

# Old Saybrook Coastal Resilience Coalition (OSCRC)

## Quarterly Newsletter – October 2025



### Chalker, Bel-Aire, and Indian Town Beach Nourishment Study Results

On July 19, 2025, RACE Engineering presented results of the Chalker, Bel-Aire, Indian Town Beaches Beach Nourishment Study. The Chalker Beach Improvement Association is considering beach nourishment to address beach erosion that affects residential neighborhoods from the bulkhead at the west end of Chalker Beach to the jetty at the Hagar Creek inlet at Indian Town. The

increased volume of sand would serve to attenuate wave energy and reduce the impact of storm surge eroding the shoreline and flooding the affected neighborhoods.

The study considered three alternatives all of which will be challenging and costly. The most viable alternative would be placement of additional sand extending the shoreline with a manufactured dune and a berm seaward of the dune.

As part of the project, RACE Engineering and representatives from each of the beach communities met with the Army Corps of Engineers and the Connecticut Department of Energy and Environmental Protection (DEEP) to review the permitting requirements for beach nourishment projects. Three potential sources of sand were discussed, upland sand sources, sand from navigational dredging, and nearby offshore sand. DEEP would prefer the sand be obtained from a navigational dredging project. If sand from a navigational dredging project is not available, the DEEP representatives indicated that obtaining nearby offshore

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sand collected specifically for beach nourishment does not have clear next steps as this method has not been used before in Connecticut.

The Beach Nourishment Study is an initial step toward any action providing protection to the Chalker Beach, Bel-Aire Manor, and Indian Town beaches. The three beach communities will now consider next steps and how best to proceed.

### An Historical Perspective

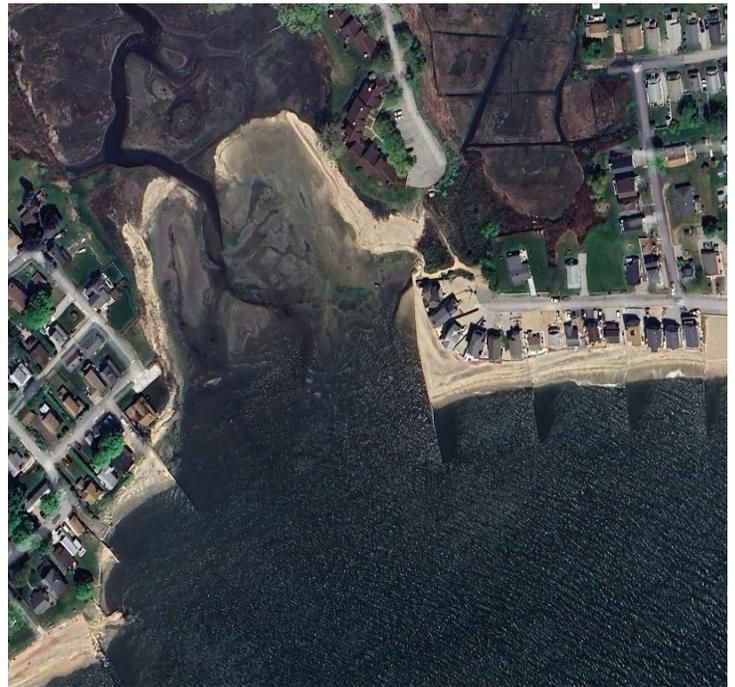
The inlet to Cold Spring Brook Marsh and Chalker Beach Marsh at the western end of Chalker Beach

1970



Credit: UConn Aerial Photograph Archive. University of Connecticut Library Map and Geographic Information Center (MAGIC).

2025



Credit: Google Earth Image. Image©2025Airbus.

Send your favorite photographs of Old Saybrook's coast and river shorelines during storm events or good weather to our Newsletter editor at [oscrcinc@gmail.com](mailto:oscrcinc@gmail.com). We will publish them in future newsletters.

