



SUMMER 2024 | Newsletter of the Long Island Sound Study | longislandsoundstudy.net

SOUND UPDATE

LISS's 2023 in Review

Sometimes it's difficult to put in perspective the significance of something when experiencing it in the moment. The environmental opportunity that 2023 provided is such an example, not just for Long Island Sound, but for climate change mitigation and resiliency, public health, and environmental justice everywhere. In 2023, funding started to flow to projects under legislation enacted by Congress: the Infrastructure Investment and Jobs Act (or IIJA), described as a once-in-a-generation investment in our nation's infrastructure and competitiveness, and the Inflation Reduction Act (or IRA), the most significant action in the nation's history on clean energy and climate change.

In addition to the \$21.2 million LISS received through the IIJA in 2023, funding from the U.S. Environmental Protection Agency (EPA) increased from \$31 million in 2022 to \$40 million. All of these funds are supporting more science on the Sound and assisting communities plan and implement projects to improve water quality, restore habitats, and protect open space.

But there is much more. Through its Urban and Community Forestry Program, funded through IRA, the U.S. Forest Service announced more than \$30 million for projects that will increase equitable access to green spaces in disadvantaged communities around the Sound and in its watershed. The National Oceanic

and Atmospheric Administration's (NOAA) Marine Fisheries Service announced \$15 million to support the removal of the 28-ft high, 455-ft long Kinneytown Dam to restore fish passage to the Housatonic River. Under the National Coastal Resilience Fund, supported through both BIL and IRA, NOAA and the National Fish and Wildlife Foundation announced more than \$8 million to restore 185 acres of tidal marsh and improve wildlife habitat at Hammock River Marsh in CT.

But it's not just federal funding. In 2022, NY voters approved the \$4.2 billion Clean Water, Clean Air, and Green Jobs Environmental Bond Act, providing historic levels of funding to update aging water infrastructure and protect water quality. With this funding, NY's Water Infrastructure Improvement program is supporting critical projects that will improve the Sound, including reducing combined sewer overflows to the Bronx River, Blind Brook and North Castle wastewater treatment plant improvements, and rehabilitation of sanitary sewers in Port Chester.

Scaling-up restoration means more complex, longer-term, costlier, but more beneficial projects – and a greater workload and commitment for local partners. LISS is committed to providing technical assistance to communities and creating meaningful connections, particularly with underserved communities, to take advantage of the opportunity before us.

— Mark Tedesco, Director, EPA Long Island Sound Office

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

\$56 million invested in conservation

\$121 million generated between investments and \$65 million in grantee match

641 projects funded for conservation of the Sound, including planning, restoration, and education projects

121.5 river miles opened, allowing fish access to valuable upstream habitat

841.9 acres of coastal habitat restored

More than **5 million** people engaged in the Sound's protection and restoration

208 million gallons of stormwater pollution prevented through green infrastructure projects

Long Island Sound Futures Fund (LISFF) Grants

The LISFF grant program supports the implementation and planning of projects to restore and protect the health of the Long Island Sound estuary. Established in 2005, the program is managed by the National Fish and Wildlife Foundation and supported by LISS, the EPA, and the Long Island Sound Funders Collaborative. The map across these pages reflects the latest round of projects funded in 2023.

The LISFF is organized around three themes:

- Clean Waters and Healthy Watersheds
- Thriving Habitats and Abundant Wildlife
- Educating and Engaging Sustainable and Resilient Communities



