

Sound Bytes



NEWS FROM THE LONG ISLAND SOUND STUDY

Spring 2017

LISS NEWS

Progress Issue

The spring 2017 issue of Sound Bytes highlights progress being made toward accomplishing long-term initiatives of the Long Island Sound Study's Comprehensive Conservation and Management Plan. This issue is inspired by the accomplishment in 2016 of a major milestone -- meeting the goal for reducing nitrogen pollution from wastewater treatment plants that was set in 2000. As a result, there are now 43 million fewer pounds of nitrogen discharged into the Sound compared to the early 1990s, as confirmed in March after an annual review by the New York State Department of Environmental Conservation and the Connecticut Department of Energy and Environmental Protection.

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LISS Partners Accomplish Nitrogen Reduction Target



Upgrading the Hunts Point wastewater treatment plant in the Bronx has resulted in 22,000 fewer pounds of nitrogen a day entering the East River and Long Island Sound.

In the late 1980s fish kills in Long Island Sound caused by dangerously low levels of dissolved oxygen in the water, a condition known as hypoxia, prompted the recently-formed Long Island Sound Study program to take notice and direct a significant amount of its resources to the problem. By the 1990s New York and Connecticut, and its municipalities, were taking action by reducing one of the prime contributors to hypoxia - nitrogen - from the sewage discharged into the Sound from wastewater treatment plants. Specific allocations on how much nitrogen could be released were established by Connecticut, New York, and EPA in 2000 in an agreement called a Total Maximum Daily Load (or TMDL).

Read [here](#) how the states achieved their nitrogen reduction target in 2016 and how it appears to be helping to improve oxygen conditions in the Sound.

Restoring Coastal Habitats: Caumsett Case Study

Once a cow pasture that became a thick stand of invasive plants, a 25-acre parcel of land at Caumsett State Historic Park Preserve in Lloyd Neck, New York has now been restored to its original native grasslands habitat. The



Native grasses replaced invasive plants at this restoration site at Caumsett State Historic Park Preserve. Photo credit: S. Feustel.

transformation took five years, and involved a collaboration of funding partners (including the Long Island Sound Futures Fund) and many volunteers who took on some of the hands-on activities such as planting and weed pulling along with New York State Parks staff. While sensitive projects such as Caumsett take time, its success shows why the Long Island Sound Study Habitat Restoration Initiative is more than 90 percent on its way to fulfilling its target to restore 2,000 acres of coastal habitats by 2020. Restoring coastal habitat is critical for the region to help reduce a decades-old trend of losing natural coastal habitats to development. Coastal grasslands, as well as other coastal habitats such as tidal wetlands, provide food and shelter for year-round and migratory wildlife, and provide services to human communities by helping to prevent coastal flooding, filtering storm water for pollutants,

and in cases such as Caumsett, restoring a scenic view.

Read a description of the project and a gallery of photos [here](#).

Opening Up Rivers for Fish Passage: Norton Mill Dam Removal Case Study



Workers taking down the Norton Mill Dam on the Jeremy River. Photo credit: Sally Harold.

For the first time in 300 years, Atlantic salmon and other fish on the Jeremy River in Connecticut can swim upstream an additional 20 miles from the site of an old paper mill. The dam (and the empty Norton Paper mill) was removed in fall 2016. The project exemplifies how dam removals, enlarging culverts, and building fish ways have opened 375 river miles for fish to swim upstream from Long Island Sound into the rivers and tributaries in the watershed. The Long Island Sound Study Habitat Restoration Initiative originally established a goal in 1998 to open up 100 miles by 2008, a feat it accomplished in 2006. The Initiative now has set a new target of opening up an additional 130 miles by 2035. With more communities recognizing the need to open historic migratory routes to expand fish habitat and protect species such as salmon, herring, and eel, one of the

biggest challenges now is attracting donors to collaborate in financing projects that can cost hundreds of thousands of dollars. LISS has helped through its partnership with the National Fish and Wildlife Foundation's Long Island Sound Futures Fund grant program. For example, the Futures Fund provided \$39,000 in 2011 to The Nature Conservancy to provide planning assistance, including developing an engineering plan, for removing the Norton Mill dam.

Read a description of the dam removal project, including before and after photos of the project, [here](#).

