



Testimony of:
Save the Sound, a program of
Connecticut Fund for the Environment



In Support of Governor's S.B. 947

AN ACT AUTHORIZING AND ADJUSTING BONDS OF THE STATE FOR CAPITAL IMPROVEMENTS, TRANSPORTATION AND OTHER PURPOSES.

Before the Finance, Revenue and Bonding Committee

April 6, 2015

Submitted by Leah Lopez Schmalz

Connecticut Fund for the Environment is a non-profit organization that, along with its bi-state program Save the Sound, works to protect and improve the land, air and water of Connecticut and Long Island Sound on behalf of its 5,500 members. We develop partnerships and use legal and scientific expertise to achieve results that benefit our environment for current and future generations.

Dear Sen. Fonfara, Representative Berger, and members of the Finance, Revenue and Bonding Committee:

Connecticut Fund for the Environment/Save the Sound submits this testimony **in support of the Green Infrastructure Fund, the Long Island Sound Stewardship and Resiliency Fund, and the Clean Water Fund provisions** of Governor's S.B. 947, An Act Authorizing and Adjusting Bonds of the State for Capital Improvements, Transportation and Other Purposes. Section 13 (d) (1) & (2), and Sections 64 & 65 provide authorizations that will maximize job creation while providing public health and safety protections, and environmental benefits to Long Island Sound and the state's inland waterways.

CLEAN WATER FUND: Section 64 and Section 65

This bill would enhance the rebuilding of Connecticut's Clean Water Fund ("CWF") by authorizing \$140 M in general obligation bonds and \$238 M in revenue bonds for the biennium. In addition to funding critical water quality projects like separating combined sewer overflows ("CSOs") and upgrading sewage treatment facilities, this increase would *create or retain between 6,800 and 8,000 direct and indirect jobs* and support the struggling traditional shellfishing and tourism industries that rely on the health of Long Island Sound.

1) The Clean Water Fund Need

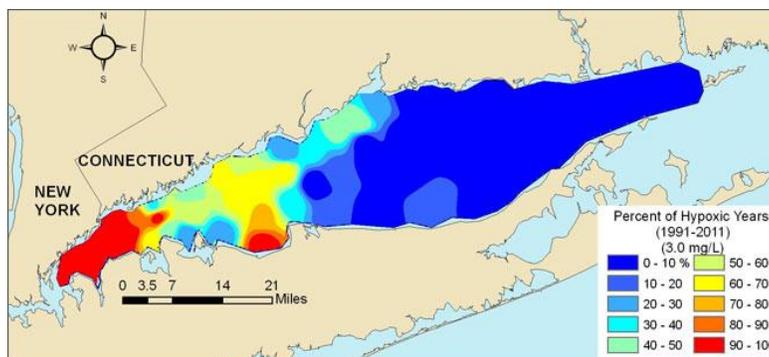
The Clean Water Fund is the primary mechanism for upgrading sewage treatment plants, and related infrastructure, throughout the state. While over 600 projects in 114 municipalities have been funded with over \$2.5 billion, the Connecticut Department of Energy and Environmental Protection (CTDEEP) estimates that demand is still high and the need is substantial: at least \$5 B over the next 15 years to adequately meet our sewage infrastructure

demands. Many of these projects, like combined sewer overflow separation in Hartford, New Haven, Bridgeport and Norwich (additional \$2 B needed) and secondary treatment upgrades (approximately \$1.4 B needed) are legally required and bind both our municipalities and the state. Smaller towns have sewer extension and decentralized wastewater treatment needs (\$148 M); and older pipes statewide are disintegrating and in need of repair (infiltration and inflow needs: approximately \$330 M). Additionally, new issues are looming. For example:

