

The Long Island Sound Investment Plan

*A plan from the Office of U.S. Senator Chris Murphy
to protect Long Island Sound for generations to come*

Four Strategies for Preserving Long Island Sound



Preparing for the next storm and investing in coastal resilience

Protecting clean water at beaches and Connecticut's maritime economy

Promoting stewardship and fostering healthy coastal habitats

Growing and supporting Connecticut's fishing industry

I'm calling for an **\$860 million** investment in programs supporting Long Island Sound

\$10 million for the "Geographic Program: Long Island Sound" at Environmental Protection Agency (EPA) (up from \$3.9 million)

\$600,000 for the National Estuary Program to develop and implement the Long Island Sound Comprehensive Conservation and Management Plan (CCMP)

\$68.4 million for the National Oceanic and Atmospheric Administration's (NOAA) Habitat Conservation and Restoration programs

\$10 million to maintain Coastal Ecosystem Resiliency Grants

\$21 million for the Community-based Restoration Program to protect wildlife habitats and provide coastal resiliency funding for projects that strengthen natural ecosystems

\$10 million for the new National Oceanic and Coastal Security Fund

\$20 million for aquaculture research at NOAA labs (up from \$6 million)

\$80 million for National Sea Grant Colleges System to support the Connecticut Sea Grant at UConn Avery Point (up from \$64 million)

\$9 million for the Marine Aquaculture program (up from \$7 million)

\$121.8 million for Fisheries Management Programs and Services

\$150 million for the Fisheries and Ecosystem Science Programs and Services to support ongoing research efforts at Milford Lab

\$111 million for the Coastal Zone Management Grants

\$53.8 million for Coastal Zone Management and Services

\$21.7 million for the Integrated Ocean Acidification research grants (up from \$10 million)

\$164.9 million for Section 319 of the Clean Water Act, Non-Point Source Program Grants

\$9.5 million for BEACH Act grants to test water quality at beaches

The Long Island Sound Investment Plan

Long Island Sound and our coastal waterways are in many ways the heart of Connecticut, with links to nearly every aspect of our state. From the thousands of species of wildlife the Sound supports, to the fishing and aquaculture industries, to submarine manufacturing and the U.S. Coast Guard Academy, to simple family afternoons on the beach, our state fundamentally depends on a healthy Sound.

But just as the state depends on a healthy Long Island Sound, the Sound's health depends on a complex web of interconnected stakeholders, public and private, and an alphabet soup of federal and state agencies and programs charged with protecting it. We need a comprehensive strategy to ensure that Long Island Sound is still there for our children and grandchildren to enjoy.

That's a big reason why I worked hard to get a seat on the Senate Appropriations Committee: so I could take a holistic view of the federal budget and work to direct federal dollars to projects and programs that are important to residents in Connecticut. I meet and listen to hundreds of people representing different groups, interests, towns, and opinions. But one thing I hear over and over is that protecting Long Island Sound and ensuring it remains the ecological landmark and economic driver it is today should be one of my top priorities. I couldn't agree more.

That's why I've created this Long Island Sound funding plan. My goal is to demystify the federal budget process—which, let's be honest, is not particularly user-friendly—and present you with a clear document outlining the federal programs that support the Sound and the funding they require. The funding plan I outline below is the first of many steps we must take to ensure robust federal support for the Sound. My plan draws from different agencies, like the Environmental Protection Agency (EPA) and the National Oceanic and Atmospheric Administration (NOAA). It advocates for increased investments in programs that support job growth, like aquaculture research at Milford Lab, and programs that protect habitats, like the Community-based Restoration program. It discusses ways we can address water quality challenges, through implementing the EPA's Nitrogen Action Plan and funding water quality monitoring at our beaches. The needs of the Sound are multi-faceted, and our strategy has to be as well.

People in Connecticut know that failing to invest in Long Island Sound would mean the destruction of an ecological treasure and risking the demise of a vibrant coastal business community. Preserving the Sound is one of my top priorities in the Senate, and I will work tirelessly to ensure it receives the federal support it deserves.

Sincerely,

A handwritten signature in black ink, appearing to read "Chris Murphy". The signature is fluid and cursive, with a large initial "C" and "M".

