residents can do to protect our coastal environment - actions that we can take as consumers to protect wildlife and prevent despoliation of habitats, and actions that we can take as citizens in support of larger, public or government-led efforts to sustain the character and quality of that environment.

As Governor Rell has suggested, if each Connecticut resident chooses to do one thing each day to help reduce our collective societal footprint on Long Island Sound - as on all of our state - we can make a significant difference in protecting and preserving the Sound for our own enjoyment and for that of future generations.

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OCTOBER 2008  
No. 29



## Reducing our Impacts on the Sound

**A**s noted in our cover article, people and organizations at all levels can work to ensure that Long Island Sound remains a healthy and diverse environment by employing green products and green practices.

One of the actions we can all take on a personal level is to reduce the occurrence of floatable debris in the Sound. Over 14 billion pounds of trash – most of it plastic – is dumped into the oceans each year. Drifting plastic debris, which is both unsightly and non-biodegradable (and therefore likely to remain in the environment for decades) poses a serious health risk to marine mammals, reptiles and birds. Sea turtles both in and outside of LIS can mistake floating plastic shopping bags for their preferred prey, jellyfish - ingestion of plastic bags by



*Reusable grocery bags help to protect sea turtles.*

turtles causes choking, starvation and death. Other debris, like plastic six pack rings, can strangle diving birds and other aquatic wildlife or prevent them from feeding normally, which causes starvation and death. We can help to solve these problems by using paper grocery bags or the reusable bags that are now sold for a nominal fee at most markets, and by cutting up plastic 6-pack rings before recycling them. We can eliminate yet another major component of the waste stream, and a major source of beach litter, by carrying reusable containers with tap water rather than disposable water bottles. Studies have shown tap water to be no less pure than bottled “spring” water. Eliminating plastic containers and

packaging will not only improve the appearance and quality of our coastal environment, but will also reduce our national demand for petroleum, from which such products are manufactured.

Residents and vacationers who visit Long Island Sound can reduce their carbon footprint, and thereby conserve energy and protect resources, by using public transportation where feasible and practical to travel to and along the shore. The use of fewer personal vehicles reduces fuel consumption, and the resulting decrease in auto emissions improves air quality along the coast. Additional impacts of vehicular use that could be avoided include overuse of existing parking areas and increased demand for new parking spaces, most often in the form of impervious pavement. More parking capacity means more potential for stormwater-generated inputs of road contamination, road sand and salt, heavy metals and other chemical and petroleum based contaminants to coastal waters.

There are a number of resources that enable us to reduce our reliance on automobiles. The CTTransit bus system ([www.cttransit.com](http://www.cttransit.com)) provides access to numerous coastal recreation facilities in New Haven and Stamford and surrounding towns. The Connecticut Department of Transportation (DOT) publishes the *Statewide Bicycle Map* (visit [www.ct.gov/dot](http://www.ct.gov/dot) and go to the subheading Maps). The maps depict cross-state routes and loop routes leading to and along the coast. DOT also includes on its website a link to the publication *Pathways through Connecticut*, which shows a number of multiuse trails at

various locations along the coast, although some are discontinuous. These maps

can be used in conjunction with the online *Connecticut Coastal Access Guide* ([www.lisrc.uconn.edu/coastalaccess](http://www.lisrc.uconn.edu/coastalaccess)) to find convenient, non-consumptive ways to get to Long Island Sound.

In addition to these individual efforts, sustainability in Long Island Sound and coastal waters nationwide can be achieved on a larger scale, with the support of the public and political and social communities, through the transition to alternative, renewable energy sources. Connecticut is working with surrounding

coastal states – notably, through the Northeast Regional Ocean Council and its Ocean Energy Planning and Management Committee - to increase opportunities for alternative energy production off the New England coast, including the development of wind, wave and tidal energy facilities. Interest has been expressed by industry in installing subsurface turbines in Long Island Sound to take advantage of the strong currents present at the Race where LIS waters flow into the open ocean, and in the mouths of tidal rivers. And while no one has yet proposed installing wind turbines within

the Sound, both of these renewable energy sources are likely to become important parts of Connecticut’s “energy portfolio” in coming years. Development of renewable

energy will reduce the potential for adverse impacts related to transport of fossil fuels, including oil spills and the construction of oil and gas pipelines

