

## Twenty Years of Coastal Management—A Look Back

**T**wenty years ago, coastal management in Connecticut was a hot topic of discussion. In a small New England state with a heritage of Home Rule, enacting a statewide coastal management program was a significant and somewhat scary step—and was not taken lightly. The federal approval of the Connecticut Coastal Management Program in September 1980 by the National Oceanic and Atmospheric Administration under the Coastal Zone Management Act was the culmination of four years of study and planning effort by DEP staff. Assisted by a 23-member advisory board, program staff held over 300 public meetings and several regional workshops to develop proposed legislation. The legislative path included 20 public hearings and two major statutory enactments, with the Connecticut Coastal Management Act (CCMA) in its present form becoming effective on January 1, 1980.

What concerns prompted such a momentous undertaking? Twenty years ago, many of Connecticut's tidal wetlands had been filled or dredged, and boatyards and other traditional waterfront uses were being displaced by residential and commercial development. Some citizens feared that without a comprehensive management policy, continuing coastal development would gradually degrade or eliminate the state's aquatic resources and traditional water-dependent uses. Others feared that any new state-level regulatory agency would infringe on local land use authorities and stifle coastal economic development. The coalition of planners, state and local officials, marine trades interests, environmental groups, and concerned citizens who advocated coastal management sought to address these concerns with an innovative, two-pronged approach. First, a coastwide "resource zoning" approach would establish specific management policies to ensure that coastal resources would be protected and balanced by appropriately-sited development, with water-dependent uses encouraged. Second, existing state and local regulatory agencies would be required to conform to the new coastal management policies and to integrate them into their current planning and permitting processes, without creating any new regulatory programs or entities.

A look back at the past 20 years of the Coastal Management Act demonstrates that the fears of the critics were unfounded and the hopes of the proponents were justified. Today, coastal site plan review is an integral part of ongoing municipal land use procedures, and coastal permit decisions at all levels of government are principally driven by CCMA policies. Although the experience of the state's 40 coastal towns has naturally varied, in most cases a strong state-local partnership has been established. Looking ahead to the next 20 years, we are committed to ensuring that Connecticut's Coastal Management Program builds on the CCMA's solid foundation to make new progress in areas such as habitat restoration, public access, and smart growth.

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No. 4

# Connecticut Celebrates 15 Years as a Partner in the Long Island Sound Study

The year 2000 marks the 15<sup>th</sup> anniversary of Connecticut's participation in the Long Island Sound Study (LISS). The project began in 1985 when Congress appropriated funds for the federal Environmental Protection Agency (EPA) and NOAA (National Oceanic and Atmospheric Administration) to work in cooperation with the states of Connecticut and New York to research, monitor, and assess the water quality of Long Island Sound (LIS). In 1987, the Clean Water Act Amendments officially established a *National Estuary Program* (NEP) and, in 1988, Long Island Sound was designated an Estuary of National Significance within the NEP. In January 1992, federal Environmental Protection Agency (EPA) Long Island Sound Offices were established in Stamford, CT and Stony Brook, NY to help coordinate efforts among the many LISS participants.

The LISS enjoys an excellent working partnership with state, federal, university staff, and citizens to conduct the research, assessment, planning, management, and public outreach activities necessary to

effect needed improvements in LIS water and habitat. Fueled by more than \$20 million of funding over 15 years, these efforts have all contributed to a greater understanding of LIS. DEP has also received strong State support for research and monitoring, including purchase of the research vessel *John Dempsey*, which enables year round water quality and fisheries monitoring. In 1994, the LISS completed and

released a Comprehensive Conservation and Management Plan (CCMP) which identified priority management actions aimed towards improving LIS. Now, with generous support of state lawmakers, officials, and the public, Connecticut is implementing many of the CCMP actions, including development of a plan for statewide nitrogen controls critical to reducing hypoxia (low dissolved oxygen), that plagues the western portion of the Sound each summer. To date, Connecticut has achieved over 23% of the required nitrogen load reduction.

The LISS, one of 28 NEPs throughout the U.S., is regarded as one of the most successful, especially in its ability to bring key groups together to ensure that habitat and water quality problems are addressed. In November 1998 DEP was pleased to receive the Long Island Sound Foundation's '*Fostering Environmental Stewardship Award*' in recognition of "...its commitment to improve the Long Island Sound estuary, and for taking an extraordinarily proactive role in promoting environmental stewardship of the estuary to its constituency." In response to the award, DEP Commissioner Arthur J.

Rocque, Jr. said, "Connecticut has progressed in its participation in the Long Island Sound Study through the commitment of hundreds of millions of dollars over the

past decade to upgrade and enhance sewage treatment facilities. The DEP now looks to the citizens of Connecticut for their support of the watershed based management efforts of the future."



## Mill Meadows: Tidal Wetland Restoration

As DEP celebrates the 20<sup>th</sup> anniversary of Connecticut's Coastal Management Program this year, the success of Connecticut's tidal wetland restoration efforts is at the top of the list of accomplishments. Implementation of the Program has resulted in the restoration of over 1,500 acres of tidal wetlands, with DEP continuing its pioneering efforts to bring back this vital habitat.

One recent success story has been the restoration of Mill Meadows, a 17-acre site in Old Saybrook on the upper reaches of the Oyster River, which was completed in October 1999. The project was the second in the country to use federal Intermodal Surface Transportation and Efficiency Act (ISTEA) funding (another DEP restoration site in Milford, CT being the first).

In 1992-93, Coastal America, a consortium of federal agencies established to

improve coastal resource restoration and protection, investigated ten degraded coastal wetlands in Connecticut to assess whether associated roads and highways were the cause of the degradation. It was determined that an undersized

culvert was reducing the inflow of tidal water to Mill Meadows, reducing by 1½ feet the tide elevation upstream of the culvert as compared to downstream. The resulting elimination of tidal flooding of the marsh with salt water resulted in a drop in the water table, loss of elevation,



*A new culvert (right) allows increased tidal flushing of Mill Meadows wetland.*

and the loss of essential wildlife and fish habitat, as salt marsh plants were replaced by freshwater plant species, especially the invasive common reed (*Phragmites australis*).

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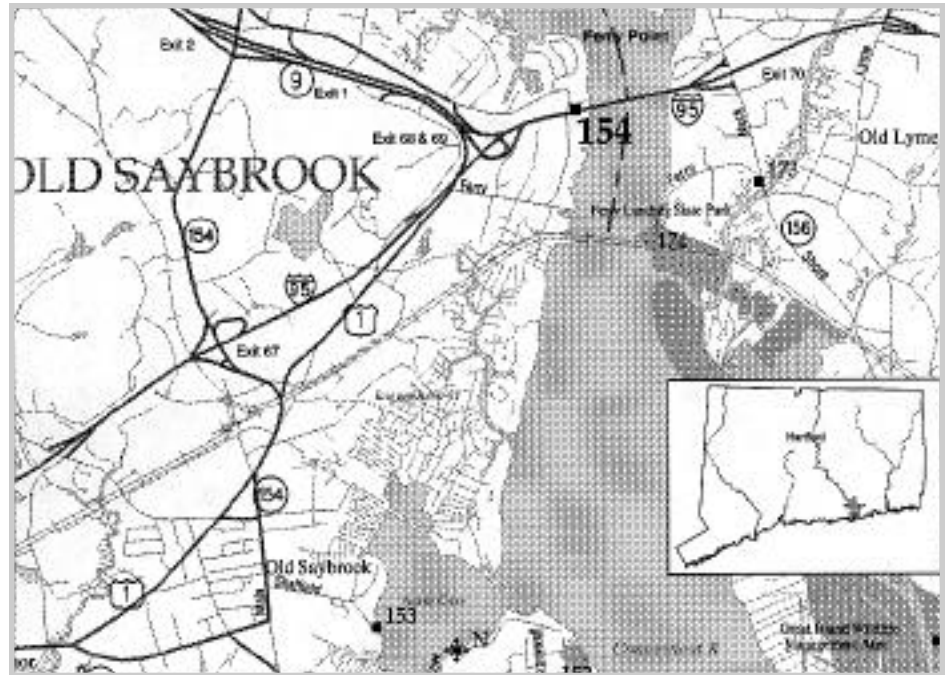
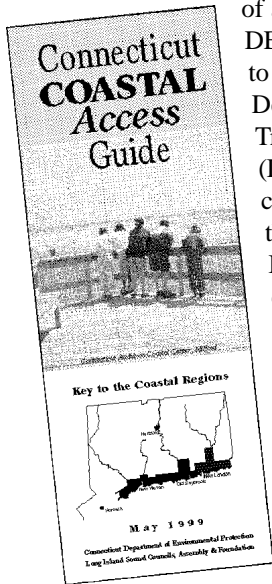
# SPOTLIGHTED

