Game changer: New England Climate Change Adaptation Project

Project Location

Great Bay National Estuarine Research Reserve, New Hampshire

Narragansett Bay National Research Reserve, Massachusetts

Waquoit Bay National Estuarine Research Reserve, Massachusetts

Wells National Estuarine Research Reserve, Maine

Project Lead

Christine Feurt, Wells Reserve
cfeurt@wellsnerr.org

Targeted End Users and Products

- *Project final report*
- *Role play simulations to adapt for your community*
- *Community case studies*
- *Stakeholder perceptions and attitudes assessments*

Project Partners

- *Great Bay Reserve*
- *Narragansett Bay Reserve*
- *Waquoit Bay Reserve*
- *Wells Reserve*
- *City of Cranston, Rhode Island*
- *City of Dover, New Hampshire*
- *Consensus Building Institute*
- *Maine Sea Grant*
- *Massachusetts Institute of Technology Science Impact Collaborative*
- *Town of Barnstable, Massachusetts*
- *Town of Wells, Maine*
- *University of New Hampshire*

About the Science Collaborative

The National Estuarine Research Reserve System's Science Collaborative supports collaborative research that addresses coastal management problems important to the reserves. Learn more at *www.nerrs.noaa.gov.*

Overview

With sea levels rising and severe storms happening more frequently, coastal communities are on the front lines of climate change. Planning for these impacts involves making complex, difficult decisions with limited resources. It also involves two things that make many of us uncomfortable—uncertainty and compromise. The New England Climate Adaptation Project tested the use of role-play simulations, or "games," to help community members come together to discuss and catalyze action around managing climate change risks in four New England communities.

Project Benefits

- Through risk assessments, public opinion polls, pre- and post-workshop surveys, and stakeholder interviews, each of the participating communities gained valuable resources and insight about local perceptions and barriers to climate change adaptation.
- The project team engaged more than 500 people in role-play climate change adaptation workshops across the four municipalities. While each community has its own set of climate-related risks, adaptation barriers, and stakeholder perspectives, participants in all communities reported increased understanding of, and openness to, different viewpoints because of the role-playing exercise.
- Greater insights into the value of role-playing simulation in enabling productive conversations and fostering empathy for other viewpoints.

Project Approach

MIT scientists collaborated with coastal training specialists from New England's Wells, Great Bay, Waquoit Bay, and Narragansett Bay reserves to identify four local communities at risk for significant impacts due to climate change.

Project Approach (continued)

- Risk Assessments: Using the extensive network of relationships the Reserves had built with community leaders, the team developed risk assessments using downscaled climate projections and stakeholder assessments through public polls and interviews to better understand the perceptions and attitudes of community members about these risks and the potential for adaptation.
- Simulations: Based on the assessments, the team designed and tested role-play simulations for each town, with a goal of diverse community members in a mock decision-making process about the key climate change risks facing their community. The role-play simulation exercises and teaching notes are available for others to apply to their own local context.