

A Newsletter from the Connecticut Department of Energy & Environmental Protection Exploring Long Island Sound - Issues and Opportunities

Connecticut Institute for Resilience and Climate Adaptation Established at the University of Connecticut

Long-time readers of *Sound Outlook* may recall that the 2012 session of the Connecticut General Assembly passed <u>Public Act 12-101</u>, a "coastal omnibus" bill that established several climate change-related initiatives (please see the <u>October 2012 issue of Sound Outlook</u> for all of the details). The bill was passed in response to the damage caused by Tropical Storm Irene in August 2011, but several months before the state was hit by Super Storm Sandy in October 2012. These back-to-back storms gave the Connecticut shore a mere taste of the types of climate change impacts we're likely to experience as sea level rises and storms become more intense and more frequent. They also underscored the need to better support local planning and management to enhance the resilience of coastal communities in the face of coastal storm hazards.

In light of Storms Irene and Sandy, one of the more pressing initiatives contained in Public Act 12-101 was reiterated in <u>Special Act 13-9</u>: development of a "Connecticut Center for Coasts," a cooperative effort between the University of Connecticut (UConn), DEEP, and other academic institutions and federal and state agencies to help coastal communities improve their resilience to coastal hazards and sea level rise through shoreline planning and management.

On January 24, 2014, this initiative became a reality with the establishment of the Connecticut Institute for Resilience and Climate Adaptation (CIRCA), housed at UConn's Avery Point Campus in Groton.

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Damage at Cosey Beach, East Haven from Tropical Storm Irene Photo Credit: CT Division of Emergency Management & Homeland Security

CIRCA is a collaboration between UConn, DEEP, and the National Oceanic and Atmospheric Administration (NOAA). To get the Institute up and running, DEEP is providing \$2.5 million as a result of a court settlement of a case involving environmental violations and NOAA is providing a \$425,000 grant. The U.S Department of Agriculture's Natural Resources Conservation Service is also providing \$49,000 for the Institute.

The primary mission of CIRCA is to reduce the loss of life and property and reduce damage to the natural environment resulting from storms and other climate change-related impacts. The Institute will meet this mission by

- Improving the state's understanding of the scientific basis of climate change and its impacts on coastal and inland communities;
- Developing procedures and methods to address all aspects of climate resilience related to natural science, legal issues, engineering, and public policy;
- Conducting and coordinating pilot projects that can improve resilience throughout the state; and
- Establishing ways to make infrastructure like power lines, water systems, and sewage treatment plants more resilient to storms and sea level rise.

The establishment of CIRCA is a welcome and timely initiative in Connecticut. With many towns still trying to come to terms with the damage caused by Storms Irene and Sandy, municipal officials throughout the state realize how important it is to improve their communities' ability to adapt to climate change relatedimpacts and to consider these impacts in local land use planning.

Further, the National Climate Assessment (NCA), released on May 6, 2014, predicts that extreme weather events like hurricanes, tropical storms, and nor'easters may become the rule rather than the exception in the New England as a result of climate change. Neither Tropical Storm Irene nor Super Storm Sandy was a hurricane by the time it reached Connecticut, but they caused millions of dollars in damage. They were a wake-up call, giving us a mere taste of the type of impacts that the NCA warns are in store for us: more frequent extreme weather events encroaching even further inland with rising sea levels.

We know that Irene and Sandy were not the only storms we'll experience in our lifetimes. CIRCA will bring together experts in the fields of climate science,





Sound Tips:

Shorebirds need our help

We've all seen the "Share the Road" signs to encourage the co-existence of bicyclists and cars on our roadways.

These Sound Tips will help us "Share the Shore" with our feathered friends and promote the co-existence of people, pets, and plovers at our favorite beaches and fishing spots!

Would you know a willet if you saw one? Get to know the Common Shorebirds of Connecticut. With DEEP's pamphlet, you'll be able to tell the difference between the Greater Yellowlegs and Lesser Yellowlegs like a pro! And the better you can identify Connecticut's shorebirds, the better you can share the shore with them.