- **Phosphorus reductions at 43 sewage treatment plants are needed to help restore 21 river segments in Connecticut that do not meet Clean Water Act standards.** The estimated cost to upgrade these plants is \$250M.
- Increasing water quality regulations under the **Clean Water Act's Phase II Stormwater requirements** could increase demands on the CWF as towns and cities move beyond sewage treatment discharge and are forced to confront stormwater run-off (at least \$100 M).
- Storms Irene and Sandy demonstrated the need to **enhance the resiliency of our wastewater infrastructure in the face of climate change.** Sea level rise and storm inundation threaten numerous plants along the coast. Reports after Sandy indicated seven of the state's sewage pumping stations were forced to discharge raw sewage into nearby waterways during the storm and four sewage treatment plants were flooded or inundated with water forcing them to resort to primary disinfectant treatment. Furthermore, Stamford's facility had operational issues with their treatment system which included losing solids, low UV dosage, and loss of clarifiers. Funding to modify pump stations and electrical systems will be necessary and planning for future expansions and plant sites, in light of climate change, is critical. As of now, there are no final cost estimates.

2) The Benefit of Investing in Clean Water

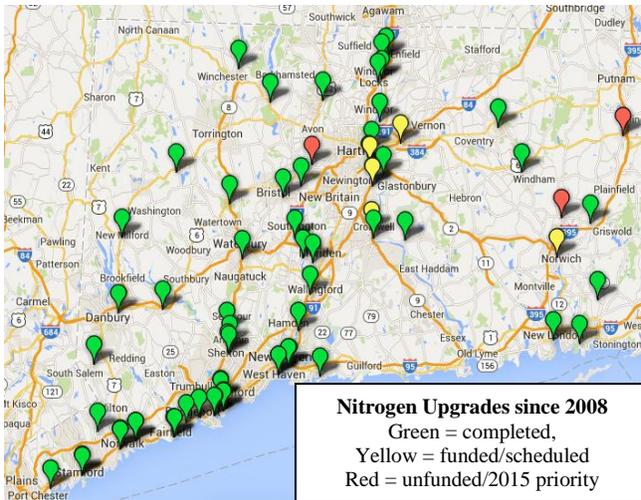
The vision for healthy Connecticut waters that sustain a vibrant wildlife population, promote the local fishing and dining industry and support tourism with open and clean beaches has the added benefit of producing high quality jobs. Currently public health and wildlife vitality is put at risk by two problems: CSO flow and excess nitrogen. Public health is



threatened by the billion gallons of raw sewage that is discharged into our water ways every year from

CSOs. These ongoing releases close beaches and shellfish beds up and down the coast. Similarly, excess nitrogen discharges lead to low oxygen levels that stretch from New Haven to New York City and jeopardize wildlife and submerged habitats. This condition is largely caused by inadequate denitrification processes at treatment plants throughout the Long Island Sound watershed and stormwater runoff. Both CSO separation and nitrogen reduction are required by law and both can be managed with adequate resources, like funding through the Clean Water Fund.

While these are projects that ultimately protect human health and the environment, including



the \$8.5 billion/year economic-driver Long Island Sound, they are also short and long term job producers and enhancers. Investments from 2008-2015, primarily for CSO and nitrogen reductions, are estimated to have retained or created 51,500 jobs,¹ and the levels contained in SB 947 would add another 6,800-8,000.

Additionally, once certain projects are complete, existing industries can begin to grow job capacity.

For example, once Bridgeport's CSO separation

is finished, local shellfishing companies will again be allowed to farm prime state beds that are currently closed by raw sewage discharges on 50% of harvestable days.

3) The Clean Water Fund History

The Clean Water Fund traditionally pooled federal and state funds to ensure that towns and cities could afford to undertake sewage treatment projects to protect the health of its citizens and to meet legal obligations to clean up Connecticut's rivers and Long Island Sound. Despite years of tremendous progress, the slow erosion of the Clean Water Fund began with the decline of Federal Capitalization Grants/Clean Water State Revolving Fund investments. It escalated to a collapse in 2002/2003 when the state eliminated funding to the program.

