



# NEW ENGLAND AND THE SURGING SEA

## A VULNERABILITY ASSESSMENT WITH PROJECTIONS FOR SEA LEVEL RISE AND COASTAL FLOOD RISK

Full Report coming soon. It will appear in place of this PDF (same URL)

Research methods are the same as described in the reports for [New York](#), [New Jersey](#) and [Florida](#)

### REPORT AUTHORS

**BEN STRAUSS, PhD**

Vice President for Climate Impacts and Director of the Program on Sea Level Rise

**CLAUDIA TEBALDI, PhD**

Project Scientist, National Center for Atmospheric Research and Science Fellow, Climate Central

**SCOTT KULP**

Senior Developer and Research Associate

April 2014

---

---

# EXECUTIVE SUMMARY

Sea levels are rising at an accelerating rate, and the scientific community is confident that global warming is the most important cause. Higher sea levels translate to more and higher coastal floods. Using local sea level projections based on scenarios from a technical report for the U.S. National Climate Assessment, this analysis finds a 1-in-2 chance by midcentury of historically unprecedented local flood heights at sites ranging from Bridgeport, CT, to Boston, MA, to Eastport, ME. This is based on an intermediate high sea level rise scenario. Intermediate low rise translates to chances of 1-in-3 or greater at each of these locations.

306 square miles of land lie less than 4 feet above the high tide line in the coastal New England states: Connecticut, Rhode Island, Massachusetts, New Hampshire and Maine. After accounting for the protection that ridges, dams and other flood control structures may offer, 135 square miles remain exposed. \$32 billion in property value sits on that land, along with the homes of some 85,000 people, and more than 700 miles of road, 350 EPA-listed sites, 1,200 parks and 30 houses of worship.

Analysis based only on elevation, not taking dams and other potential protections into account, leads to dramatically higher numbers. In one example, property exposure jumps to \$64 billion total, with \$50 billion in Massachusetts alone. The state's exposure drops to \$20 billion, and 48,000 residents, when protections are factored in.

Massachusetts has the highest concentration of sea level rise and coastal flood risk in the region.

This report is being released as a summary of findings coincident with the online launch of a Surging Seas Risk Finder tool for each coastal state in New England, accessible via <http://sealevel.climatecentral.org/>.

The tool includes:

- interactive local projections of sea level rise and increasing coastal flood risk from 1-10 feet by decade;
- a zooming, zip-searchable map of low-lying areas threatened, plus layers showing social vulnerability, population density and property value;
- detailed assessments of populations, property, infrastructure and contamination sources exposed, for each implicated county, city, town, zip code, planning district, legislative district and more; and
- state- and county-wide heat maps facilitating high-level vulnerability comparisons.

Detailed knowledge of vulnerability is a critical tool for communities seeking to build resiliency to the climate challenges of today and the future.

Princeton: One Palmer Square, Suite 330 Princeton, NJ 08542

Phone: +1 609 924-3800

Toll Free: +1 877 4-CLI-SCI / +1 (877 425-4724)

[www.climatecentral.org](http://www.climatecentral.org)