Please respect posted signs. Don't enter areas that are set aside to protect nesting birds.



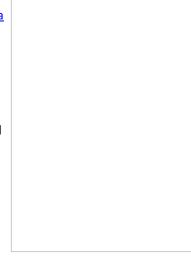
Keep dogs on leashes, but also stay away from nesting birds even if your dog is on a leash. Leashed and unleashed dogs are a real threat to birds, and natural resources, engineering, coastal management, and public policy to help Connecticut meet the challenges brought about by our "new normal."

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Getting the Bridgeport Coast Ready for its Close-up

This summer, one of Connecticut's biggest movie starts will be featured in Director Rob Reiner's new film *And So It Goes*, which opens on Friday July 11, 2014. But we don't mean Kevin Bacon or Meryl Streep. No, as far as we're concerned, the star of the film is Ferris Street on Burr Creek in Bridgeport, and the Office of Long Island Sound Programs (OLISP) played a major role in helping the waterfront site get ready for its close-up.

Sue Jacobson, a permit analyst with OLISP teamed with Ellen Woolf and Mark Dixon from the Office of Film, Television, and Digital Media (CT Film Office) in the State Department of Economic and Community Development (DECD) to work with Mr. Reiner's production company ASIG to prepare the Ferris Street site for its starring role in the film. Ms. Woolf and Mr. Dixon represent close to 25 years of experience working in Production Services and Location Services, respectively, for the CT Film Office.



The CT Film Office is the statewide contact for motion picture, television, and digital media production and serves as liaison between production companies, state agencies, municipalities, production facilities, local crew,

and vendors. The Office serves as a "first stop" for all production entities who want to film in Connecticut and vets each proposal to determine how viable the project will be. If, based on the description and location of filming activities, the project raises significant safety concerns, the Office will suggest alternative areas and scenarios that allay these concerns.

Once a production is given the green light by the CT Film Office, they also provide support to the production including assistance with local resources, crew and talent; scouting locations and identifying studios for filming; helping to secure all necessary municipal and state permits; and administering the film and digital media tax incentive programs.

Oftentimes, the need for a state permit can sound the death knell for a film production. Filming time-frames are often short and schedules are tight, so a delay caused by the need to obtain any type of state authorization can make or break the production.

can cause families to relocate to less-than-ideal nesting sites.

Don't fly kites in areas where birds can be nesting.

Dispose of trash properly. Fish scraps and buried trash or leftovers can attract predators like raccoons, foxes, and Laughing Gulls to eggs and chicks.

If you notice that birds are agitated and circling overhead, you might be close to a nest or colony. Try to be aware of signals the birds are sending and move away.

Finally, these photos of two different strangled osprey were provided to the DEEP by photographer Hank Golet, a long-time volunteer and an avid birder.



The photos serve as a grim reminder of how carelessly discarded fishing line can be deadly to shorebirds. The DEEP and the Menunkatuck Chapter of the Audubon Society have installed Monofilament Fishing Line Recycling Stations at several inland and coastal sites around the state to encourage less waste line in the environment. Please use these recycling stations and help prevent future shorebird tragedies.



the And So It Goes script: a four-plex waterfront apartment overlooking the water--in San Diego! The script also called for a dock, but no dock existed at the Ferris Street site. The initial perception from ASIG was that getting state permits to build a dock was going to be a nightmare.

Enter Sue Jacobson from DEEP's Office of Long Island Sound Programs.

Mark Dixon had worked in the past with Doug Jann in DEEP's State Parks Division's Operations and Parks Management Unit when previous productions had used State Park property (does anyone remember the Steven Spielberg movie Amistad that included a scene of Bluff Point in Groton?). When Mark contacted Doug about the Bridgeport project, he put the DECD team in touch with Sue Jacobson.

