

A NEWSLETTER OF THE CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION

EXPLORING LONG ISLAND SOUND – ISSUES AND OPPORTUNITIES

# Waterford Stormwater Management Design Recognized Nationally

n innovative stormwater management project in Waterford, Connecticut is attracting national attention. The project site is the 18-acre "Glen Brook Green" subdivision, located in a small watershed that drains into Jordan Cove, a 57-acre estuary connected to Long Island Sound. While water quality in the Cove is generally quite good, it does not always meet bacteriological standards for direct shellfish harvesting. This, and the failing health of eelgrass beds that may be caused by nitrogen enrichment, are both related to polluted stormwater runoff from that watershed. The Jordan Cove project will provide insight with which to meet state water quality standards through new Best Management Practices (BMPs).

This project will determine whether the quantity and quality of runoff emanating from a traditionally developed residential site differ significantly from that generated on an experimental site managed in an environmentally sensitive manner. This 10-year monitoring initiative, begun in 1996 and funded by the U.S. Environmental Protection Agency's Nonpoint Source Management Program under Section 319 of the federal Clean Water Act, is administered by DEP, with the University of Connecticut's Dr. Jack Clausen leading the research effort.

The Glen Brook Green subdivision is split into two distinct "neighborhoods." In one neighborhood, building lots are arranged in a traditional zoning pattern. In the experimental section, housing is clustered to minimize impervious coverage, incorporating a variety of BMPs to control stormwater runoff. Curbs and catch basins collect runoff from the traditional section, which is then piped through a detention pond treatment system before entering a nearby stream and Jordan Cove. The experimental neighborhood incorporates grass swales, roof leader "rain gardens," and narrower, permeable roads with a vegetated infiltration basin located in a cul de sac. Other measures include shared, permeable driveways, small "foot-print" buildings, and deed restrictions that prohibit expansion of impervious surfaces. Lawns are designated as conservation zones or as suitable for "low-mow" or "no-mow" maintenance. Various road and driveway surfaces are being monitored to determine their relative runoff rates and pollutant removal capabilities.

Over time it will be determined whether the resources and water quality of Jordan Cove benefit from this innovative project. For more information visit <a href="http://nemo.uconn.edu/case\_studies/case\_studies/jordan\_cove\_ct\_cs.htm">http://nemo.uconn.edu/case\_studies/case\_studies/jordan\_cove\_ct\_cs.htm</a> and <a href="http://www.canr.uconn.edu/jordancove">http://www.canr.uconn.edu/jordancove</a>, or contact Stan Zaremba of DEP at 860-424-3730 or by email at <a href="mailto:stanley.zaremba@po.state.ct.us">stanley.zaremba@po.state.ct.us</a>.



### **Clean Marina Program Update**

hile most of Connecticut's boats were laid up during the past winter, staff of the DEP Office of Long Island Sound Programs (OLISP) and Boating Division were busy preparing the state's marina operators for Clean Marina certification. Armed with Connecticut Clean Marina Guidebooks and associated program materials, Clean Marina Program staff traversed the state in January and February, presenting the program in a series of workshops.

Clean Marina workshops were held in Greenwich, Old Lyme, Essex, Groton, and Brookfield. Of the fifty workshop participants, owners and operators of 13 facilities, listed alphabetically below, pledged to become certified Clean Marinas within the year:

Beacon Point Marine, Cos Cob

Beebe Marine, Madison
Brewer Dauntless Shipyard, Essex
Brown's Boat Yard, Guilford
Cedar Island Marina, Clinton

Chrisholm Marina, Chester Essex Island Marina, Essex Harry's Marine Repair, Westbrook Pine Island Marina, Groton Riverscape Marina, Cos Cob



Saybrook Point Inn and Marina, Old Saybrook Shennecossett Yacht Club, Groton The Marina, New Fairfield

By signing a Clean Marina Pledge, a marina operator commits to maintain an environmentally responsible business, and takes the first step toward Clean Marina certification. After taking the Pledge, a facility operator then conducts a facility self-assessment, using checklists provided by the Program.

Facilities that are certified must show that they are not only in compliance with all applicable environmental requirements, but that they operate above and beyond environmental standards set by the DEP and a group of marina operators for seven categories of marina operation. Once the Clean Marina Program verifies that a facility meets the appropriate standards, the facility will be entitled to fly a Clean Marina flag and to use the Clean Marina logo (shown at left) on its company publications.

