

Seabrook, New Hampshire Works to Protect Areas of Increased Risk from Climate Change

Project Summary/Overview

The elements of this project were to conduct research on present consensus estimates of sea level rise effecting the New England coast, the review approached taken by other states and communities in responding to this threat, to develop maps identifying the areas of increased risk to flooding from sea level rise specific to Seabrook, and finally to identify the various regulatory and non-regulatory options that should be considered by Seabrook to protect the town from this potential risk.

Project Background

The Rockingham Planning Commission received funds from the town of Seabrook and the New Hampshire Coastal Program to develop adaptation strategies to protect areas of town at risk of flooding due to climate change.

Project Implementation

The Rockingham Planning Commission's preparation of this report included: risk assessment, prioritization of projects, and funding and allocation of both financial and human resources. The Commission reviewed findings and recommendations to develop maps and suggested land use regulations laid out in the report.

The Commission collected elevation data from the US Army Corps of Engineers and LiDAR (Light Detection and Ranging - imaging used to generate high resolution vertical terrain data) to create an accurate and detailed digital elevation map of Seabrook, NH. The Commission included five maps from this data.

The Commission also considered policy options, including regulatory recommendations, non-regulatory recommendations, and emergency management and hazard mitigation recommendations

Project Outcomes and Conclusions

Sea level rise will significantly alter New Hampshire's coastal shoreline through increased severity and frequency of flooding, shoreline erosion, and changes to coastal ecosystems. Science based forecasts for accelerated sea level rise over the next 100 years due to global warming are as high as five feet. Important public infrastructure and critical wildlife habitat in Seabrook and the region are directly threatened by storms and coastal inundation. Local decision makers need to develop and implement policies and regulations to plan for and mitigate the impacts of these changes. An important step at this point is to put regulations in place that increase the design flood elevation for buildings and infrastructure in the areas that will be subject to higher risk of flooding, as identified by the report.

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Part of the Northeast Climate Change Adaptation Project

*In 2011, the [Northeast Regional Ocean Council \(NROC\)](#) and the [Gulf of Maine Council on the Marine Environment \(GOMC\)](#) received funding from the [National Oceanic and Atmospheric Administration's \(NOAA's\) Climate and Societal Interactions Program \(CSI\)](#) to examine innovative municipal approaches to climate change adaptation in the coastal zone of the Northeast and Bay of Fundy. The two-year project, *Stimulate Innovation and Increase the Pace of Municipal Responses to a Changing Climate in the Coastal Zone of the Northeast and Bay of Fundy*, was completed in June, 2013. The research and outreach for the project was conducted by the following partners: the [Marine Affairs Institute](#), a partnership of [Roger Williams University School of Law](#), [Rhode Island Sea Grant Legal Program](#), and [University of Rhode Island](#); [Blue Urchin](#); [StormSmart Coasts Network](#); and [Clean Air-Cool Planet](#).*

Read more about the Northeast Climate Change Adaptation Project on our website:

<http://necca.stormsmart.org/>