## Coastal Access: Baldwin Bridge State Boat Launch and Fishing Pier

The Baldwin Bridge Boat Launch and Fishing Pier in Old Saybrook (site #154 on the Connecticut Coastal Access Guide) is an outstanding example of effective coastal management providing new coastal public access opportunities.

The boat launch was built as a result of a condition of a DEP permit issued to the Connecticut Department of Transportation (DOT) for the construction of the new Baldwin Bridge which carries I-95 over the Connecticut River. The two state agencies worked cooperatively to ensure that this important public infrastructure was

carefully and expeditiously designed and permitted. As part of the project design, an existing marina within the proposed bridge right-of-way was acquired and removed by the DOT. In order to mini-



mize the adverse impacts of displacing a water-dependent use (i.e., the marina) with a non-water-dependent use (i.e., the roadway) as required by the Connecticut Coastal Management Act, DOT agreed to construct an expanded state-of-the-art boat launch.

The launch, located under the bridge along the lower Connecticut River estuary, provides significant new access opportunities to Long Island Sound. It features a four-lane launch ramp to accommodate trailered boats, a car-top launch for canoes and kayaks, and eight floating docks to aid in the launching and retrieval of boats. A fishing pier extends 450 feet into the river and there is parking for more than 100 cars and trailers. The facility recently received an

“Outstanding Project Award” from the States Organization for Boating Access, a national organization of state officials responsible for boating access.

We all benefit from coastal management. Coastal resources are protected for future generations, appropriate and well-designed uses of private property occur, public infrastructure is maintained or improved, water-dependent uses occupy waterfront sites and, in some cases, new public access to coastal waters is secured. Make sure you take advantage of the new Baldwin Bridge Boat Launch and Fishing Pier this summer. You’ll be glad you did!

For free copies of the Connecticut Coastal Access Guide, call the DEP at (860) 424-3034 or e-mail [coastal.access@po.state.ct.us](mailto:coastal.access@po.state.ct.us).

## Mill Meadows: Tidal Wetland Restoration

*Continued from page 2*

DEP applied for and received ISTEA funding to design and construct a restoration project for Mill Meadows. Detailed tide studies were undertaken and then used to develop a tidal flow model. The model identified an appropriate flooding regime for the wetland and defined the modifications of the existing culvert necessary to provide these flows. An additional 3 foot diameter culvert was added alongside the existing culvert.

The model was also used to evaluate flood levels during various rainfall or coastal storm events, including a combination of inland and coastal flooding to assure that the project would not increase flooding of adjacent properties. The new culvert is equipped with a slide/flapper gate that can be closed in advance of a forecasted flood event to assure flood protection. The gate is then opened after the threat of flooding has passed.

Passage of the Connecticut Coastal Management Act in January 1980 laid

the foundation for tidal wetlands restoration by creating a statewide policy encouraging the restoration of degraded tidal wetlands. Now, 20 years later, Connecticut has one of the most impressive programs in the country, and serves as a model for other restoration efforts nationwide.

For more information on DEP’s tidal wetland restoration programs please visit our website at <http://dep.state.ct.us>, or contact Ron Rozsa at (860) 424-3034 or by e-mail at [ron.rozsa@po.state.ct.us](mailto:ron.rozsa@po.state.ct.us).

