

# FRESH COAST BEST COAST

## MICHIGAN COASTAL MANAGEMENT PROGRAM

### Resilient Michigan Collaborative

#### Michigan's Dynamic Coast

The Great Lakes are in a constant state of flux. Water levels rise and fall due to variability in precipitation, runoff, ice cover, and evaporation. Increasingly intense seasonal storms bring high wave energy and cause coastal flooding and erosion, particularly in periods of high lake levels. When lake levels are low, problems arise for navigation and recreation, and development can encroach on areas that are sure to be impacted the next time lake levels cycle upward again. Coastal communities need to understand, prepare for, and adapt to the unpredictability and variability of these ever-changing conditions.



The Michigan Coastal Management Program (MCMP) is helping coastal communities become more resilient to the dynamic conditions that come with living, working, and playing on the shores of the Great Lakes. Through resilient planning, a coastal community can prepare itself to absorb and adapt to changes in Great Lakes water levels, coastal storms and floods; manage social and environmental changes; and build a better and more reliable local economy. A resilient community provides space for beach and dunes to migrate naturally, so they can continue to serve the community, which includes functioning to absorb erosion and flooding impacts.

#### What type of solutions are best for my community?

Depending on your shoreline type and the wave energy level at the site, the type of protections need to be customized to your community. State laws also require that shoreline protections avoid and minimize negative impacts. Scenario-based planning can assist in devising the best options while maintaining community character.

Scenario-based planning incorporates risk scenarios to help visualize what the “Expected – Lucky – Perfect Storm” may look like through a range of physical conditions. These scenarios, along with model plan and ordinance language, are being developed to increase the knowledge for local decision-makers. A Resilient Master Plan better aligns with the community’s vision for their coast and helps institutionalize management measures to adapt, accommodate, and ‘step back’ development from sensitive and dynamic coastal features.

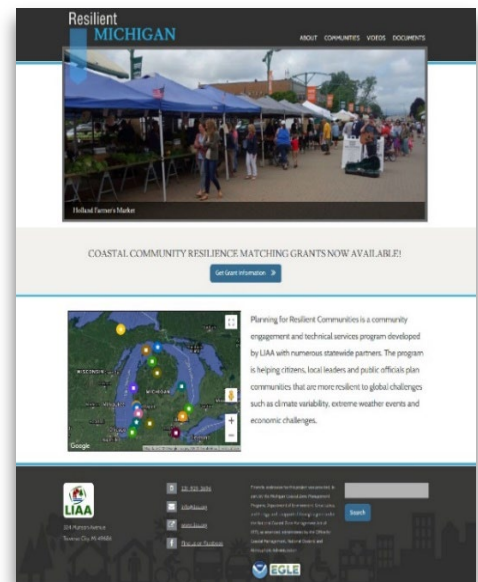
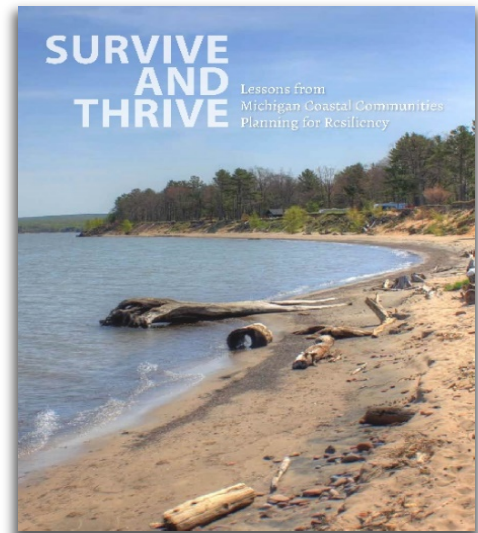
## What can I do to get started?

Incorporating resilient principles into a master plan is a coastal community's first step to becoming resilient. Once these principles are in your master plan and priority areas are identified, communities can then use zoning ordinances to set standards such as set back building standards.

The MCMP provides annual funding opportunities where communities can seek grant funding for development of Resilient Master Plans and ordinances. For technical assistance and grant funding opportunities, visit us at [Michigan.gov/CoastalManagement](http://Michigan.gov/CoastalManagement).

More information about coastal resilience planning concepts, including lessons learned from early-adopting communities, is available in Michigan Association of Planning's "Survive and Thrive: Lessons from Michigan Coastal Communities Planning for Resiliency" booklet. The booklet, available at [PlanningMi.org/Community-Resiliency](http://PlanningMi.org/Community-Resiliency), was developed with MCMP support.

Additionally, the MCMP is partnering with LIAA in the Michigan Resilient Collaborative. To become a participating community, visit [ResilientMichigan.org](http://ResilientMichigan.org) for program information and grant funding opportunities.



To learn more, visit [Michigan.gov/ResilientCoast](http://Michigan.gov/ResilientCoast).

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