This summer, look for Clean Marina flags flying at marinas throughout the state. For more information about Clean Marina certification, contact Elke Sutt, OLISP, at 860-424-3034 or by email at elke.sutt@po.state.ct.us. 🗷

### PACE Project Addresses Coastal Public Access in Connecticut

he DEP Office of Long Island Sound Programs (OLISP) is pleased to have received a coastal management fellowship for 2002-2004 from the National Oceanic and Atmospheric Administration's Coastal Services Center (CSC). Fellow Susan Fox, a graduate of the University of Charleston in South Carolina, is currently working on the Public Access to Coastal Environments (PACE) Project. In the course of her PACE fellowship, Susan will put to use her experience in fisheries management, coastal planning and development, and species conservation and management gained while completing her Master of Science degree in environmental studies.

Susan, who came to DEP in September 2002, will spend two years

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developing OLISP's coastal public access database and Internet site, as well as other databases associated with the PACE project. As part of the project, a comprehensive geographic information system (GIS) database, comprised of existing and potential coastal access and land acquisition sites, is being refined and updated. The interactive Internet site will allow the public to identify coastal access sites that meet selected search criteria. including a range of popular uses, environmental features and recreational facilities. The Internet site will draw on the database used to prepare The Connecticut Coastal Access Guide map previously developed by OLISP and others.

The PACE Project will improve OLISP's ability to provide new and enhanced existing coastal access

opportunities. It will also enhance our understanding of existing shoreline ownership, develop a mechanism for prioritizing coastal properties for public acquisition, increase the public's use of existing coastal access information, and fill critical data gaps regarding existing but underutilized public access sites.

The NOAA Fellowship program was created to provide funding for recent graduates in coastal resource management and policy to conduct two-year projects that provide specific technical assistance for state coastal management programs. Susan is the third CSC fellow hosted by OLISP over the past seven years. For more information on the PACE project and fellowship, please contact Susan Fox at OLISP, 860-424-3034, or by email susan.fox@po.state.ct.us.

SOUND OUTLOOK

# **SPOTLIGHTED** Coastal Access: Rocky Neck State Park

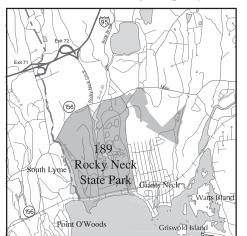
ummer is here! After the long, cold, snowy winter, come enjoy the sun and sand at Rocky Neck State Park. Located on Long Island Sound in the town of East Lyme, the 710-acre park (site no. 189 in the *Connecticut Coastal Access Guide*) is a popular recreation spot for residents of Connecticut and beyond.

Rocky Neck's varied terrain offers something for everyone. Clear waters and a wide sand beach make it ideal for swimmers, while picnickers enjoy using the large stone pavilion constructed from native materials by relief agencies in the 1930's. The park's diverse trail system provides easy and interesting walks to points of interest such as Baker's Cave and Tony's Nose, a ledge outcropping that overlooks the tidal Four Mile River to the west. Both the cave and the nose sheltered British sympathizers during the Revolutionary War.

Some of the trails are shared with mountain bikers, and cross-country skiers use the park in winter.

Bordering the park on the east is the scenic Bride Brook salt marsh. High spring tides allow schools of alewives to swim upstream to inland spawning grounds. Osprey are frequent early summer visitors, while cranes, herons and mute swans wade among cattails and rose mallow in the fall.

Family camping is also popular at Rocky Neck, with 160 wooded and open campsites available from mid-April through September 30. Saltwater anglers fish for mackerel, striped bass, blackfish and flounder from the beach and a stone jetty, or from a wheelchair-accessible fishing platform over Bride Brook. Nature viewing is equally rewarding, with a wheelchair-accessible

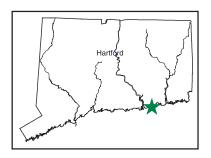


observation deck located at the edge of the marsh.

Rocky Neck State Park is open daily, year round. There are separate weekend/holiday and weekday parking fees as well as a camping fee. Camping reservations are required during the summer. Additional information can be found on the DEP State Parks website at

www.dep.state.ct.us/stateparks/parks/index.htm *B* 





#### **LOOK OUT**

# for upcoming events!!

June: Rivers Month

July: Osprey young begin to fly.

#### Norwalk Maritime Aquarium Programs Marine Life Study Cruises

July 1 - Labor Day, 1:00 pm daily. 2-1/2-hour cruise aboard R/V Oceanic; observe marine life, explore habitats of LIS. Charter cruises available for schools, summer camps, Scouts, etc. Assist in Horseshoe Crab Census. Find out why Long Island Sound is a vital natural resource. To reserve a spot on a study cruise or for more details, call 203-852-0700, ext. 2206.