Thankfully, legislators pulled the CWF back from the brink in 2008, and put Connecticut on the right path to a clean water future. While the authorizations in the last few years are some of the largest in the fund's history, it will take consistent levels of substantial funding to repair the damage done from the five years of funding reductions and rescissions.² For example,

¹ *How Infrastructure Investments Support the U.S. Economy: Employment, Productivity and Growth* http://www.americanmanufacturing.org/wordpress/wpcontent/uploads/2009/01/peri_aam_finaljan16_new.pdf; and Connecticut's formula of 21 jobs for each \$1M spent on water infrastructure.

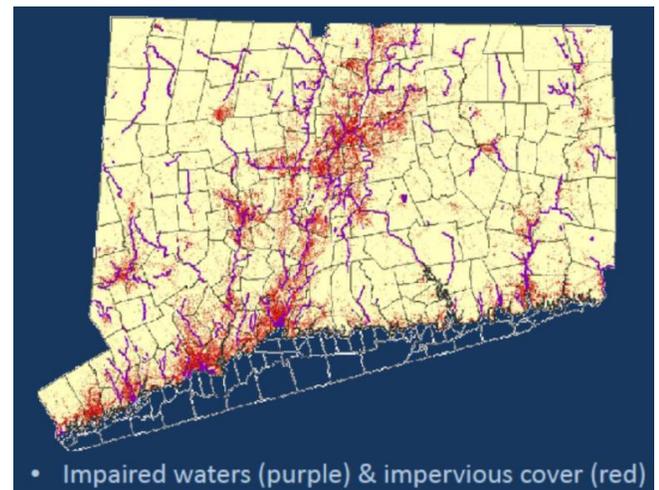
² CTDEEP's Clean Water Fund Dilemma Report: http://www.ct.gov/deep/lib/deep/water/municipal_wastewater/cwf_a_g_report.pdf

despite the significant allocations over the last two years, there are CSO problems that are shovel ready, but nonetheless remain unfunded. Insufficient investments will force the state to fall behind on its commitments to safe beaches and healthy waters while sacrificing federal money and local jobs. In fact, based on CTDEEP data, inadequate long-term CWF commitments could result in lakes and streams remaining impacted by sewage-laden water from combined sewer overflows for 100 years beyond the 2020 deadline and a delay in the clean-up of Long Island Sound.

The value of a well-financed CWF to protect the public's health is clear. Over 80 miles of stream and 266 square miles of harbor fail to meet water quality standards, nearly 250 basements a year are inundated with sewage backup, and over 200 days of beach-going are lost or hampered by pathogen worries each spring and summer. The projects funded through the Clean Water Fund will not only help restore waterways and protect public health, they will create economic benefits and job growth. Failure to adequately invest in the CWF is a failure the state simply cannot afford.

Section 13(d)(1) Green Infrastructure

Connecticut has a staggering number of streams, rivers, lakes and harbors that do not meet the requirements of the Clean Water Act ("CWA"). These impaired waters cause sick swimmers, unhealthy fish and wildlife, and decrease the quality of life for taxpayers. To fix this, CT DEEP and municipalities are required to limit stormwater pollution and restore the health of the state's waters. As illustrated by the map, waterbody impairment is tied to impervious surface area that exceeds 10%. But Green Infrastructure can help.



Green Infrastructure ("GI"), a suite of an innovative stormwater control measures that mimic natural hydrological function, has helped urban and suburban municipalities country-wide curb both CSO events and stormwater pollution. The U.S. Environmental Protection Agency "has specifically recognized green infrastructure as a stormwater management approach that can be cost effective and environmentally preferable when used to support or replace grey infrastructure practices."³ In fact, New York, Philadelphia, Syracuse, and Nashville are actively pairing cost-effective green infrastructure with grey infrastructure implementation, and saving hundreds of millions of dollars. "Incorporation of green infrastructure into city projects has not

³ Hazen and Sawyer 2012. *Green Infrastructure Feasibility Report* p 6.

only provided direct stormwater management benefits, but also encouraged private developers and others within these cities to implement green infrastructure throughout their own development projects.”⁴ The funding outlined in section 13(d)(1) would implement ready-to-go projects that not only combat stormwater pollution, but can reduce flooding and create more livable communities.