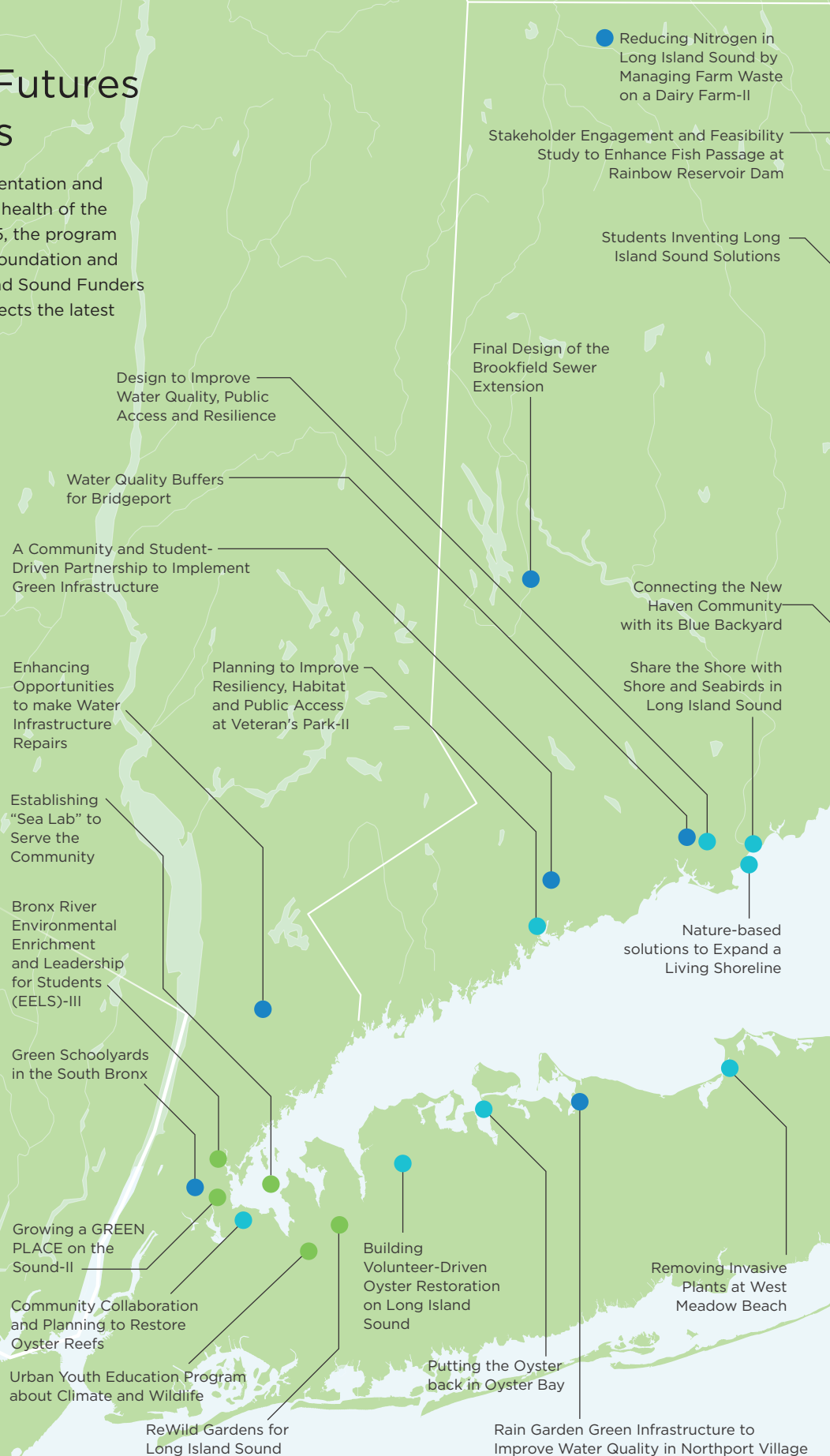
New Haven Ecology Project, Inc./Common Ground