We can all take individual steps, and support larger government and industry initiatives, to reduce society’s impacts on our coastal resources so that their character and integrity may be protected now and in the future. ♻️

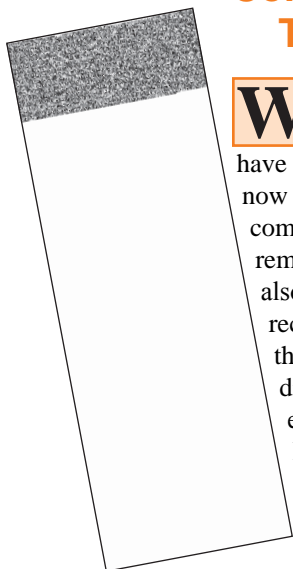


*Renewable energy reduces fossil fuel consumption.*



*Bicycling to coastal destinations (shown: Hammonasset Beach State Park) helps to protect LIS water quality.*

## SPOTLIGHTED Coastal Access: Conserving Coastal Resources Through Land Acquisition



**W**ith over 350 years of post-European settlement along Connecticut's coast, nearly all of the state's coastal lands have been subject to human use or occupation. "Developed" land now covers 51% of the area within Connecticut's coastal boundary compared to 23% developed land cover statewide. Much of the remaining "undeveloped" land within Connecticut's coastal area has also been influenced by past human activity (agriculture, forestry, recreation, etc.) that may have compromised its conservation value through, for example, introduced and invasive plant species that displace native vegetation and degrade wildlife habitat value. It is estimated that approximately 30% of Connecticut's tidal wetlands have been filled and up to 90% may have been ditched or otherwise altered through human activity. It is therefore critical to conserve the most significant remaining unprotected coastal areas capable of supporting important coastal and estuarine system functions and compatible recreational uses.

Continued competition for use and development of land along Connecticut's coast further diminishes potential land conservation opportunities. Therefore, Connecticut DEP together with federal and local government partners and non-governmental land conservation organizations (NGOs), strive to continuously identify and evaluate land conservation acquisition opportunities. The DEP's draft *Coastal and Estuarine Land Conservation Program (CELCP) Plan* describes Connecticut's most important coastal land conservation values and a strategy for protecting those values through land acquisition. The Plan directs DEP's coastal land conservation efforts to ensure that scarce state land acquisition funds are used to conserve Connecticut's most significant remaining unprotected coastal areas, such as coastal area grasslands, islands, coastal forests and freshwater tidal marshes, for future generations.

Land acquisition is a highly effective but extremely costly approach to conserving coastal resources. It should therefore be applied only to the most outstanding conservation opportunities, i.e., those that would confer conservation benefits that directly meet strategic planning goals which could not be achieved using mechanisms like landowner best management practices, regulatory restrictions or creative conservation subdivision design. Through conservation land acquisition, governmental organizations and NGOs hold title to or a conservation easement (also known as a conservation restriction) over real estate. Due to funding constraints at the state level and the cost of acquiring coastal land, most significant coastal land acquisitions are done through conservation partnerships using a variety of funding sources. Increasingly, Connecticut has relied on acquisition funding assistance programs from federal natural resource management agencies such as the U.S. Fish and Wildlife Service's Coastal Wetlands Conservation Grant Program ([www.fws.gov/coastal/CoastalGrants](http://www.fws.gov/coastal/CoastalGrants)) and the National Oceanic and Atmospheric Administration's CELCP Program (<http://coastalmanagement.noaa.gov/land/welcome.html>). For example, the recent acquisition of property added to Barn Island Wildlife Management Area in Stonington involved partners at all levels of government and the NGO community.

Connecticut DEP is currently cooperating with other organizations on land acquisition projects and hopes to report on land conservation success stories in future issues of *Sound Outlook*. If your organization has identified an outstanding coastal land conservation opportunity that may benefit from DEP's assistance, please contact David Kozak, DEP's coastal land conservation specialist, at 860-424-3608 or by email at [david.kozak@ct.gov](mailto:david.kozak@ct.gov).

## LOOK OUT for upcoming events!!

**Connecticut Audubon Coastal Center**  
Milford Point, Milford, CT  
Call 203-878-7440 for information/  
registration.

*Charles Island Explorations*

**Saturday, Oct. 11, 2:45 PM;**

**Saturday, Oct. 25, 3:00 PM**

Discover natural history and folklore.

