



Long Island Nitrogen Action Plan (LINAP)- Newsletter

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Long Island Nitrogen Action Plan (LINAP) - Newsletter South Shore Estuary Reserve Update

In this month's issue we highlight the ongoing nitrogen reduction efforts in the South Shore Estuary Reserve (SSER).

- South Shore Estuary Reserve turns 30!
- South Shore Estuary Reserve Comprehensive Management Plan
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30th Anniversary of the South Shore Estuary Reserve

This year is the [30th anniversary](#) of the Long Island South Shore Estuary Reserve (SSER) Act, which was passed by the New York State Legislature in 1993. The SSER Act prioritized the south shore rivers, harbors, and embayments with the focus on improving water quality and restoring habitat. The primary goals set up in the legislation were the protection and management of the maritime region as a whole and the establishment of a Council that would oversee implementation of the restoration. The Council is made up of state and local governments, non-profit and academic organizations, and other local stakeholders. The SSER office, which is housed in the NYS Department of State, works with its many partners to implement projects that help achieve the goals of the SSER [Comprehensive Management Plan \(CMP\)](#).

In recognition of the importance of the SSER, this year's NYS Budget allocated the highest level of funding for the Reserve since the passage of the Act. The \$2 million dollar appropriation will help to create a more resilient South Shore and advance implementation of priority activities identified in the CMP.



Photo of Secretary of State Robert Rodriguez, Deputy Secretary Kisha Santiago, South Shore Estuary Reserve Coordinator Jeremy Campbell, and Program Implementation Specialist Sally Kellogg at the 30th Anniversary Conference.

South Shore Estuary Reserve Comprehensive Management Plan

The [South Shore Estuary Reserve Comprehensive Management Plan \(CMP\)](#) is the guiding document used by stakeholders for the protection, management and restoration of the valuable resources of the South Shore Estuary. The CMP was updated last fall and includes new priorities regarding the reduction of nitrogen in the SSER and a new chapter focused on resiliency. To prioritize recommendations contained in the update, the SSER office, in partnership with the USGS, is working to develop a five-year action plan to identify specific short and long-term activities and prioritize actions identified in the CMP.

Fire Island Wastewater Management Plan

The Fire Island Wastewater Management Plan is a plan, currently under development, that will provide decision makers with a detailed analysis of options for wastewater management across Fire Island and the associated cost estimates. Currently, there is only one small sewage treatment plant that serves the Village of Ocean Beach, while the rest of Fire Island relies on antiquated septic and cesspool systems. These aging systems contribute to water quality impairments, harmful algal blooms, and loss of fisheries in the Great South Bay.

Grant funding was provided by the Suffolk County Legislature to Citizens Campaign for the Environment (CCE) to utilize their consultant for this analysis. As part of developing the plan, there has been extensive engagement with Fire Island stakeholders, Federal, State, County

and local leaders to provide a comprehensive blueprint to manage the barrier island's wastewater. A final report will be released in late 2023 or early 2024.

Long Island South Shore Estuary Reserve Blue Carbon Seagrass Restoration Project

The Blue Carbon Seagrass Restoration Project, launched in 2022, is a partnership between the SSER and Cornell Cooperative Extension of Suffolk County. The goal of the project is to restore eelgrass in key areas of the estuary and create a model for eelgrass management and restoration within the South Shore Estuary. Eelgrass meadows provide a wide range of benefits to humans and the environment. These benefits support the local economy and commercial fisheries by providing marine habitat to species such as seahorses, puffer fish, flounder, and scallops. Additionally, eelgrass beds sequester carbon, stabilize shorelines, reduce wave energy, and absorb nutrients.

Two eelgrass restoration plantings were completed in summer 2023. Additionally, data is being collected from sites throughout the SSER and this information will be used to further identify potential successful restoration sites.

To learn more about eelgrass, explore the [“Eelgrass in the South Shore Estuary Reserve”](#) story map.



Photo courtesy of Cornell Cooperative Extension of Suffolk County Marine Program

Nitrogen Reduction Efforts in the South Shore Estuary Reserve

Town of Hempstead

The Town of Hempstead has been busy advancing their nitrogen reduction efforts. This year, through the Town's bioextraction pilot project, approximately 1,500 pounds of sugar kelp has been harvested. Bioextraction projects seek to remove nutrients, like nitrogen, from waterbodies by using seaweed and shellfish. Complimentary to the bioextraction pilot project, Town of Hempstead has made great strides in shellfish restoration.

Shellfish face increased difficulties to thrive in Long Island's waters in part due to coastal acidification and excess nitrogen. For this reason, the town created the Community Oyster Restoration Effort, which was initially funded through an SSER Local Assistance Grant. As part of that project, to date this year, the town has collected 26 cubic yards of discarded shell from seafood restaurants in the Town of Hempstead. The discarded shell will be used for habitat restoration in the Town's bays.

Additionally, as a part of the Hempstead Bay Long Island Shellfish Restoration Project, Town staff have seeded approximately 3.7 million eastern oyster larvae into Hempstead Bay. These larvae were grown in the Town's shellfish hatchery. Currently there are about 2 million hard clams growing in the hatchery and they will be seeded into Hempstead Bay this upcoming fall season.

To learn more about shellfish, visit the [SSER Shellfish Story Map](#).



Oyster Reef. Photo credit: Town of Hempstead

Town of Brookhaven

The Town of Brookhaven has contributed 375,000 clams to the NYS Shellfish Restoration Program in addition to partnering and providing seed for not-for-profit organizations such as,

Friends of Bellport Bay and Moriches Bay Project. Friends of Bellport Bay have planted 530,000 clams and oysters in Bellport Bay, and the Moriches Bay Project have planted 75,000 oysters in Moriches Bay. The addition of these clams and oysters contributes to nutrient extraction and habitat restoration efforts in these Bays across the South Shore.

The Town of Brookhaven, partnering with the Stony Brook University Center for Clean Water Technology, is currently working to install a 100-foot-long permeable reactive barrier (PRB) at Shirley Beach. The PRB, consisting of a mixed woodchip aggregate layer, will act as a “denitrification wall” that will intercept the groundwater flow and removes nitrogen before it enters Great South Bay. To determine the ability of the PRB to remove nitrogen over time, sampling ports within, upstream, and downstream of the PRB will be used to measure nitrogen concentrations.

Town of Southampton

In the past 12 months, the Town of Southampton through their Community Preservation Fund (CPF) has received 71 applications for Innovative Alternative Onsite Wastewater Treatment System (I/A OWTS) upgrade rebates from residents within the bounds of the South Shore Estuary Reserve. The Town has provided more than \$449,000 to residents for I/A OWTS upgrades. The Town anticipates allocating an additional \$1,420,000 of CPF funds for applications currently being processed.

Grant Opportunity- Long Island Community Foundation

Long Island’s Community Foundation, serving Nassau and Suffolk counties, offers grant opportunities for an array of project areas. These competitive grants support projects to improve the lives of Long Islanders.

The best way to get a good idea of what is likely to be funded is to look at projects that are currently funded and examine each program area for an overview of the funding goals and priorities. Although there is a chance for larger grant awards, most grants fall into the \$15,000 – \$25,000 range.

Visit the Long Island Community Foundation webpage [here](#) to learn more about each program area.