SOUND UPDATE

2025

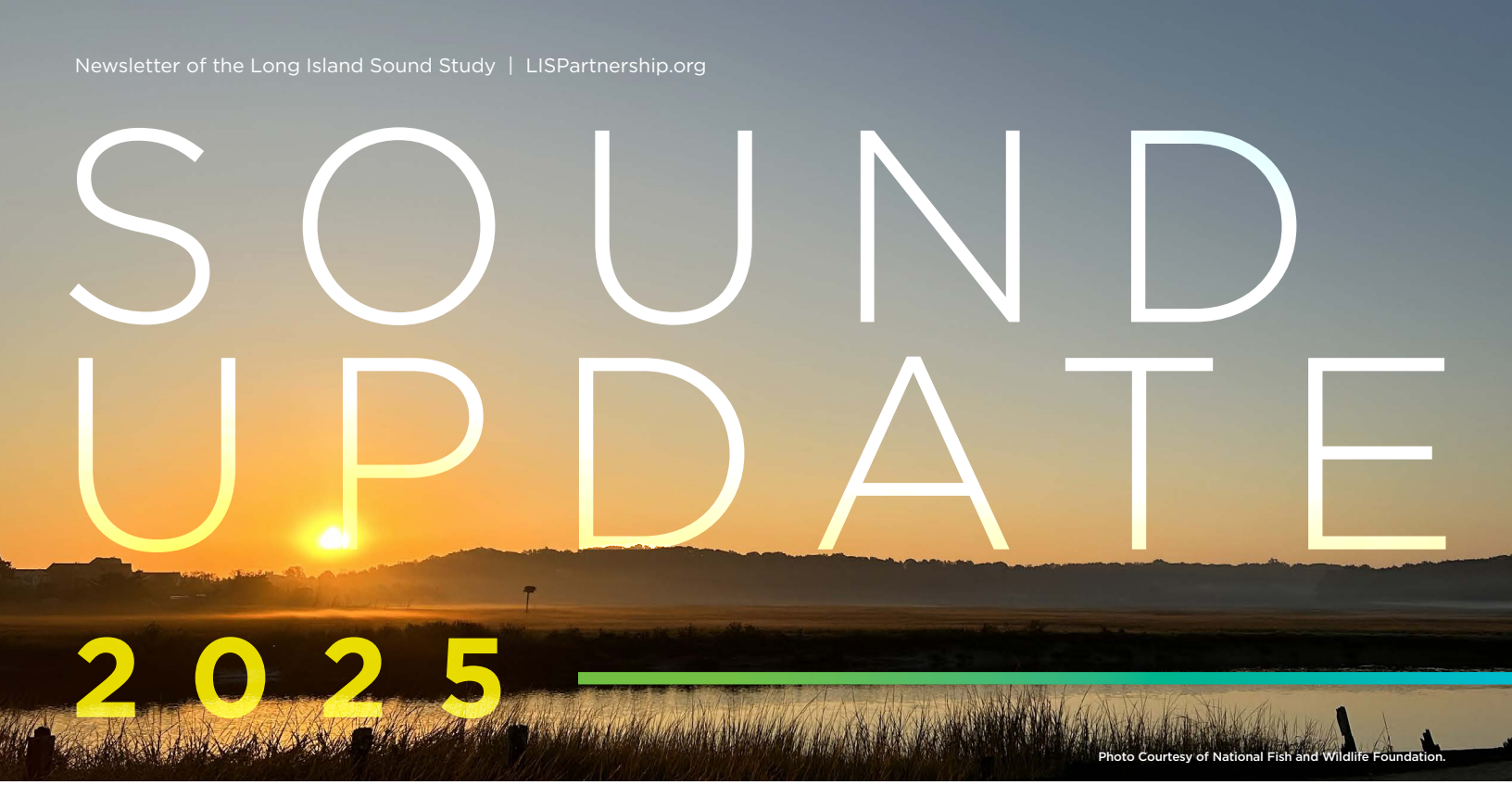


Photo Courtesy of National Fish and Wildlife Foundation.