Wear boots or sneakers that can get wet.

**Norwalk Maritime Aquarium**

10 North Water St., Norwalk, CT

Call 203-852-0700 x2206 for information/  
registration.

*Behind the Scenes Tours*

**Saturday, Oct. 18; Saturday, Dec. 27;**

**Tuesday, Dec. 30; 8:15-10:00 AM**

Join guided tour of backstage spaces for  
rare look at Aquarium operations.

**DEP Environmental Educator Workshop**

Kellogg Environmental Center

500 Hawthorne Ave., Derby, CT

Call 203-734-2513 to register (fee required).

*Project WET: LIS Ecosystem*

**Thursday, Oct. 23, 9:00 AM-3:00 PM**

Teachers of grades 6-8; use Project WET  
materials to teach about water cycle  
and pollution connections, climate and  
adaptation to water systems, and the  
impacts we have on this natural resource.

**Long Island Sound Research Conference**

**Thursday, Oct. 30 - Friday, Oct. 31**

Connecticut College

Registration deadline Oct. 15.

Call Susan McNamara, 860-405-9166

[susan.mcnamara@uconn.edu](mailto:susan.mcnamara@uconn.edu).

**Long Island Sound Study Citizens**

**Advisory Committee Meeting**

**Thursday, Dec. 11**

Univ. of Connecticut, Stamford Campus

Call 203-977-1541 to register.

**December:** Bald eagles return to

Connecticut for the winter. Call

1-800-368-8954 after December 8<sup>th</sup>

for reservations at the Shepaug Eagle  
Observation Area.

**Please be sure to check the Calendar  
of Events listed on DEP's website:**

[www.ct.gov/dep](http://www.ct.gov/dep)

If you did not receive this issue of *Sound Outlook* in the mail and would like to be placed on the mailing list, please send your name and address to: *Sound Outlook*, Connecticut DEP, Office of Long Island Sound Programs, 79 Elm Street, Hartford, CT 06106-5127; or email your address to [tom.ouellette@ct.gov](mailto:tom.ouellette@ct.gov).

## Putting Your LIS Plate Money to Work: Long Island Sound Fund 2008 Grant Awards

**O**n June 5 of this year, the Long Island Sound Fund Advisory Committee voted to award \$310,613 in grants for 14 projects to help preserve and protect Long Island Sound. The projects were selected through a competitive grant process. Several of the approved projects within the various project categories are:

### Education and Outreach:

- The **Quinebaug-Shetucket Heritage Corridor (QSHC), Inc.** was awarded \$25,000 for a project that is particularly relevant to the theme of this issue of *Sound Outlook*. *Making Sound Choices from Source to Sea* will be conducted in conjunction with QSHC's 2009 Source to Sea Expedition. Two exhibits will be constructed with accompanying educational materials for use at 18 or more public events to be held from April through June 2009. Those events will occur at various locations along a canoe/kayak paddling route that extends along the Thames River and its major tributaries from Massachusetts to Long Island Sound. The program is expected to engage and educate 10,000 people, including 2,000 children, and will feature educational exhibits and hands-on activities that encourage participants to reduce nutrient loading that occurs through non-point source pollution. Common practices that will be addressed include lawn care, pet waste disposal, septic system maintenance and car-washing. The exhibits will feature "enviroscape" watershed and coastal models and biological sampling equipment. The equipment will be made available to schools upon conclusion of the *Source to Sea* project. The project will also include development of a new web page devoted to water issues, and recruitment of volunteers interested in becoming water quality monitors and stewards of water-related resources.



*Sorting the catch from a stream sampling exercise.*

### Public Access:

- Construction by the **Town of East Lyme** of a new handicapped-accessible fishing pier at Cini Memorial Park, providing public fishing access to the Niantic River.
- Installation by the **Town of Shelton** of a new concrete floating dock and associated handicapped accessible concrete access ramp on the Housatonic River at the foot of River Road.

### Research:

- A project by the **University of Connecticut, Dept. of Marine Sciences** expanding the Long Island Sound Integrated Coastal Observing System (LISICOS) to the Connecticut River to establish a long-term record of temperature, salinity and sea level that will help assess the effect of climate change on the ecosystem of the river and the Sound.