## Putting Your LIS Plate Money to Work:

### Research Shows Effect of Aggressive Plant on Tidal Marsh Birds

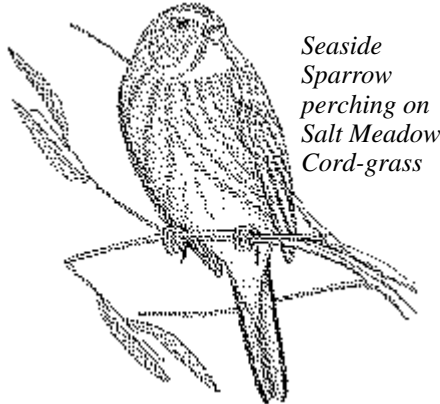
What do Seaside Sparrows, Sharp-tailed Sparrows and Willets have in common? They breed only in the salt marshes so vital to the Long Island Sound ecosystem. The Long Island Sound Fund provided a \$16,902 grant to Connecticut College in 1996 to conduct a study of the impact of the spread of *Phragmites australis* (common reed) on populations of tidal marsh birds in Connecticut.

The quality of tidal marshes is vital for many salt marsh birds, especially those birds that are endangered or threatened. Grasses such as Smooth Cord-grass (*Spartina alterniflora*), and Salt Meadow Cord-grass (*Spartina patens*), are plants typically found in the salt marsh. Dense stands of aggressive *Phragmites* have been rapidly expanding and replacing these original *Spartina* cordgrasses and cattail marsh vegetation, especially in areas where the marsh has been disturbed and the amount of salt water entering the marsh has been restricted.

DEP staff member Lori Benoit conducted this study while a researcher at Connecticut College. Her study focused on whether the structure of the bird community differs between marshes dominated by *Phragmites* or by cattails and *Spartina*. Forty salt and brackish marshes

along the Connecticut shoreline were chosen as study sites. Benoit surveyed birds by listening and observing at specific locations for a ten-minute period. She also broadcast tape-recorded calls of eight bittern and rail species and listened for responses.

Results of the study indicated that Marsh Wren and Swamp Sparrow actually preferred the tall, reedy vegetation at sites with more *Phragmites* or cattails. Overall, however, Benoit found fewer bird species in the dense *Phragmites*-dominated wetlands compared to the *Spartina*-dominated marshes. Seaside



Seaside Sparrow perching on Salt Meadow Cord-grass

Sparrow and Sharp-tailed Sparrow, both listed as species of special concern, were conspicuously absent from *Phragmites* marshes. Both species breed only in salt marshes, as they time their nesting cycle to the monthly tidal inundation. Willet, listed as a threatened species, constructs its nest from only one type of salt marsh grass. The spread of *Phragmites* also negatively affects the many state-listed wading birds that use open pools and mud flats. As a result of her research, Benoit concluded that there is a need for continued salt marsh restoration, *Phragmites* control, and conservation of large marshes to protect and enhance coastal bird habitat.

For more information about the program, please contact the Long Island Sound Fund Coordinator, Kate Hughes, at (860) 424-3034, by e-mail at [kate.hughes@po.state.ct.us](mailto:kate.hughes@po.state.ct.us), or visit our website at <http://dep.state.ct.us/olisp/licplate/licplate.htm>.

## LOOK OUT for upcoming events!!

June is Rivers Month

**June 14:** "Orchestrating Both Coasts for a Better Sound II" Conference, University of Connecticut, Stamford, CT. Contact Rosemary Pastore, EPA, LIS Office, (203) 977-1541 for more information.

**July:** Osprey young begin to fly

**July 12-15:** OpSail 2000CT—Historic Tall Ships visit port of New London. Contact the OpSail Office (860) 448-2000 for more information or visit [www.opsail2000ct.org](http://www.opsail2000ct.org).

**Mid to end of August:** Plovers and terns begin southward migration.

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

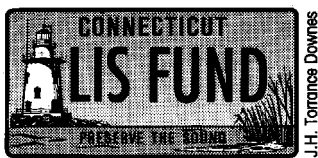
**September 16-October 8:** Coastweeks!