During Sue's initial site inspection, it was immediately evident to DECD and ASIG staff that she had a breadth of knowledge of coastal issues, coastal resources, and the permitting process, and she understood what it would take to "get to yes." She suggested that a temporary authorization would be appropriate for the proposed activities: shoreline clean-up and the installation of a 4-foot-wide temporary dock that would be removed once filming was over. The dock could be constructed so it rested on the bottom, rather than driving pilings, so the dock would have minimal impacts on coastal resources during construction and removal. Sue also gave ASIG valuable advice on restoring the tidal wetland and the shoreline with native, salt-tolerant plant species. And the process for the temporary authorization could be expedited so ASIG would meet its filming schedule.



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> **Look Out For Upcoming Events!**

Connecticut Trails Day Weekend June 7th and 8th

War of 1812 Update: Battle of Stonington **Bicentennial** August 10th Parade at 1:00 pm **Governor Malloy speaks** at 4:30 pm

Long Island Sound Study (LISS)

Committee Meetings

Please be sure to check the Calendar of Events on **DEEP's website**

When reflecting on the ease of coordination between her office and OLISP, Ellen Woolf joked, "No humans were harmed in the making of this film!" Ellen and Mark Dixon remarked that working with Sue Jacobson couldn't have been a nicer or more customer-friendly experience, and their coordination quickly dispelled the "nightmare" perception that loomed over the need for state permits. Thanks to Sue, the permitting process was quick, seamless, and met the tight filming schedule set by the production company.

Ellen Woolf also pointed out that the experience for *And So It Goes* is the movie-poster-child for a multiple-benefit project: it benefited the coastal habitat through shoreline habitat restoration, it resulted in only minor temporary impacts that were also restored after the dock was removed, and it provided an economic shot-in-the-arm for Bridgeport's local economy while the filming was underway.

Mark Dixon mentioned that Bridgeport has been featured in other productions in the past, in part because of its diversity and its "gritty" character, so it was nice to showcase a more beautiful side of the City in the film. The site overlooks Seaside Park across Burr Creek, and even Director Rob Reiner commented to DECD staff on how beautiful the site turned out to be.

When asked about other projects in the works, Ellen Woolf mentioned that New London and Norwich will provide locations for a future production of a holiday movie for the Hallmark Channel, so Connecticut's coast will be ready for plenty more close-ups. For a list of the other feature films and television shows that have already showcased Connecticut locations in starring roles, please visit DECD's Filmography Webpage. For more information about the CT Film Office, please contact Ellen Woolf at 860.270.8198 or Mark Dixon at 860.270.8218.

And be sure to see beautiful Bridgeport in And So It Goes this summer!

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SPOTLIGHTED COASTAL RESOURCE: Riparian Buffers Website

Sound Outlook has been touting the importance of vegetated buffers for many years (please see the <u>February 2004 issue of Sound Outlook</u>). These wide strips of vegetation along a river or a shoreline provide a variety of benefits. They can provide wildlife habitat, they protect property from flooding and erosion caused by storms, and they serve as pollution sponges for rain runoff. They can also serve as a deterrent to geese, who absolutely love an uninterrupted expanse of lawn that extends right to the water's edge!

But how do you know if your property is a good spot for a vegetated buffer? And if it's a great spot, how do you go about planting one?

Thanks to the <u>Coastal Riparian Landscaping Guide for Long Island</u>
<u>Sound</u> developed through the University of Connecticut's Sea Grant program, these questions can now be easily answered.

The guide in an interactive online tool that can help waterfront property owners select the landscaping options that are best for your property, based on how often your property gets salt spray (some plants are more tolerant to salt spray than others), whether or not you have a seawall, and how steep your property is.

The website contains fact sheets that give environmentally friendly tips for preparing your site, as well as planting tips and techniques



Example of a Riparian Buffer Credit: UConn CLEAR

for those of us with less-than-green thumbs.

So this summer, consider planting a vegetated buffer if your property fronts on waterbody, river, or Long Island Sound. But remember: While planting of vegetation is generally not regulated, if you are planning any filling or excavation in a wetland or tidal area, please check with your local land use agency and DEEP OLISP to see if you need a permit.