Section 13(d)(2) Long Island Sound Stewardship and Resiliency

Within two years, the Long Island Sound region was struck by four major storms — two tropical storms and two snowstorms. Though only some hit Connecticut directly, all four were direct hits on our infrastructure, economy and way of life.

Not only have these storms increased in frequency, they are bringing higher rain amounts, winds, and storm surges — often at historic levels. Sandy brought Bridgeport a 13.3-foot storm surge, even higher than the 12.1-foot surge that hit the city during Tropical Storm Irene.

Connecticut has begun the process of adapting to effects of climate change. Over the past five years, the Shoreline Preservation Taskforce and universities have helped identify new policies, agencies and non-profits have created coastal resiliency tools, and the Governor’s office has established workgroups to review natural resources and infrastructure in light of our changing climate. But more must be done—including learning from the difficult lessons provided by Storms Irene and Sandy. A key one is that natural systems are a critical component to our shoreline preservation and that there is a great need to enhance our state’s resiliency.

A study by The American Littoral Society (ALS), with support from the National Fish and Wildlife Foundation, quickly assessed coastal impacts of Hurricane Sandy on a regional scale – from the Delaware Bay through Long Island Sound.⁵ The report demonstrates the success of “natural systems” to protect human communities. Dunes, bluffs, marshes, barrier and bay islands protected park facilities and other commercial, residential and community structures. A few regional examples of natural systems protecting the coast include:

- A newly constructed roadway system was protected from damage when dunes just seaward absorbed the storm surge at Cape May Wildlife Refuge;
- Dunes at Seaside Park, NJ were credited with protecting oceanfront homes constructed behind the park;

⁴ Id.

⁵ <http://www.nfwf.org/Content/NavigationMenu/HurricaneSandyResponse/Assessments/default.htm>

- The Wildwoods Convention Center and a historic home at the Bayshore Waterfront Park in New Jersey were both spared because dune systems seaward from these structures absorbed Sandy's surge and waves; and
- Small dune systems on Chalker beach in Old Saybrook, CT absorbed erosional forces and appears to have protected two residential houses behind them, while many other exposed homes along the beach suffered substantial damage.

In Long Island Sound several restoration projects provided success stories as well, they include:

- The restored Long Beach dune system in Bridgeport and Stratford CT (naturalized after cottage removal) that functioned well;
- The breaching of undersized culverts along a tidal creek at Sunken Meadow State Park on Long Island, leading to the restoration of 100 plus acres of tidal marsh; and
- A restored dune at Rocky Neck State Park in Old Lyme, CT absorbed storm and wave damage and largely protected the Amtrak NE corridor directly behind the dune from extensive damage.

As individuals, municipalities and the state all grapple with how best to protect homes, critical infrastructure and our coast, the ALS report shows that it is essential that we work with our natural landscapes, not against them.

In response to last year's Department of Interior Sandy Funds, and within mere weeks, municipalities, CT DEEP, and NGOs identified scores of shovel-ready projects that were needed to enhance resiliency in the wake of Super Storm Sandy. Since then, more have been identified and the new center for resiliency (CT Institute for Resilience and Climate Adaptation) will identify even more. It is critical that the state provide funding for the numerous projects that will protect homes, infrastructure, and transportation corridors from the worsening impacts of climate change and section 13(d)(2) is a step in the right direction.

In closing, Clean Water, Green Infrastructure, and Resiliency funds make Connecticut a better place to live and do business. We urge you to ensure clean water, protected communities, and green jobs remains a priority for the state by supporting Governor's S.B. 947.

Thank you for your consideration.