

CHESAPEAKE AND COASTAL SERVICE

RESILIENCY THROUGH RESTORATION



Larry Hogan, Governor
Boyd K. Rutherford, Lt. Governor
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A Future of Increasing Risk

Each year, Maryland's coastal cities and towns experience devastating storm damages to property, infrastructure, and natural resources, along with associated economic disruptions. Over the past ten years, Maryland has experienced seven weather-related events warranting Presidential Disaster declarations, including five coastal flood events totaling approximately \$103 million in economic damage. If action is not taken to make Maryland more resilient to the adverse effects of climate change, Maryland's coastal economy – which supports over 1.6 Million people and has an estimated GDP of \$212 Billion – is at risk.

The Importance of Coastal Habitats

Coastal resources such as wetlands, shorelines, dunes and beaches can provide critical protection against storms as well as key natural functions. The importance of these natural and nature-based features, were highlighted when the impacts of Superstorm Sandy were evaluated. In addition to being more cost effective, the significant advantages of natural defense solutions over traditional hardened measures, like seawalls and revetment, are the additional ecosystem services they provide. Daily, these ecosystems deliver benefits vital to the economic well-being of coastal communities, including water quality improvement, fresh water capture, groundwater protection, fisheries enhancement, birding hotspots and recreational space.

Maryland's Coastal Resiliency Assessment

To ensure the most effective and impactful investment of State dollars, the Department developed a "Coastal Resiliency Targeting Model" to prioritize those projects that provide the greatest protection benefit for critical coastal infrastructure, communities, coastal businesses and habitats. In addition to the cost-accounting considerations, the model can evaluate opportunities near those communities that are less equipped to prepare for and recover from storms, flooding and other coastal hazards.

By the Numbers

2.1 feet

Projected sea level rise in 2050 along Maryland's shorelines and 3.7 feet by 2100.

3.9 million

Number of people that lived along the Maryland coast in 2013.

\$212 billion

Value of Maryland's coastal economies in 2013.

91,049

Number of establishments in Maryland's coastal counties in 2013.

1.6 million

Number of jobs supported by Maryland's coastal industries in 2013.

Data: NOAA Office of Ocean & Coastal Resource Management National Ocean Economics Program Population and Economic Data, 2013; Maryland Chesapeake and Coastal Service; Maryland Department of Natural Resources; photos: Maryland Department of Natural Resources



Conceptual diagram illustrating how natural buffers can help prevent erosion and flooding in residential and urban areas. Diagram courtesy of the Integration and Application Network, University of Maryland Center for Environmental Science (ian.umces.edu/imagelibrary/).

Figure 13. Natural barriers such as beaches, dune vegetation, wetlands, coastal forests, and vegetated stream buffers protect residential areas and urban areas from flooding, erosion, and inundation. Natural barriers also protect crops and agricultural areas.

SPOTLIGHT: Fiscal Year 2018 Budget Includes Funding to Help Maryland Reduce Vulnerabilities and Enhance the Resiliency of Local Economies

The governor's fiscal year 18 budget included funding for a new community resiliency grant program to aid coastal communities in enhancing their resiliency to the effects of climate change and extreme weather. The fiscal year 2018 budget includes funding for six projects in five jurisdictions.

In addition to protecting critical infrastructure, the projects supported through this program allow the State to address climate resiliency, public access, vital habitats, and environmental justice.

Projects will include shoreline restoration, beneficial use of dredged materials, tidal marsh restoration, and the protection of dunal habitats to reduce future and existing emergency repair costs. The goal of the program is to better protect Maryland communities and public resources using natural and nature-based approaches.

