

WHAT DO WE DO ABOUT THE OUTER BANKS? OVERCOMING BARRIERS TO RESILIENCE IN A MULTIPLE DECISION-MAKER ENVIRONMENT

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The Outer Banks of North Carolina are frequently cited in case studies of the need for storm surge and sea level rise resilience. This is not without reason; the barrier islands' mix of oceanfront and sound side habitats and settlements, coupled with a tourism-based economy and remote location make vulnerability real and lead outsiders to wonder why locals remain. But dig deeper, and a complex picture of resilience emerges – the tourists are mingled with residents whose families' histories in the Outer Banks go back centuries, and seemingly simple decisions that would increase resilience to sea level rise and climate change are complicated by numerous implementation barriers, including the need to have multiple decision-makers involved in making these decisions. One municipality, the Town of Nags Head, is partnering with North Carolina Sea Grant, NC State University's NC Coastal Resources Law, Planning, and Policy Center, and the University of North Carolina's Center for Law, Environment, Adaptation, and Resources as part of a four- state effort to increase municipal resilience to sea level rise over the next 10-30 years. This effort is proceeding in parallel to the Focus Nags Head process, which will allow the Town to expand its land use plan into a full comprehensive plan and develop a Unified Development Ordinance that simplifies Town code. Our study uses the Vulnerability, Consequences, and Adaptation Planning Scenario (VCAPS) process of participatory mapping and facilitated diagramming to assist decision-makers in identifying adaptation options to support further needs-driven vulnerability mapping of public infrastructure and legal analysis of barriers to adaptation. While support in the Town of Nags Head is strong for the sea level rise study, interview results indicate that for many issues the Town of Nags Head is not the sole decision-maker for adaptation issues. For example, in South Nags Head, decisions by the Cape Hatteras National Seashore may impact drainage inside Town limits. Further, the North Carolina Department of Transportation is responsible for many of the roads and ditches inside Town boundaries, and Dare County coordinates hazard planning and evacuation. This decision landscape may prove more complex than situations for which structured decision-making has been applied successfully in the past. Nags Head has a history as an early adopter on beach renourishment strategies, so a successful sea level rise planning process leading to implementable actions may set a precedent for other North Carolina coastal communities. To increase the likelihood of this success, we are seeking additional input on potential participatory decision science methodologies that will help the Town of Nags Head work with other decision- making parties more successfully to mainstream sea level rise planning into Town processes and implement actions that increase the Town's resilience to sea level rise. A list of participant-generated adaptation options from the Nags Head VCAPS session, scheduled for December 7-8, 2015, will provide session participants with a foundation on which to suggest additional social science research and engagement strategies that will help project partners develop a plan of work that supports action by Town staff and elected officials.