

# A Framework for Coastal Resilience



Reducing coastal vulnerability through local collaboration & natural systems.

*Credit: Milone and MacBroom*

This Regional Partnership is between:

The Towns of  
Branford, Fairfield,  
Guilford, Madison &  
Stratford.

The Cities of Bridgeport,  
Milford, East Haven,  
New Haven &  
West Haven

As well as:



Long Island Sound is a key contributor to quality of life in Connecticut and provides ecological, social and economic benefits to residents throughout the state. Some of the largest population centers in Southern Connecticut are in close proximity to the shoreline and vulnerable to extreme weather, sea level rise, flooding and coastal erosion. Recent storms, such as Hurricane Irene and Super Storm Sandy have underscored this vulnerability. Less dramatic but equally devastating is the continual beach erosion and sea level rise that threaten the coastline.

Extreme weather and other natural hazards are not controlled by political boundaries. By approaching coastal resilience regionally, communities can focus on projects which are complementary to and support the strategies of neighboring municipalities.

Through the Regional Framework for Coastal Resilience in Southern Connecticut, opportunities to naturally reduce risk and increase resilience will be identified. The opportunities will be comprehensively assessed and prioritized based on their benefits to the local community and their overall contribution to reducing vulnerabilities in Southern Connecticut.

Over 590,000 residents live in the ten coastal municipalities that are partners in the Regional Framework for Coastal Resilience. Increasing the viability of natural ecosystems along this significant portion of Connecticut's coastline (approximately 30%) will protect the integrity of Long Island Sound and coastal ecosystems.

Concepts identified through this partnership can be found on the next two pages.

# Project Locations & Information



## Stratford

Russian Beach Bank Protection  
The coastal bank at Russian Beach is experiencing severe erosion and there is limited protection in place. A bioengineered bank design would mitigate the ongoing erosion and protect waterfront homes.



## West Haven

### Beach Nourishment & Dune Creation

West Haven's 3+ miles of public beach are a vital asset to the City. A dune ridge would provide increased protection from flooding and increase the density and types of vegetation at the beach.



## Fairfield

### Beach Nourishment & Dune Creation

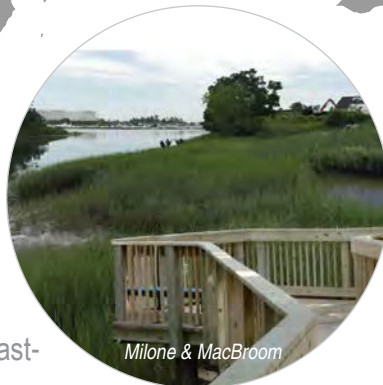
This section of coastline was severely impacted by Sandy storm surge and inundation. A 12' dune ridge would provide some protection from storm surge without impacting views.



## Bridgeport

### West Johnson Creek Living Shoreline

A raised boardwalk and trail system would provide public access to this coastal wetland.



## Milford

### Egan Center Stream Daylighting

This small tidal creek was placed in a culvert years ago. Restoration of wetland vegetation could occur if the stream was daylighted. A rain garden could also be integrated into the project.

# New Haven

## Long Wharf Living Shoreline



The park edge has experienced significant erosion. The goals of this project would be to protect the intertidal zone, retain sediment and increase vegetation.



# Madison

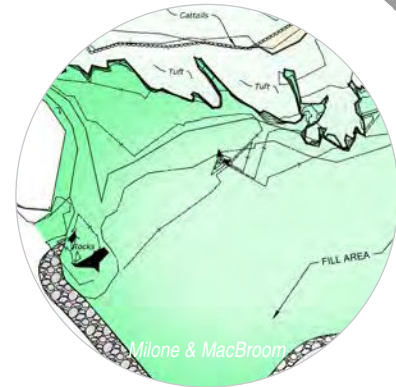
## Surf Club Dune Restoration

This segment of shoreline is the Town's public beach space. A restored dune ridge would increase protection from flooding, and increase vegetation density.

# Branford

## Pine Creek Pedestrian Bridge

This old trolley bridge serves as a pedestrian walkway along a local trail. Scour has damaged the bridge abutments. Oyster castles, rocky material and grasses in the intertidal zone would stabilize the bank.



# Guilford

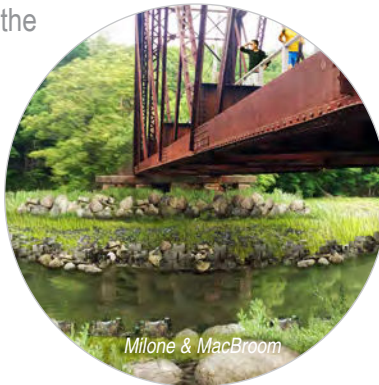
## Chittenden Beach & West River Living Shoreline

Located close to a newly renovated park and athletic field, this low-lying area experienced significant damage from Sandy. Installation of an offshore breakwater would attenuate wave action. Replacing sediment behind a rocky sill and planting more marsh grass would nourish, restore, and stabilize the tidal marsh.

# East Haven

## Road Abandonment & Elevation

A pair of roads provide access to the East Haven beach through a tidal marsh. In the long term, one road (Brazos or Fairview) would be abandoned and the other elevated.



# A Regional Approach to Resilience

The Regional Framework for Coastal Resilience in Southern Connecticut is being funded by a \$700,000 Hurricane Sandy Coastal Resiliency Competitive Grant through the U.S. Department of the Interior and the National Fish and Wildlife Foundation.

The grant was awarded to the South Central Regional Council of Governments (SCRCOG), in partnership with the Connecticut Metropolitan Council of Governments (MetroCOG) and The Nature Conservancy (TNC). This is the first time in Connecticut that two Councils of Governments with this many member municipalities have advanced a collaborative project focused on an environmental, economic, and social issue of this magnitude.

The Regional Framework for Coastal Resilience in Southern Connecticut includes the following components:

- A comprehensive green infrastructure assessment of the coastline between Madison & Fairfield.
- Cross municipal understanding of common themes for infrastructure and resilience needs.
- Conceptual visualizations for the highest priority project in each municipality.
- Develop a Regional Plan for Coastal Resiliency.

# Project Benefits

## Resiliency

- Minimize the consequences of large scale storms in some of coastal Connecticut's largest population centers.
- Keep people & property safe from the impacts of natural hazards.
- Utilize green infrastructure, natural ecosystems & environmental solutions to reduce risk & increase resiliency.



## Resource Protection

- Safeguard coastal resources: endangered species, critical habitats, cultural assets & recreational facilities.
- Improve the resiliency of natural infrastructure such as salt marshes, dunes & floodplains.
- Identify opportunities to reduce storm-water runoff through existing & future natural systems.



## Partnership

- Synchronize local hazard mitigation planning efforts for complimentary project implementation.
- Through regional consensus, identify projects which will have the most impact in reducing risks for people & nature.
- Increase awareness, recognition & integration of environmental solutions & policies through municipal and regional planning.

## Economy

- Protect local businesses & critical infrastructure, thus limiting the extent of economic impacts after a storm.
- Proactively reduce risk to property & the need for financial assistance after extreme weather by prioritizing investments to those with the greatest overall impact.
- Avoid future costs associated with the loss of critical coastal ecosystems through resource protection.

**\$700,000**