CLIMATE RESILIENCE

ANALYZE | PLAN | IMPLEMENT | RESPOND | EVALUATE

Living Shoreline, Beach Restoration

Meet the challenges of a changing climate by collaborating with HW's engineers, scientists, and planners.

Horsley Witten Group works with municipal, state, and federal agencies to provide all aspects of climate resilience and adaptation services. Changing conditions require a fresh look at policies, investments, and infrastructure. We help public and private entities understand the implications of climate change and how to plan accordingly. Then, we help our clients implement those plans.

Projects may include Municipal Vulnerability Preparedness and resilience planning, emergency preparedness, coastal resilience and living shorelines design, dam management and analysis, tidal culvert replacements, comprehensive plans, and stormwater management.

Infrastructure Planning

Our Climate Resilience services include:

- *Emergency Preparedness*
- *Hazard Mitigation Planning*
- *Green Infrastructure Planning & Design*
- *Floodplain Management*
- *Site Design for Resilience*
- *Ecosystem Restoration*
- *Vulnerability Assessment & Preparedness Planning*
- *Zoning Code Audits & Revisions*
- *GIS Analysis & Modelling*
- *Training*
- *Assistance with Grant Funding Process*
- *Public Outreach*

Hazard Mitigation Plan Update

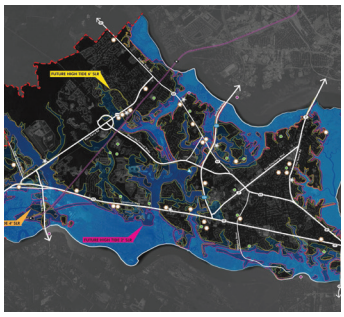
Multiple Clients from MA to FL

A current hazard mitigation plan can be a powerful tool, helping communities plan for, and remediate impacts of natural hazards. Working with FEMA and municipalities, we developed an approach that featured four primary methods; a planning process, risk assessment, mitigation strategy, and plan maintenance. HW has assisted communities in MA and RI, including Marblehead, Sudbury, Brewster, Scituate, Rockport, Plymouth, Taunton, Natick, Bristol, Cumberland, and Providence. We also have worked with the Mashpee Wampanoag Tribe and the Chickahominy Indian Tribe.

Morro Bay Estuary & Albemarle-Pamlico Sound

US EPA Climate Ready Water Utilities

Water and wastewater utilities face real climate change challenges including sea level rise, changes in precipitation patterns leading to drought and flood conditions, and severe storm events that can cause power outages. We worked with the US EPA to conduct an analysis of climate impacts in Morro Bay, CA and Albemarle-Pamlico Sound, NC. With the help of other experts, we assessed potential changes in ground-water quantity and quality because of climate change. This analysis will help both areas to effectively identify climate threats and potential adaptation measures.



Plan West Ashley

Urban District Revitalization Plan, Charleston, SC

Plan West Ashley will play a pivotal role in shaping the future of the area's streets, transportation system, neighborhoods, and public spaces. We collaborated with Dover Kohl and Partners to develop a community vision and to view the future investment through the lens of climate change, sea level rise, and resiliency. Building placement, transportation hubs, and roadway design accounted for long-term impacts related to a changing climate.

The Massachusetts MVP Program

MA towns and cities

The MA MVP program provides municipalities with support to plan and implement climate change resiliency projects. HW clients include Newburyport, Newbury, Peabody, Brewster, Tisbury, Kingston, and Shrewsbury. Our certified staff provide presentations, facilitate active discussion, and offer expertise in natural hazard mitigation planning, emergency preparedness/response, floodplain management, ecosystem and water resources management, and municipal and environmental planning. Municipalities that complete the process become MA MVP certified and are eligible to apply for project funding.

Coastal Resilience through Green Infrastructure

Brewster, Kingston, Chatham, MA

HW provides engineering, permitting, and construction administration services to communities that are taking action to protect these shorelines and adapt to changing conditions. Our work at Breakwater Landing (Brewster), Gray's Beach (Kingston), and Little Beach (Chatham), for example, includes nature-based designs intended to restore ecosystem functions, protect infrastructure, and build community resilience to flooding and storm surge. These projects feature dune and marsh restoration, managed retreat, living shorelines, and innovative stormwater management.