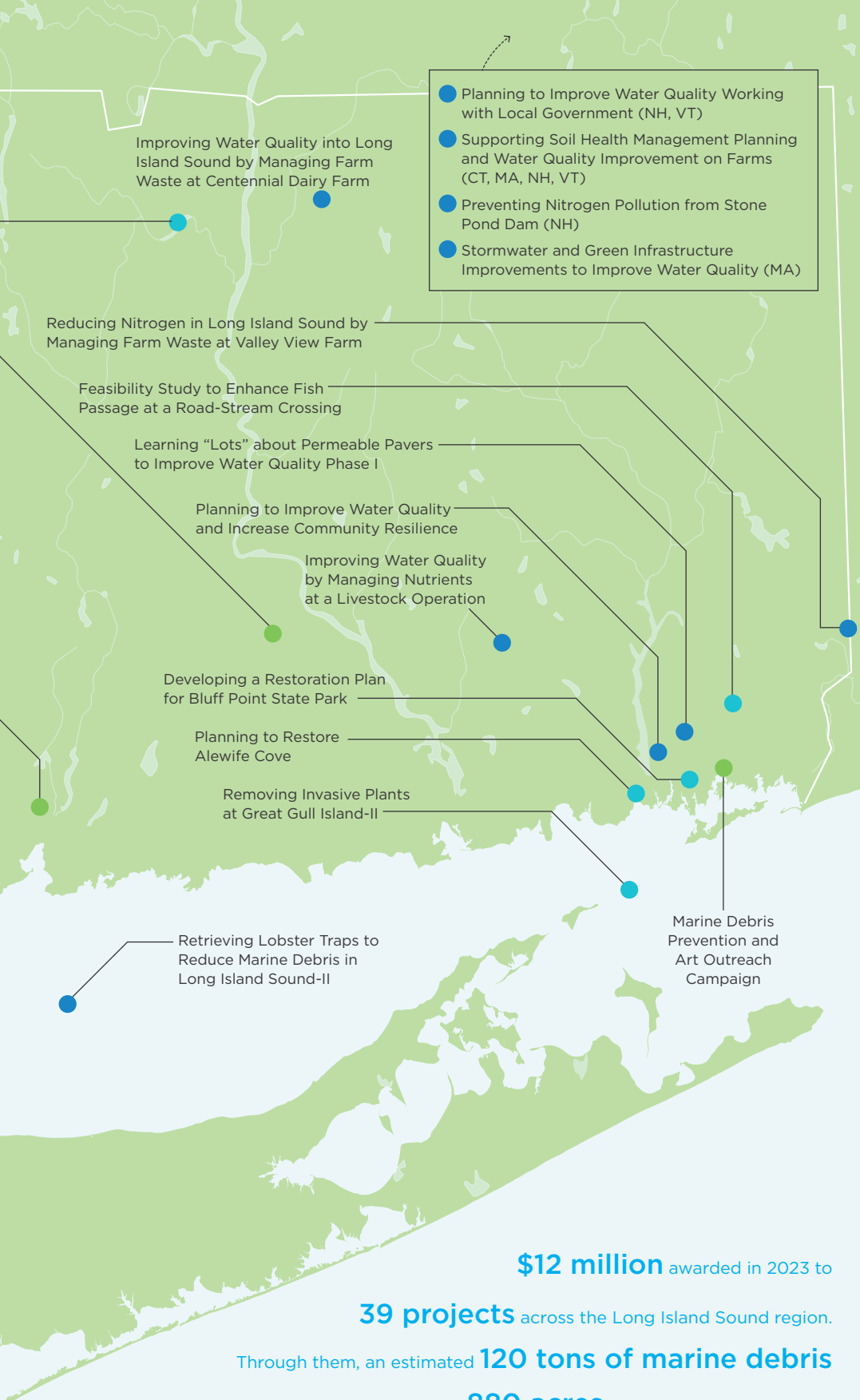
NEW HAVEN Ecology Project / Common Ground will host Sound-focused outdoor learning experiences for 2,000 students across seven public schools in New Haven, CT.



Northwest Conservation District, Inc.

NORTHWEST CONSERVATION DISTRICT INC. will build a 1.3-million-gallon farm waste storage facility at Freund's Farms to help prevent 19,000 lbs of nitrogen from farm waste from making it to the Sound.





The Trust for Public Land



University of Connecticut



City of New London

\$12 million awarded in 2023 to
39 projects across the Long Island Sound region.
 Through them, an estimated **120 tons of marine debris**
 will be removed, planning will occur for **880 acres** of vital habitat restoration,
102 river miles will be restored or reopened for fish passage,
101,000 pounds of nitrogen will be prevented from polluting the Sound, and
30,000 people will be reached through education and outreach efforts.

(Top down)
 THE TRUST FOR PUBLIC LAND will engage students in the Bronx in the design of green infrastructure playgrounds estimated to capture 2.7 million gallons of stormwater and reduce flooding.

THE UNIVERSITY OF CONNECTICUT will work on invasive plant management at Great Gull Island, an important nesting area for roseate and common terns.

THE CITY OF NEW LONDON will be developing plans to restore Alewife Cove and improve the shoreline's resilience to storms.



Clean Waters and Healthy Watersheds

THE GOAL OF THIS THEME is to improve water quality by reducing contaminant and nutrient loads from the land and the waters impacting the Sound.

