

EXPLORING LONG ISLAND SOUND - ISSUES AND OPPORTUNITIES

Connecticut's Coastal Regulatory Programs Protect Long Island Sound

One of DEP Commissioner Gina McCarthy's four themes is "Making Doing the Right Thing the Path of Least Resistance." In this issue we will examine the state and federal permit programs that provide the means for meeting the Commissioner's goal of achieving regulatory compliance while foc using on environmental outcomes.

everal state regulatory programs that target the protection of Long Island Sound are administered by the DEP Office of Long Island Sound Programs (OLISP) and have as their goal the effective management of coastal activities and their impacts. The Structures, Dredging and Fill In Tidal, Coastal or Navigable Waters permit program includes "individual permits" for new or major projects, Certificates of Permission (COPs) for minor repair activities, and several General Permits for specific activities that have minimal environmental impact. Additional authorization under the Tidal Wetlands permit program is required for any activities within tidal wetlands.

Applicants seeking federal Army Corps of Engineers permits to discharge dredged or fill material into the waters of the United States, including wetlands, may be required to obtain a state Water Quality Certificate pursuant to Section 401 of the federal Clean Water Act. Certificates are also required for discharges of stormwater, excavation, land clearing or grading in or affecting navigable waters. Generally, certification is made in conjunction with issuance of a state permit under the Structures, Dredging and Fill statutes. Proposed activities in the coastal zone must also be reviewed for consistency with the applicable standards and policies of Connecticut's Coastal Management Act, as provided by the federal Coastal Zone Management Act of 1972, as amended.

Regulatory guidance and informational resources are available from DEP. Applicants are encouraged to schedule "pre-application meetings" at which permit staff will review proposed activities and explain the requirements and procedural steps involved, and the factors considered during application review. Authorizations often include conditions necessary to avoid or minimize environmental harm.

The companion element to DEP's coastal permit programs is its enforcement process. OLISP permit staff make every effort to inform coastal property owners and prospective developers of the potential legal consequences of acting without or in violation of proper authorization. Routine site inspections, including periodic aerial surveys, are conducted to detect permit violations, and enforcement inspections are conducted in response to citizen complaints. While OLISP prefers to resolve violations cooperatively through Notices of Violation and Consent Orders, unauthorized activities are also subject to removal orders, referral to the Attorney General's Office, and monetary penalties. These measures are sometimes necessary to remediate environmental damage and to promote fairness and consistency in the regulatory process.

For more information about Connecticut's coastal regulatory programs, call the OLISP Permit Section at 860-424-3034.



Cooperative Agreement Bolsters Environmental Management

early 13 years ago, the states of Connecticut and New York and the federal Environmental Protection Agency (EPA) agreed to an overarching plan to restore and protect Long Island Sound, its waters and ecosystems. The plan, signed in 1994 and called the "Comprehensive Conservation & Management Plan" (CCMP), also committed local governments around the Sound and other state and federal agencies to addressing a list of problems meriting special attention. Those problems, or areas for priority action, included 1) low dissolved oxygen (hypoxia), 2) toxic contamination, 3) pathogen contamination, 4) floatable debris, 5) the impact of these water quality problems, and of habitat degradation and loss, on the health of living resources, and 6) land use and development resulting in habitat loss and degradation of water quality.

The CCMP is not a regulatory mechanism and cannot be enforced in and of itself. Rather, the plan lends common cause to a broad range of both pre-existing and subsequently established mechanisms intended to protect the character and quality of Long Island Sound, including but not limited to the direct permitting authorities described elsewhere in this issue. The CCMP has helped to support reauthorization of some of those management programs and has focused on the continuing need for regulations with which to meet the goals of the Plan. Below are brief descriptions, listed by dates of inception, of some of the state management programs that address the CCMP priority areas for Long Island Sound:

- 1967: Connecticut's Clean Water Act required stringent wastewater treatment for municipal sewerage facilities and industrial discharges.
- 1969: Connecticut's Tidal Wetlands Act halted nearly all man-made losses of the state's remaining 17,000 acres of tidal
 wetlands.
- 1970: Connecticut's Water Quality Standards (WQS) identified existing water quality classifications and attainment goals.
- 1972: Connecticut's Inland Wetlands and Watercourses Act authorized the protection and restoration of inland wetlands and watercourses, and ultimately Long Island Sound into which most of the state's fresh water flows.
- 1973: Connecticut was granted authority to issue federal National Pollutant Discharge Elimination System (NPDES) discharge permits to industries and municipalities to regulate point source discharges of pollutants.
- 1980: Connecticut's Coastal Management Program established policies to protect the natural resources and habitats and the water-dependent uses of Long Island Sound and associated coastal and tidal waters.
- 1983: Connecticut's Soil Erosion and Sediment Control Act required municipalities to enact regulations for the prevention of water pollution from land use activities, including agriculture and residential, commercial and industrial development.
- 1986: Connecticut's Clean Water Fund (CWF) provided financial assistance to municipalities for planning, design and construction of sewerage facilities, replacing existing state and federal grant programs.
- 1987: Federal Clean Water Act amendments enabled the Long Island Sound Study to become one of the first National Estuary Programs (NEP), with annual funding.
- 1990: The Long Island Sound Research Fund encouraged scientific research focusing on the management and restoration of water quality and natural resources in Long Island Sound.
- 2000: The Long Island Sound Total Maximum Daily Load (TMDL) analysis established goals and an implementation plan and schedule for reducing of nitrogen loads to the Sound.
- 2001: Nitrogen Credit Exchange Program legislation allowed for nitrogen trading among Connecticut's 79 publicly owned treatment plants and issuance of a Nitrogen Discharge General Permit.
- 2002: Connecticut Guidelines for Soil Erosion and Sediment Control were revised, accompanied by training workshops held by DEP and the Soil and Water Conservation Districts for professionals and volunteer land use commissions.
- 2002: Stormwater Phase II Rule, authorized by EPA, enabled DEP to develop and implement a Municipal Separate Storm Sewer System (MS4) General Permit requiring 130 municipalities to reduce or eliminate the discharge of pollutants to their separate storm sewer systems.
- 2003: Connecticut's Coastal Nonpoint Source Pollution Control Program, approved by EPA, provided for implementation of management measures to control nonpoint source (NPS) pollution in coastal waters.
- 2004: Aquifer Protection Land Use Regulations helped to protect major public water supply wells in stratified drift from contamination.
- 2004: Connecticut Stormwater Quality Manual provided guidance necessary to prevent the adverse impacts of post-construction stormwater runoff.

These programs are administered by the DEP Bureau of Water Protection and Land Reuse (WPLR). For more information about WPLR programs contact Mark Parker at 860-424-3276 or mark.parker@po.state.ct.us, or visit www.ct.gov/dep. 3

SPOTLIGHTED Coastal Access:

Southfield Harbor, Stamford Regulatory Review Results in Site Designation

he online Connecticut Coastal Access Guide
(www.lisrc.uconn.edu/coastalaccess) lists 302 sites
along the Connecticut shore where you can enjoy our state's
valuable and scenic coastal resources. A number of those sites
have been secured through the state's coastal regulatory process.
An excellent example of the success of this process can be
found at the Southfield Harbor development in Stamford.

A fundamental component of Connecticut's federally approved Coastal Management Program is the reservation of shorefront property for water-dependent uses – i.e., uses that must by their nature be located on the shore – including the provision of coastal public access. Proposed development projects that are not water-dependent, such as apartments and other residential facilities, may be deemed approvable if they are configured to provide a water-dependent use, and the use that has the greatest value to the public is the

provision of access to the water for either passive or active recreation.

At the Southfield Harbor development, a former oil company storage tank facility was redeveloped in accordance with Stamford's waterfront zoning regulations, which guided the site plan approval process. The proposed redevelopment featured a non-water-dependent use (apartments) and a marina. In reviewing the proposal, the DEP Office of Long Island Sound Programs (OLISP) required, as permit conditions for the marina and a needed stormwater outfall pipe, that the development incorporate a range of public benefits. Those benefits include an elevated boardwalk extending into the harbor and around a tidal marsh, thereby

providing a series of water and wildlife views and experiences, handicapped-accessible pathways, a fishing pier, a gazebo, public parking, public boat slips and public restrooms. The project also incorporates a vegetative buffer between the development and the water's edge, decorative site fencing and lighting, furniture, trash receptacles, dog waste pick-up stations, ornamental landscaping and both informational and interpretive signage.