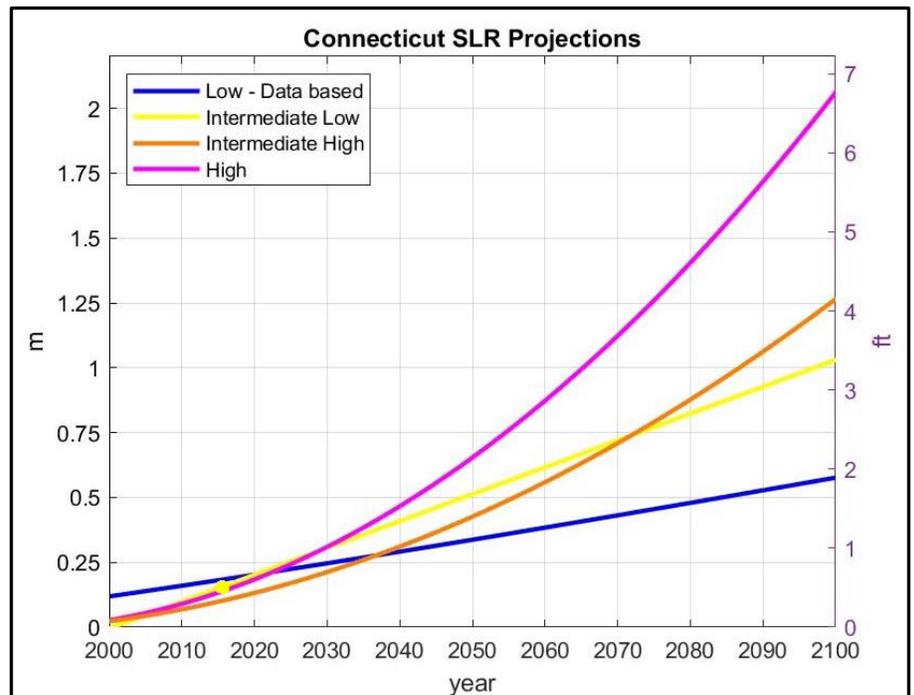
# Four Shore Coastal Resiliency Plan

## Storm Surge and Sea Level Rise Vulnerabilities to Old Saybrook and Fenwick

The Four Shore Coastal Resiliency Plan is a collaborative effort between Clinton, Westbrook, Old Saybrook, and Fenwick to assess coastal vulnerability to sea level rise and develop adaptation strategies. The Resiliency Plan was developed between June 2023 and March 2025 using funding from the National Fish and Wildlife Foundation and contributions from the four participating communities.

A model was developed using detailed topographic and near shore bottom surface elevation information for the Four Shore communities to project high tide and storm impacts under current and future sea level rise scenarios. High tide was simulated using the average of the higher of the two daily high tide elevations over the course of a 19-year period known as Mean Higher High Water (MHHW). The storm intensity in the model was the 100-year storm, which is the size of storm having a 1% chance of occurring in any given year. The sea level rise (SLR) scenario was the Intermediate-Low projection (in yellow)

recommended by Connecticut Department of Energy and Environmental Protection (DEEP) and the Connecticut Institute for Resilience and Climate Adaptation (CIRCA). The model evaluated six scenarios: the combination of two high tides represented by the MHHW elevation and the 100-year storm under current conditions, and three sea level rises represented by current conditions, and the 2050 and 2070 projections. The Resiliency Report includes detailed maps showing the areas flooded under each of the six scenarios. The model estimates that high tide events would affect 83 buildings or 1.1% of all buildings in Old Saybrook, same number of buildings in 2050, then increase to 241 buildings or 4% of all buildings in 2070. In Fenwick, nine buildings or 8% of all buildings would be vulnerable to high tide events today, remain the same in 2050, then increase to 18 buildings or 16% of all buildings in 2070. The 100-year storm presents a significantly greater threat. Today, a 100-year storm event would subject 2,642 buildings or 35% of all buildings in Old Saybrook to flooding. Future flood inundations affect 2,916 and 3,350 buildings in 2050 and 2070, respectively. In Fenwick, over half of the buildings are currently vulnerable to flooding during a 100-year storm, with more buildings inundated in 2050 and 2070 projections.