U.S. Senator Chris Murphy

Promoting Stewardship and Fostering Healthy Coastal Habitats

Long Island Sound is surrounded by big cities and densely packed suburbs. These tightly-knit shoreline communities are a vital and vibrant part of our state, but failing to properly manage their relationships with Long Island Sound risks our state's most important natural resource.

Since 2000, Connecticut has received nearly \$7 million in funding for projects to preserve wildlife habitats, restore marshlands, protect shellfish beds, remove dams and open waterways.

Tackling threats like climate change and rising sea levels and reversing harmful trends, such as declining fish stocks and low oxygen levels, requires investing in proven strategies, marrying science with action to identify and implement best practices. One of the most important tools stakeholders have to achieve this is the Long Island Sound Study. Funded by the EPA, U.S. Fish and Wildlife Service, NOAA, and state and local partners, it is guided by the *Long Island Sound Comprehensive Conservation and Management Plan*.

This critical document uses cutting-edge science and local feedback to outline ecosystem targets in support of clean water, thriving habitats, resilient communities, and inclusive management. With federal support, the Long Island Sound Study is working with town and local partners to implement this plan.

Plants, animals, and marine life also depend on a healthy Long Island Sound. With support from the Habitat Conservation and Restoration program, in 2015 alone, federal funding (along with assistance from states) supported the restoration or protection of 1,678 acres of coastal habitat along Long Island Sound.

In order to support the ongoing health of Long Island Sound, I call for:

- **\$10 million** for the EPA's Long Island Sound Geographic Program to support implementation of the Long Island Sound Study
- **\$600,000** for the National Estuary Program to develop and implement the Long Island Sound Comprehensive Conservation and Management Plan (CCMP)
- **\$68.4 million** for NOAA's Habitat Conservation and Restoration programs to protect marine life and strengthen natural ecosystems, including \$21 million for the Community-based Restoration Program

Growing and Supporting Connecticut's Fishing Industry

Connecticut, like much of New England, has a long history with fishing and cultivating seafood in and around Long Island Sound. The first laws regulating the collection of oysters were enacted in the early 18th Century and Mystic has been a hub for shipbuilding since dating back to the 1600s. Yet climate change and decades of poor management have depleted fish stocks, threatening the nearly 1,400 jobs in fishing industries across the state.

Today, funding for NOAA is helping reverse this trend through investments in sustainable fishing and marine research. Connecticut is home to Milford Lab, one of only two federal aquaculture research labs in the country. Aquaculture, the practice of raising and sustainably harvesting fish and marine plants, has become an iconic part of Connecticut's fishing industry.

Receiving around \$4 million in federal support each year, researchers at Milford Lab study how to use shellfish genetics to improve survival rates, develop new practices for raising finfish like black sea bass, and create new and improved modeling and mapping tools.

Developing best practices in aquaculture doesn't just help Connecticut's businesses and workers, but also supports a national effort to help feed the world's growing population. A 2013 report by the World Bank, in partnership with the UN Food and Agriculture Organization and the International Food Policy Research Institute, predicts massive increases in global demand of seafood over the coming decades. By 2030, locally-raised fish is projected to equal traditional capture fishing and will supply 60% of fish for human consumption. Connecticut is well-positioned to meet this demand.

NOAA's Milford Lab conducts invaluable research that supports the Northeast region's aquaculture industry, supporting over 700 jobs in Connecticut.

In order to support NOAA's work in Connecticut and further support Connecticut's fishing industry, I call for:

- **\$20 million** for aquaculture research at NOAA labs
- **\$80 million** for the National Sea Grant Colleges System, which provides \$1.1 million in funding for education, research, and stakeholder collaboration at Connecticut Sea Grant at UCONN Avery Point
- **\$9 million** to support aquaculture research in salt waters through the Marine Aquaculture program
- **\$121.8 million** to help restore fish habitats, manage the catch share program, and combat illegal fishing through the Fisheries Management Programs and Services
- **\$150 million** to improve aquatic habitat science and implement protected species management through the Fisheries and Ecosystem Science Programs and Services
- Maintaining adequate resources and staffing at Milford Lab

Preparing for the Next Storm and Investing in Coastal Resilience

It's clear to Connecticut residents and businesses across the shorelines that the question we should be asking ourselves is not *if* we are going to have another Hurricane Sandy, but whether we are prepared for another superstorm *when* it happens.