Southfield Harbor, Stamford. View of marina and public access walkway.

A number of site conditions made realization of public benefits at Southfield Harbor more feasible. The property had previously supported a water-dependent use (a tank farm supplied by ocean-going ships) and had been incorporated into the city's larger plan to extend access along the waterfront. The developer wanted to construct a marina, but could not dredge the intertidal flat adjacent to the site, so the project was instead designed to include a wide pier extending to deeper water. Many of the public amenities are connected to that larger pier. The site is also adjacent to a city park, enabling the expansion of pre-existing access opportunities. At smaller or more isolated sites there may not be the opportunity for comparable access, but while Stamford benefited from a unique combination of conditions at



this site, any one or any combination of such conditions may provide a foundation for the establishment of public access facilities in other locations.

Directions to and a description of the Southfield Harbor development are available at the website listed above.

LOOK OUT

for upcoming events!

Norwalk Maritime Aquarium 10 North Water St., Norwalk, CT Call 203-852-0700 x2206 for information, costs and registration:

Winter Creature Cruises

Saturdays and Sundays in Feb. and Mar.; 2-1/2 hr cruise View seals and winter waterfowl. Passengers must be 42 inches tall. Bring binoculars and dress warmly.

Winter Vacation Adventures Day Camp Mon. Feb. 19-Fri. Feb. 23; 9:30 AM-3 PM. Attend 1 or more days. Ages 6-9 Daily themes: Adventure Under the Sea; Coral Reef Critters; Sounds Fishy; What's Up; Polar World.

March: Migrating osprey return to CT

April: Striped bass migrate north to Connecticut waters.

Connecticut Audubon Coastal Center Milford Point, Milford, CT Call 203-878-7440 for info. and registration.

Earth Day Beach Clean-up
Saturday, April 21, 10:00 AM-2:00 PM
Help clean up the shore for nesting
shorebirds.

Charles Island Explorations
Saturday, April 28, 2:30 PM;
Saturday, May 12, 12:30 PM
Discover natural history and folklore.
Wear boots or sneakers that can get wet.

Family Canoe Program

Saturday, May 19, 12:30 PM

Guided tour of Charles E. Wheeler Salt

Marsh. Time and route weather

dependent – call to confirm.

Please be sure to check the Calendar of Events listed on DEP's website: 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 laurie.valente@po.state.ct.us.

View past issues of *Sound Outlook* at www.ct.gov/dep

Putting Your LIS Plate Money to Work: My Project is Funded -- Do I Need a Permit?

any of the projects supported by the Long Island Sound Fund-habitat restoration projects, research studies, coastal outdoor education programs, and public access improvements-occur within tidal, coastal, or navigable waterways of the state, or in tidal wetlands. However, before any grant funds can be provided for a project, the grant recipient must obtain all necessary authorizations. In some cases, the authorizations

needed may involve local, state and federal regulatory programs. As part of the funding process, DEP's Long Island Sound Fund Coordinator actively works with grant recipients to ensure that all of the necessary permits are identified for each project, and that contacts with permitting staff are made.

In many cases, the process of obtaining a permit can significantly improve a project and help to set an example for how public access and resource protection can be achieved simultaneously while educating the public about how to "do the right thing". One example is a recently constructed wildlife observation platform



Wildlife observation platform, Hammonasset Beach State Park, Madison, under construction by State Parks Div. staff. Elevated platform protects underlying tidal wetland vegetation.

at Hammonasset Beach State Park in Madison. As originally proposed, the platform would have extended far into the marsh and shaded a large tidal wetland area, preventing natural sunlight from reaching the marsh surface, and stunting or even preventing the growth of the marsh vegetation.



Completed observation platform offers view of Clinton Harbor.

Through the regulatory process, the Office of Long Island Sound Programs (OLISP) permit analyst assigned to the project worked with the DEP Parks Division staff to evaluate creative options for minimizing these adverse impacts. As a result of discussions with the permit staff and the use of an enforceable permit condition, the deck design was modified to include a shorter walkway and new perforated composite decking material that allows sunlight to penetrate through the deck surface. These

same resource issues are addressed in OLISP's review of proposed residential and recreational docks -- see *Spotlighted Coastal Resource* on page 5 of this issue.