Credit: From *Sea Level Rise in Connecticut Final Report February 2019*.  
James O'Donnell, UConn Department of Marine Sciences and CIRCA

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The Resiliency Plan can be viewed and downloaded from the Town of Old Saybrook website ([https://www.oldsaybrookct.gov/sites/g/files/vyhlif10491/f/uploads/final\\_coastal\\_resiliency\\_plan\\_and\\_appendicies\\_3.2025.pdf](https://www.oldsaybrookct.gov/sites/g/files/vyhlif10491/f/uploads/final_coastal_resiliency_plan_and_appendicies_3.2025.pdf))



Clearly, Old Saybrook and Fenwick need to prepare for storm events now and not wait for the increased impacts of sea level rise. In a future OSCRC newsletter, we will look at the adaptation strategies recommended by the Four Shore Coastal Resiliency Plan.

## Community Highlight – Chalker Beach

The increase in the frequency of heavy rain events and landscape changes affecting runoff have caused water in Chalker Beach marshlands to back up into adjoining neighborhoods. This backup is making some roads impassable, flooding properties, and endangering the integrity of some septic systems and well-supplied drinking water. Swales may be part of the answer to this flooding problem.

The problem has been getting worse ever since upland development, including new shopping centers, has increased runoff into Chalker Beach marsh. Coupled with increased storm intensity and an undersized tide gate installed several years ago, the capacity of the marsh to absorb rain and runoff has been surpassed.

After diagnosing the problem and utilizing existing state permits to develop a short-term solution, the Old Saybrook Public Works Department designed and constructed a swale in coordination with neighboring community stakeholders, the Connecticut Department of Energy and Environmental Protection, and an engineer contracted by the Town of Old Saybrook. A swale is a shallow channel cut into the ground that can be used for water harvesting, soil conservation, or stormwater management (see photo). The swale allows flood waters to subside more quickly and, as a first step, has already improved the flooding situation. In addition to excavating the swale, specific plant species were planted to line the swale's interior to prevent erosion. In this case, if the water rises to a certain level in the marsh, the swale allows for release of excess water into the Sound.

The next steps are being determined by an ongoing study of the Westbrook and western Old Saybrook shoreline funded by a National Fish and Wildlife Foundation grant and may include a larger tide gate to handle the extra volume along with some channel dredging.



Chalker Beach swale. Photo by T. McGrath



The Old Saybrook Coastal Resilience Coalition (OSCRC) coordinates responses to sea level rise and climate change by documenting vulnerabilities of local beachfront and riverfront communities, educating the public on these vulnerabilities and, through governmental and commercial partnerships, identifying and implementing intermediate and long-term, science-based, mitigation solutions.

Our response to sea level rise is going to be costly, time-consuming, and socially challenging. We are looking for partners, funding sources, skilled professionals, and individuals who can assist us to sustainably fortify the infrastructure along the Connecticut coastline.

Please email us at [osrcinc@gmail.com](mailto:osrcinc@gmail.com) or go to <https://osrcct.org> or <https://www.facebook.com/profile.php?id=61563259214783> to support our efforts.

## Links we like:

Connecticut Institute of Resilience & Climate:  
<https://circa.uconn.edu/>

The Nature Conservancy's Coastal Resilience:  
<https://coastalresilience.org/>

Old Saybrook Land Use Department Coastal Resilience:  
<https://www.oldsaybrookct.gov/land-use/pages/coastal-resilience>

NOAA Office for Coastal Management:  
[Natural and Structural Measures for Shoreline Stabilization](#)

FEMA Region 1 Office:  
<https://www.fema.gov/about/regions/region-1>

## The OSCRC Board of Directors

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The OSCRC Newsletter is published quarterly. Please email the OSCRC Newsletter editor at [osrcinc@gmail.com](mailto:osrcinc@gmail.com) to receive the newsletter.

We are seeking volunteers to help manage our social media. If you are interested in helping us curate and improve our website and Facebook page, contact us at [osrcinc@gmail.com](mailto:osrcinc@gmail.com).

*A special shout out to Chef Rick for providing space for our monthly meetings. You can enjoy a variety of Chef Rick's tasty offerings at Mindy K's on Boston Post Road in Old Saybrook.*