### Habitat Restoration:

- A project by the **Town of Westbrook** to remove non-native, invasive plants in a coastal forest area at Salt Island Overlook adjacent to tidal marshes of Long Island Sound for restoration of native wildlife habitat.

The DEP looks forward to working with the successful applicants. Connecticut residents can support future projects by purchasing a Preserve the Sound license plate, acquiring a LIS Affinity credit card, or making a direct contribution to the Fund. License plates can also be purchased as gifts.

To learn more about how to purchase your LIS license plate, call 1-800-CT-SOUND, or visit our website at [www.ct.gov/dep/lislicenseplate](http://www.ct.gov/dep/lislicenseplate). To obtain information about the program and its grant opportunities, contact the Long Island Sound Fund Coordinator, Kate Brown, at 860-424-3652, or by e-mail at [kate.brown@ct.gov](mailto:kate.brown@ct.gov).

## Sound Tips

### Ask for Sustainable Seafood

You can promote sustainable use of coastal resources at the fish counter of your local supermarket or at your favorite seafood restaurant. The Monterey Bay Aquarium in California operates the **Seafood Watch Program** ([www.seafoodwatch.org](http://www.seafoodwatch.org)), informing readers about the importance of buying seafood from sustainable sources.

The Aquarium encourages consumers to make a difference by supporting those fisheries and fish farms that can exist over the long-term without compromising species' survival or the health of the surrounding ecosystem. Whether a fishery is sustainable depends on catch levels, fishing methods and their impacts, and, if farm-based, the efficiency of aquaculture operations. With nearly 75% of the world's fisheries either fully fished or overfished, it is important that we base our seafood purchases on the best available information.

The Seafood Watch Program website offers **Regional Seafood Guides** and **Printable Pocket-size Guides**, among other products, that provide detailed information about the best sustainable seafood choices, as well as those species that should be avoided.

### Purchase of a LIS License Plate supports the LIS Fund



#### As of July 31, 2008:

- Plates sold: 139,899
- Funds raised: \$4.89 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.

View past issues of  
*Sound Outlook* at  
[www.ct.gov/dep/lis](http://www.ct.gov/dep/lis)

# SPOTLIGHTED Coastal Resource: Restoring Beach-and-Dune Habitat

**C**oastal habitat degradation and loss were identified as a priority area of concern by the Comprehensive Conservation and Management Plan (CCMP) for Long Island Sound, part of the EPA Long Island Sound Study. As a result, many projects have been undertaken in Connecticut to restore and sustain degraded and misused coastal habitats.

Among the habitats in Long Island Sound and elsewhere that have been affected by development and overuse are coastal beach-and-dune systems, including Mitchell Beach in New London. Although common at one time along the Thames River, the beach-and-dune system that encompasses 600-foot long Mitchell Beach is the only one of significant size remaining on that water body.

Mitchell Beach is suffering from a profusion of non-native plants that threaten the viability of native vegetation, while the dunes behind the beach have become significantly eroded in recent years, with numerous paths leading over them from the adjacent parking lot. Heavy foot traffic has resulted in large bare areas in the upper portion of the dunes. These trails and bare patches undercut the root systems of the beach grasses, in turn causing further erosion.

Fortunately, restoration of these resources is presently underway through grants from the National Fish and Wildlife Foundation and the Long Island Sound Fund. Through removal of invasive plants, reestablishment of native plants, and reduction of cross-dune foot traffic, the project will serve to beautify the landscape and reduce erosion, thereby preserving critical coastal habitat. A total of 1.5 acres will be restored over a 5-year period. The project will be done in phases, for purposes of funding and to prevent erosion that may be caused by the removal of the root systems of the invasive species. Long-term maintenance of the completed project will be performed by Marine Ecology classes at Mitchell College.



*Mitchell Beach, New London*

This project is an important component of the restoration of Long Island Sound as a whole.

The initial phase of the project will include installation of approximately 1,800 feet of dune fence around the entire perimeter of the dunes. Invasive species will be removed and native American beachgrass planted in two of five sections of the project area. Invasive species comprise more than 95% of the backdune area, and more than 50% of the foredune area, and include mugwort, oriental bittersweet, Japanese knotweed, tree of heaven, curly dock and common chicory.