**9/16:** International Beach Clean-up Day—contact Peg Van Patten, CT Sea Grant (860) 405-9141 for more information.

**9/17:** Row on the Mystic River—2,000 meter regatta for racing shells and traditional pulling boats. Contact Peg Van Patten, CT Sea Grant (860) 405-9141 for more information.

**October 7:** National Estuaries Day

*Please be sure to check the Calendar of Events listed in DEP's website: <http://dep.state.ct.us>*



Purchase of an LIS License Plate supports the LIS Fund

As of MAY 1, 2000:

- Funds raised: Over \$3.4 million
- Projects funded: 183
- Research projects funded: 26

The LIS Fund supports projects benefiting Long Island Sound in the categories of habitat restoration, public access, education and outreach, and research.

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

If you did not receive this issue of Sound Outlook in the mail and would like to be placed on the mailing list, please fill out below and mail to: Sound Outlook, CT DEP, Office of LIS Programs, 79 Elm Street, Hartford, CT 06106-5127; or e-mail your address to [laurie.makowski@po.state.ct.us](mailto:laurie.makowski@po.state.ct.us).

Name: \_\_\_\_\_

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# SPOTLIGHTED Coastal Resource: Developed Shorefront—New London

In its heyday, the busy seaport of New London hosted fleets of whaling and fishing vessels, and forged an important link in early America's maritime commerce. To enable sailors to easily berth, repair and access their ships, New Londoners modified the natural shoreline by dredging, filling, bulkheading, and constructing wharves and piers. Over the past 300 years, the shorefront in New London has become highly engineered to support myriad water-dependent uses ranging from commercial shipping to military bases to transportation infrastructure. Today, coastal areas such as the New London waterfront are known as "developed shorefronts" as defined by the Connecticut Coastal Management Act.

Though their natural resources may often be impaired, developed shorefronts are important features in coastal management. Existing developed sites, usually in urban areas, may be highly suitable for "active" water-dependent uses such as waterborne commerce, commercial and recreational fishing, boating, and other water-dependent commercial, industrial, and recreational uses. Also, developed shorefronts may offer water-dependent public access opportunities which are accessible to a larger and more diverse urban population. Moreover, by promoting reuse of these previously disturbed areas for water-dependent uses, other,

more natural areas, can be protected from new development.

New London provides a perfect example of the creative use of developed shorefronts. The City has dedicated itself to reclaim and revitalize its downtown waterfront for public access and recreational uses, which will be balanced with the preservation of traditional water-dependent uses such as ferries, ship building, and the State Pier. Some of the highlights of this ongoing project include cleaning up a contaminated parcel, constructing a fishing pier and walkways, and rebuilding existing public docks along the Thames River. These amenities will allow the public to access the riverfront for fishing, walking, sightseeing, and bicycling, and are expected to be open for the OpSail2000 festival this summer. Two additional, larger areas of developed shorefront are being revitalized downriver. The Pfizer global development facility will provide two public access points while boosting the New London economy. Fort Trumbull State Park is being created to provide a new recreational area for residents and tourists alike.

For more information on New London's developed shorefront, please contact Peter Francis, DEP, Office of Long Island Sound Programs, at (860) 424-3034, or by e-mail at [peter.francis@po.state.ct.us](mailto:peter.francis@po.state.ct.us).

## Environmental Monitoring for "Our Sound"

In September 1998, the "MYSound" Long Island Sound Marine Environmental Monitoring Project was initiated by the University of Connecticut (UCONN) and the EPA Long Island Sound Office under EPA's EMPACT (Environmental Monitoring for Public Awareness and Community Tracking)

Program. EMPACT seeks to make timely, accurate and understandable environmental data available to communities across the country.