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SPOTLIGHTED COASTAL ACCESS:

Celebrate Connecticut Trails Day with a Coastal Walk at a Long Island Sound Stewardship Site

Connecticut Trails Day is celebrated in early June every year. This year, consider participating in one of several coastal walks at one of these Long Island Sound Stewardship sites. Please contact the walk leader for directions and meeting information.

Griswold Point Beach Walk, Sunday June 8th, 9:45 am to noon

Judy Preston, CT Sea Grant Long Island Sound Outreach Coordinator, will lead a leisurely educational walk along Griswold Point at the mouth of the Connecticut River, providing the natural history of the area and introducing participants to the significance of this Long Island Sound Study Stewardship Site. The distance will be about 2 miles.

Contact: Judy Preston at <u>jpreston65@sbcglobal.net</u>.



Sheffield Island, Stewart B. McKinney National Wildlife Refuge, Saturday June 7th, 8:30 am to 3:00 pm

Take a free ferry ride to Sheffield Island and help the U.S. Fish and Wildlife Service and the Norwalk Seaport Association pull invasive plants and perform maintenance work on the nature trail. A tour of the historic lighthouse, cruise on Norwalk Harbor, and time to enjoy the island will be included. Bring a picnic lunch and dine sitting on the grass with a view of the Long Island Sound. Open to adults and children 9 and older (must be accompanied by an adult). Space is limited and details will be provided after **registration**, **which is required**. **Contact/Registration**: Park Ranger Shaun Roche at 860-399-2513 x111 or by email at Shaun Roche@fws.gov.

Sheffield Island Lighthouse Photo Credit: DEEP/Connecticut Coastal Access Guide **Sandy Point Bird Sanctuary and Morse Beach, West Haven**, Saturday June 8th, 9:00 am to 11:00 am

Come visit one of the most productive birding sites in Connecticut. Join Patrick Comins, Director of Bird Conservation for Audubon Connecticut, on a 2-mile tour to learn why the site provides regionally important bird habitat and how environmental threats affect the

area. Expect to see piping plover, least tern, American oystercatcher, clapper rail, and more.

Contact/Registration: David Kozak, co-leader, CT Department of Energy and Environmental Protection, 860-424-3608 or email david.kozak@ct.gov. Registration prior to date of event is appreciated.

Sherwood Island State Park, Westport:

Saturday, June 7th, 8:15 am

Join Tina Green, president of the CT Ornithological Association, to look for late migrant and breeding species of birds in the park. The diverse habitat of Sherwood Island supports varied species including Yellow Warbler, Great Horned Owl, Great Egret, and Marsh Wren. Meet at the Nature Center and

Purchase of a LIS License Plate Supports the LIS Fund



As of March 31, 2014:

Plates Sold: 154,182

Funds Raised: Over \$5.3 million Number of Projects funded: 331

(includes Ecosystem Management projects)

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

bring binoculars, water, and bug repellent. Be sure to wear comfortable shoes.

Contact: Tina Greene at petermgreen@hotmail.com or call 203.247.2660.

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

Sunday, June 8th, 12:30 pm to 1:30 pm

Archaeology of Sherwood Island Walk/New History Trail. This walk

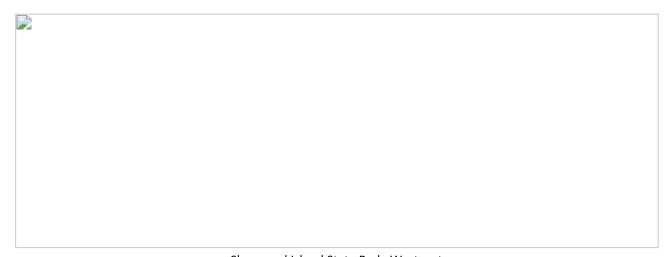
examines the past inhabitants of Sherwood Island from 1000 to the 1940s. Cece Saunders will share findings from recent excavations including Native American and early settlers. Along the trail various sites will be described and examined, and various artifacts, maps, old photos, and recent recoveries will be used to bring the island's past inhabitants to life. This walk is sponsored by the Friends of the Sherwood Island State Park.

