Sound Bytes

NEWS FROM THE LONG ISLAND SOUND STUDY

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LISS NEWS

Futures Fund Delivers High-Profiled Community Projects

Norwalk Land Trust President John Moeling points to a part of the marsh at Village Creek, 2016 where the Norwalk Land Trust will restore the salt meadows with the $20,000 Futures Fund award. Photo: Alex Von Kleydorff/The Hour ©Hearst Connecticut Media Group.

In This Issue

The 2016 Long Island Sound Futures Fund grants were announced in November in Mamaroneck. Since then, several projects have started and have been featured in print and online publications, including the Village Creek Salt Marsh Demonstration Project in Norwalk (The Hour), the Coastal Dune Restoration at Stratford Point (Daily Voice), and A Blue Plan for Long Island Sound (The Day).

In total, the Futures Fund awarded 25 grants totaling $1.3 million to local government and community groups in New York and Connecticut to improve the health and ecosystem of Long Island Sound. The funded projects will restore 27 acres of coastal habitat, reach more than 395,000 residents through environmental and conservation education programs, and treat one million gallons of water to remove more than 700 pounds of nitrogen pollution, and collect 6,000 pounds of floating trash.

The Long Island Sound Futures Fund is managed by the National Fish and Wildlife Foundation with support from EPA and the US Fish and Wildlife Service.

Visit the Long Island Sound Study grants page for more information about the grants.

Volunters Learn Protocols of Unified Water Study

Peter Linderoth, Save the Sound's water quality program manager (second to right), with volunteer citizen scientists on the shoreline of Manhasset Bay last summer.

On Jan. 11, Save the Sound, a 2016 Long Island Sound Futures Fund grant recipient, held a workshop at the Bridgeport Public Library for citizen volunteers interested in water quality monitoring of their local bay, harbor, or cove. More than 80 people attended, hearing local scientists and leaders of Long Island Sound embayment water quality programs describe how to follow the Unified Water Study's common set of procedures for developing a program. An important objective of the study, discussed during the training, is for groups to collect comparable sets of water quality data in order for resource managers to better assess the overall health of Long Island Sound's coastal waters. The Futures Fund grant will help citizen volunteers in Mamaroneck Harbor and Manhasset Bay to learn how to follow and to pilot the Unified Water Study procedures.

For more information visit the Unified Water Study web page.

Science Coordinator to Speak at AAAS Annual Meeting

James Ammerman

James Ammerman, Long Island Sound Study's science coordinator, will be giving a presentation on Feb. 19 in Boston at the prestigious annual meeting of the American Association for the Advancement of Science (AAAS). His talk, Scientific Tools for Assessing Eutrophication in Northeast Estuaries, will look at the resources used to assess eutrophication - the process by which a body of water becomes enriched in dissolved nutrients (including nitrogen) that stimulate the growth of aquatic plant life, usually resulting in the depletion of dissolved oxygen.

Ammerman will be on a panel that will include Jamie Vaudrey, a University of Connecticut scientist who will be give a talk on Strategies for Alleviating Estuarine Eutrophication in the Northeast United States.

Ammerman also recently gave a talk with Richard Friesner of New England Interstate Water Pollution Control Commission on eutrophication and harmful algal blooms at the National Conference and Global Forum on Science, Policy in Washington D.C., and moderated a panel on reducing nitrogen in northeast coastal waters at the Restore America Estuaries annual meeting in New Orleans.

AROUND THE SOUND

Hybrid Boats: Built in Mamaroneck; Launching in Norwalk

In 2014 the Maritime Aquarium in Norwalk launched the first research vessel to run on hybrid-electric propulsion. Designed by Incat Crowther of Australia, the research vessel Spirit of the Sound was built in Mamaroneck at Derecktor Shipyards, with construction managed and integrated by Norwalk-based Alternative Marine Technologies (Amtech). Now Amtech and Derecktor are working again to build a fleet of hybrid electric catamarans with refrigeration to ferry organic and locally produced foods across Long Island Sound. An article about the new farm-table (via hybrid boat) venture by Norwalk-based Harbor Harvest is on the Norwalk Hour website.

Photo courtesy of Derecktor Shipyards.

New York Announces New Ocean Plan

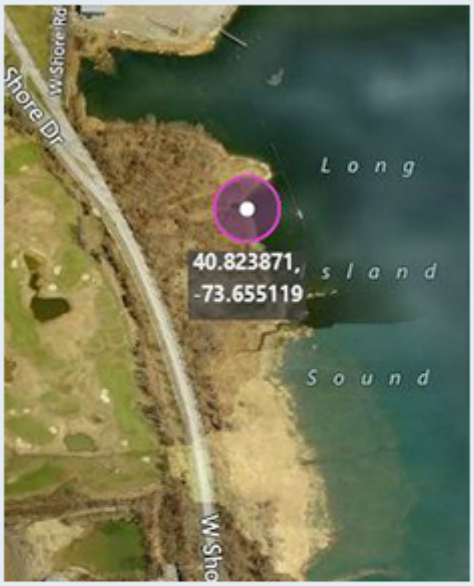
On Jan. 23, New York State Department of Environmental Conservation Commissioner Basil Seggos announced the release of the State's final Ocean Action Plan, the first-ever comprehensive 10-year blueprint to guide the protection and conservation of New York's ocean resources from environmental threats such as ocean acidification due to climate change. The plan was developed with input from a variety of state agencies, as well as ocean-related advocacy and industry organizations.

The Ocean Action Plan outlines four interconnected goals that reflect New York's priorities:

- ensure the ecological integrity of the ocean ecosystem;
- promote sustainable economic growth;
- increase resilience to impacts from climate change; and
- educate and engage the public to promote ocean stewardship.

