



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 and COVID-19 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:



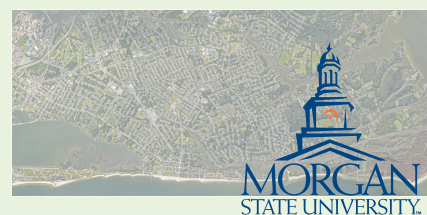
Hosted the Chesapeake Bay Sentinel Site Cooperative (CBSSC), an interagency group of ecosystem-based study sites across the Chesapeake Bay that work together to measure the impacts of sea level rise and inform management decisions on a regional scale. The CBSSC recently produced the award-winning short film "Turning the Tide" to showcase the importance marsh monitoring has on community resilience.



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



Delivered a three-part webinar series for Maryland coastal residents on coastal flooding and climate change. The MDSG Extension climate specialist covered topics including local climate change trends, causes and consequences of coastal flooding, and strategies for reducing flood impacts.



Worked with climate scientists and MDSG Extension agents, to collaborate with Morgan State University architecture students and faculty to support a multidisciplinary studio class for graduate students, as part of a design competition hosted by the Coastal and Estuarine Research Federation.



Led by MDSG's 2020 Community Engaged Intern, produced the film "Pond Project Builds Community in Headwaters Town," which highlights MDSG Extension, community leaders, and other partners' efforts to improve water quality in Templeville, Maryland.



Delivered a professional development program to a wide variety of University of Maryland Extension faculty to help them develop the skills and knowledge necessary to assist stakeholders with climate-related issues.

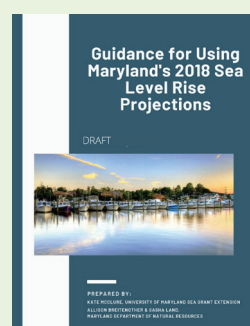
Led collaborative workshops with coastal Maryland and Virginia agriculture producers on observed sea level rise impacts on their lands, selection of available management options, and identification of policy and research gaps. Findings from the workshops have been shared broadly including with the Maryland Commission on Climate Change Adaptation Working Group and staff of the Chesapeake Bay Commission.



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.

Convened quarterly meetings of local government staff, state agencies, academic institutions, and NGO partners to advance climate adaptation on the Eastern Shore. MDSG Extension faculty further led exchanges of information on climate adaptation efforts, and shared funding opportunities and state policy developments.



Co-led the production of a soon-to-be released companion guide to the *Sea Level Rise Projections for Maryland*

2018 report. It takes a step-by-step approach to help decision-makers determine what rising water height to plan for based on their project's geographic location, anticipated lifespan, and flood risk tolerance.

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](http://www.mdsg.umd.edu).

Assessing the Impact of Freshwater Salinization Syndrome on Mobilization of Nutrients and Metals in Urban Streams and Rivers
Sujay Kaushal, *University of Maryland, College Park (UMCP)*

Ecological and Environmental Implications of Sea Level Rise on Shallow Methane-gas in the Patuxent River Estuary
Laura Lapham, *University of Maryland Center for Environmental Science, Chesapeake Biological Laboratory*

Assessing the Ecohydrological Performance of Stormwater Green Infrastructure Treatment Trains at the Subwatershed Scale in Montgomery County, MD
Mitchell Pavao-Zuckerman & Matthew Wilfong (fellow), *UMCP*

Assessing the Effectiveness of the Anacostia River Tunnel in Reduction of Eutrophication
Caroline Solomon, *Gallaudet University*

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

Contact Us

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