

Local Coastal Resilience Projects in Massachusetts

The Massachusetts Office of Coastal Zone Management provides technical and financial support to communities to advance on-the-ground climate change adaptation efforts.

Summary

With more than 1,500 miles of shoreline, Massachusetts coastal communities are on the front lines for direct impacts from coastal storms. The effects of climate change elevate the urgency of proactively planning for and managing risks to the infrastructure, natural resources and socioeconomic assets of these communities. To help increase local coastal resilience, the Massachusetts Office of Coastal Zone Management's (CZM) StormSmart Coasts program launched the Coastal Resilience Grant Program in 2014. These grants provide financial and technical resources directly to coastal communities for proactive efforts to address current and future coastal flooding and erosion while maintaining important natural shoreline systems. Since 2014, CZM has competitively awarded over \$8.8 million in funding to support 71 local projects. Thirty-nine of the 78 coastal communities in Massachusetts have received (or are in the process of receiving) assistance to implement a range of projects that address immediate storm damage protection needs while taking into account the projected long-term effects of climate change.

CZM Role

CZM administers the coastal resilience grants through its StormSmart Coasts program to connect with existing technical resources, advance local efforts, transfer products and lessons learned, and help broaden state and local investment in coastal resilience. StormSmart Coasts launched in 2008 and has developed a strong network of community and regional partners who collaborate on coastal resilience projects. CZM, consultants, and partners assist communities with analyses of shoreline vulnerability, adaptation planning, outreach, feasibility assessments, design, permitting, and construction. CZM has been successful at helping communities get to on-the-ground implementation. For details on CZM's StormSmart Coasts program, see www.mass.gov/czm/stormsmart.

Successful Partnerships

To help leverage federal and state investment in CZM staff and project activities, and increase the capacity of coastal communities to effectively address climate change issues, CZM encourages and supports partnerships among local government agencies, non-profits, regional planning organizations, and other sectors. Grant projects have actively engaged local conservation commissions, engineering and public works departments, planning and economic development agencies, beach managers, elected officials, environmental advocacy groups, architects, coastal geologists, hydrodynamic modelers, communication and outreach specialists, and others. Completed projects have leveraged over \$3.5 million in local commitments through cash and in-kind contributions. These diverse partnerships are helping implement on-the-ground actions and cultivate long-term support of community adaptation

efforts; a critical factor in achieving resilience across coastal communities and the Commonwealth.

Impact

In two years, the Coastal Resilience Grant Program has built and enhanced dunes and beaches using new methodologies and materials, supported the first public beach grass nurseries and ribbed mussel hatchery in Massachusetts, restored coastal floodplain through the removal of obsolete structures, relocated and elevated critical infrastructure, assessed community-wide climate change vulnerability, and identified other adaptation strategies to reduce risks in half of the Commonwealth's coastal communities. Newly awarded projects will continue to improve infrastructure, address flooding, stabilize and restore coastal buffers, develop plans for changing conditions, and communicate risks and management options. Local coastal resilience projects are helping vulnerable cities and towns in Massachusetts transition to safer, more vibrant communities and will produce important, on-the-ground case studies for other communities to adapt essential infrastructure and natural resources to climate impacts.