# Maine's Coastal Hazard Resiliency Tools

The Maine Coastal Program supports municipalities every step of the way, advancing a range of local policy changes that reduce risks to coastal hazards.

Reconstructed homes along the beach in Saco, Maine.

During a nor'easter, the sandy beaches of Saco, Maine are pounded by ice-laden waves. Homes and roads are routinely damaged. Critical facilities, such as water and sewage treatment plants, can become impaired. Over the past decade, a sharp rise in sea level has made both winter and summer storms more severe—a trend that is expected to continue. The majority of Maine's population resides in the coastal zone, where thriving ports and idyllic landscapes form the backbone of the economy. In York County alone, 260 businesses representing $41.6 million in wages are vulnerable to coastal flooding and the ensuing property destruction and high insurance costs.

The Maine Coastal Program, armed with good data and techniques for mapping coastal hazards, began searching for the best way to help communities understand their risks from storm surge and sea-level rise. "Being a Home Rule state where communities are responsible for land use planning and zoning, we knew that we had to approach this issue from the ground up in each municipality," said Pete Slovinsky, a marine geologist whose position at the Maine Geological Survey is funded by the Maine Coastal Program. With funding from Section 309 of the CZMA, the Maine Coastal Program and Southern Maine Planning & Development Commission launched the first regional working group on sea-level rise in Saco Bay.

They began a discussion about local strategies to address coastal hazards, and developed a transferable methodology that can be used in coastal communities across the state. The resulting Coastal Hazard Resiliency Tools (CHRT) project provides high quality data on coastal hazards, technical assistance to help municipalities use the data effectively, and funding to support community-driven conversations about building resilience. Through CHRT, communities receive data about flooding and storm surge risks that are at the appropriate scale and tailored to their needs. The Maine Coastal Program team works with local planners, using the data to identify a community's most vulnerable areas. And together, Maine Coastal Program staff and local planners develop strategies to make those areas more resilient to coastal hazards. The process often involves public meetings, where community leaders engage with each other to identify priority issues. To help communities take the next step and update their plans and policies, the Maine Coastal Program provides additional funding through competitive Coastal Community Grants.

By supporting municipalities every step of the way, CHRT has led to a range of local policy changes that reduce risks to coastal hazards. The solutions include amended comprehensive plans, ordinance changes, and site design improvements. For example, the City of Saco became the first municipality in Maine to require that new or reconstructed buildings elevate their lowest floor by an additional three feet. And the town of Cape Elizabeth amended their Shoreland Zoning Ordinance to ensure that new or reconstructed buildings are set back farther from the high tide line, protecting them from future sea-level rise and storm surge. These changes helped both communities ensure that coastal zone residents are less vulnerable to damage in the years to come. "CHRT created the process of engagement at the municipal level - we like to call it the tree trunk from which many other

municipal resiliency efforts have branched out," said Slovinsky. To date, the CHRT team has successfully worked with 39 of Maine's coastal communities.