

Bristol, Rhode Island Battles Sewage Backflows with Rising Seas

Project Summary

Bristol is a low-lying community in Rhode Island facing flooding issues and sewage backflow.

Project Background

Bristol, Rhode Island, sits on the northern part of Narragansett Bay, with Narragansett Bay to its west and the Mount Hope Bay to its east. The town occupies approximately 10 square miles of actual land. Known for its boating and historic Fourth of July Parade, the ocean is a daily part of the residents in Bristol's life. The average elevation in Bristol is 89 feet above sea level, and lower lying areas endure repeated flooding with storms and heavy rains

In March 2010, Rhode Island experienced some of its worst flooding in years, with heavy rains that caused overflowing rivers and flooding in towns across the state. Bristol experienced a lot of this flooding, and many properties reported documented incidents of sewage backup into buildings.

Project Implementation

In November 2011, Bristol was awarded a grant through completion of its FEMA application process for a Hazard Mitigation Grant Program. The grant award totaled \$145,913 to develop a prevention system to mitigate sewage backflow, and it is the first of its kind in Rhode Island. The town submitted its application before the deadline of March 2011 by developing a Natural Hazard Mitigation Plan in 2009, and revised it in 2010 for FEMA review. The town's plan focuses on helping property owners affected by the backflow to retrofit the existing sewage connections to prevent this problem in the future.¹ The town has identified 53 properties that incur this back up after excessive rains, 37 of which reported problems after the March 2010 floods.

Project Outcomes and Conclusions

This project was just approved in late 2011. The project is currently in the beginning stages of planning.

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/>