

# CHAPTER 6 PLAN IMPLEMENTATION AND MAINTENANCE



This final chapter of the planning guide discusses implementing the plan; tracking, evaluating, and communicating plan progress; and updating the plan, which are all critical to the climate change adaptation plan's overall success. In each of these steps, it is important to remember that the science is evolving, and to account for this, planning will need to be ongoing and flexible.

To support these efforts, consider:

- Continuing to convene the planning team on a regular basis (or as needed) for consistency in ongoing planning efforts and to serve as a forum for climate change adaptation issues
- Instituting regular communications among planning team members to maintain momentum

- Continuing outreach efforts to inform and engage the public and other stakeholders
- Building and strengthening partnerships with other governments (federal, state, and local), nonprofits, and the private sector
- Working with elected officials to maintain support and visibility

The steps described in this chapter include:

- Step 4.1: Adopt the Plan
- Step 4.2: Implement the Plan
- Step 4.3: Integrate Plan Findings into Other State Planning Efforts and Programs
- Step 4.4: Track, Evaluate, and Communicate Plan Progress
- Step 4.5: Update the Plan

## STEP 4.1: ADOPT THE PLAN

The plan will benefit from endorsement by the heads of the implementing agencies and formal adoption, whether by the governor, legislature, or an appropriate state agency. Formal adoption will demonstrate your state's commitment to climate change adaptation while also legitimizing the plan and authorizing its implementation.

## STEP 4.2: IMPLEMENT THE PLAN

Once the plan has been adopted, make it known. It will likely contain actions that require stakeholder support, even action. Make sure each stakeholder group knows the plan is moving forward, what that means to them, and how they can continue to contribute to the state's climate change adaptation efforts.

With the strategy (goals and actions) in place and the plan approved, focus on the actions the planning team has selected. The action plans will guide the implementation of the individual actions.

One of the biggest challenges to the implementation of climate change adaptation actions is funding. This will likely require creativity and networking and will be an ongoing effort. Currently, there is not a lot of funding directly targeted at climate change adaptation. But, there are a number of grant opportunities for restoration, conservation, hazard mitigation, infrastructure (e.g., installing new/updating existing), and community and economic development.

Think about how funds from multiple sources can be combined as well as how you can work with other jurisdictions (states and local governments), regional organizations, and nongovernmental organizations to pool resources to meet complementary needs. Planning team members should think about the grants they have applied for in the past and how these funding vehicles might also support adaptation activities. Funding may also be available through nonprofit organizations (e.g., environmental advocacy groups), private foundations, and businesses. In addition to funding, these groups may also be able to provide in-kind goods and services.

It is likely that over the next few years, grant programs will be created or modified to fund climate change adaptation actions. The planning team may want to assign a team member or subgroup the responsibility of tracking relevant grant opportunities.

### Sources of Federal Funding

In addition to funding available through the Coastal Zone Management Program and other programs administered by NOAA, a number of other federal agencies offer funding for activities that support climate change adaptation. Agencies that administer such programs include, but are not limited to FEMA, EPA, the U.S. Fish and Wildlife Service, and the U.S. Army Corps of Engineers. For some programs, applications must be for actions consistent with the goals and objectives identified in associated federally approved plans. Thus, to maximize funding opportunities, it is a good idea to align climate change adaptation planning with other federally supported planning activities.

#### Learning from others...Energy and Climate Collaborative Guides Implementation of Climate Action Plan in New Hampshire

Recognizing that implementation requires a high degree of coordination and integration, as well as flexibility, accountability, transparency, communication, and ongoing assessment and reporting, the authors of the New Hampshire Climate Action Plan, which includes adaptation, recommended formation of a public/private partnership, the New Hampshire Energy and Climate Collaborative, to oversee and guide implementation of the plan. The primary purpose of the collaborative is to track and facilitate implementation of the plan's recommendations and to report to the governor, legislature, and general public on progress toward achieving the desired outcomes. <http://nhcollaborative.org/>

Appendix A provides more information about some of the funding programs the planning team may be able to take advantage of to help the state adapt to climate change.