COVER PHOTO: A sunset over Crab Meadows Marsh in Northport, NY. With funding from LISFF, the National Audubon Society will work with the Town of Huntington to enhance coastal resiliency with tidal marsh restoration at the site.

LISS's 2024 in Review

On November 1, 2024, I announced that after 38 years with EPA, 35 of which were dedicated to Long Island Sound, I would be retiring in spring 2025. What still seemed distant and abstract then, now seems imminent. In my farewell communication in an official capacity, I feel duty bound to provide my perspective on the past four decades in the form of four observations that I hope have some utility for those starting or continuing their commitment to a healthier, more abundant Long Island Sound.

Shifting baselines syndrome cuts both ways. In the absence of past information or experience with historical conditions, each new generation accepts the current situation as being normal. This is usually associated with accepted thresholds for environmental conditions continually being lowered. But in the case of Long Island Sound public perceptions now are much better than they were four decades ago. This is a good thing, evidence that the concerted public-private partnership to restore Long Island Sound has been successful. But it can also lead us to forget how bad things were and to take for granted the investments that created positive change in Long Island Sound.

People perceive the pain of losing something to be greater than the pleasure of gaining something of equal value. Called loss aversion, this was first described by Nobel Prize-winning behavioral economist Daniel Kahneman. Applied to Long Island Sound, this means that if the improvements reverse, the public will feel that loss even more than the satisfaction gained in its restoration. Any backsliding will be painful and punished. Instead, the Long Island Sound effort must continue its work to further return the Sound to abundance.

There is no new thing under the sun. While innovation and experimentation are to be applauded and practiced, there is much to be learned from past efforts. Published more than fifty years ago, The Urban Sea: Long Island Sound (Koppelman et al.,1976) and Long Island Sound: An Atlas of National Resources (CTDEP, 1977) provided cross-disciplinary perspectives that laid a foundation for Long Island Sound management programs. Contemporaneous to these efforts was the development of comprehensive, interdisciplinary regional management plans, either centered around the Sound (New England River Basin Commission, 1975), or directed at portions of the watershed (e.g. Nassau-Suffolk Regional Planning Board, 1978). Those planning efforts were ambitious in scope and remarkable for the breadth of federal, state, local, and public involvement in their development. Even today they are instructive reading, particularly for those in early or mid-career.

Stick to the facts. There is room for both optimists and pessimists in this world, but each should only base strong opinions on facts. There is much evidence, and accumulated facts, that the quality of human life on the planet is better today than 40 years ago. Yes, there are problems, big ones, that need to be addressed. But who better than you, with your intelligence and drive, your passion and compassion, to make Long Island Sound and, yes, the world, even better tomorrow than today is better than forty years ago? It's hard but deeply satisfying, important work.

– Mark Tedesco, *former Director, EPA Long Island Sound Office*

Tedesco speaks at a Policy Committee Meeting in December of 2002. The meeting was hosted at the Maritime Aquarium in Norwalk, CT.

Photo by Kimberly Graff.

Long Island Sound Study National Estuary Program (LISS) is a partnership working to protect, conserve, and restore Long Island Sound. Through its grant program, the Long Island Sound Futures Fund, run by the National Fish and Wildlife Foundation, since 2005 LISS has achieved:

$68 million invested in local and regional conservation projects

$144 million generated for conservation projects, between LISFF investmeents and **$76 million** in grantee matching funds

673 conservation projects funded

862 acres of coastal habitat restored

5 million people engaged in protection and restoration of the Sound

212 gallons of stormwater pollution treated through installations such as rain gardens and other green infrastructure

The Long Island Sound Study budget is organized into nine Program Activities and three Bipartisan Infrastructure Law (BIL) activities outlined below; the **FY2024 LISS budget** breakdown by program activity is:

Coordination	$1,305,746
Water Quality Planning and Implementation	$2,202,002
Modeling	$1,114,012
Monitoring	$6,953,397
Research	$3,191,245
Habitat Restoration and Protection	$6,508,410
Public Education and Outreach	$2,172,087
Stewardship and Resiliency	$2,782,087
Implementation Assistance	$12,650,000
(BIL Activity) Strong Communities	$8,634,262
(BIL Activity) Healthy Ecosystems	$3,409,800
(BIL Activity) Clean Water Infrastructure	$8,500,000
TOTAL	**$59,423,048**