Purchase of an LIS License Plate Supports the LIS Fund



As of 11/30/06:

- Plates sold: 133,982
- Funds raised: Over \$4.9 million
- Projects funded: 298

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.

The observation deck, completed in 2006, is located at the end of a beautiful trail within this popular coastal park, bringing visitors into the wetland for a glimpse of this fantastic habitat. This project serves as an example to coastal property owners of how innovative technologies can help to protect our coastal resources while providing quality public access to the shoreline.

For information about the Long Island Sound Fund, contact Kate Brown by phone at 860-424-3034 or by email at kate.brown@po.state.ct.us.

Sound Tips

Information Available to Assist Permit Applicants

The DEP Office of Long Island Sound Programs (OLISP) has a dedicated Permitting and Enforcement section that works hard to provide an important service to the public – compliance assistance. To assist in this effort, OLISP has available for use by the public and prospective developers, a number of illustrated informational brochures. These include:

Living on the Shore: Rights and Opportunities

Connecticut's Coastal Management Program

Connecticut's Coastal Permit Program

Connecticut's Coastal Permit Program: Residential Dock Guidelines

Connecticut Coastal Habitat Restoration Programs

OLISP also has two Fact Sheets, entitled *Coastal Permits* and *Short Permit Processes*, that are available in hard copy and on the DEP website, www.ct.gov/dep

Call OLISP at 860-424-3034 to obtain reprints of any of the materials listed above.

2007 DEP Store Catalo



Great Connecticut-based items for anyone who likes to fish, bike, bird, garden, hike, boat or just loves nature!

To request a free copy of the catalog, contact Lisa D'Addario at 860-424-3555 or at lisa.d'addario@po.state.ct.us

LIS Summit Meeting Scheduled: The 17th Annual Long Island Sound Summit on Sound Stewardship: Preserving Long Island Sound's Special Places will be held on March 3, 2007 at Planting Fields Arboretum, Oyster Bay, NY, 9 AM to 3:15 PM. Fees are \$25 before February 23rd, \$20 for students and seniors, and \$35 at the door. Lunch is included. Call Emily at 203-787-0646 for details.

4 SOUND OUTLOOK

SPOTLIGHTED Coastal Resource:

Protecting Coastal Vegetation Through Dock Regulation

n reviewing proposals for development along the Connecticut shore, DEP strives both to protect our vital coastal resources and to make the permitting process as user-friendly as possible. Toward this end, the Structures, Dredging and Fill in Tidal, Coastal or Navigable Waters permit program, administered by the DEP Office of Long Island Sound Programs (OLISP) has been streamlined by establishing a series of General Permits to facilitate the expeditious regulation of minor activities. One of the most frequently used General Permits is that for construction of residential docks, known as the 4/40 Docks General Permit.

One of the principal factors for determination of the appropriate process for authorization of residential and recreational dock construction is the presence or absence at the site of tidal wetland vegetation or submerged aquatic vegetation, particularly eelgrass. Both tidal wetlands and eelgrass provide essential habitat as well as sustenance for

a wide variety of fish and shellfish and other wildlife, and are protected under the state's coastal management policies.

Docks can degrade habitat and harm plant and animal life through direct construction activity and through the indirect, long-

through the indirect, longterm impacts of shading, and must be designed to minimize such impacts.

If protected vegetation is not present at a development site, applicants will likely be eligible for a 4/40 General Permit for dock construction, which allows a dock to extend 40 feet waterward of mean high water or to a depth of -4.0 feet mean low water, whichever comes first. Where wetlands or eelgrass are present, or where a larger dock is necessary or desired, applicants must go through the full, or "individual," permit process. The latter, more substantive review process and environmental analysis ensures the

protection of those sensitive resources and has contributed to the near total cessation of tidal wetland habitat loss in Connecticut. The photographs on page 4 of this issue show the construction of a dock-like structure designed to prevent shading of underlying wetland

vegetation.

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Applicants who are eligible for a General Permit will typically complete that process in 2-3 months, whereas the processing time for an individual permit, which requires public notice and comment and may include a public hearing, can last 9-12 months or longer.

