

**Testimony of David Sutherland – Director of Government Relations  
Before the Environment Committee – February 22, 2012**

**In Support of Bill 5128 - H.B. No. 5128 (RAISED) AN ACT CONCERNING CERTAIN  
REVISIONS TO THE COASTAL ZONE MANAGEMENT STATUTES.**

On behalf of The Nature Conservancy, I would like to express our support for Bill 5128, with the changes to Section 4(e) described at the end of this testimony.

The destruction that Tropical Storm Irene caused along our shoreline gave us a preview of the damage a major hurricane would create. A Category 3 Hurricane, like 1938's, would flood over 44,000 acres of dry land, 382,000 households, 645 mile of roads, 131 miles of rail, 10 airports, 13 waste treatment facilities and 14 schools, and would displace close to 900,000 citizens statewide.

The damage from such a storm, now compared to 1938, will be intensified by at least two factors, increased development in what were or have become high-hazard areas, and rising sea levels. Even without hurricanes, however, rising waters are already creating more frequent flooding in many neighborhoods. In areas with low-lying roads and marginal septic systems, even a rise of a few inches can create significant problems.

With some fluctuations, sea levels have been rising in Long Island Sound since the last glacier retreated. Various factors, including subsidence of land along the coastline after the glacier, and climatic episodes, such as the "Little Ice Age" in the 1500's and recent warming of global temperatures, have affected the exact rates. The rate of rise generally been greater further West in the Sound.

Until the past few centuries, the rate of rise in the Sound had fluctuated over the past 1000 years, averaging about .4 inches per decade. It has increased in the last 3 centuries to about 1 inch per decade, and in the last few decades to about 1.2 inches per decade. Recent rises are confirmed by both scientific methods and by countless anecdotes from coastal residents. Most climatologists project that sea levels will rise at a far faster rate in the next century.

Currently, however, there is no explicit authority in Connecticut statutes to consider sea level rise in state or municipal planning or regulations. Rhode Island's statutes project a rate of three to five feet by the year 2100, Maine's a rate of two feet by that year. Federal Coastal Zone Management statutes refer to sea level rise, but ours do not.

Bill 5128 would authorize sea level rise to be considered as a factor in Plans of Conservation and Development, in the Coastal Zone Management statutes' general goals and policies, and in coastal site plan reviews. It uses a minimum average rate of rise per decade, which is a more meaningful time period to use than one total projection for the next century.

One critical component of community planning for which sea level rise should be taken into account is open space preservation. Tidal marshes produce more biomass per acre than

any other type of land, including tropical rain forests or agricultural land. They are essential for the survival of many fish species. Along with dunes and barrier beach, coastal wetlands can also provide significant protection from storm surges to abutting inland neighborhoods. Yet in many cases, they will no longer have room to migrate inland unless communities direct at least some of their land conservation initiatives towards suitable parcels when they become available.

Another critical aspect of sea level rise and coastal storms, that our state must intensify its attention to, is an assessment of which methods of protecting coastal infrastructure are most appropriate for which locations. Sea walls and other "armoring" or "hardening" will be necessary at some sites and will provide protection. In many cases, however, armoring has significant drawbacks. During Storm Irene many sea walls did not work, and others actually made flooding worse. Armoring is very expensive. And in some locations it can reduce storm protection provided by tidal wetlands, flats, or beaches, by inducing the scouring away of those marshes and dunes that absorb wave energy. A vigilant consideration of natural resources, both for the essential role they can play in supporting fisheries and other wildlife and for the protection they can provide to infrastructure must be an integral component of coastal planning and protection.

The major intention behind this legislation, however, is not to address current controversies regarding armoring. This bill would hopefully encourage and induce all parties – coastal residents and businesses, elected officials, the insurance industry, emergency management and environmental experts, engineers, and others – to plan now in a comprehensive and deliberate manner, rather than after the next hurricane, to address the likelihood that significant areas of land are going to be permanently flooded over the next few decades.

We applaud the Speaker's formation of a Sea Level Rise Task Force, and look forward to that group delving much deeper into the various aspects of rising waters. Bill 5128 is a critical introduction of the concept of sea level rise into our statutes, but a far more detailed and comprehensive approach will be needed, which we hope the task force can launch.

