

# PREPARING FOR THE FUTURE

How the R.I. Shoreline Change Special Area Management Plan is building a resilient RI in the face of climate change and sea level rise

## About the SAMP

Rhode Island's 420 miles of coastline is one of its most iconic and treasured assets. The variety of shoreline - from historic waterfronts and summer communities to barrier beaches, headlands and salt marsh - define the Ocean State and provide the recreation and economy that is unique to our state.

These shorelines are constantly changing as a result of natural forces brought by climate change, and Rhode Island communities are experiencing the impacts - storms erode beaches and flood neighborhoods, and rising sea levels subsume once-dry land.

To help communities protect people, property, and infrastructure, and to ensure that decisions made concerning the coast are well-planned and based on the best science available, the R.I. Coastal Resources Management Council (RI CRMC), along with the University of Rhode Island, other state and local agencies, stakeholders, and coastal residents, has developed the Shoreline Change Special Area Management Plan (Beach SAMP). Its vision is to provide guidance and tools for state and local decision-makers to best prepare for, absorb, recover from and successfully adapt to the impacts of coastal storms, erosion and sea level rise. It also features a special permitting process for property owners looking to purchase or build in the coastal zone.

## Available tools

**STORMTOOLS** is an online mapping tool that shows storm surge and sea level rise scenarios for the entire coastline.

One of the challenges facing state and local coastal decision-makers was the lack of an objective, defined assessment of risk to structures, infrastructure and public safety that comes from storm surge in ever-changing climatic conditions like sea level rise and erosion.

**CERI**, or Coastal Environmental Risk Index, was developed to predict storm surge and wave height, combined with shoreline change maps showing erosion, and damage functions to construct a risk index to structures. CERI is already being used by coastal towns.



# Resources for Rhode Island

To learn more, go to [www.beachsamp.org](http://www.beachsamp.org)  
or to the CRMC web site at [www.crmc.ri.gov](http://www.crmc.ri.gov)



The **COASTAL PROPERTY GUIDE** offers steps homeowners and businesses can take to protect their coastal property from storm flooding and shoreline erosion. The 30-page guide contains information about the unique circumstances impacting property on the coast. The information is provided in 10 sections and covers a range of areas from setbacks to septic systems.

**MYCOAST**(Rhode Island) is an online reporting tool that provides real-time tide, storm, and shoreline monitoring data and pictures to coastal managers, including the CRMC. Information from the site is used to demonstrate the impact of coastal hazards. MyCoast users can upload storm or tide event photos, tag their locations and current conditions (time, tide, etc.) via an app, and the information is stored on the web site.



The innovation of the Beach SAMP lies in its coastal permitting process. Chapter 5 - RI CRMC Coastal Hazard Application Guidance - presents a unique, five-step process for applicants. The goal is to ensure that CRMC-approved projects are designed and built with the applicant's acknowledgement of the risks of building in coastal hazards areas exposed to storm surge, erosion, and future sea level rise conditions. Instead of just building to today's conditions, as virtually every other regulatory program does, this process for development will take into account those future conditions, and allow for building to them. The process will also help to protect public health, safety, and welfare; minimize damage and losses to infrastructure and properties; and reduce overall impacts to coastal resources. Adapting to these ongoing and future conditions will ensure Rhode Island is building resilient communities, and a strong coastal economy and environment.



The Beach SAMP is developed and implemented by the RI CRMC.



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