



Long Island Sound Study

A Partnership to Restore and Protect the Sound

Bipartisan Infrastructure Law
Project Spotlight

BIL Project to Improve Nitrogen Removal at Chicopee Wastewater Treatment Plant



Quinn Lonczak

Aerial view of the Chicopee Water Pollution Control Facility. The Connecticut River is located to the west. Turn to page 2 to learn more about this project.

What is BIL?

The Bipartisan Infrastructure Law (or BIL), passed by Congress in 2021, authorizes funding 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 algal blooms. The breakdown of the blooms 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 upgrades in Chicopee will remove about 100,000 pounds of nitrogen from LIS annually.

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



City of Chicopee to Receive Funding for Nitrogen Upgrades, Eliminating Up to 100,000 Pounds of Nitrogen Annually

The city of Chicopee, Massachusetts will prevent around 100,000 pounds of nitrogen a year from discharging into the Connecticut River, and ultimately 75 miles downriver into Long Island Sound, thanks in part to a grant from the Long Island Sound Study (LISS) to upgrade its wastewater treatment plant.

LISS is supporting the nitrogen reduction efforts of Chicopee's upgrade through a \$4.5 million grant to the Massachusetts Department of Environmental Protection (MassDEP) made possible by EPA funds from the Bipartisan Infrastructure Law. It is part of the Study's overall strategy to reduce nitrogen levels in the Sound, which can degrade coastal waters and cause harm to wildlife (see page 1). MassDEP also received the grant for the Chicopee upgrade as part of EPA's commitment to helping overburdened and underserved communities.

New York and Connecticut towns have been reducing nitrogen discharges into the Sound since 2000 as part of a bi-state Total Maximum Daily Load (TMDL) plan approved by the EPA. They are now reducing nearly 50 million pounds of annual nitrogen discharges. While municipalities in Massachusetts have long been required to monitor nitrogen levels, only over the last four years, as a result of new permit conditions, have they also been required to reduce nitrogen.

"Chicopee is currently the second largest producer of nitrogen in the State of Massachusetts (that discharges into the Sound)," said Susannah King, National Pollutant Discharge Elimination System Program Chief at the Massachusetts Department of Environmental Protection



Cheyenne Ellis

Clarifier at the Chicopee Wastewater Treatment Plant that will be upgraded.

(MassDEP). "This, in addition to its extensive need for upgrades, makes it an ideal place to focus our efforts for improving the health of the Long Island Sound."

The plant upgrade, which is expected to be completed by 2027, will cost around \$40 million—the LISS grant of \$4.5 million will ease the burden on Chicopee residents to finance the upgrade. The city is already financing and completing necessary sewer separation upgrades, which will separate stormwater from sanitary sewer pipes to reduce sewage overflow events. This is especially beneficial as climate change threatens to bring heavier storm events in the future. These upgrades have resulted in increased sewer usage fees, which can be burdensome to families who are already struggling financially. Currently, over 66 percent of Chicopee residents live in what the state of Massachusetts defines as an environmental justice block group.



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