The overall goal of MYSound is to provide real-time marine water quality monitoring data on the LIS estuary and to increase public understanding of water quality by making such data accessible via the internet. A UCONN Project Team



oversees implementation of the program and coordinates deployment and maintenance of water quality monitoring stations installed on buoys at key points in the Sound. The first three monitoring stations were deployed in Bridgeport Harbor, the Thames River in New London, and west of Fisher's Island at the New

London Dredged Material Disposal Site. Water quality monitoring instruments transmit surface and bottom water quality data, via radio, back to the UCONN Campus at Avery Point in Groton. Data collection includes temperature, salinity, and dissolved oxygen. These data are processed, screened, and presented in near real-time on the MYSound (Monitoring Your Sound) project web site

## Sound Tips

Beaches are an important part of the complex and dynamic coastal watershed. Unfortunately many human activities can threaten the health of beach systems. However, some simple actions can protect these valuable systems. When you go to the beach or use your boat this summer:

- Put your trash in the proper receptacles or pack it out with you when you leave.
- Organize a beach clean up.
- When walking from parking areas to the beach use existing boardwalks and walkovers instead of walking across sensitive dune systems which could damage beach grass or injure nesting birds.
- Use Pumpouts! Dispose of boat sewage in onshore sanitary facilities instead of dumping it into the water.
- Slow down your boat speed when passing near beach areas. Frequent boat traffic too close to the shoreline can cause excessive wave action that leads to beach erosion.

For more information on beaches visit the EPA Beach Watch program at [www.epa.gov/OST/beaches](http://www.epa.gov/OST/beaches).



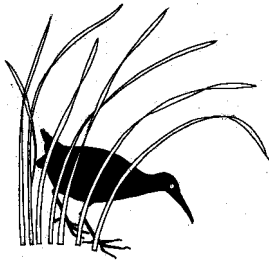
at <http://www.MYSound.uconn.edu>. This Spring, DEP will integrate data from its own marine water quality monitoring program into the MYSound web site to provide a more comprehensive picture of the water quality in the Sound.

Additional monitoring buoys between Stratford Shoals and Black Rock Harbor in Bridgeport and in New Haven Harbor will be deployed during 2000.



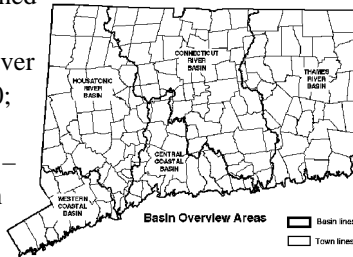
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## How's the Water . . . In Your Watershed?

Everyone lives in a watershed! DEP has adopted a watershed management approach within the Bureau of Water Management called the **Watershed Management Program**. Five basin (watershed) overview areas have been identified and specific DEP Watershed Coordinators have been assigned to each basin overview area. The five major basin overview areas and the assigned staff are: Thames River Basin – Eric Thomas, (860) 424-3548; Connecticut River Basin – Elizabeth Marks, (860) 424-3930; Central Coastal Basin – Sally Snyder, (860) 424-3869; Housatonic River Basin – Susan Peterson, (860) 424-3854; Western Coastal Basin – Tess Gutowski (interim) (860) 424-3096.

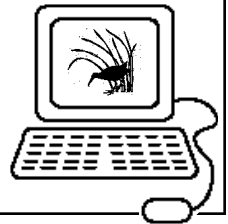


If you have questions about watershed management efforts in your watershed, call the appropriate Watershed Coordinator listed above.

The Watershed Program also publishes a quarterly newsletter, *River Rundown*, that provides pertinent information on DEP watershed activities. Call (860) 424-3930 if you would like to be placed on the River Rundown mailing list. Or you may visit the DEP web site at <http://dep.state.ct.us/wtr/Rivers/rundown/rrindex.htm> for information on this program.

*Celebrating Connecticut Coastal Resource Management: 1980-2000* 

Sound Outlook is now available electronically! Go to <http://dep.state.ct.us/olisp/soundout/soundout.htm>. For more information on DEP's coastal management program please request our new brochure, "Coastal Management in Connecticut" by calling (860) 424-3034, or e-mail your request to [laurie.makowski@po.state.ct.us](mailto:laurie.makowski@po.state.ct.us).



Visit the DEP website at <http://dep.state.ct.us>.

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