PROJECTED IMPACT OF LONG ISLAND SOUND FUTURES FUND GRANTS 2024

Awarded **$12 million**

Funded **31 projects**

Estimated to remove **11,975 pounds** of marine debris

Restore or enhance **280 acres** of vital habitat for fish and wildlife

1.7 million gallons of stormwater prevented from polluting the Sound

More than **500,000 people** will be reached through education and outreach efforts

190,254 pounds of nitrogen prevented from flowing into Long Island Sound waters

THRIVING HABITATS & ABUNDANT WILDLIFE

55 coastal habitat acres were restored in 2024, bringing the yearly average of acres restored to **73.6 acres.**

As of 2024, **83.31% of passable river miles** in CT were reconnected, with 10.75 new stream miles opened that year.

CLEAN WATERS AND HEALTHY WATERSHEDS

26,500 Square feet of green infrastructure installed through LISFF in the last reporting period, helping keep nutrient pollution out of the Sound

1,700,000 Gallons of stormwater treated through LISFF green infrastructure projects

For the second round of the Garden Rewards program, **162 reimbursements** were distributed to Long Island residents.

38 days of hypoxia were measured in the Sound in 2024. This was shorter than last year's 43 days and lower than the overall average of 45 days of hypoxia.

On average, **18,252 TE lbs of nitrogen** were discharged per day in 2023. (TE means this number takes into account the relative nitrogen impact on water quality from the treatment plants based on where they discharge). This is a 69% reduction from the 1990s baseline.

In Connecticut, **9,975 pounds of marine debris** were cleaned up during the International Coastal Cleanup, with **108.7 lbs of marine debris collected/per mile on average.** **no data in New York for ICC*

SUSTAINABLE & RESILIENT COMMUNITIES

19,168 People learned about the Sound and conservation topics through LIS Futures Fund projects.

1,955 Volunteers engaged in stewardship activities through LIS Futures Fund projects

Over 7,000 users visited the New Sustainable and Resilient Communities Resource Hub.

In its first year, the Long Island Sound Schools Network **engaged 2,164 students in community projects** driving public awareness and education about the Sound.

Additionally, 1,075 students were reached through teachers engaged at LISS workshops and presentations.

Roughly 240 people attended Community Science Long Island educational workshops in 2024. The webinar series highlighted community science efforts on Long Island, bringing awareness to sea turtles, birds, seals, river herring, flooding, and monarch butterflies.

Long Island Sound Study Starts Year-long Initiative to Revise Management Plan

As one of EPA's 28 National Estuary Programs, the Long Island Sound Study is responsible for developing a Comprehensive Conservation and Management Plan (CCMP) with specific restoration actions to guide program activities, research, and funding. LISS started planning a major revision of the CCMP in late 2023 and established four overarching goals of the plan—Clean Waters and Healthy Watersheds, Thriving Habitats and Abundant Wildlife, Sustainable and Resilient Communities, and Informed and Engaged Public. The Informed and Engaged Public goal replaces the Sound Science and Inclusive Management theme from the 2015 CCMP and will prioritize program dollars for education, engagement, communication, and public access initiatives. In the early stages of CCMP planning, LISS also established core values to guide the operation and activities of the program. The 2025 CCMP values include actionable science, respect and trust, and adaptive management.

At the beginning of 2024, LISS formed writing teams to develop objectives and actions under each of the plan's four goals. The objectives are meant to be achieved by 2035 and serve as ambitious goalposts to drive collective action in pursuit of the CCMP goals. The actions describe activities to be taken in the next five years (2025–2029) to help achieve the objectives. Compared to the 2015 CCMP, the plan is streamlined from 136 implementation actions to 47 actions.

The Long Island Sound Study held five public engagement sessions to involve interested stakeholders in the CCMP process in addition to informal outreach opportunities and a standing invitation to provide comments via email throughout the yearlong writing process. Once the draft CCMP was completed, LISS posted the plan online and held a formal 60-day public comment period to gather feedback from late September to November 2024. LISS received 244 public comments from over 30 individuals and organizations on the draft plan.

