

RHODE
ISLAND

STORMTOOLS

Know Your Risk

STORMTOOLS is an interactive mapping tool and mapping database that illustrates the extent and depth of flooding from sea level rise and coastal storms, used to assess current and future flooding.

Who can use STORMTOOLS?

Current and potential landowners as well as municipal decision-makers and coastal planners may find STORMTOOLS useful to access flooding estimates for a study area. At a more sophisticated level, STORMTOOLS can be used by professionals to perform studies in support of coastal planning and engineering design.

How do I access STORMTOOLS?

STORMTOOLS can be accessed online through **BeachSAMP.org** or **ArcGIS.com**. Datasets are available through Rhode Island Geographic Information System, **www.RIGIS.org**.

How do I use STORMTOOLS?

There are three main ways to use STORMTOOLS:

- **Interactive maps** give you the flexibility of turning on and off layers.
- **Map journals** provide information and photos to help guide you through the tool.
In the two methods above, the user can type in an address or zoom to an area of interest.
- **Data layers** can be integrated with other municipal datasets for analysis.

*Check out the **STORMTOOLS 101 Map Journal** for a comprehensive tutorial on how to use this mapping tool!*

The screenshot displays the STORMTOOLS web application interface. The main map area shows an aerial view of a residential area with blue and green overlays indicating flooding. A search bar at the top right contains the text "warwick oakland beach RI". The left sidebar contains a "Content" panel with a list of layers, including "Emergency Service Locations", "Rhode Island Addressed Structures", "Will future SEA LEVEL RISE affect my property?", "Sea Level Rise Scenarios", "Mean Higher High Water (MHHW)", "Is my property in a FEMA Flood Zone?", and "Imagery". The "Will future SEA LEVEL RISE affect my property?" layer is currently selected. A legend panel on the right side of the map shows the color coding for the sea level rise scenarios: MHHW Plus 1' SLR (yellow), MHHW Plus 2' SLR (blue), MHHW Plus 3' SLR (teal), MHHW Plus 5' SLR (light blue), MHHW Plus 7' SLR (medium blue), and Mean Higher High Water (MHHW) (dark blue). Red arrows point to the search bar with the text "Type in address", to the map navigation controls with the text "Zoom in or out", and to the Content and Legend panels with the text "Toggle between contents and legend".

What can I learn from a STORMTOOLS map?

This science-based tool illustrates projections showing water extent and depth throughout the state for:

- Nuisance floods (1, 3, 5, and 10 year recurrence intervals) and
- The 25, 50, 100, and 500-year storm return period scenarios at the 95% confidence interval.
- Sea level rise of 1, 2, 3, 5, and 7 feet on their own as well as combined with each storm scenario are also modeled.

STORMTOOLS can help you answer:

- Is my property vulnerable to STORM SURGE?
- How DEEP will the water be on my property during a 100 year (1% chance) coastal storm?
- Will projected SEA LEVEL RISE affect my property?
- Is my property in a FEMA Flood Zone?

A story map
Coastal Flooding in Rhode Island

Storms Today

This is what flooding from generic coastal storms today could look like.

These flood depths and extents could happen under today's conditions.

Click through the tabs on the map to the right to see how the state was affected by some of the biggest storms in the recent past.

Scroll and pan around the map with your mouse or click the magnifying glass to search for a coastal property that is important to you!

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Coastal Flooding Today

The *Coastal Flooding Map Journal* walks you through past, present, and future flooding scenarios in Rhode Island.

CRCOG/State of CT, USDA FSA, Microsoft | NACCS, UR... esri

25 Year Flood
Next: 50 Year Flood

Learn More

Visit the Rhode Island Shoreline Change Special Area Management Plan: www.beachsamp.org/stormtools

Explore more of Rhode Island's Resilience Tools: http://www.crc.uri.edu/activities_page/resilience-tools/

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STORMTOOLS was developed in partnership with the RI Coastal Resources Management Council and the University of Rhode Island's Ocean Engineering, Environmental Data Center, and Coastal Resources Center.

