

COASTAL MANAGEMENT AND RESILIENCE PLANNING

Key Concepts

Resilience planning is the development and implementation of measures to enable coastal communities to plan for and bounce back from coastal changes and hazards. Resilience planning incorporates both adaptation and mitigation objectives and measures that have distinct purposes and benefits.

- Adaptation is the implementation of measures to enable coastal communities to change with the changing coasts.
- **Mitigation** is the implementation of measures to minimize the impacts on coastal communities of future change and specifically coastal hazards.

Role of State Programs

The 34 State and Territory Coastal Zone Management (CZM) Programs are leaders in the development and implementation of coastal adaptation, mitigation, and resilience strategies. CZM Programs are on the ground to support communities at every step along the path to resilience. They have the flexibility to operate across multiple levels of government and are uniquely positioned to link cutting-edge federal data and tools with local communities to address coastal changes and hazards.

Four Step Process

1) Assess Risks and Vulnerabilities – identify coastal hazards including inundation and flooding, erosion, and coastal storms, and areas that are vulnerable to these hazards

2) Identify Solutions and Make a Plan – identify social, economic, and ecological methods for reducing the impacts of these risks and make a plan for implementation

3) Implement Actions – implement priority solutions to reduce coastal risks

 4) Monitor and Measure Effectiveness

 observe and measure whether the solutions successfully reduce risk and evaluate needed changes

 The Texas Coastal Management Program developed the <u>Texas Coastal</u> <u>Resiliency Master Plan</u> to provide a framework for community, socioeconomic, ecologic, and infrastructure protection from coastal hazards, including short-term impacts such as flooding and storm surge, and longterm impacts such as erosion and habitat loss. The Plan identifies priority projects that mitigate these coastal hazards. As these priority projects are implemented, the Plan calls for monitoring and adaptive management to identify and learn about high performing projects to design more effective future projects as well as to improve coastal science, engineering, and planning for the next generation of coastal management. The Plan ultimately aims to protect and promote a vibrant and resilient Texas coast that supports and sustains a strong economy and healthy environment for all who live, work, play, or otherwise benefit from the natural resources and infrastructure along the Texas coast.





Florida Coastal Management Program has developed the <u>Coastal Adaptation</u> and <u>Resilience Tools initiative</u> and meets directly with smaller coastal communities with less capacity to provide risk and vulnerability data, mapping and planning tools to coastal communities to help them plan and make decisions to address coastal hazards and flooding risks. The Oregon Coastal Management Program (OCMP) has led an effort, in coordination with Oregon's Department of Geology and Mineral Industries (DOGMI), to prepare coastal communities for a local Cascadia Subduction Zone tsunami. Using CZMA funding, Oregon DOGMI produced inundation and evacuation maps, and the OCMP developed a land use planning guide, including example policies and codes, that communities can use to develop comprehensive plans that adopt development codes, plan for long-term relocation strategies, and methods to prioritize evacuation infrastructure improvements.

The Hawaii Coastal Zone Management Program is collaborating with emergency managers on the development of high-resolution, <u>probabilistic tsunami</u> <u>design zone maps</u> compatible with the American Society of Civil Engineers. The work has been a multi-year process to deliver more accurate mapping and modeling, which will also help lead to changes to county building codes for the safety and resilience of Hawaii.



The Coastal States Organization (CSO) is a nonprofit organization that represents the Governors of the Nation's coastal States, Territories, and Commonwealths on national ocean and coastal policy issues to maintain the health and vitality of our Nation's coasts. Coastal States Organization Washington, DC 20001 www.coastalstates.org