The finalized plan is set to be published in the summer of 2025 and will guide restoration efforts in Long Island Sound and its watershed over the next decade.

LISS Photo.

A CCMP public engagement session held at the Alley Pond Environmental Center in Queens, NY.

LISS Photo.

A CCMP public engagement session held at Lighthouse Point Park in New Haven, CT

OCTOBER 2023

Making an Impact in Long Island Sound Communities

In the fall of 2023, Restore America's Estuaries announced the inaugural round of the Long Island Sound Community Impact Fund. The new grant program provides technical and financial assistance to environmentally distressed communities to address health impacts and increase access to and conservation of Long Island Sound. Funding for LISCIF is provided by the Environmental Protection Agency.

The first year of the program awarded a total of $1.5 million to 18 organizations in Connecticut and New York. Funded projects focused on environmental stewardship, youth engagement, green infrastructure, water quality, shellfish recycling, and education. Eighty-four people from subawardee organizations, Tribal Nations, EPA, and other groups came together for LISCIF's first Annual Learning Exchange in June last year and will do so again this summer on June 30, 2025 at the CUNY Graduate Center. Attendees of the day-long event discussed ways to increase collaboration for projects in being implemented in environmentally distressed communities across the region. The program recently announced its second round of grant recipients. Visit estuaries.org/liscif to learn more.

All Photos by Judy Benson/CT Sea Grant.

Waterford, CT, elementary students learn from high school student volunteers during Marine Science Day at Waterford Town Beach in June 2024.

JANUARY 2024

LIS Sound School Network Piloted in NY and CT

With funding from EPA through the Long Island Sound Study, and facilitated by Connecticut Sea Grant and Mercy University, the Long Island Sound Schools Network was formed in 2023. Ten public schools within the Long Island Sound Watershed were selected, all from areas near waterways that flow into the Sound. Schools received funding for lead teacher stipends in addition to $5,000 to carry out community-based projects to educate the public about Long Island Sound. Participating schools were announced in January 2024 and included six schools in Connecticut and four in New York. The 2023-2024 cohort included:

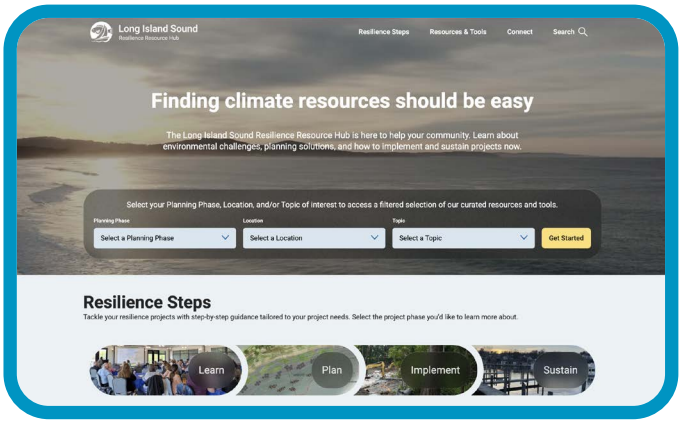
- Flanders Elementary School (CT)
- Jefferson Elementary School (NY)
- Mystic River Magnet School (CT)
- City Island School, PS175X (NY)
- Smithtown High School (NY)
- Torrington High School (CT)
- Trinity Elementary School (NY)
- Trumbull High School (CT)
- Walter Fitzgerald Campus (CT)
- Waterford High School (CT)

Each school implemented their project from January–August. Through the network, 24 teachers supported projects with 27 partner organizations. Project examples include a marine science day for high school students, a classroom study on oysters and microplastics, artistic watershed models, and an interdisciplinary course for high school students combining environmental science with marketing. A new group of 10 Long Island Sound Network Schools has been chosen for the 2024 – 2025 academic year. The program is modeled on the National Oceanic and Atmospheric Administration's (NOAA) Ocean Guardian Schools and the international Blue Schools Network.