The plan also includes projects that were awarded state grants in 2016, including nitrogen reduction measures such as installation of permeable reactive barriers, innovative/alternative individual onsite systems, cluster wastewater treatment systems, in stream aeration, bioharvesting and hydro-modifications. In the Long Island Sound region, projects funded included Hempstead Harbor and Mud Creek Tidal Wetland Restorations, a Suffolk County Soil Health Guide, and boat pumpout stations in Brookhaven Town.

Read the full announcement on the NYSDEC website.



Location of the Hempstead Harbor Tidal wetlands project. The construction will include the removal of concrete/asphalt debris, Phragmites excavation, and soil removal (to achieve appropriate elevation established by benchmark), goose exclusion, surveys, adding clean fill, instituting erosion control measures, applying seed material, and plant material. The project should result in a highly productive ecosystem and diverse habitat that will filter out pollutants, including nutrients from stormwater runoff.

New York City Sewage Plant Upgrades Yield Big Drop in Pollution

New York City has spent $1 billion to upgrade four wastewater treatment plants that has resulted in a 60 percent reduction in the amount of nitrogen being discharged into the Upper East River, New York City Department of Environmental Protection (DEP) Acting Commissioner Vincent Sapienza announced in January. These significant upgrades are helping the states of New York and Connecticut to meet their goal of preventing more than 46 million pounds of nitrogen a year from being discharged into Long Island Sound from wastewater treatment plants compared to the 1990s. The work has helped to improve the health and ecology of the East River and Long Island Sound. Read about the upgrades in a Jan. 5 news release from New York City Department of Environmental Protection.

Workshop Presents the Case for Dam Removal

Dam removal, as an alternative to fishway installation, was the focus of a seminar at Hofstra University on October 18.

Hunts Point Sewage Treatment Plant: 42" sludge pipe at West Aeration Tanks (looking west). Photo by NYC Dept. of Environmental Protection.

The Grangebel Dam in the Peconic Bay region of Long Island before and after dam removal. Photo courtesy of NYSDEC.

Participants learned about the history and current status of dams and migratory fish in the Northeast, discussed the benefits of dam removal, and gained insight into New York State regulations and how they influence dam-removal projects.

America's dams block the movement of migratory fish and have resulted in declines in fish populations. Many dams no longer serve their original purposes such as harnessing water power.

Unlike fish ladders, dam removal entails little or no ongoing maintenance. Removing dams also decreases water temperatures and restores passage for aquatic insects.

Nonetheless, many communities are unsure about the impacts of dam removal on their waterfront properties. Presenters described how managers of successful dam-removal projects reached out to the public and responded to these concerns.

The workshop and afternoon field trip to the site of a potential dam-removal project was coordinated by four partners: the Long Island Sound Study, Peconic Estuary Program, Seatuck Environmental Association, and Hofstra University Biology Department.

The seminar was one of many examples of collaboration of the Peconic Estuary Program and Long Island Sound Study with other local partners. It followed a 2015 workshop at Hofstra about the design, construction, and monitoring of fish passages.

This article first appeared in the Interstate Water Report, published by the New England Interstate Water Pollution Control Commission. More information about "obsolete dams" is in the Around the Web section below.

Communicating Science Workshop held at LISS MeetingEnter Title Here

On Jan. 27, a joint meeting of Long Island Sound Study's Science and Technical Advisory Committee (STAC) and Citizens Advisory Committee (CAC) featured a workshop on communicating science. The meeting, held at Housatonic Community College in Bridgeport, featured Christine Connell, assistant director of the Alan Alda Center for Communicating Science at Stony Brook University. Through exercises, she stressed to the scientists that audiences are more receptive to science presentations if you can share with them the excitement of learning something new through scientific discovery. She also said it was important to ask the audience what they know about the topic and what needs to be explained before starting a presentation.

The Alan Alda Center for Communicating Science works to enhance understanding of science by helping train the next generation of scientists and health professionals to communicate more effectively with the public, public officials, the media, and others outside their own discipline.

AROUND THE WEB

Christine Connell leads members of the STAC and CAC in an exercise to improve science communications.

Website Provides 'FAQ' on Removal of Obsolete Dams

According to the EPA, between 75 and 90 percent of dams are obsolete, no longer serving a functional purpose. Some of these dams can be a danger to the public as well as lead to impairments in water quality. Read more about obsolete dams, permitting requirements for their removal, and potential sources of funding to support dam removal in a "frequently asked questions" web page on the EPA website.

The Ed Bills Dam in Lyme, CT, as it was being removed.

Three Atlantic killifish or mummichogs (Fundulus heteroclitus heteroclitus); the two brightly colored fish at top and bottom are males, with a duller female between them. NOAA National Estuarine Research Reserve Collection Location: Vicinity of Georgetown, South Carolina.

Study Finds Some Fish Thrive in Toxic Waters

Some fish can survive and even thrive in toxic superfund sites. A recent study that looked at Atlantic killifish populations in superfund sites, including a site in Bridgeport Harbor, indicates that the fish have adapted to survive high levels of toxic industrial pollutants, including polychlorinated biphenyls, dioxins, and hydrocarbons. The research was funded by a National Institutes of Health grant. The other sites studied were: Bedford Harbor, Massachusetts; Newark Bay, New Jersey; and Virginia's Elizabeth River. Read more in a National Institutes of Health news release or an article in National Geographic's website.

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Long Island Sound Study | EPA Long Island Sound Office
888 Washington Boulevard, Stamford, CT 06904-2152 | Phone: (203) 977-1541 | Fax: (203) 977-1546