Section 4(e) of the bill, as drafted, is unclear. While the issue of reconstruction is not a core concern for The Nature Conservancy, we have heard from planners and local officials that it is a subject they would like to see better addressed. This may be an issue that the task force chooses to address, but if this section is retained in the legislation, language such as the following may provide a more reasonable approach:

(e) The board or commission reviewing the coastal site plan shall, in addition to the discretion granted in any other sections of the general statutes or in any special act, approve, modify, condition or deny the activity proposed in a coastal site plan on the basis of the criteria listed in section 22a-106 to ensure that the potential adverse impacts of the proposed activity on both coastal resources and future water-dependent development activities are acceptable. The provisions of this chapter shall not be construed to prevent the reconstruction of a building after a casualty loss, except that if a building, that has been substantially damaged after the effective date of this act, by flooding or inundation, such that the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred, has been reconstructed; and is subsequently substantially damaged a second time; the board or commission may consider such repetitive damage as a factor in approving, modifying, conditioning, or denying an application to reconstruct such building.

# The Hartford Courant

January 22, 2012

## Long Island Sound Is A Long Way From Safe States must refocus on restoring the Sound

A few years ago, Connecticut and New York stood shoulder to shoulder to fight the construction of a liquefied natural gas storage facility in the middle of **Long Island Sound**. Officials of both states said the proposal by Broadwater Energy would limit recreational opportunities, create a major security risk and be an "environmental menace."

But since that four-year battle was won in 2009, the Sound has slipped from the public policy radar screen, perhaps because leaders in both states believed that stopping the floating gas plant saved the Sound. That, unfortunately, is not the case.

The great bi-state estuary, a priceless ecological treasure and a source of billions of dollars in revenues to both states, is still endangered. The battle to save it is at best half-won. Govs. Dannel P. Malloy and Andrew Cuomo, as well as Congress, must refocus on the health of the Sound, lest gains made since the mid-1980s be lost. That could happen.

### Raw Sewage In The Water

The Courant recently reported that power outages during Tropical Storm Irene and the pre-Halloween snowstorm had a damaging if little-publicized side effect — millions of gallons of raw sewage spilled into state waterways including the Sound when backup power systems failed at waste treatment plants. Among the 47 spills reported during the storms was a dump of 42.7 million gallons of partially treated sewage into the Sound in Stamford.

Sewage discharges contain, among other problematic components, nitrogen. Nitrogen spurs an overgrowth of algae, which consumes oxygen and can help create dead zones of low oxygen that force living things to leave or perish. Although both states, especially Connecticut, have made progress in stopping raw sewage from being dumped into the Sound, the job isn't done.

This was clear from the 2011 State of the Sound report (see <http://bit.ly/AncAs5>), issued just before the end of the year by Save the Sound, a program of Connecticut Fund for the Environment. The report grades Connecticut and New York on defending the Sound.

The two states do well in protecting coastal and migratory habitat and cleaning beach litter, thanks to more volunteers. But the states get a D-plus in controlling raw sewage (despite a real effort by Connecticut); a C-minus in policing stormwater runoff, a source of numerous pollutants; and a C in keeping toxic chemicals out of the Sound. The states are graded against goals for conservation of the Sound, which include restoring 2,000 acres of coastal habitat, opening 100 river miles blocked by dams to fish passage and reducing human nitrogen inputs by 58.5 percent.

### There Is Still Much To Do

Two major federal programs to restore the Sound need to be reauthorized and funded. Initiatives must be put forward to promote low-impact development and green infrastructure. Education programs must continue, so homeowners understand that such things as the runoff of fertilizers or improper dumping of motor oil can pollute the Sound.

**There's also another reason lurking out there to focus on the Sound, and that is sea level rise, which could threaten everything near the shore. Rising global temperatures cause sea levels to rise both by melting ice and through thermal expansion of warmer ocean waters. Estimates published in 2007 that global sea levels would rise by seven to 23 inches by the end of this century are now considered conservative.**

**If they are, the coastal wetlands, beaches, waterfront homes, highways, railroad tracks and sewage treatment plants along the Connecticut shore will be in danger. Cold water species such as winter flounder are already leaving the Sound and being replaced by their cousins from warmer waters. We will need a coastal zone management plan that addresses sea level rise, and we'd better get on it.**