FEBRUARY 2024

New Resilience Resource Hub Launched

The Long Island Sound Study's Sustainable and Resilient Communities Team launched a resource hub, found at lisresilience.org, to assist coastal communities in Connecticut and New York with a prepared responses to threats from flooding, erosion, and extreme weather events. The website was developed in response to a regional needs assessment completed in 2022 which showed that stakeholder communities sought streamlined and accurate information about environmental challenges and how to plan for them. The resource hub is designed for decision-makers such as municipal officials, planners, nonprofit leaders, and community groups looking to strengthen their resilience. In addition to planning guidance, the hub also includes an updated Funding Database, a map showing case studies of resiliency projects, and calendar with trainings and workshops for staying informed on the latest in regional resiliency.

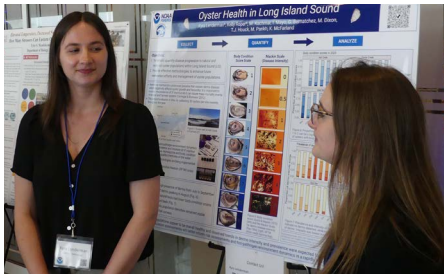


MAY 2024

Serving the Sound Through Science Research

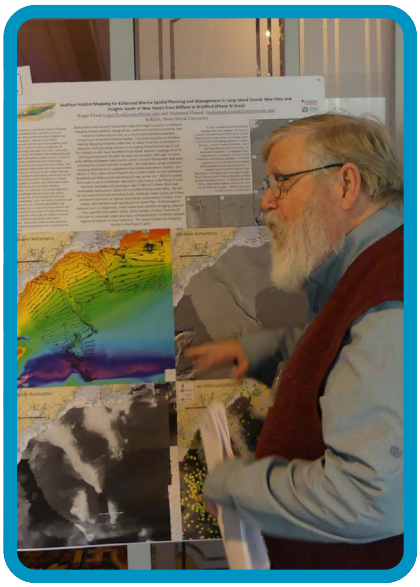
In May, over 170 scientists, resource managers, and students came together in Port Jefferson, NY, for the biennial Long Island Sound Research Conference. The conference, titled "Science Serving the Sound," provided attendees with an opportunity to learn about Long Island Sound-focused research being conducted by more than 200 scientists. Research topics presented at the conference were organized within the four goals of the CCMP and included both speaker and poster sessions. In total, the conference received roughly 90 abstracts on an array of topics ranging from coastal flooding, oyster health, salt marsh resilience, beach monitoring, ocean acidification, eelgrass restoration, and other issues impacting the Sound.

In December, the Connecticut and New York Sea Grant Programs announced recipients for another round of research funding, selecting 13 projects that will provide scientists with a total of $6.7 million, leveraging an additional $3.5 million in matched dollars. The biennial Long Island Sound Research Grant Program, which was started in 2000, is funded by EPA through the Long Island Sound Study and managed by NYSG and CTSG and is designed to support science-based management in the Sound while assisting with the implementation of the CCMP. The 2024 award was the largest in the history of the grant program.



LISS Photo.

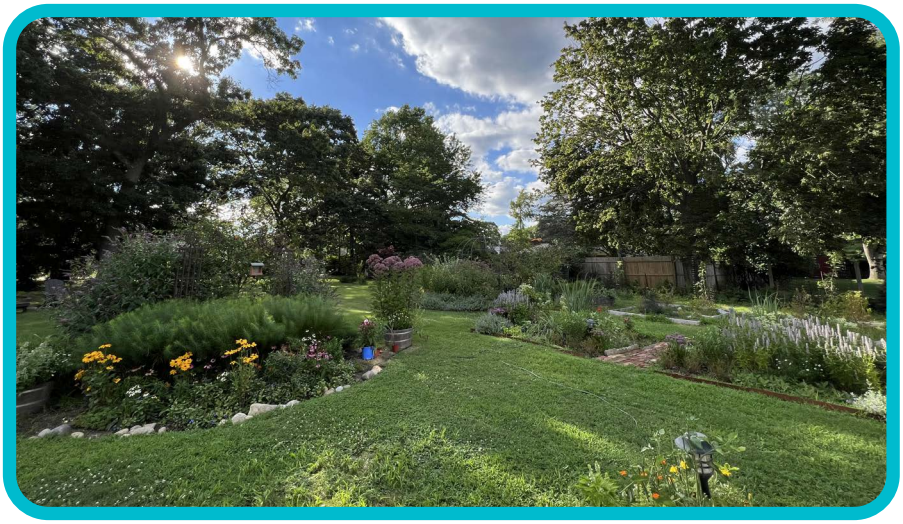
Two presenters during the poster session portion of the research conference spoke about Oyster Health on Long Island Sound.



