



Long Island Sound Study

A Partnership to Restore and Protect the Sound

Bipartisan Infrastructure Law
Project Spotlight

BIL Funds to Purchase New Vessel, Enable More Research and Monitoring on the Sound



CT DEEP

A new research vessel with expanded laboratory space will complement the 1990-built RV *John Dempsey*. Turn to page 2 to learn more about this project.

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 a New Boat?

At 30 plus years old, the RV *Dempsey* can no longer keep up with all the demands of an extensive research and monitoring schedule. A new, modern boat will be responsible for critically important water quality monitoring studies in Long Island Sound, which currently include a monthly nutrient survey, hypoxia (low oxygen level) surveys, plankton community assessments, and ocean acidification monitoring, as well as any new research projects.

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



New Boat to Add More Lab Space to Research and Monitoring Efforts

For decades, the research vessel *John Dempsey* has enabled resource managers and scientists to conduct invaluable research and monitoring to better understand the health of Long Island Sound and its fisheries. Recently, the Connecticut Department of Energy and Environmental Protection (CT DEEP) decided to acquire a modern boat to complement the RV *Dempsey*'s work. The new vessel will be funded by the Long Island Sound Study (LISS) using allocations from the federal Bipartisan Infrastructure Law (BIL).

The custom-built RV *Dempsey* has been used since 1990 to collect data for a variety of different research and monitoring efforts. Most notably, these efforts include CT DEEP's Long Island Sound Water Quality Monitoring Program and the Long Island Sound Trawl Survey. But the ship is aging, so in 2020 CT DEEP officials decided to investigate what it would cost to upgrade the vessel to meet current needs. They determined the cost to retrofit the RV *Dempsey* was too high for a ship of that age. Instead, they decided to invest in a second vessel to be used alongside the RV *Dempsey*.

Staff have identified a catamaran

vessel as being most effective for their needs. This design features two parallel hulls, which give off a low wake, and fewer waves. The new vessel will have a higher top speed than the RV *Dempsey*, which will allow researchers to travel from one centralized dock instead of having to carpool to different locations.

The catamaran will also be able to travel into waters as shallow as two feet in depth. This will expand research opportunities into bays, harbors, coves, and estuaries too shallow for the RV *Dempsey* and allow new projects, such as eelgrass monitoring, to be conducted.

The new vessel will also have double the lab space of the RV *Dempsey*. This will allow for more scientists conducting research on Long Island Sound to join crew members on the boat to collect their own samples, or to utilize the samples that have already been collected. Without access to a research vessel, these scientists may not be able to complete their research.

Design plans for the vessel will be finalized in early 2023 and the construction phase will take an additional year. Staff are hopeful the new vessel will be ready to work



CT DEEP

The lab on board the new research vessel will be twice the size of the RV *Dempsey*, (pictured).

alongside the RV *Dempsey* by the summer of 2024.

The catamaran will be responsible for all water quality monitoring studies, which currently include a monthly nutrient survey, hypoxia (low oxygen level) surveys, plankton community assessments, and ocean acidification monitoring, as well as any new research projects. Acidification monitoring is a new program that helps increase understanding of the causes for why the Sound is becoming more acidic, including changes in climate and excess nutrients. The RV *Dempsey* will continue to be used to conduct fish trawl surveys.



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