Samantha Wilder, IEC



Better Together: The Pathogen Monitoring Network's First Year

The Pathogen Monitoring Network launched a successful pilot in 2023. With support from LISS, this initiative aims to establish a cohesive network for monitoring fecal bacteria levels across the Long Island Sound watershed (the land and waterways that drain into the Sound). A lack of formal coordination among groups in the past has led to variability in data quantity and quality, highlighting a missed opportunity for collaboration. Through the program, data gaps will be bridged, providing more accurate information about the location, magnitude, and sources of sewage pollution. Comparable data will also enhance coastal habitat management efforts, which include public access to fishing, swimming, and community beaches.

In its first year, five groups monitored five sites, three in Connecticut (Duck River and Lieutenant River, Palmer Cove, and Norwalk Harbor) and two in New York (Frost Creek and Dosoris Pond). Samples were tested for fecal coliform and enterococci and sent to certified labs for processing. Findings from year one helped to identify specific point sources of pollution, contributing important insights to guide future remediation efforts around the Sound. After achieving such a successful pilot, project leads plan to expand the network and add new sites for monitoring, with a focus on communities with environmental justice needs. The Pathogen Monitoring Network program is a collaboration between the Interstate Environmental Commission (IEC), Harbor Watch (Earthplace, Inc.), the CT Department of Energy and Environmental Protection, and The Maritime Aquarium at Norwalk.

—Anya Grondalski, NEIWPC & Lilli Genovesi, NYSG

EVELYN POWERS (IEC) samples an outfall at Frost Creek in NY.

Greener Lawns for Clean Water

Nitrogen pollution is one of the biggest challenges the Sound faces. Excess amounts of this nutrient in the water can lead to harmful algal blooms and hypoxia (low oxygen) in the Sound and can also contaminate groundwater, which is Long Island's sole source of drinking water. One of the most significant sources of nitrogen pollution in the Sound is fertilizer, which makes its way from people's yards into waterways through stormwater runoff.

In 2023, the Long Island Garden Rewards Program was launched to help mitigate this issue. The program encourages homeowners to introduce green alternatives to their lawns that help retain water and reduce the need to add fertilizer to their yards, thus decreasing the amount of nitrogen that makes its way into waterways. It provides reimbursement of up to \$500 for homeowners adding green practices to their yards, such as rain barrels, rain gardens, and native plants. Ninety-six people in the Long Island Sound watershed received funds from the program and used it to install 22 rain barrels, plant 82 native plants, and create 3 rain gardens in total. The Long Island Garden Rewards Program is available for homeowners across Long Island and opened for year two in June 2024 after its successful first year. To find out more and apply, visit: <https://lirpc.org/garden-rewards-program/>

—Jimena Perez-Viscasillas, NYSG

1,143,882 gallons of stormwater treated through LISFF green infrastructure projects during the last reporting period.

25,697 square feet of green infrastructure installed through LISFF, a total area about the size of 5 ½ NBA basketball courts!

18,092 pounds of nitrogen prevented from entering Long Island Sound through LISFF projects.

51% reduction in hypoxic area (the extent of waters with low oxygen), from a 5-year average of 208 square miles in 1987-1999 (an area slightly smaller than double the size of Queens, NY) to a 5-year average of 102 square miles in 2019-2023. Because many factors can affect hypoxia, such as rainfall, the five-year average is measured to help account for natural variability that happens from one year to the next.

22% reduction in the duration of hypoxia from the 54-day all-time average to 42 days in 2023.

26 groups monitored water quality at 43 bays and harbors around Long Island Sound as part of the Unified Water Study, a community-driven monitoring program led by Save the Sound and funded by LISS. In 2023, Project Oceanology joined the program to monitor Mumford Cove and the Pequonnock River in CT.

Thriving Habitats and Abundant Wildlife

THE GOAL OF THIS THEME is to restore and protect the Sound's ecological balance in a healthy, productive, and resilient state to benefit both people and the natural environment.