**Late August:** Plovers and terns begin southward migration.

**August – September:** Sea turtles move into LIS. Boaters please watch for them!

#### **Coastweeks Events**

## Sun., Sept. 14: Coastweeks Row Regatta

2,000 meter regatta on the Mystic River for racing shells and traditional pulling boats.

Call CT Sea Grant, 860-405-9110, for information.

### Sat., Sept. 20: International Coastal Clean-up Day

Volunteer to be part of a global event to help rid our shorelines of marine debris.

Call Save the Sound, 1-888-SAVE LIS, for information.

Sat., Sept. 27: National Estuaries
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Please be sure and check the Calendar of Events listed on DEP's website: www.dep.state.ct.us

# DEP Provides Free Storm Drain Marker Kits

s part of its continuing efforts to preserve and protect Long Island Sound, the DEP's Long Island Sound Fund, which is supported by sales of *Preserve the Sound* license plates, is offering free Storm Drain Marker kits. The kits contain markers bearing the message:

"Drains to Waterways and Long Island Sound, No Dumping."

The kits also include the glue, gloves and installation instructions, as well as educational brochures, needed to conduct a volunteer storm drain marking project. The markers and brochures are available in English and Spanish.

Matching financial assistance for this program was provided by a grant from the Office of Ocean and Coastal Resource Management, National Oceanic and Atmospheric Administration (NOAA). The intent of this new program is to raise environmental awareness and to reduce nonpoint source pollution in Long Island Sound. The markers serve as a reminder that what we do in Connecticut, even at inland locations, can impact water quality in Long Island Sound. Every drop of water, as well as substances such as motor oils, soaps, fertilizers, litter, leaves, and pet waste, that go down storm drains can eventually find their way, untreated, to the Sound. That's why it is

very important

to prevent those substances from entering storm drains.

Local non-profit, volunteer, and educational groups, as well as municipalities, can obtain free Storm Drain Marker kits from the DEP Office of Long Island Sound Programs (OLISP). Among those organizations that have already received kits are



students at Pine Point School in Stonington, who will be installing markers on storm drains around the school campus and in nearby neighborhoods, and the Boy Scouts of Milford, who will be conducting a similar project in that town. These organized efforts provide an excellent opportunity for participants to learn about the importance of nonpoint source pollution prevention while conducting a community service project.

The kits are available on a first-come, first-serve basis while they last. To obtain a Storm Drain Marker Kit, contact Kate Brown, Long Island Sound Fund Coordinator at 860-424-3034 or by email at kate.brown@po.state.ct.us.

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 laurie.valente@po.state.ct.us.

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



#### As of March 31, 2003:

- Plates sold: 119,329
- Funds raised: Over \$4.1 million
- Projects funded: 227

The LIS Fund suppports 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.

## **Sound Tips**

# Prevent Nonpoint Source Pollution in Your Neighborhood

You can do your part to improve water quality in local waterways and Long Island Sound with these handy tips:

- Wash your car on your lawn.
- ★ Clean up after your pets.
- Use a mulching mower; leave grass clippings on your lawn.
- Prevent leaves, road sand and litter from entering storm drains.
- Dispose of motor oil, paints, solvents and other chemicals properly.
- Use gravel, trap rock, and crushed stone for home improvements instead of concrete or asphalt.
- \* Include vegetated buffers with native fruit-bearing plants in your landscaping plan to limit surface water runoff.

\$ SOUND OUTLOOK

## **SPOTLIGHTED** Coastal Resource: Water-Dependent Uses

hile many people, given the opportunity, would choose to live and work at the shore, only some activities, such as marinas, shipping and ferry terminals, boat launches and fishing piers must necessarily locate on the waterfront in order to function. These "water-dependent uses" are vital to Connecticut's economy and cultural identity, providing food, transportation services, and access for all citizens to enjoy our common public trust heritage in Long Island Sound. Unfortunately, upland uses such as condominiums, office buildings, or restaurants may offer more lucrative property values when enhanced by water views, and may squeeze out traditional waterfront uses. As a result, Connecticut, like most other coastal states, has taken steps to protect and preserve waterfront areas for water-dependent uses.

Under the Connecticut Coastal Management Act (CCMA), state and

local regulatory programs must give highest priority and preference to water-dependent uses, and must minimize adverse impacts to future water-dependent development. Adverse impacts include displacing a water-dependent use or locating a non-water-dependent use where a water-dependent use could go. It is important to remember that waterdependency is determined by the nature of the use, not the nature of the structure. Thus, a private recreational dock is simply an accessory to the non-water-dependent residential use, while docks at a marina or public fishing pier are necessary to further the water-dependent use of the waterfront. In addition, the CCMA specifically defines general public access as a water-dependent use. Consequently, developers of waterfront property that is not suited for an "active" water-dependent use such as a boatvard or marina are generally required to provide a public

access facility such as a boat launch, walkway or fishing pier in order to obtain approval for construction.

