

THE ROAD TO RESILIENCE

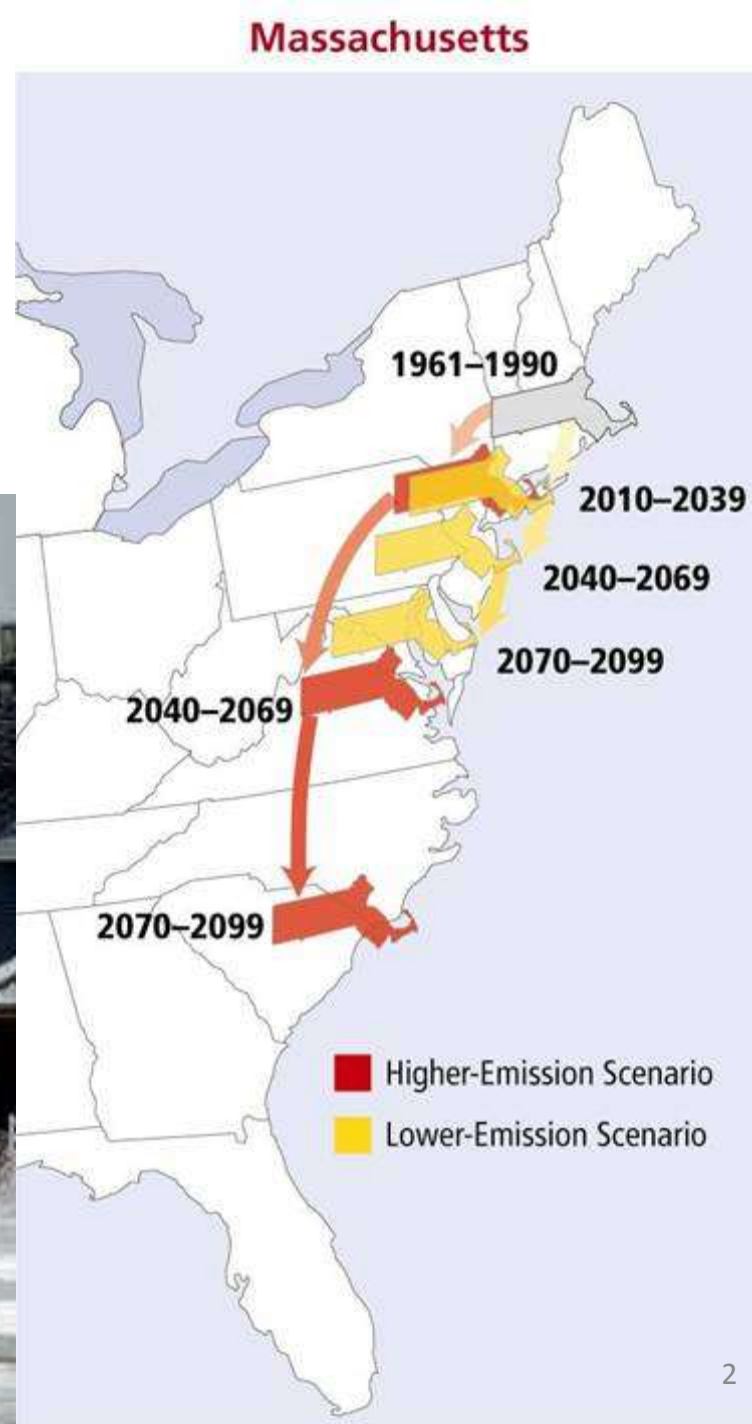


Preparing the Whole Community for Storms and Flood Impact

The Adaptation Challenge



Michael Dwyer



Our Vulnerability is Clear



- Big Storms

- Big Losses





Rundflmox

But the Road to Resiliency is Sometimes Not...



A Couple Key Things.....

- It's About Managing Risk
- Risk = Hazard x **Vulnerability**
- Figuring out the parts that are within our control
- Natural Hazards vs. Natural Disasters



- Minimize impact
- Prevent future losses
- E.g. Buy Flood Insurance, move infrastructure out of harm's way, disaster proof buildings, conduct risk and vulnerability assessments, use green infrastructure projects

- Prepare to handle emergencies
- Develop plans BEFORE events
- E.g. Develop an evacuation plan, stock food & water, prepare shelters, conduct drills and exercises

Mitigation

Preparedness

***Emergency
Management***

Recovery

Response

- Recover from an emergency implement and implement activities to return to "normal"
- E.g. Conduct damage assessment, get financial assistance, rebuild

- Take action to save lives and prevent further damage
- E.g. Activate EOCS, conduct search and rescue, provide medical assistance and first aid

Tenets of Emergency Management

- Comprehensive – All hazards, All peoples, All phases, All stakeholders, All impacts
- Coordinated
- Collaborative
- Community-centered – whole community approach is key!

