

# The Watch Hill Conservancy

## A Community Forum

# SEA LEVEL RISE AND STORM SURGE IN WATCH HILL: WHAT ARE THE RISKS?



Because of its low elevation along the shore, Watch Hill is vulnerable to being impacted by storm surge. Vulnerability will increase as sea level rises.



Sea level is rising for a number of reasons. As ocean temperatures increase, water expands and sea level rises. As more ice melts in the Arctic and Antarctic, more water is entering our oceans and sea level rises. In southern New England, our elevations along the coast are getting lower (subsidence) due to rebound from the retreat of an ice sheet that covered our region 20,000 years ago.



Estimates of sea level rise for our region are 3 feet by the year 2050 and up to 9 feet by 2100.



Scientists at URI have developed very accurate models and maps of what will be inundated in scenarios of sea level rise and storm surge. These are the STORMTOOLS maps. The web address for the site is given below.



Comparison of observed inundation during Nor'Easters that add 2 feet of water to our high tide elevation closely mirror what STORMTOOLS predicts. STORMTOOLS maps are accurate!



Another climate change impact to our region is an increase in the frequency of high intensity storms.



The Stormtools Design Elevation (SDE, similar to a FEMA base flood elevation) for a building to be safe from surge and wave action in a 100-year storm (1% change of occurring in any given year) is 12-14 feet for the commercial section of Bay Street.



CRMC will work with communities to explore potential adaptation actions that can be done now to minimize impacts from SLR and Storm Surge.

## RESOURCES

Videos of presentations from our workshops:

[www.tinyurl.com/whc-slr](http://www.tinyurl.com/whc-slr)

STORMTOOLS:

<http://www.beachsamp.org/stormtools/>

Design Elevation Mapping Tool:

<https://tinyurl.com/WHC-SDE>

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20th Anniversary

## CONTACT US

The Watch Hill Conservancy

One Bay Street

Watch Hill, RI 02891

[whconservancy@gmail.com](mailto:whconservancy@gmail.com)

401-315-5399