\$110,000 in NOAA funding is supporting researchers at UConn's Connecticut Institute for Resilience and Climate Adaptation to help document and predict the impact of coastal storms.

Connecticut must capitalize on federal investments in coastal resilience. In January 2016, the federal government announced a \$54 million grant award for Connecticut to help our state better prepare coastal communities for rising sea levels and the next superstorm. This federal investment builds on previous grant awards and disaster relief dollars that came to Connecticut after Hurricane Sandy. We should use these funds to plan ahead; a little extra planning coupled with targeted investments can save both lives and dollars down the road.

A challenge for our state is its decentralization – 169 different towns with their own laws, processes, and budgets. Preparing for the next superstorm will require every town to work together. Thanks to funding provided to Connecticut after Hurricane Sandy, Connecticut's Center for Climate Resilience is providing technical assistance to towns and conducting vital scientific research to determine how storm surges and water level rises will affect our coastline.

I am working to expand these programs so shoreline communities have the capital they need to address resiliency needs. I call for:

- **\$111 million** for Coastal Zone Management Grants, which go directly to communities to support coastal resiliency projects
- **\$53.8 million** for Coastal Zone Management and Services to provide data and tools to coastal states on resiliency efforts
- **\$10 million** for Coastal Ecosystem Resiliency Grants to implement habitat friendly coastal resiliency projects
- Continued implementation of Connecticut's \$54 million federal Housing and Urban Development grant to prepare our coastline for the impact of rising sea levels and severe storms
- **\$10 million** for the newly created National Oceanic and Coastal Security Fund to help Americans respond to the threats of rising sea levels and warming oceans

Protecting Clean Water at Beaches and Connecticut's Maritime Economy

Sewage and pollution runoff from New York and Connecticut are one of the biggest challenges to the health of Long Island Sound and its beaches. Nitrogen runoff from lawn fertilizers contributes to algae growth, reducing oxygen levels and killing fish and shellfish, while dangerous toxins and bacteria from sewage overflows pose a threat to people and wildlife. We have come a long way in the last decade in terms of improving the Sound's water quality, but more needs to be done to ensure that closed beaches and dying animals do not become the new normal.

Regular monitoring of water quality will help us better understand the scope and source of the problem to better identify practical solutions. Additionally, the EPA recently released a Nitrogen Strategy for Long Island Sound, laying out a roadmap for how we can reduce the amount of nitrogen runoff in the Sound. If implemented properly, we can begin to eliminate algal blooms and reduce the low-oxygen dead zones that kill fish and other aquatic life. Improving our water management practices will also help protect the salt marshes, seagrasses, and other coastal habitats that are critical to the health of the entire ecosystem. Finally, as the increasing acidity of the oceans due to rising CO₂ levels threatens shellfish and other marine species, we must invest in research to study and combat ocean acidification.

The EPA BEACH Grant program provides \$214,000 in funding to monitor water quality at nearly 90 beaches in Connecticut, making sure they are safe for families to swim.

Improving the water quality of the Sound will mean more than just swimmable beaches and healthy wildlife; it will ensure that Long Island Sound continues to be the economic engine it is today. Tourism contributes \$14 billion dollars in sales statewide—and our beaches and coastline businesses are a huge part of that. There are nearly 79,000 jobs that directly or indirectly depend on Long Island Sound. Whether visitors come to visit Mystic Aquarium or enjoy a Connecticut lobster roll with a scenic view, the attraction of our shoreline is a critical driver of jobs and economic growth.

In order to protect clean water for marine habitats and support our coastal economy, I call for:

- Fully implementing the EPA's proposed Nitrogen Action Plan to reduce runoff and combat low-oxygen levels
- **\$21.7 million** for Integrated Ocean Acidification research grants to study and combat ocean acidification
- **\$164.9 million** for Non-Point Source Program Grants to combat pollution from groundwater, rainfall, and land runoff
- **\$9.5 million** for BEACH Act grants to test water quality at beaches
- **\$100 million** for national Regional Conservation Partnership grants to continue Connecticut's \$10 million grant to improve the waterways that feed Long Island Sound
- Swift implementation of the federal ban on microbeads in personal care products, which pollute bodies of water and negatively affect the health of marine life