



# Long Island Sound Study

A Partnership to Restore and Protect the Sound

Bipartisan Infrastructure Law  
Project Spotlight

## BIL Funds Support New Septic Systems to Reduce Nitrogen Pollution into Long Island Sound



Jim Ammerman and Krisina Heinemann

A house in Centerport Harbor gets an enhanced nitrogen removal septic system to replace a cesspool. Turn to page 2 to see how BIL funding is supporting New York State's effort to replace outdated systems to reduce nitrogen pollution into Long Island Sound.

### What is BIL?

The Bipartisan Infrastructure Law (or BIL) was passed by Congress in 2021 to improve infrastructure and climate resiliency in an equitable manner throughout the United States.

Under the legislation, the Long Island Sound Study will receive \$21.2 million per year to fund local projects over the next five years (2022 - 2026). Several projects will support the Justice40 Initiative to provide funding assistance to underserved and overburdened communities.

### Why Nitrogen

High levels of nitrogen can result in eutrophication, where excess nutrients (usually nitrogen or phosphorus) enter a body of water and stimulate plant and algae growth. The breakdown of the plants and algae by bacteria deplete oxygen from the water, creating a condition known as hypoxia. When this happens, essential species like crustaceans and fish either move away from the area or die off.

**The Long Island Sound Study (LISS)** brings agencies, commissions, universities, citizens, and environmental, industry, and user groups together to improve the health of Long Island Sound.

To learn more about the BIL projects, visit the fact sheet series at:

[LISSStudy.net/BIL](https://LISSStudy.net/BIL)



# Homeowners To Get BIL-Supported Grants to Help Make Clean Water Choices for their Communities and Long Island Sound

The New York State Department of Environmental Conservation has received an initial grant of \$2.25 million through the federal Bipartisan Infrastructure Law to advance Suffolk and Nassau counties' septic replacement programs. The funds are an incentive for homeowners to replace outdated septic tanks and cesspools with equipment that is going to lead to a cleaner Long Island Sound.

The enhanced nitrogen removal septic systems reduce the amount of nitrogen that traditional septic systems and cesspools discharge into groundwater that flows into Long Island Sound. Nitrogen is a nutrient (see page 1) that in excess leads to waters with low oxygen levels (hypoxia), often called "dead zones," which can result in fish kills. Excess nitrogen also contributes to harmful algal blooms, and deterioration of storm-resilient marshlands.

The \$2.25 million grant awarded in 2022 is the first installment of the BIL funds in a multi-year anticipated partnership with the Long Island Sound Study. The funds will significantly increase funding available to replace outdated septic systems in Suffolk and Nassau. Over the course of five years, an anticipated \$8 million from the BIL program will help support state- and locally-driven water quality improvements.

New York will distribute the funds to Suffolk County's Septic Improvement Program and Nassau County's Septic Environmental Program to Improve Cleanliness Program. These county-led programs will provide funds to reimburse eligible property owners for a portion of the cost of replacing cesspools and inadequate septic systems and installing more environmentally effective systems. Homeowners can receive funds from both county and state programs, resulting in at least \$20,000 in grants to install the more environmentally effective systems that remove more nitrogen than a conventional septic system.

A conventional septic system releases around 40 pounds of nitrogen per year, which contributes to unhealthy water conditions in the Sound. The enhanced systems have the potential to reduce up to 70 percent of this nitrogen, depending on the specific brand and model. These systems have biological treatment steps which use anaerobic and aerobic bacteria to remove nitrogen from the wastewater. Septic systems have become a focal point for reducing nutrients, since many of the Sound's municipalities have upgraded wastewater treatments to reduce nitrogen.

Compared to other regions, Nassau and Suffolk both have unusually high numbers of septic systems.

Approximately 74 percent of the 1.5 million residents of Suffolk are not on a sewer system. In total, Suffolk County has around 380,000 buildings on a septic system; Nassau has an additional 40,000.

To learn more, visit the [nassaucountyny.gov](https://nassaucountyny.gov) or [suffolkcountyny.gov](https://suffolkcountyny.gov) website and search for "septic."



James Ammerman and Kristina Heinemann

A lawn sign promotes the new enhanced septic systems.



Department of  
Environmental  
Conservation



✉ [info@longislandsoundstudy.net](mailto:info@longislandsoundstudy.net)

f [@longislandsoundstudy](https://www.facebook.com/longislandsoundstudy)

📷 [@LISoundStudy](https://www.instagram.com/LISoundStudy)