Protection:

- A. Richard and Mary Cooper Preserve
- B. Fennerswood
- C. Intersection of Essex Road & Ayer's Point Rd.
- D. Clark's Wharf Preserve
- E. Addition to Cockaponset State Forest
- F. Donohue Property Easement
- G. AFM Realty of Huntington Corp Property Acq.
- H. Araujo Property Acq.
- I. Donald Magurk LLC Property Acq.
- J. Marra Property Acq.
- K. Lilvic Realty Corp. Property Acq.
- L. Red Rock Land Corp Property Acq.
- M. DiPaolo Development LLC Property Acq.
- N. Kev-Ann Construction Corporation Property Acq.
- O. Meyer Property Acq.
- P. Pennys' Road Property Easement

Restoration:

- 1. Whitford Pond Dam Fish Passage
- 2. Post Office Dam Removal
- 3. Smith-Hubbell Wildlife Sanctuary at Milford Point Habitat Restoration & Invasive Weed Removal
- 4. Lewis Gut Habitat Restoration
- 5. Strong Pond Dam Removal @ Merwin Meadows Park
- 6. Davis Avenue Dam Fishway
- 7. Pugsley Creek Coastal Forest Restoration
- 8. Bronx River Rocking the Boat Tidal Wetland Restoration
- 9. Kissena Park Forest Restoration
- 10. Alley Pond Park Tidal Wetland Restoration
- 11. Alley Pond Park Forest Restoration
- 12. Williams Property Grassland Restoration

Restoring the Norwalk River, One Dam at a Time

In September 2023, Strong Pond Dam, also known as Dana Dam, was removed from the Norwalk River, reopening approximately 10 miles of river for fish passage. The dam was located 10 miles upstream from Long Island Sound in Wilton, CT, which meant this multi-year collaborative effort between Save the Sound, Trout Unlimited, the Town of Wilton, the CT Department of Energy and Environmental Protection (CT DEEP), and LISS reconnected about 20 total miles of free-flowing river to Long Island Sound.

The dam obstructed the natural flow of the Norwalk River, causing the channel to slow and widen, which led to high stream temperatures and low dissolved oxygen levels. The dam also posed a barrier to diadromous fish, such as alewife and sea lamprey, which need to migrate between the sea and freshwater to breed, feed, and live. Additionally, the unnaturally straightened and uniform channel lacked essential stream features like rocky riffles and boulders that are vital for species such as trout.

In addition to creating valuable in-stream habitat, the project included removing the dam, rerouting the stream away from nearby railroad tracks—a source of contaminants—and planting native vegetation along the stream's edge. Native plants are critical for filtering runoff, stabilizing banks during floods, and providing wildlife habitat. The removal restored the stream's natural shape, allowing sediment and woody material to flow downstream, which creates a diverse

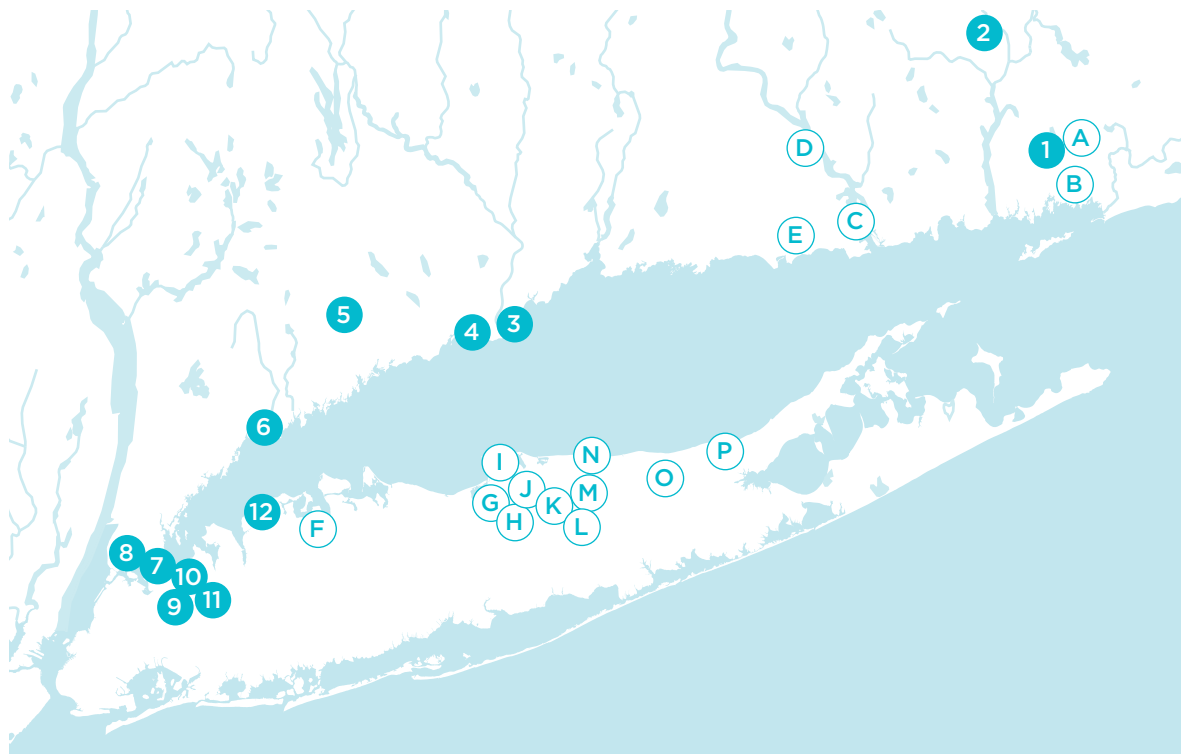
streambed habitat and replenishes downstream habitats such as coastal marshes. The project contributed to reconnecting streams to Long Island Sound for fish migration, while restoring this segment of the Norwalk River for reduced water quality issues and improved river function—a huge win for the environmental health of the region!