DEP has available for use by potential dock applicants, a brochure entitled, *Connecticut's Coastal Permit Program: Residential Dock Guidelines*. To obtain a copy of the brochure, (or one of the others listed in *Sound Tips* on page 4 of this issue) or for more information about DEP's regulatory procedures, please contact a member of the OLISP Permit Staff at 860-424-3034.

Federal Agencies Share Responsibility for Regulatory Compliance

versight of activities that may affect coastal resources in Connecticut is not limited to those proposed by individuals or private developers. Federal government agencies are also subject to environmental review by DEP, specifically through what is known as the federal consistency process. This oversight is given to states upon their establishment of a coastal management program under the auspices of the federal Coastal Zone Management Act of 1972, as amended, as administered by the National Oceanic and Atmospheric Administration (NOAA) Office of Ocean and Coastal Resources Management (OCRM). Connecticut's Coastal Management Program was approved by NOAA in 1980.

Federal Consistency Regulations require that any actions conducted by a federal agency, such as dredging of federally designated harbor channels, construction activities at U.S. Navy and Coast Guard installations, fisheries management plans, or rehabilitation of the Amtrak rail line or lighthouses and other navigational aids, must be conducted in a manner consistent with the coastal resource and use policies contained in the Connecticut Coastal Management Act (CCMA). Those policies protect living marine resources and their habitats, as well as water-dependent uses including, but not limited to, coastal public access. The state's review process typically includes issuance of a public notice seeking public comment on the proposed activity.

Applicants who seek permits or licenses from federal agencies such as the Army Corps of Engineers or the Federal Energy

Regulatory Commission must also demonstrate consistency with the CCMA, as must parties seeking grants, loans or other federal funding assistance. Connecticut recently revised its list of actions subject to federal consistency review to include, among other things, "interstate" activities that occur beyond Connecticut's boundaries but that may have reasonably foreseeable impacts on coastal resources and uses within this state.

For more information about the federal consistency process in Connecticut, please contact Tom Ouellette by phone at 860-424-3034 or by email at tom.ouellette@po.state.ct.us.



Repairs to Coast Guard navigation aids like Fitch Point Light "1" in East Norwalk Channel, where the light tower and foundation were reconstructed and additional rip-rap added, are subject to federal consistency review.



Connecticut Department of **Environmental Protection** 79 Elm Street Hartford, CT 06106-5127

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Then & Now: Evolving Wastewater Treatment Processes in Connecticut

s Connecticut moved from agrarian societies with small villages in the 18th century to industrialized societies concentrated in cities in the 20th century, the demand for increased management of runoff and sewage became more pronounced. Initially, systems of piping which carried both storm water and sewage were constructed. These conveyed all the flow to the nearest river



where it was assumed that dilution would compensate for the lack of treatment. Over time, with increased development came the understanding that some treatment, in the form of settling basins and disinfection (called primary treatment), was needed to protect the surface waters for downstream users. Overflows to surface waters (Combined Sewer Overflows, or CSOs) were built at selected points along the sewer line to keep from overloading the treatment plants during high flows.

In the 20th century, the managment of wastewater shifted from the previous philosophy of combined sewers

Storm drain

to one of separate storm and sewage systems. By the 1970s, Connecticut municipalities had nearly 100 primary treatment plants. While most of the newer communities had built separate storm and sanitary sewers, 13 of the oldest and



Jewett City treatment plant

largest communities still operated combined sewer systems, with 257 overflows that discharged untreated sewage to surface waters during heavy storms and periods of high runoff.

Today, there are 89 municipal sewage treatment plants in Connecticut, all of which provide both primary and secondary (biological) treatment with many also providing advanced treatment (nutrient removal). The DEP has been active in overseeing a

program to make CSOs a thing of the past. As of 2006, the number of remaining CSOs has been cut to 127, with plans to eventually eliminate those CSOs or their impacts, up to the one-year frequency storm level, by either separating storm water systems from sewage systems or providing CSOs with primary treatment and disinfection before they discharge to LIS watershed rivers. For more information about CSOs in Connecticut, contact Mike O'Brien by phone at 860-424-3756 or by email at michael.obrien@po.state.ct.us.

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

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