Contact: Cece Saunders at cece@historicalperspective.org

Sunday, June 8th, 2:00 pm to 3:00 pm

Beach to Beach Walk. Join Louis Pietig for a 2.25 mile walk visiting features such as the 9/11 Memorial and the Pine Grove, and learn how Sherwood Island became Connecticut's first State Park.

Contact: Louis Pietig at LDPiet@aol.com



Sherwood Island State Park, Westport Photo Credit: Long Island Sound Study

If you can't attend one of these walks during Connecticut Trails Day Weekend, you can always check out these sites--and approximately 200 other coastal access areas--on your own using the Connecticut Coastal Access Guide. Happy Trails!

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Coastal Fellow to Study Seawall Compensation in Connecticut

Shoreline protection has recently become a top priority for coastal management in Connecticut. Whether the approach is "hard" (i.e., seawalls, bulkheads, revetments) or "soft" (i.e., living shorelines, vegetated buffers, beach nourishment), shoreline protection issues are front and center as the state continues to rebuild after Storms Irene and Sandy.

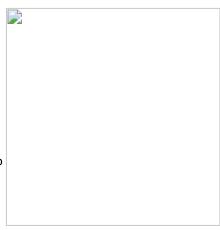
The 2012 amendments to the Connecticut Coastal Management Act contained in PA12-101 promote the idea of a "no-net-increase" in shoreline armoring. This gives OLISP the ability to investigate a scenario where new seawalls are allowed to be built, but that new "hardened" shoreline is compensated by having a similar expanse of other hardened shoreline removed somewhere else along the coast.

To help flesh-out the concept of compensation for shoreline hardening, OLISP will be hosting a Coastal Fellow for a two-year fellowship starting in August 2014. Ian Yue will be Connecticut's SCROD Fellow (Seawall Compensation: Regulatory Options Development). Ian is a graduate student at the University of Connecticut, and ironically, OLISP staff had to attend a Fellow matching conference in South Carolina to find someone from our own backyard!

The Coastal Management Fellowship program was established by NOAA's Coastal Services Center in 1996 as a way to provide on-the-job training in coastal resource management and policy for graduate students nationwide. The Fellowship program also provides assistance to the nation's coastal management programs as they work on cutting-edge, emerging coastal management issues such as seawall compensation.

As Connecticut's SCROD Fellow, Ian will assess and create a new system of compensation for the loss of natural shorelines caused by building new seawalls and other hard structures. He will work closely with UConn's new Connecticut Institute for Resilience and Climate Adaptation (CIRCA) to conduct a shoreline characterization to determine the nature and extent of shoreline armoring in Connecticut. Ian will also research if there are any other states that have a shoreline structures compensation policy, and he'll help develop goals and principles for a no-net-increase in hardened shorelines, including possible goals for re-naturalizing certain priority areas.

We look forward to working with Ian on this exciting new project. We hope he's ready to get started!



lan Yue, Seawall Compensation Fellow Photo Credit: NOAA Coastal Services Center

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East Lyme Elementary School Students Tour Town's Outdoor Stormwater Classroom

On Thursday May 29, 2014, approximately 189 third grade students from all three of East Lyme's public elementary schools took a field trip to the town's "Outdoor Stormwater Classroom" at Hole in the Wall Beach in Niantic. The sunny conditions

were less- than-perfect to learn about rain runoff and polluted stormwater, but the students toiled away in spite of the weather.

East Lyme Town Engineer Victor Benni and Niantic Center School teacher Diane Swan created the educational day that allowed students in third grade to rotate through five stations to learn about recycling, native plants and soils, shoreline species and habitats, sources of pollution and pollution prevention, and the latest technologies and techniques available to treat and reduce stormwater.

The information covered at the Outdoor Classroom complements the students' indoor classroom science units: Interactions Among Plants, Animal and Environments; Water: Land and Sky; Natural Resources: Rocks, Soils and Minerals. In addition, the Outdoor Classroom field trip exposed students to several ancillary subjects such as conservation, plant and animal adaptations, and recycling.