—Abigail Winter, CT DEEP



Save the Sound

THE RESTORED NATURAL STREAM flows following the dam removal.





Sustainable and Resilient Communities

THE GOAL OF THIS THEME is to support vibrant, informed, and engaged communities that use, appreciate, and help protect Long Island Sound.

Jimena Perez-Viscasillas, NYSG



An Environmental Justice Needs Assessment for the Region

In 2023, a team of LISS partners led by NY Sea Grant (NYSG) worked with contractor Responsive Management to conduct an environmental justice (EJ) needs assessment for the Long Island Sound region. The needs assessment was a year-long process that included an exploration of similar local efforts, a review of related research, a formal survey, and personal conversations with many community leaders around the Sound. For more in-depth discussions, the team also tabled at libraries and community events and worked in partnership with local organizations Save the Sound, Environmental Leaders of Color, Dare To Dream Community Outreach, and Junta for Progressive Action to organize community meetings in New Haven and Bridgeport in CT, and Mount Vernon, Huntington Station, and Medford in NY. The meetings also served as an opportunity for LISS partners to share existing resources with community members, including the Long Island Sound Community Impact Fund (LISCIF), which provides funding and capacity-building assistance to community-based groups.

The assessment concluded in 2024 with the publication of an extensive report that captures information heard across the region, as well as two virtual sessions to share results and begin discussing next steps. Some great things have already begun thanks to lessons learned and connections made through the assessment. One lesson learned was that upfront costs of programs often provide a significant barrier to funding for local groups. As a result, LISCIF is piloting providing working capital in advance to grantees on a case-by-case basis in 2024. Additionally, new partnerships have led to the planning of events to help better serve the needs of minority and underserved communities, such as Spanish events on public access to nature, nature walks with a public health perspective, and more.

—Jimena Perez-Viscasillas, NYSG

ALEX RODRIGUEZ (Save the Sound) sets the stage for discussion at a community meeting in Mount Vernon, NY, as part of the Environmental Justice Needs Assessment.

The Long Island Sound Resilience Series

In 2023, LISS Sustainable and Resilient Communities (SRC) Extension Professionals from CT Sea Grant and NY Sea Grant developed a multi-part training series designed to empower decision-makers to increase the resilience of their communities to climate change and other environmental threats. The series consisted of two webinars, five field trips, and a bi-state workshop.

The two virtual *Steps to Resilience* webinars in September introduced 140 participants to local climate impacts and projections, resilience planning strategies, and interactive sessions with regional coordinators of CT’s SustainableCT program and NY’s Climate Smart Communities program. November, the field trips were held to Sunken Meadow State Park in Suffolk County, NY, green infrastructure installations in New Haven, CT, the Fenwick living shoreline project in Old Saybrook, CT, Manorhaven Beach Park in Nassau County, NY, and to multiple sites along Blind Brook in Rye, NY. These field trips allowed 150 participants to network, ask questions, and be inspired by different types of resilience projects. Finally, the 2nd Annual LIS SRC Bi-State Workshop was held virtually in December and attended by 192 people. This 3.5-hour workshop included a sneak peek of the SRC Team’s forthcoming LIS Resilience Resource Hub website and featured sessions on resilience planning and considerations for updating codes and ordinances. Find the LIS Resilience Resource Hub at LISResilience.org.