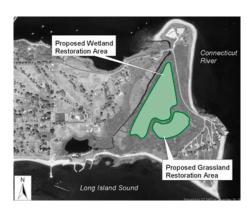
The CCMA's water-dependent use policies, which are applied through the DEP's Office of Long Island Sound Program's (OLISP's) coastal permitting and municipal coastal site plan review processes, have secured hundreds of public access sites, helped maintain the viability of marinas and boatyards, and protected the waters of the state from such inappropriate uses as floating restaurants and imitation lighthouses. For more information on the CCMA's water-dependent use policies, see the fact sheets on General Public Access and Water-Dependent Uses, contained in section 3 of OLISP's Coastal Management Manual at www.dep.state.ct.us/olisp/ manual/manualsection3.pdf, or contact David Blatt, OLISP, at 860-424-3034, or by email at david.blatt@po.state.ct.us. 🙈

### Lynde Point Marsh to be Restored Through National Grant

n the last issue of Sound Outlook we described Connecticut's tidal wetland restoration program. This issue, we are pleased to report another step forward in this successful initiative. The DEP's Office of Long Island Sound Programs has received a grant of \$80,000 from the U.S. Fish & Wildlife Service's National Coastal Wetlands Conservation Grant Program to restore the 10-acre Lynde Point marsh in the borough of Fenwick in Old Saybrook. The total estimated cost of the project, which will forward the goals of the Long Island Sound Habitat Restoration Initiative, is \$221,000.

The Lynde Point marsh, which was filled with dredged spoils during dredging of the Connecticut River in the 1940s, has lost all natural wetland functions and values, and is now dominated by common reed,

Phragmites australis. The wetland, which will be restored through the removal of the clean, sandy dredge sediments and the construction of several small ponds, will provide habitat for forage species such as Atlantic silverside, killifish, bay anchovy, grass shrimp and bay shrimp. These species will, in turn, support larger fish, osprey, bald eagles wading birds and terns.



Coastal grassland and remnants of historic maritime shrubland and forest which were cleared for farmland in the 1800s are also associated with the wetland restoration site, and are threatened by non-native invasive plants including bittersweet, multiflora rose and bush honeysuckle. These species will be removed and a healthy native plant community restored.

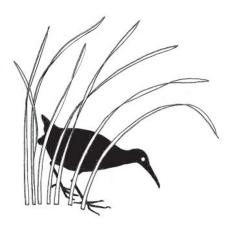
The Lynde Point restoration project will be conducted by the DEP's Wetland Restoration Unit using a variety of equipment designed specifically for work in wetlands. All work will be completed between October 1, 2002 and December 31, 2003. For more information, contact Lori Benoit of OLISP at 860-424-3034 or by email at lori.benoit@po.state.ct.us.

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#### How's the Water?

uring the summer months in Connecticut, Long Island Sound (LIS) waters are monitored to determine their suitability for both swimming and shellfish harvesting. Waters at state and municipal public beaches are monitored on a weekly basis. Samples are analyzed for indicator bacteria, which do not cause disease, but are one of the tools used by public health and environmental protection agencies to determine the potential level of other harmful bacteria (pathogens) that could be in the water. Enterococci, a subgroup of the fecal streptococci group, are used by both the DEP and Connecticut Department of Public Health (DPH) as the preferred indicator for bathing waters in the Sound. At least two locations at each beach are monitored, and if a single sample exceeds 61 bacteria per 100 millileters (ml), the beach may be closed for swimming until further testing shows the levels have dropped back below 33 per 100 ml.

Long Island Sound waters near shellfish bed areas are monitored by the Department of Agriculture, Bureau of Aquaculture. Fecal coliform bacteria known as "E. coli" are used to assess the sanitary quality of marine waters in shellfish harvest areas. Water samples are collected from shellfish growing areas and analyzed for coliform bacteria using a "most probable number" (MPN) method. For "approved" shellfish areas, the fecal coliform geometric mean of the water samples must not exceed 14 fecal coliforms per 100 ml, and not may contain more than 43 fecal coliforms per 100 ml.

For further information about State beach closures, visit the DEP website at **dep.state.ct.us/updates/beach/wtrqual.asp**. For Connecticut Water Quality Standards, see **dep.state.ct.us/wtr/wq/wqs.pdf** Appendix B.

Visit the DEP website at www.dep.state.ct.us

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