LISS Photo

Dr. Roger Flood of Stony Brook University speaks about a Long Island Sound seafloor mapping project during the poster session.

Photo Courtesy of NEIWPCC.



A Long Island homeowner's rain garden.

AUGUST 2024

For Second Year, Long Islanders Benefit by Going Green

Launched in 2023, the Long Island Garden Rewards Program initiated a second round of reimbursements to Long Island residents for installing green infrastructure on their properties. Through the program, which is a combined effort of the New York State Department of Environmental Conservation, the Long Island Regional Planning Council, NEIWPCC, and the Long Island Sound Study, homeowners can receive up to $500 to offset the expense of installing rain barrels and rain gardens, and planting native plants on their property. These green infrastructure projects help decrease the amount of stormwater flowing over yards, reducing nitrogen pollution to the Sound and helping conserve water.

The second year of the program closed at the end of August. Ninety-eight people in the Long Island Sound watershed received reimbursements from this program, translating to 84 native plants planted, 8 rain barrels installed, and 4 rain gardens created. To date, reimbursements for residents within the Long Island Sound watershed have totaled over $57,000.

The Long Island Garden Rewards Program is available for residents across Long Island. To learn more about the program and where to apply, visit: neiwpcc.org/long-island-garden-rewards-program/

Photo by Brian Yurasits/NEIWPCC.

A lawn sign promoting the Garden Rewards program.

Photo by Judy Rondeau.

A native plant garden and sign highlighting environmentally friendly gardening practices.

Photo by Emma Coffey/CT DEEP.

Mamacoke Marsh in New London, CT, is situated on the Thames River and is one of a few unditched salt marshes left in the state.

OCTOBER 2024

Collaborative Network to Analyze Effects of a Changing Climate on LIS Salt Marshes

EPA and the U.S. Fish and Wildlife Service signed a three-year interagency agreement to build a Salt Marsh Monitoring and Analysis Network to support restoration and sentinel monitoring in Long Island Sound. Salt marshes, poised at the land-sea boundary, are important contributors to the coastal health of communities and wildlife populations, providing storm protection and critical habitat. However, inconsistent and incomparable data on marsh health and climate impacts in the Sound have interfered with restoration efforts. The network convenes scientists, researchers, and resource managers from 12 organizations, including state and federal agencies and non-profit groups, to assess knowledge gaps and set standard evaluation parameters for salt marshes.

The project builds on similar successful collaborative monitoring efforts like the Unified Water Study (launched in 2016 by Save the Sound with support from the Long Island Sound Study [LISS]) and the Pathogen Monitoring Network (pilot led by the Interstate Environmental Commission, also with LISS support, in 2023). The project team began network design in October of 2024 and will spend the next year identifying goals and group structure, establishing communication channels, and crafting a vision statement. The collaborative will also review existing data and research, consolidating information sources on Long Island Sound salt marshes into a centralized project directory.

NOVEMBER 2024

Water Quality Monitoring Programs in the Sound and its Watershed Show Improvements

The Long Island Sound Study has invested in several water quality monitoring programs, expanding from two continuous monitoring efforts led by CT DEEP and the Interstate Environmental Commission since the 1990s to seven monitoring programs in FY2024.