The educational day started a few years ago as a pilot project for two classes who toured the various stormwater treatment practices (e.g., tree box filters, pervious pavements, and treatment swales) installed at the Hole in the Wall Beach parking lot. Now the event has been expanded to include not only the stormwater treatment tours led by East Lyme Public Works Director Bill Scheer and Eric Thomas of DEEP, but a session about native plants and soils with Master Gardeners Judy Rondeau and Susan Munger, and Enviroscape pollution models led by Kelly Streich of DEEP, volunteers from the Niantic River Watershed Committee and Save the River--Save the Hills, and East Lyme High School's Advanced Placement Environmental Science students and middle school teacher Deb Galasso. Staff from DEEP's Marine Fisheries Division provided touch tanks and gave a presentation on shoreline species and the importance of protecting their habitats and water quality, and staff from the Southeastern Connecticut Regional Resource Recovery Authority led sessions on recycling.

East Lyme Third Graders Explore a Swale with DEEP's Eric Thomas
Photo Credit: DEEP OLISP

The fact that the Outdoor Classroom sessions also meet the "Public Education and Outreach" and "Public Participation" requirements of the CT DEEP General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems is secondary to their greater purpose. Town Engineer Victor Benni hopes the Outdoor Classroom events will build an understanding of

pollution control for East Lyme's students at an early age, which in turn will foster their desire to help preserve and protect Long Island Sound. He wants these events at East Lyme's Outdoor Stormwater Classroom to inspire future marine biologists and green developers!

For more information, please contact Victor Benni at 860.691.4112.

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Climate Change Update: Drive Clean and Save Green High Efficiency Vehicles Help Long Island Sound!

The Connecticut Institute for Resilience and Climate Adaptation at UConn will provide much needed assistance to Connecticut municipalities as they try to adapt to the impacts of climate change by building more resilient communities. But resilience and adaptation don't decrease our carbon footprints or reduce the greenhouse gas emissions that contribute to the climate change impacts that we're trying to adapt to!

In Connecticut, emissions from the vehicles we drive contribute more than 40% of overall greenhouse gas emissions and more than 40% of nitrogen oxides which are precursors to smog. As reported by the National Climate Assessment, these emissions are a major contributor to the impacts of climate change that we are already experiencing here in the Northeast United States: a 1 foot of sea level rise since 1900 (higher than the global average), a nearly 2 F increase in temperatures, and an increase in coastal flooding and extreme precipitation events.

One way that we can decrease our transportation carbon footprint and reduce emissions is to drive the least-polluting, most fuel-efficient vehicle that fits our needs. To help motorists find the cleanest vehicles on the market, the U.S. Environmental Protection Agency (EPA) developed the SmartWay Certified program and raised public awareness of the program through their online Green Vehicle Guide. SmartWay certifies the 20% lowest-emitting passenger vehicles each model year, based on greenhouse gas and smog ratings, so they offer no or low emissions. Greenhouse gas and smog scores are prominently displayed on new car price stickers. And since SmartWay Certified Vehicles get great gas mileage, the total cost of owning one is generally lower when compared to other vehicles.

Further, the U.S. Department of Energy (DOE) operates www.fueleconomy.gov that helps motorists find and compare cars based on gas mileage, gives tips on saving fuel and money, explains the benefits of fuel economy, and provides information on advanced vehicles and fuels (e.g., electric cards and hybrids, biodiesel, etc.).

So check out the EPA's Green Vehicle Guide and DOE's fuel economy website.

They'll help you drive clean and save some green, improve overall air quality, and fight against climate change, all of which ultimately preserves Long Island Sound and the other natural places we love.

And don't forget: your new SmartWay Certified Vehicle will look especially smart sporting a Long Island Sound license plate!

For more information about efficient vehicles, please contact <u>Jessica LeClair</u> at 860.827.2816.

Visit the DEEP website at www.ct.gov/deep

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