These will be removed by mowing, cutting, and uprooting, along with the careful application of appropriate chemical herbicides. In addition to American beachgrass, species that will be planted to restore the native community include common native dune plants such as beach plum and

bayberry, with a long-term goal of reintroducing some less common dune plants like sea rocket, sparscale, seabeach orach, and seaside knotweed.

The Mitchell Beach Restoration Project provides a unique opportunity for students from Mitchell College to experience the intricacies of a large-scale environmental restoration project and to learn about the importance of coastal beaches to the health of Long Island Sound. The restoration project will also be available for use as a teaching tool by local schools and educational programs for all age levels. The project will incorporate a handicapped accessible boardwalk that will enable handicapped students and other individuals access to the dune and beach. This project will restore habitat value and quality, while preserving environmentally sound human use of the recreational beach.

For more information on this project, or about DEP's coastal habitat restoration program, contact Harry Yamalis at 860-424-3620 or by email at [harry.yamalis@ct.gov](mailto:harry.yamalis@ct.gov).

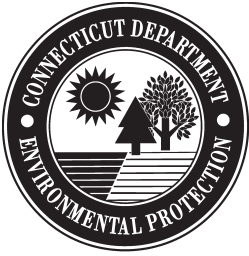
## Coastal Permitting Gets a "LEAN" Makeover

Much like its efforts to promote sustainable use of Long Island Sound, the Connecticut DEP recently launched an initiative to improve the effectiveness of its own administrative processes through what is known as the "LEAN" approach. Originally developed to improve manufacturing processes in Japan, the LEAN process arms staff with a set of tools to identify and eliminate non-value added procedural steps and create more efficient processes.

This past summer, following consultation among agency staff and the regulated community, DEP initiated a LEAN pilot project to revise the coastal permit application

review process. On November 3, 2008, DEP will institute reduced application review timeframes and better customer service, while still protecting the state's coastal resources. These efforts will enable permitting and enforcement staff to better address other DEP priorities such as public outreach to coastal communities, enforcement, and planning for sea level rise and climate change.

For additional information on the LEAN process including updated forms and applications, visit the DEP website at [www.ct.gov/dep](http://www.ct.gov/dep) or contact Tonia Selmeski at 860-424-3599 or by email at [tonia.selmeski@ct.gov](mailto:tonia.selmeski@ct.gov).



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## Then & Now: Keeping our State Parks Clean


**F**orty years ago, many of Connecticut’s coastal state parks provided for little or no trash disposal. As use of the parks increased, so, too, did the amount and variety of waste left behind. By the time DEP was created and became the overseer of the state parks, many had established their own garbage collection systems and disposal areas. As environmentalism and litter awareness increased during the 1960s and 1970s, the state parks installed trash can stations. However, increasing use of packaging material for everything from food products to cigarettes to disposable eating utensils often exceeded the capacity of those trash collection efforts, and litter problems continued. The system was further stressed as park facilities were occasionally used for disposal of household waste.



*Raking litter at  
Hammonasset Beach State Park.*

Over the last ten years, as public awareness of the importance of product reuse and recycling has increased, DEP made a commitment to eliminate landfills and other open disposal practices. At high use parks such as Hammonasset Beach and Rocky Neck State Parks, dumps were closed and trash cans were replaced with recycling bins and dumpster stations. “Carry in – Carry Out” signs have been posted since 1992 at remote state parks and low impact beaches such as Silver Sands State Park and Bluff Point Coastal Preserve. At the coastal state

parks, beach cleaning equipment came into use to help staff keep litter off the beaches and out of Long Island Sound.

Today, more people are becoming active in volunteer programs to help sustain our state parks. You can assist in this effort by joining beach clean-ups organized by groups such as Friends of Sherwood Island and Save the Sound, which sponsors *International Coastal Clean-up Day* every September. DEP will continue to provide the facilities and means to keep Long Island Sound and its beaches clean and safe. However, as use of those facilities and the costs of maintenance both increase, we all must help to achieve that goal. 

Visit the DEP website at [www.ct.gov/dep](http://www.ct.gov/dep).

Published by The Connecticut Department of Environmental Protection, Bureau of Water Protection and Land Reuse.

Editor: Tom Ouellette; Illustrations by Tom Ouellette; Contributing Editor: Mark Parker; Layout: Caryn Furbush; Contributors: Kate Brown, David Kozak, Mark Parker, Tonia Selmeski. 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.



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