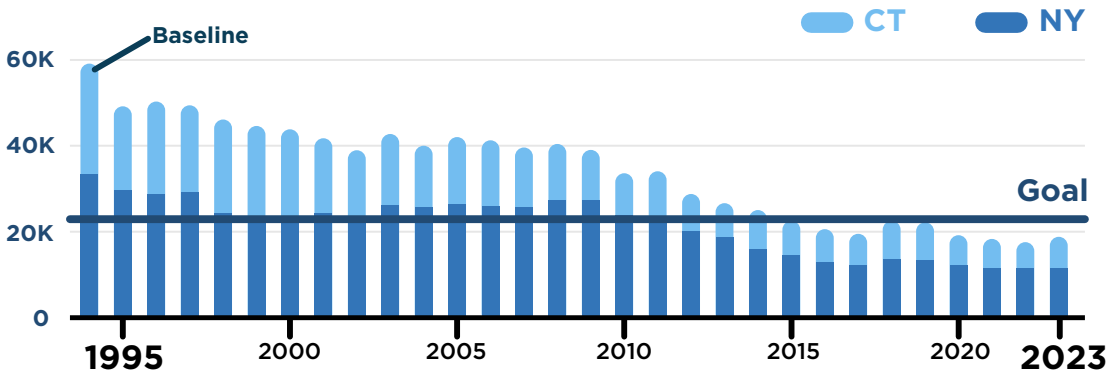
- Implemented in 2003, UConn's Long Island Sound Integrated Coastal Observing System (LISICOS) Buoys provide real-time surveying data. The buoys collect water quality and meteorological parameters every 15 minutes at eight stations across the Sound.
- USGS has performed enhanced tributary monitoring along the Connecticut River since 1975. This program expanded in 2020 to include the Thames and Housatonic Rivers. The three river watersheds combined contribute 90% of the freshwater entering Long Island Sound.
- Save the Sound's Unified Water Study was piloted in 2016. In 2024, 29 monitoring groups monitored 49 embayments, collecting comparable data on water depth, temperature, salinity, DO, alkalinity, pH, and many other parameters. The standardized protocol for sampling has delivered more reliable data and filled information gaps on the health of LIS harbors and bays.
- The Pathogen Monitoring Network, launched in 2023, is a cohesive network for monitoring fecal bacteria levels across the Long Island Sound watershed. In 2024, 10 groups participated in the collaborative monitoring program.
- LISS has received monitoring data from EPA's National Coastal Condition Assessment since 2005. In 2020, the assessment expanded to include 106 new sites. In FY24, LISS executed a contract to survey again in 2025.
- In 2022, LISS initiated coastal acidification monitoring to determine a baseline understanding of its trends in the Sound, determining the impact of acidification on different areas of the estuary and how multi-stressors interact with key species.

Data from the 2024 hypoxia monitoring season showed the third smallest affected area of hypoxia since 1987, measuring 43 square miles. Hypoxia, or low oxygen conditions, in Long Island Sound is primarily caused by excess nutrients in the water, like nitrogen and phosphorus, which fuel the growth of organic matter that uses up oxygen in the water as it decomposes. Every decade of monitoring has shown a decline in hypoxic area.

18,252 TE IBS/DAY: On average, 18,252 TE lbs of nitrogen were discharged per day in 2023. (TE means this number takes into account the relative nitrogen impact on water quality from the treatment plants based on where they discharge). This is a 69% reduction from the 1990s baseline.

LIS Point Source Nitrogen Trade-equalized Loads

THOUSANDS TE PER DAY



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JUNE 2025

Have you heard?

The Long Island Sound Study is getting a new name. In June, we will be known as the Long Island Sound Partnership. This name better reflects the program's mission to restore and care for the Sound through a partnership that convenes local, state, and federal governments, universities, communities, environmental organizations, private industries, and other user groups.

The Long Island Sound Study got its name in 1985 with a single 5-year, $1 million federal grant to focus on three major problems in the Sound: toxic contamination, low dissolved oxygen, and the health of fish and shellfish. The initial study also included an effort to develop a "Master Plan." Since then, the program has grown with a budget of over $40 million with its most recent Comprehensive Conservation and Management Plan outlining a roadmap to achieve four major goals: Clean Waters and Healthy Watersheds, Thriving Habitats and Abundant Wildlife, and Sustainable and Resilient Communities with support from an Informed and Engaged Public.

In 2022, a new Long Island Sound Strategic Communications Plan recommended a name change to "more accurately characterize the sweep of the organization's effort, which is far beyond simply undertaking or funding studies." The Long Island Sound Management Committee made its decision on the new name in January 2025 after getting feedback from the program's work groups, committees, and from community residents.

LONG ISLAND SOUND PARTNERSHIP