Protecting Coastal Open Space: Conscience Bay Case Study

On Arbor Day, April 28, the New York State Department of Environmental Conservation celebrated the expansion of its 52-acre Conscience Bay tidal wetland complex with a tree and shrub planting ceremony. The event was held on what was once a one-acre residential property, and is now in the midst of becoming an important upland buffer to protect the tidal wetlands. The property was purchased by the Peconic Land Trust, a non-profit conservation organization partnering with NYSDEC, using Long Island Sound Study Stewardship Initiative funding. The project exemplifies how LISS has helped to acquire properties to protect wildlife and habitats and to provide human ecosystem services. In the case of Conscience Bay, these services include tidal marsh and upland vegetation to act as a buffer against storms and flooding, and to assure clean water by filtering pollutants from stormwater runoff.



Volunteers and New York State parks staff plant shrubs and trees at Conscience Bay on Arbor Day.

Since 2008, LISS has provided \$4.12 million to help in the purchases of nine properties totaling 300 acres at a total cost of \$18.5 million.

The Arbor Day celebration included planting of eight native trees and 150 shrubs. To read more about the event and the Conscience Bay property read a news release on the [NYSDEC website](#).

Curbing Stormwater Pollution through Green Infrastructure: New Haven Bioswale Case Study



A bioswale on Daisy Street in New Haven.

While Connecticut, New York, and EPA reached an important target in 2016 to reduce nitrogen from wastewater treatment plants, the Long Island Sound Study Comprehensive Conservation and Management Plan and other regional plans recognize that more work needs to be done to reduce pollution that enters the

Sound from other sources. Some of these primary entryways of pollution are storm drains that carry pollutants such as excess fertilizer and animal waste from hard surfaces such as streets into drainage pipes and rivers that end up in Long Island Sound. One solution to prevent pollution is building green infrastructure projects such as the city of New Haven's program to build 200 bioswales - sidewalk gardens that slow down, capture, and filter pollution before it can discharge into storm drains. The Long Island Sound Futures Fund is helping this project by providing a grant to the Urban Resources Initiative in New Haven to build seven bioswales and to monitor their effectiveness to help refine the design and location of the rest of the bioswales. Read an article and see a photo gallery [here](#).

Engaging Citizens on Caring about the LIS Ecosystem: SoundOFF



A boy uses a secchi disk to learn about water clarity in Long Island Sound. Photo credit: Cindy Grimm.

Since 2005, 2.1 million people have been engaged in education and hands-on activities such as educational sails on Long Island Sound and volunteering to restore habitats through grants from the Long Island Sound Futures Fund small and large grant programs. The funding helps support a long-term goal established in LISS's first Comprehensive Conservation and Management Plan in 1994 to help the public understand, appreciate and enjoy the Sound's resources and the benefits derived from them. A recent example is a public event called *SoundOff!* sponsored by the Whaling Museum of Cold Spring. For the second year in a row the

museum sponsored a community event with interactive exhibits that demonstrated to young and old what impact people have on Long Island Sound and its marine life. More than 250 people participated, which was held the Sunday after Earth Day on April 23. You can read about *SoundOff!* and see pictures [here](#).

AROUND THE SOUND

Trails Day Weekend



Looking for a Baltimore Oriole at Turtle Creek Preserve in Old Saybrook, CT during last year's Trails Day weekend activities. Photo credit: Clare Cain, CT Forest and Parks.

On June 3 and June 4 join the Connecticut Forest and Park Association at dozens of locations for Connecticut Trails Day events. The weekend is part of American Hiking Society's National Trails Day (NTD), a celebration of America's magnificent Trail System, occurring annually on the first Saturday and Sunday in June. LISS has created a [web page](#) featuring some of the events at or around Long Island Sound Stewardship areas in Connecticut, and included a couple of New York events as well. Events feature a series of outdoor activities, designed to promote and celebrate the importance of trails.

Onrust exhibit



The *Onrust*. Photo credit: The *Onrust* Project.

Get on board the *Onrust* this year, and you will go back in time to when Dutch explorer and merchant Adriaen Block built the original *Onrust* in New York in 1613-1614 to sail around Long Island Sound and up the Connecticut River. The replica ship, built by the *Onrust* Project in Rotterdam, near Albany, will be docked at the Connecticut River Museum from June 1 to early October. During this time the museum will offer cruises and dockside tours. To find out more visit the Connecticut River Museum's website at ctrivermuseum.org. You can also learn more about the boat by going to The *Onrust* Project's website at theonrust.com.

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