### Sources of State and Local Funding

Where possible, try to get funding for adaptation incorporated into existing state budgets (e.g., capital improvement or operating budgets). Alternatively, traditional sources of state and local government funding include, but are not limited to:<sup>1</sup>

- General taxes
- Impact fees
- Property taxes
- General obligation bonds
- Sales taxes
- Revenue bonds
- Special tax districts
- Certificates of participation
- Use fees
- Leases (land and water)

### STEP 4.3: INTEGRATE PLAN INTO OTHER STATE PLANNING EFFORTS AND PROGRAMS

As discussed in Chapters 3 and 4, there are a number of other state plans and programs that will have a role in adapting to climate change along the coast. The planning team considered these plans and programs in the adaptation plan and incorporated information and projects as appropriate. Likewise, other plans and programs should consider the adaptation plan, and climate change in general, as they are developed and updated. These other plans and programs can benefit from the adaptation plan's vulnerability assessment, and may even be the vehicles used to implement adaptation actions identified by the planning team.

### STEP 4.4: TRACK, EVALUATE, AND COMMUNICATE PLAN PROGRESS

To ensure effectiveness of the adaptation plan and demonstrate its progress, the planning team, or some iteration of it, will need to continuously track the actions and evaluate the overall plan's progress toward meeting its goals. By designing a tracking and evaluation process upfront, the planning team will be in a good position to keep up the momentum gained during other steps of the planning process.

Including schedules, milestones, and evaluation plans in individual action plans will ease this review process. Evaluation of the overall success of the plan can also be achieved by monitoring changes in vulnerability as identified in the original plan. However, since the timing of climate change impacts is still uncertain, it may be difficult to assess level of success (or lack thereof) in the plan's early years. Some impacts, which will occur regardless of climate change (e.g., hazard events), may be easier to monitor than those that are likely to occur more slowly over time, like sea level rise.

Things to consider when designing the tracking and evaluation process include:

- How often should the planning team meet to review the plan and discuss its progress?
- How will the planning team keep elected officials apprised of progress and obstacles?
- How will progress be communicated to other stakeholders outside of the planning team?
- How should progress be reported (e.g., create a progress report template for actions)?
  - Is the action complete?
  - If the action is ongoing, what was accomplished during the reporting period?
  - Were there any unexpected problems, obstacles, or delays associated with the action? If so, how were they overcome?
  - Have there been any indicators of success or failure of implemented actions in meeting the intended goals? Any losses avoided?

<sup>1</sup> The ability of local governments to raise funds depends on your state's legal and regulatory framework.

**Learning from others...Post-Storm Assessment Demonstrates Success in Florida**

In 1995, Hurricane Opal demonstrated the success of more stringent land use and building codes, such as those associated with Florida's Coastal Construction Control Line (CCCL), in reducing storm-related damage. The CCCL was established in the 1980s by the state's Department of Environmental Protection (DEP) to strengthen land use and building construction standards (e.g., foundation, elevation, wind load) in coastal high hazard areas. According to the DEP, wave erosion caused by Hurricane Opal damaged or destroyed more structures than any other storm in the 20 years prior. A damage assessment conducted after the storm revealed that of the 576 major habitable structures seaward of the CCCL that were constructed to meet the higher standards, none were substantially damaged. On the other hand, of the 1,366 major habitable structures seaward of the CCCL that were constructed prior to the CCCL (or not permitted by the state), 768 (56 percent) received substantial damage (FEMA 1997). [www.fema.gov/library/viewRecord.do?id=1712](http://www.fema.gov/library/viewRecord.do?id=1712)

- Were there any unintended consequences (positive or negative) due to implementation of an action?
- Are there any new stressors or challenges that may hinder action-specific or overall success? If so, can anything be done to overcome them?

This regular review also provides the planning team with an opportunity to make changes to the plan, goals, or actions based on lessons learned or new information. The plan update, as described in the next section, allows for these types of changes on a larger scale, but instances may arise that call for making adjustments between scheduled updates (e.g., disasters may provide opportunities for adaptation to be incorporated into recovery efforts).

Where successes are evident, promote them. Where there are challenges to implementation, modify or replace the action. In both instances, think about how the lessons learned can be applied elsewhere. Use the media and the other outreach vehicles identified in the planning process to communicate progress and elicit feedback.

