

# Coastal Resilience for New York and Connecticut

A Tool for Coastal Planning in a Changing World

## The Problem

Inhabited by some 8 million people, the coast of Long Island Sound is one of the most densely populated and highly developed shorelines in the world. And like most coastlines, the ecosystems here are highly dynamic: tides, winds and storms combine to shape and change the landscapes.

But **this highly developed coastline is now changing at an unprecedented rate**, presenting not only environmental challenges but also social and economic ones.

With sea levels rising and storms becoming more frequent, human and natural communities near the shore are at greater risk than ever. In some coastal towns the impacts of sea-level rise are happening now. Their effects can be seen in the homes left teetering over the sea on Fire Island after a 2007 Nor'easter and in the drowning of valuable salt marshes.

Despite the risks, communities and local decision-makers have little access to information they need to protect people and nature from these dramatic changes.

Without the right tool, it's difficult to imagine the consequences of sea-level rise and major storms. And without

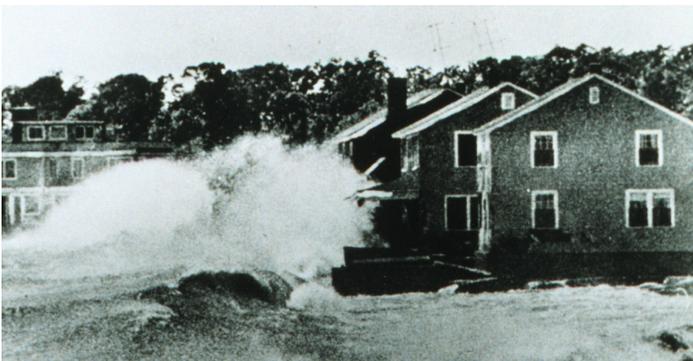
the right tool, it's impossible to plan for your community's growth while protecting the natural habitats—such as coastal wetlands and dunes—that provide seafood, clean water, enjoyment and a physical defense against the powerful and destructive force of coastal storms.

## The Coastal Resilience Tool

Now, the newly-expanded Coastal Resilience Tool can help you visualize the impacts and plan wisely for your community's future. This free web-based mapping tool offers a way to explore sea-level rise and storm surge scenarios on specific places throughout coastal Long Island and Connecticut, equipping planners and other decision-makers with resources to:

- Better understand, visualize and project these impacts
- Plan wisely for future growth with these impacts in mind
- Help protect and restore the natural benefits our coastal systems provide

Developed by The Nature Conservancy, an internationally recognized leader in climate change science and natural



In 1954, Hurricane Carol (above, in Old Lyme, CT) caused devastating property losses throughout New York and New England. If a category 3 hurricane hit today, the estimated cost would be \$24 billion.



In Connecticut, 32,000 homes are in areas where major flooding could occur.

“When it’s something of this magnitude, it’s not something you want to be crisis managing; it’s something you’d rather be planning for. I think it’d be irresponsible for any public leaders not to consider this.”

— Anthony “Unk” DaRos, Branford, Connecticut selectman



The Coastal Resilience Tool lets planners and other decision-makers visualize the impact of sea-level rise and storm surge on our coastal communities—and plan for a safer future.

resource conservation, the Coastal Resilience Tool lets decision-makers **explore different flooding scenarios** from sea-level rise and storm surge, **analyze the potential ecological, social and economic impacts** of each scenario at a local, state and regional scale and **provide progressive solutions** to address these issues today.

The tool's future coastline maps and related information allow for remarkably detailed analysis of ecological, social and economic impacts, costs and management considerations. The information and solutions generated are all developed from highly credible climate, hazard and resource migration models presented in an easy-to-use framework.

**Who Should Use It?**

Because the Coastal Resilience Tool is web-based, it can be used by anyone—including those who live, work or invest near the coast and are concerned about our future there. Those who will find it particularly useful as a planning tool include:

- Municipal decision-makers, including city/town planners, land-use boards and other elected/appointed officials
- State legislators and other state elected/appointed officials
- State and federal resource and planning agencies
- Industries, including real estate, insurance, transportation, water suppliers and builders
- Other stakeholders, including community leaders, the media and environmental, social and economic development organizations

These decision-makers and other leaders should **routinely consult the Coastal Resilience Tool whenever faced with making tough choices** about the coast or considering a project near the shore.

**Pilot Projects**

Originally developed for Long Island in 2008, the coastal resilience tool has been expanded for Connecticut's coastal communities on Long Island Sound. It is **now being applied in pilot communities in Connecticut and New York.**

**See the Impacts, Plan Wisely for the Future**

Ready to learn more?

Now online and available to all coastal communities and planners, the Coastal Resilience Tool can be accessed at **coastalresilience.org**  
Click on Geographies, then Long Island Sound

For more information about how this tool can make a difference for your community, business or organization, contact Adam Whelchel at The Nature Conservancy in Connecticut: (203) 568-6296 or awhelchel@tnc.org.



The coastal resilience tool, originally developed for Long Island in 2008, has been expanded for Connecticut's coastal communities. Learn how this tool can help your community safeguard its human and natural environments.

**Photo credits** Page 1: Hurricane Carol in Old Lyme, CT © American Red Cross, National Weather Service; East Lyme, CT © Jeff Zanelli/TNC. Page 2: Coastal Resilience Tool screen shot © TNC; Hammonasset State Park in Madison, CT © Jeff Zanelli

**Partners**

Led by The Nature Conservancy, the Coastal Resilience Project is a partnership that also involves:

