



RENEE COLLINI PH.D.

Director, Gulf Center for Equitable Climate Resilience

Renee Collini, Ph.D., Director of the Gulf Center for Equitable Climate Resilience at The Water Institute, brings years of experience in providing tools and support to federal, state, and local entities pursuing adaptation and resilience strategies.

As director of the Gulf Center for Equitable Climate Resilience, Renee draws from on-the-ground experience working in underserved communities and navigating federal, state, and local governmental processes and systems to help support effective and equitable climate resilience planning and action in communities across the Gulf Coast.

Prior to joining The Water Institute, Renee served as a coastal climate resilience specialist with Mississippi State University and Sea Grant in the northern Gulf of Mexico for almost a decade, facilitating the flow of information between researchers and decision-makers to improve science application. As the lead of the Program for Local Adaptation to Climate Effects: Sea-Level Rise, she integrated a multi-state network of stakeholders, researchers, NGOs, and state and federal agencies to build tools, programs, and projects to address gaps in sea-level rise observing, research, and decision-making. She has collaborated on projects and efforts that have improved coastal community and environmental resilience and has led development of tools and programming that have been applied throughout the Gulf and across the United States. Collini is a recognized leader in resilience across the Gulf of Mexico and is serving as an author on the Fifth National Climate Assessment Coastal Effects Chapter.

Collini received her bachelor's degree in biology from the University of Texas at Dallas, master's degree in marine sciences from the University of South Alabama and her Ph.D. from Mississippi State University was focused on human sciences.

COMPANY ROLE

Director, Gulf Center for Equitable Climate Resilience

EDUCATION

Ph.D. research focus: human sciences, Mississippi State University, 2022

MS Marine Sciences, University of South Alabama, 2012

BS Biology, University of Texas at Dallas, 2008

NOTABLE BOARDS & COMMITTEES

NASA Sea Level Change Team
Practitioner Advisory Board

National Climate Assessment Five Coastal Effects Chapter

Advisor to the U.S. Sea Level Rise Task Force

National Sea Grant Climate and Weather Team

NOAA SLR Resilience Working Group

PROFESSIONAL EXPERIENCE

2023 - Present: Director, Gulf Center for Equitable Climate Resilience, The Water Institute

2014-2023: Program Director, Program for Local Adaptation to Climate Effects: Sea-Level Rise; formerly Northern Gulf of Mexico Sentinel Site Cooperative

2022-2023: Assistant Extension Professor of Climate Resilience, Mississippi State University

2014-2023: Coastal Climate Resilience Specialist, Sea Grant

2020-2022: Extension Instructor, Mississippi State University



2018-2019: Extension Associate III, Mississippi State University

2014-2018: Program Manager Alabama Real-time Coastal Observing System, Dauphin Island Sea Lab

2015-2017: Science Coordinator/DISL Liaison, Mobile Bay National Estuary Program

2012-2014: Marine Technician, Dauphin Island Sea Lab

SELECTED PROJECTS

Proactive Stormwater Feasibility Assessment. In collaboration with Mississippi State University, PLACE:SLR, the City of Ocean Springs, and Jackson County, Mississippi, Collini is exploring the feasibility of using nature or natural features to alleviate flooding through reduced stormwater runoff and increased capacity for existing and new stormwater systems.

The feasibility assessment will be informed through biological and physical data, as well as community and municipal stakeholder input. Funded by the National Academies of Science, Engineering, and Math Gulf Research Program.

Community's RISE (Resilience in Sea Level Rise Education). Community's RISE uses a holistic strategy to increase communities' awareness of sea-level rise impacts along the northern Gulf. It works to support enhanced resilience via three avenues, thought of as the legs of a stool: 1) Connect municipal officials with informed constituents who want to actively support sea-level rise resilience activities (Connection Dialogues); 2) Increase capacity for science and social studies high school educators to include a solutions-focused sea-level rise curriculum in their courses (SLR in the Classroom); and 3) Increase awareness of sea-level rise and associated risks among sectors of the community previously unengaged in sea-level rise science and resilience (Pop-Ins). Funded by NOAA Environmental Literacy Program.

Technical Support for Coastal Communities in the Northern Gulf of Mexico. Collini provides support to coastal municipalities, natural resource managers, and other stakeholders on how to integrate SLR into planning. This has included scoping infrastructure projects, designing and implementing vulnerability analyses, and facilitating preliminary dialogues within and across departments. Collini's support includes an in-depth understanding of expected amounts of SLR over multiple timescales, translation of SLR to

biogeophysical and social impacts, decision-making approaches for an uncertain future, and frameworks and strategies for near and long-term planning. Collini works directly with community officials to determine their specific needs and how the available science and information can be tailored to inform their efforts moving forward.

Resilient East Biloxi. In partnership with the Steps Coalition, PLACE:SLR, and local non-profits, Collini supports an ongoing program to enhance an area of Biloxi still rebuilding post-Katrina. Community leaders participate in training and capacity building to enable community-led, resilient redevelopment. There has already been an order of magnitude increase in community participation in rebuilding discussions and resilience education compared with previous efforts.

Sea-Level Rise Education in North Gulfport. Working with the local grassroots organization EEECHO, Collini is supporting efforts to address flooding issues, identify priority projects, and securing funding to implement priority projects.

Climate Resilience Tool Use - Is Anyone Actually Using Them? The majority of Collini's research areas are focused on ensuring that the vast resources being spent on climate resilience tools are worthwhile. To date there has been very little evaluation of the effectiveness of climate resilience tools or if the tools are even diffused among or adopted by the target end users. Collini's work has begun to identify critical aspects of fostering diffusion and adoption of climate resilience tools.

Benefit-Cost Analyses. Another area of Collini's work was focused on conducting benefit cost analyses (BCAs) in partnership with local communities to understand if the existing "plug-and-play" BCA tools are accessible to coastal decision-makers considering resilience projects. The short answer is no – they are not, but there may be ways to lower barriers to increase accessibility and application of BCAs.