**STEP 4.5: UPDATE THE PLAN**

Climate change adaptation plans are living documents that need to be updated to achieve maximum effectiveness. So, in addition to reviewing the status of the plan and the actions on a regular basis (and making revisions as appropriate), you should plan a full-scale update every few years (e.g., every three to five years) as determined by the planning team or as needed (e.g., in

the wake of a catastrophe). Plan ahead for the update and assign ongoing data monitoring and collection tasks to team members or subgroups.

When updating the plan, consider following a process similar to the one outlined in this guide:

- Reconvene the planning team, altering its composition as needed
- Continue involving the public and other stakeholders
- Review the vulnerability assessment and make changes to priorities, as necessary, based on:
  - Observed changes
  - New climate science findings/projections
  - Recent hazard events
  - Changes to exposure
  - Changes in adaptive capacity
  - Completed actions
- Review the goals from the initial plan and make changes, as necessary, based on revised vulnerabilities and priorities
- Review the actions from the initial plan and reprioritize, change, delete, or add actions based on lessons learned as well as new goals and changes in adaptive capacity
- Review the implementation and evaluation process and make adjustments as appropriate

Finally, include in the plan update a status review of the actions identified in the previous version of the plan. And, document examples of successes, challenges, and lessons learned.

## KEY RESOURCES

### Funding

- The Catalog of Federal Domestic Assistance, General Services Administration. [www.cfda.gov/](http://www.cfda.gov/)
- Compendium of Federal Funding Sources for State and Tribal Wetlands Programs, UNC Environmental Finance Center, EPA. [www.efc.unc.edu/publications/pdfs/wetlands/CompendiumofWetlandsFederalFundingSourcesNationalPrograms.pdf](http://www.efc.unc.edu/publications/pdfs/wetlands/CompendiumofWetlandsFederalFundingSourcesNationalPrograms.pdf)
- Federal Funding Programs, EPA, Office of Wetlands, Oceans, and Watersheds. [www.epa.gov/owow/funding/federal.html](http://www.epa.gov/owow/funding/federal.html)
- Funding Opportunities for Coastal Managers (includes links to grant writing guides), NOAA Coastal Services Center. [www.csc.noaa.gov/funding/](http://www.csc.noaa.gov/funding/)
- Guidebook of Financial Tools: Paying for Environmental Systems, EPA. [www.epa.gov/efinpage/publications/GFT2008.pdf](http://www.epa.gov/efinpage/publications/GFT2008.pdf)

### Other

- Adapting to Coastal Climate Change: A Guidebook for Development Planners, U.S. Agency for International Development. [www.crc.uri.edu/index.php?actid=366](http://www.crc.uri.edu/index.php?actid=366)
- Bringing the Plan to Life: Implementing the Hazard Mitigation Plan, FEMA. [www.fema.gov/plan/mitplanning/resources.shtm](http://www.fema.gov/plan/mitplanning/resources.shtm)
- Developing the Mitigation Plan: Identifying Actions and Implementing Strategies, FEMA. [www.fema.gov/plan/mitplanning/resources.shtm](http://www.fema.gov/plan/mitplanning/resources.shtm)
- Developing and Promoting Mitigation Best Practices and Case Studies, FEMA. [www.fema.gov/library/viewRecord.do?id=1774](http://www.fema.gov/library/viewRecord.do?id=1774)
- Planning for Meaningful Evaluation (training). NOAA Coastal Services Center. [www.csc.noaa.gov/cms/cls/evaluation.html](http://www.csc.noaa.gov/cms/cls/evaluation.html)
- Preparing for Climate Change: A Guidebook for Local, Regional, and State Governments, ICLEI–Local Governments for Sustainability. [www.icleiusa.org/action-center/planning/adaptation-guidebook/](http://www.icleiusa.org/action-center/planning/adaptation-guidebook/)
- Telling the Tale of Disaster Resistance. A Guide to Capturing and Communicating the Story, FEMA. [www.fema.gov/library/viewRecord.do?id=1762](http://www.fema.gov/library/viewRecord.do?id=1762)
- Using the Hazard Mitigation Plan to Prepare Successful Mitigation Projects, FEMA. [www.fema.gov/plan/mitplanning/resources.shtm](http://www.fema.gov/plan/mitplanning/resources.shtm)