Old Saybrook Coastal Resilience Coalition (OSCRC)
Seeking Solutions for Sea Level Rise

Old Saybrook Coastal Resilience Coalition

The Old Saybrook Coastal Resilience Coalition (OSCRC) was formed in 2021 to coordinate a response to sea level rise by documenting vulnerabilities of local beachfront and riverfront communities and, through regional, state, and federal partnerships, identifying immediate and long-term mitigation solutions. OSCRC members include: Bel Aire Manor, Borough of Fenwick, Chalker Beach, Cornfield Point, Fenwood District, Great Hammock Beach, Indian Town, Knollwood Beach, Otter Cove, Saybrook Manor, Saybrook Manor Cove, Town of Old Saybrook, and Town of Westbrook. Through periodic meetings and guided by National Oceanic and Atmospheric (NOAA) "Steps to Resilience Framework," the OSCRC has taken the first steps towards addressing sea level rise.

The Challenge of Sea Level Rise

According to the National Oceanic and Atmospheric Administration (NOAA), the global mean sea level in the Northeast United States is expected, with a high degree of confidence, to increase to 1.3 ft by 2050, with a range of uncertainty between 1.0 and 1.5 ft. This increase in sea level will result in susceptible low-lying areas along the coast and adjacent to rivers being permanently wet and future storms causing extensive damage due to storm surge and flooding. The expected change in water levels threatens roads, properties, septic systems, and recreational areas. Furthermore, there will be a steady expansion of tidal marshes onto residential lands.

Identified Problems and Preferred Options

The OSCRC members in a series of meetings identified problems associated with sea level rise; the resulting vulnerabilities due to these problems; and preferred mitigation options to address the vulnerabilities. The identified problems are bulleted below along with their preferred mitigation options.

• Sand erosion • Sand deposition	Move excessive sand from one local beach to replenish sand (i.e. beach nourishment) at another local beach. Push sand away from shore to promote natural replenishment. Pile sand to side of beach during winter. Install jetties/groins to either deposit or remove sand. Dredge sand at river entrances. Implement living shoreline where applicable. Investigate beach slope for sand retention or loss.
• Tidal flooding • Tidal encroachment • Inadequate drainage • Disruption of septic system	Raise roads or properties experiencing tidal flooding. Clean drainage ditches and pitch roadways toward marshes. Add embankments along road and properties facing marshes. Add manmade barriers to prevent flooding on roads, properties. Repair tide gate, install larger pipe, regrade area, and remove structures to prevent septic flooding.
• Storm surge • Deterioration of sea walls • Deterioration of piers and jetties	Install coherent seawall/revetment along all properties. Rebuild slopes with appropriate material. Repair and maintain existing retaining walls, sea walls, revetments, piers and jetties.
• Education	Institute public education to engage beach users to do their part to preserve beaches and natural areas.

How You Can Help

The response to sea level rise is going to be costly, time-consuming, socially challenging. The OSCRC communities are soliciting help. We are looking for partners, funding sources, skilled professionals, and individuals who can assist in making the public aware of our efforts. Please contact (website to be named) to join us in fortifying the infrastructure of the Connecticut coastline.

How Sea Level Rise Will Impact the Connecticut Shoreline

An online, digital tool called “Sea Level Rise and Storm Surge Viewer” was developed by the Connecticut Institute for Resilience & Climate Adaptation (CIRCA), which is part of the University of Connecticut. This tool allows a user to see the impact of sea level rise along the Connecticut shoreline. By comparing maps in Figures 1 and 2, one can see the change in mean higher high water (MHHW) level for a one-foot increase in sea level. The most striking change is the expansion of inundated areas resulting in loss of property and traffic passageways. In addition to flooding, more frequent and intense storms are predicted to be concurrent with sea level rise.

Figure 1. Mean Higher High Water (MHHW) for current sea level.