— Sara Powell, NYSG

232,932 people engaged in Long Island Sound education projects through LISFF during the last reporting period.

1,409 volunteers engaged in restoration and stewardship through LISFF projects.

650+ students participated in NY Sea Grant’s Sound Stewards program, which leads educational field trips to Long Island Sound beaches.

40+ people attended 4 capacity building workshops held by Restore America’s Estuaries as part of the Long Island Sound Community Impact Fund. Workshops centered around topics like grant writing, budgeting, and project design.

10 schools were selected to participate in the first year of the Long Island Sound Schools Network, where schools will lead school or community-wide projects to encourage Long Island Sound conservation and literacy.

71 educators in NY and CT participated in workshops held as part of the Long Island Sound Mentor Teacher program.

98 attendees took part in *Reimagining Long Island Lawns: Eco-Friendly Practices*, a virtual event that shared information and resources to Long Islanders on how to conserve water and protect water quality through sustainable lawn care.

Sound Science and Inclusive Management

THE GOAL OF THIS THEME is to manage Long Island Sound using sound science and cross-jurisdictional governance that is inclusive, adaptive, innovative, and accountable.

Announcement!

In 2024, the Long Island Sound Study (LISS) is working to revise the Comprehensive Conservation and Management Plan (CCMP) used to guide conservation work around Long Island Sound.

That means...If you live, work, or play in the Long Island Sound region, this plan could affect on-the-ground projects near you. Visit our webpage [LISSstudy.net/plan](https://www.longislandsoundstudy.net/plan) to share your thoughts, find out about public meetings, and view updates. A draft CCMP will be released for public comment by Fall 2024!

Scan below to learn more:



Studying the Sound

In 2023, scientists worked on nine projects that were funded in 2022 by the LISS Research Grant Program. (This round of projects is expected to wrap up by 2025). All research funded through this program is intended to help resource managers make science-based decisions to improve the Sound based on challenges identified in the Comprehensive Conservation and Management Plan, which guides the Sound’s conservation. Here is a look into three of the ongoing projects, as highlighted in the winter issue of *Sound Matters*, LISS’s quarterly e-newsletter:

- Stony Brook University scientists with fisheries resource managers in CT and NY are using scientific models, maps, and the Long Island Sound Fish Trawl Survey to find suitable habitats for fish species under different climate change scenarios. The research in part is intended to help develop strategies for cold-adapted fish to survive warming waters.
- Dr. Sarah Crosby, a marine scientist and the Director of Conservation and Policy at the Maritime Aquarium at Norwalk, is working with her research team to better understand how warming temperatures impact salt marsh grasses and explore potential restoration strategies that would increase salt marsh resilience to climate change. To aid in the study, Crosby’s team is putting the grasses in warming enclosures designed to simulate the temperatures of the salt marsh habitat in the coming decades.
- Dr. Gregory Dietl, a curator at the Paleontological Research Institution in Ithaca, NY, is using his skills as a paleoecologist to create a historical record of the health of clams, oysters, mussels, and other mollusks in the Sound’s sea floor from



Photo courtesy of Sarah Crosby, Maritime Aquarium

CROSBY AND NICOLE SPILLER (Earthplace/Harbor Watch) collect biomass samples using sediment cores at the Oyster River research site in Milford, CT.

the 1980s and 1990s to the present. The comparison study of benthic life will help illuminate possible connections between improved water quality and the abundance of benthic invertebrates in areas of the Sound that benefited from a long-term plan to upgrade wastewater treatment plants.

Since its inception in 2000, the LISS Grant Program has awarded a total of 67 projects totaling \$16.4 million. A new round of grants is expected to be announced later this year. For more information, find the *Sound Matters* issue on LISS research in the Media Center under “newsletters” at [longislandsoundstudy.net](https://www.longislandsoundstudy.net).