Examples of How We Are Engaging Stakeholders

- Education!
- Collaborating for Cape Cod's Coastal Resiliency Project
- Enhancing preparedness using the Coastal Resilience Index (CRI) Tool
- Enhancing preparedness using the Getting to Resilience (GTR) Tool
- Experimenting with different community engagement techniques – the New England Climate Adaptation Project
- Exploring the benefits of coastal wetlands – blue carbon research



Collaborating for Cape Cod's Coastal Resiliency Project

A **community resilience** project funded through **FEMA's** Community Resilience Innovation Challenge Grant program

With an ad-hoc leadership group WBNERR :

- **Tailored** the Community Resilience Index (CRI) -a self-assessment tool- to Cape Cod context
- **Piloted** the CRI in Falmouth and provided technical assistance
- **Launched** the Falmouth Business Resiliency Project with the Falmouth Chamber of Commerce and Town of Falmouth
- **Is Educating** Cape Cod stakeholders on coastal resiliency planning and resources
 - Workshops and educational materials on coastal resilience-



WAQUOIT BAY RESERVE
FOUNDATION
Friends of the Waquoit Bay Reserve
www.waquoitbayreservefoundation.org
waquoitbayreservefoundation@gmail.com

What is the Coastal Resilience Index?

- Community Self-Assessment Tool designed for community leaders to facilitate dialogue about:
 - How ready they are to deal with storm impacts
 - Areas in which the community can become more resilient
- Focuses conversation and analysis on 6 key areas:
 - Critical Infrastructure and Facilities
 - Transportation
 - Community Plans and Agreements
 - Mitigation Measures
 - Business Plans
 - Social Systems
- Uses a general rating system to track progress
- Developed by NOAA's Coastal Storms Program and the Mississippi-Alabama Sea Grant Consortium. Tailored for use in the Cape Cod context.





Getting to Resilience

A Community Planning Evaluation Tool

This online self assessment process is a tool to assist communities to reduce vulnerability and increase preparedness by linking planning, mitigation, and adaptation. Through this assessment you will find out how your preparedness can be worth valuable points through FEMA's Community Rating System and Sustainable Jersey.

Plan for your community's future in the face of climate change

[Get Started Now](#)

HOW DO I GET TO RESILIENCE?

Enabling communities to be prepared and more resilient.

1 Map Flood Vulnerability

This user-friendly online flood mapper will help you better visualize your community's susceptibility to flooding and sea level rise.

1

2 Assemble Municipal Plans

The Community Plan Checklist includes a list of municipal and county documents that may assist you in the completing your evaluation.

2

3 Complete the Evaluation

Identify planning, mitigation, and adaptation opportunities to reduce vulnerability to flooding and sea level rise and build capacity for community resilience.

3

4 Discover Links with Other Municipal Programs

This tool will help you identify connections between preparedness and programs like FEMA's Community Rating System, Hazard Mitigation Planning and Sustainable Jersey.

4

5 Explore Related Resources

Additional tools and best management practices that will help you with vulnerability assessments, outreach, integrated planning, storm preparedness and mitigation.

5

Transfer Project with Town of Brewster

How Will Climate Change Affect Barnstable?

New England Climate Adaptation Project

MIT

Science Impact Collaborative
Harmonizing Science, Politics, and Policy
in Natural Resources Management

cbi
Consensus Building Institute



NATIONAL
ESTUARINE
RESEARCH
RESERVE
SYSTEM

New England Climate Adaptation Project

Goals:

1. **Assess** local climate change risks
1. **Identify** key challenges and opportunities for adaptation
1. **Test** the use of role-play simulations as a tool for educating the public about climate change threats and helping communities explore ways of enhancing their climate preparedness



Workshop at the Waquoit Bay Reserve



Tailored, science-based role-play simulations



Some key lessons learned

- **Role-play simulations** offer a valuable tool for engaging stakeholders and enhancing local readiness to adapt
 - Particularly when nested in a broader process
 - Provide a “focusing event” and “conversation starter”
- **Community members want their town to act** – they also want to be engaged in addressing the problem



Impact & Ongoing Efforts – Barnstable, MA

- Climate change shown to be “ripe” for attention in public’s eye
- Recognize that BOTH adaptation and mitigation are needed
- Climate video and media involvement
- Actively seeking funding for adaptation planning
- Momentum shift in interest to act
- Pursuing participation in the FEMA Community Rating System (CRS) program





Blue Carbon and the Benefit of Coastal Wetlands

Actions You Can Take

- Remember – grassroots involvement is key
- Community members often become first responders!
- Work through social and faith-based organizations to get involved in emergency preparedness and response activities
- Support town planning efforts – town's cannot get it right without you
- If you own a business – get it ready
- Don't depend on the government – Prepare yourself and your family