

ENGAGING STAKEHOLDERS TO DEVELOP A COASTAL CAROLINAS DROUGHT EARLY WARNING SYSTEM

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The National Integrated Drought Information System (NIDIS) supports the development of regional Drought Early Warning Systems (DEWS) to help move the nation towards a more proactive approach to drought planning and preparedness. In the Carolinas, the DEWS program seeks to advance understanding of the unique nature of drought in coastal ecosystems. Drought affects coastal water resources, habitats, and species through increased salinity and saltwater intrusion, reduced flushing and assimilation of pollutants, and overall changes to fresh water levels and availability. This broad range of interacting impacts necessitates a collaborative and interdisciplinary approach to understand the full spectrum of coastal drought impacts and the development of strategies and tools to support multiple agencies and organizations simultaneously.

NIDIS DEWS programs explore and demonstrate early warning and risk reduction strategies in partnership with stakeholders and agencies at the federal, state, and local level. Specific projects in the Carolinas include a coastal drought index based on salinity data, new tools to monitor drought impacts on important habitats (e.g., coastal forests) and species (e.g., blue crabs), citizen science engagement in drought monitoring and reporting, and an “Atlas of Hydroclimate Extremes” for the Carolinas. Lead organizations include the Carolinas Integrated Sciences & Assessments, Southeast Regional Climate Center, the USGS South Atlantic Water Science Center, the NC and SC state climate offices, and Clemson University.

In order to ensure that the information produced by these various projects helps to inform drought-related decision making in the Carolinas, a variety of stakeholder engagement tactics have been incorporated into the development of the NIDIS Carolinas DEWS program and individual projects. These include a scoping workshop to identify and prioritize projects and research areas, stakeholder interviews to better understand personal experiences with coastal drought and information needs, a partners’ workshop to demonstrate the coastal drought index and its possible applications, recruitment and retention of citizen scientists, and feedback interviews with drought decision makers. Iterative stakeholder engagement activities have been an essential component to the refinement of tools and information in order to ensure that projects are responding to primary needs and filling key knowledge gaps. They also help to raise awareness about the unique nature of drought in coastal ecosystems and its potential impacts, motivating action to plan for associated risks. This Short and Sweet presentation will demonstrate the breadth and depth of these various engagement processes conducted to support improved drought planning and preparedness in the Carolinas.