—Robert Burg, NEIWPC

The LISS budget is organized into nine Program Activities and three BIL Activities; the FY2023 LISS budget breakdown by Program Activity is:

Coordination	\$1,305,063
Water Quality Planning and Implementation	\$1,084,745
Modeling	\$4,182,584
Monitoring	\$7,273,466
Research	\$3,181,974
Habitat Restoration and Protection	\$4,856,413
Public Education and Outreach	\$2,584,657
Stewardship and Resiliency	\$2,428,115
Implementation Assistance	\$12,650,000
(BIL Activity) Environmental Justice	\$6,350,000
(BIL Activity) Climate Resiliency	\$2,909,800
(BIL Activity) Water Infrastructure	\$10,150,000
TOTAL	\$58,956,817

A New Guide to Managing Stormwater in Connecticut

Using supplemental funding from LISS, CT DEEP has wrapped up its revision of the 2004 Connecticut Stormwater Quality Manual, which provides updated guidance on best practices to reduce stormwater pollution. This project, which was done in partnership with UCONN’s Nonpoint Education for Municipal Officials (NEMO) Program and the Connecticut Council on Soil and Water Conservation, included educational support for municipal officials and members of the public through webinars, workshops, and consultations on stormwater management.



Long Island Sound Study
 500 Innovation Road
 IDC Bldg Suite 227
 Stony Brook University
 Stony Brook, NY 11794

Subscribe to our quarterly e-newsletter Sound Matters at <http://lisstudy.net/subscribe> or by scanning the QR code below and stay up to date with what's happening around the Sound:



ADDRESS SERVICE REQUIRED

UPDATE EDITOR: Jimena Perez-Viscasillas (NYSG/LISS)

CONTRIBUTING EDITORS: Mark Tedesco (EPA LIS Office), Robert Burg (NEIWPCC), Lillit Genovesi (NYSG/LISS), Margaret Cozens (CTSG/LISS), and Anya Grondalski (NEIWPCC)

The Long Island Sound Study is sponsored by the states of New York and Connecticut and the EPA. The LISS Management Committee consists of representatives from the EPA, NYSDEC, NYSDOS, CT DEEP, NYCDEP, USDOJ, IEC, NEIWPCC, NY and CT Sea Grant Programs, co-chairs of the Science and Technical Advisory Committee and Citizens Advisory Committee.

The Long Island Sound Study SOUND UPDATE is produced and printed by NYSG under a cooperative agreement with the EPA #LI-96261417. The viewpoints expressed here do not necessarily represent those of NYSG, EPA or the LISS Management Committee, nor does mention of trade names, commercial products or causes constitute endorsement or recommendation for use.

EPA LIS OFFICE: Stamford Government Center
 888 Washington Blvd., Stamford, CT 06904-2152
 Phone: (203) 977-1541

NEW YORK SEA GRANT 500 Innovation Road,
 IDC Bldg Suite 227, Stony Brook University,
 Stony Brook, NY 11794
 Phone: (631) 632-8730/ Fax: (631) 632-8216

www.longislandsoundstudy.net



Department of
 Environmental
 Conservation

A Heartfelt Thank You

The Long Island Sound Study extended best wishes to Lynn Dwyer upon her retirement in March 2024 after 20 years with the National Fish and Wildlife Foundation as director of the Long Island Sound Futures Fund program. Throughout her career, Dwyer championed over 640 grants totaling roughly \$56 million invested into Long Island Sound conservation projects.

A native of Long Island's South Shore, Dwyer holds a bachelor's degree in international affairs from George Washington University. Her passion for conservation blossomed while pursuing a master's in public administration at San Francisco State University, where she completed an economics project on the value of endangered species and habitat. Upon graduation, Dwyer spent six years working in California conservation before relocating to New York to be closer to family. There, she built the Futures Fund from the ground up, transforming it into a trusted, innovative, and vital funding program in the region.

Dwyer's three favorite projects from her tenure at National Fish and Wildlife include the Unified Water Study, the habitat acquisition and restoration of Great Meadows Marsh, and the Rich Earth Institute's innovative Pee-Cycling Program. Over the years, she has galvanized community participation in the protection and conservation of the Sound, bringing a passion for stewardship and a wry sense of humor that will be missed by everyone who had the pleasure of working alongside her.

In retirement, Dwyer looks forward to kayaking, spending time with family, and participating in beach cleanups. Thank you, Lynn, for your invaluable contributions to the Long Island Sound Study program.

To read more about Dwyer's career, visit the Sound Spotlight section of the LISS website.

— Anya Grondalski, NEIWPCC

LYNN DWYER holds a painting of her favorite picture from a Long Island Sound Futures Fund project, which was gifted by LISS partners.



Anya Grondalski, NEIWPCC