

2016

Climate Adaptation and Resilience Planning for New England Communities: First Steps & Next Steps [Summary]

New England Environmental Finance Center

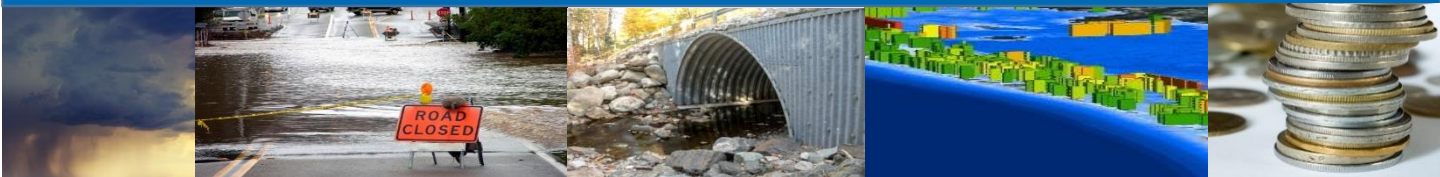
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Recommended Citation

New England Environmental Finance Center, "Climate Adaptation and Resilience Planning for New England Communities: First Steps & Next Steps [Summary]" (2016). *Climate Change*. 9.
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Climate Adaptation and Resilience Planning for New England Communities: First Steps & Next Steps



The First Steps: *Assess local vulnerability and risk*

Use simple tools to **visualize** the hazards that your community faces. Move from a general understanding of your community's hazard exposure to draw on more specialized tools and expertise.

What are your community's hazard exposures? and what is at stake given those hazards?

What is the probability of an impact occurring?

How big an impact are you willing to prepare for and when do you want to start prepare? now or later?

- Lots of visualization and assessment tools exist; we sift through them and suggest which ones to start with, and which ones to take a deeper dive with.
- Use the visualization exercise to engage your community and stimulate a response to local hazards from key stakeholders, including the most vulnerable populations. Prioritize a response based on risk.
- Incorporate community planning and response to climate change adaptation into day-to-day planning and operations that your municipality is already doing.

New England communities are facing challenges from unprecedented extreme weather events driven by global climate change. The leading causes of hazard declarations in the Northeast are **flooding and inundation** in riverine and coastal communities. Sea level rise along the Northeast and mid-Atlantic coast is occurring much faster than the global average.



The Next Steps: *Develop strategies for resilience and adaptation*

What can be done now and in the future to reduce the probability that damages and disruptions will occur? What can be done to reduce the extent of damage from flooding and inundation? Communities define resilience as a goal, but **resilience and **adaptation** are not the same. How do they differ?**

- Lots of **adaptation planning guides** exist; we distill the process and list some of the best ones to help your community implement a stepwise process for planning and implementation.
- Create momentum by modifying or expanding your communities' existing natural hazard mitigation efforts such as floodplain management, stormwater planning and infrastructure upgrades, and consider implementing demonstration projects such as porous pavement, rain-gardens and other **green infrastructure features**.

- Adaptation can become most feasible by focusing on risks and taking adaptation actions that are "no regrets" actions and which provide community benefits regardless of how a particular climate forecast pans out.

The key difference between climate adaptation planning and what communities already plan for is the level of uncertainty about how impacts may change in the future and the potentially enormous and devastating damages that a community may sustain.

- Opportunities exist to incorporate climate adaptation measures to ongoing municipal tasks. What can be done now and in the future to reduce the probability that damages and disruptions will occur? What can be done to reduce the extent of damage if flooding or inundation occurs?



The Final Steps: *How will you pay for it?*

Consider traditional and innovative financing opportunities. What resources are available now? What innovative resources can be developed and who are potential partners including state and federal agencies, the business community and non-profit organizations? Importantly, who can pay and who should pay for adaptation today and in the future?

Funding opportunities vary for each New England state, but every state has access to FEMA mitigation assistance and cost recovery from extreme Presidentially declared disaster events such as Hurricanes Irene and Katrina. Stafford Act (which define the programs) requirements are changing. How can your community be better prepared to get federal aid if disasters strike your town? How can you avoid the common pitfalls that delay Federal assistance? And what state level funding is available to help you become more resilient to disasters in the first place?

Public-private financing opportunities for stable projects like rebuilding our water infrastructure are becoming more attractive to private sector investors. Green bonds, and future federally sponsored opportunities like the Qualified Public Infrastructure Bond (QPIB) program present emerging financing opportunities that may change the way municipalities pay for resiliency projects.

- We developed a **funding options matrix for each New England state**, and list the agency, grant opportunity, due dates, and a local contact for each funding opportunity.
- **Stormwater management and financing** is critical to New England and its evolving environment, and part of climate resiliency and adaptation. What can your community learn from others that have successfully adopted stormwater management programs? And how are those communities sustaining the financing and planning for future resiliency?

Want to learn more? See our full report here and contact us at efc@maine.edu for assistance



The New England Environmental Finance Center (NEEFC) seeks to advance the shared goal of US EPA and the Edmund S. Muskie School of Public Service at the University of Southern Maine to assist New England communities and extend creative approaches to environmental policy, protection and management, especially the associated questions of how to pay for needed environmental improvements.