



RESILIENT COASTAL COMMUNITIES

Maryland Sea Grant receives financial support from Congress through the National Sea Grant College Program within the National Oceanic and Atmospheric Administration, as well as, support from the University System of Maryland and other external grants and contracts.

Meeting Maryland's Coastal Communities' Resilience Needs

Maryland Sea Grant (MDSG) and our coastal partners want to help coastal communities become more resilient to weather and climate hazards by supporting their efforts to improve risk assessment and adaptation planning, innovate in resilience design, implement adaptation projects, and address long-standing economic and social inequities. We work to advance scientific research needs by identifying research and social science gaps; collaborating with communities to tackle climate change challenges; and assisting socially vulnerable populations who are disproportionately affected by weather and climate effects.



Our Work

Working with key partners in academia, federal and state government, non-governmental organizations, and industry, MDSG has:



Supported community leaders in Cambridge, Maryland, in understanding community priorities as part of a 10-year plan to improve the health of the Choptank and Nanticoke Rivers and Cambridge and Jenkins Creeks. The plan included two public workshops, installation of 20 rain gardens, and conservation landscaping projects on residential properties.



Led a workshop for regional Chesapeake Bay marsh resilience where local community experts discussed planning and collaboration on large-scale marsh conservation and restoration projects.



Supported our Community Engaged Intern who produced a film series, *Maryland's Changing Landscapes*, which highlights the impacts of salt water intrusion on the Eastern Shore of Maryland.



Choptank River affected by rain-related flooding. MDSG Extension also led a grant-writing workshops and supported the community's grant-writing process for flood mitigation proposals.

Completed 13 stormwater assessments for residents of Jonestown, a rural Black community along the



Trained 191 people as Level 1 or 2 Chesapeake Bay Landscape Professionals and committed to designing, installing, and maintaining small-scale conservation landscaping practices for efficient nutrient and sediment removal.



Provided direct assistance to 15 communities, municipalities, and organizations to develop proposals for stormwater adaptation and mitigation, resulting in more than \$3.2 million in grants received by these entities.



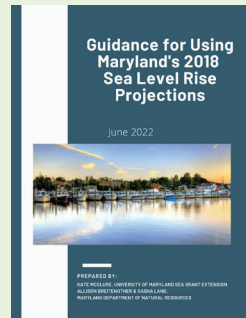
Collaborated with state agencies to place five fellows since 2021 in one-year positions at the Maryland Department of the Environment, Maryland Environmental Services, and University System of Maryland to work on climate change issues.



Coordinated the Baltimore Urban Waters Partnership (BUWP), a network dedicated to protecting and restoring urban waters, with a particular focus on equity and promoting community revitalization.



5 Regional watershed restoration specialists located across Maryland and
3 members in our coastal climate resilience team who are dedicated to helping communities in Maryland.



Released a step-by-step guide to help decision-makers determine which sea level

rise estimate that should be considered for a project. The MDSG Coastal Climate Specialist has trained more than 100 state and local staff and technical service providers to apply the guidance to local projects.

Funded Research in Resilience

MDSG funds applied research that has the potential to impact the policies and management of the Chesapeake and Maryland Coastal Bays and our coastal communities. Here is a snapshot of some of our funded resilience projects. For more information on these and other projects, please visit our [website](#).

Assessing the Impact of Freshwater Salinization Syndrome on Mobilization of Nutrients and Metals in Urban Streams and Rivers

Sujay Kaushal, *University of Maryland*

What Happens After the *Phragmites* Is Killed? The Role of Native Plantings in Accelerating Post-treatment Recovery of Tidal Wetlands

Dennis Whigham, *Smithsonian Environmental Research Center*

Does Living Shoreline Performance Depend on Design?

Cindy Palinkas, *University of Maryland Center for Environmental Science (UMCES), Horn Point Laboratory*

Ecological and Environmental Implications of Sea Level Rise on Shallow Methane-gas in the Patuxent River Estuary

Laura Lapham and Edward Hobbs, Jr. (fellow), *UMCES, Chesapeake Biological Laboratory*

Maryland Sea Grant is a federal-state partnership program that is part of the University System of Maryland. Our offices are located in College Park, Maryland, and are administered by the University of Maryland Center for Environmental Science. Our Sea Grant Extension faculty are administered by the University of Maryland, College Park and located in offices around the state. The National Sea Grant Program is a network of 34 university-based programs in coastal and Great Lakes states as well as Puerto Rico and Guam.

www.mdsg.umd.edu

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