RI COASTAL RESOURCES MANAGEMENT COUNCIL

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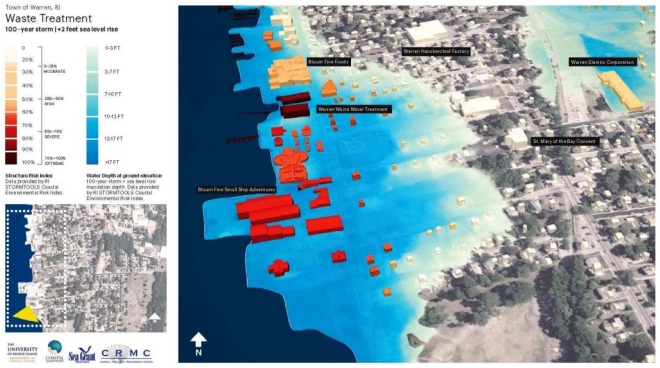
CRMC, URI unveil risk maps for East Bay

The CRMC and the R.I. Shoreline Change Special Area Management Plan (Beach SAMP) team have unveiled new inundation maps for the Rhode Island communities of Barrington, Bristol, and Warren, particularly susceptible to the impacts of sea level rise and flooding.

The new maps and visualizations are an addition suite belonging to the SAMP tool, the Coastal Environmental Risk Index, or CERI. The CRMC introduced the mapping tool, which provides an objective, quantitative risk assessment of both structures and infrastructure from storm surge and waves in the context of sea level rise, in 2016 as part of its development of the SAMP. The maps were developed by Dr. Malcolm Spaulding and his team of researchers at the University of Rhode Island.



Visualization of the Town of Warren's waste water treatment facility, and its vulnerability under a scenario of 2 feet of sea level rise and a 100-year storm event.

Funding for the new maps came from a U.S. Department of Housing and Urban Development grant, and the three communities have been added to the other CERI maps of the city and towns of Warwick, South Kingstown, Narragansett and Charlestown. Planners can utilize the GIS-based tool to make decisions based on storm events to anticipate risk to infrastructure, property, and emergency services along the coast. CERI builds on the STORMTOOLS surge and wave maps, and the Beach SAMP's shoreline change maps, as well as data from the U.S. Army Corps of Engineers, North Atlantic Comprehensive Coastal Study.

The CERI visualizations calculate percent damage for structures and infrastructure in the event of storm surges, including flooding and waves, and taking sea level rise and shoreline change into account. CERI combines all of these factors for a total damage function assessment.

Learn more

Work continuing on Quonnie salt marsh enhancement

Work is coming to an end at Quonochontaug Pond, where crews have been working 24 hours a day, seven days a week dredging material from the breachway and depositing it on the adjacent salt marsh as part of the CRMC salt marsh restoration and elevation enhancement project.

Contractor J.F. Brennan, which also worked on a very similar project in Ninigret Pond in 2017, arrived on-site in early December to assemble pipe sections and the dredge barges. With the oversight of the CRMC, dredging has been completed on a section to the west of the state boat ramp at the end of West Beach Road. That material was spread on a 10-acre section of marsh on the west side of the breachway. The second phase of the project included dredging a channel north from the breachway into the pond, and that material was spread over a 20-acre area of the marsh on the eastern side, some of which was open water. In the following weeks, crews will be grading the 20-acre site.

The majority of funding for the $2 million project comes from a coastal resilience grant from the National Oceanic and Atmospheric Administration. The Town of Charlestown has contributed $450,000 to the effort, and the CRMC-administered R.I. Coastal and Estuarine Habitat Restoration Program and Trust Fund also dedicated $90,000 of funding from FY 2018. Local nonprofit groups The Shelter Harbor Conservation Society and the Salt Ponds Coalition have raised a significant amount of funding for the project from their membership, and the US Fish & Wildlife Service's Coastal Program will be providing additional support. Save The Bay will supervise plantings in the spring, with the CRMC.

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