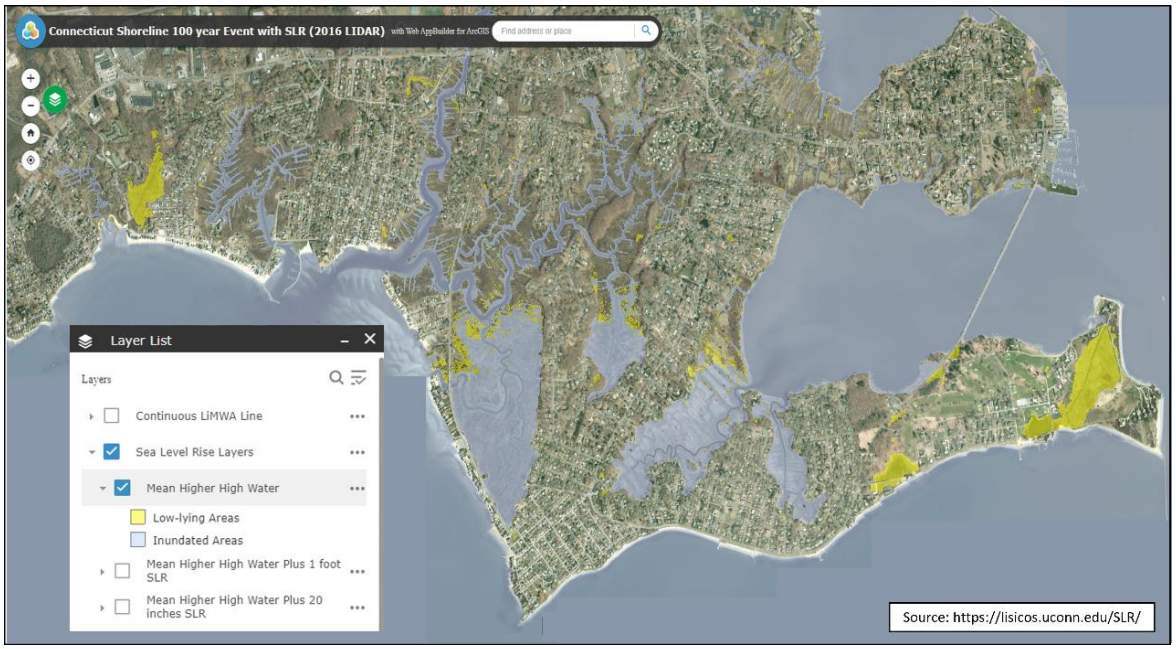
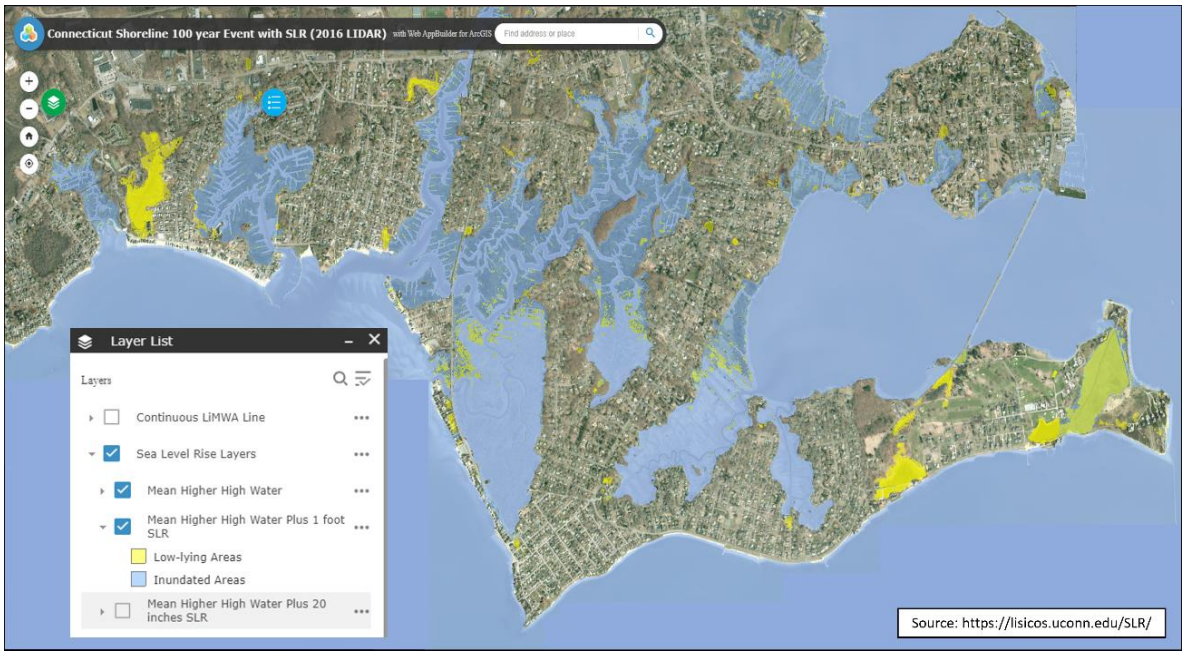


Figure 2. Mean Higher High Water (MHHW) for sea level rise of one foot.



Sea level rise is observable now and will only get worse in the ensuing years. Our communities need to be prepared for future infrastructural investments and behavioral changes. For more information on OSCRC reports and planned activities, please contact (website to be named).