Katie Peek

Coastal Research Scientist at Western Carolina University

Cullowhee, NC, US

Katie Peek researches coastal vulnerability, climate change impacts, and natural hazard resilience using GIS.

Biography

Katie McDowell Peek is a Coastal Research Scientist at the Program for the Study of Developed Shorelines (PSDS) at Western Carolina University (WCU) and a Licensed Professional Geologist in the state of North Carolina. PSDS is a research and policy outreach center serving the global coastal community; the primary mission of PSDS is to conduct scientific research into coastal processes and to translate that science into management and policy recommendations through a variety of professional and public outreach mechanisms. Peek is a local to the mountains of western North Carolina, but has spent significant time along the coastlines of the U.S. She received a BS degree in Geology from Western Carolina University and a MS degree in Coastal Geology from East Carolina University, where her research focused on the paleoenvironmental history of the Cape Hatteras region of coastal North Carolina. Peek has also obtained graduate certificates from North Carolina State University in Geographic Information Systems (GIS) and Climate Adaptation. Since joining PSDS in 2010, Peek has been the lead coastal scientist on several National Park Service vulnerability projects and has worked with over 100 coastal parks across the U.S. Peek and the PSDS team have completed a climate change vulnerability analysis of marine and coastal habitats at Cumberland Island National Seashore, and a natural hazards vulnerability assessment at Yellowstone National Park. She is one of the lead scientists on a National Park Service project building a coastal hazard and sea-level rise vulnerability assessment protocol being utilized by parks across the nation. Peek has also been involved in numerous other projects, including research on the controls of hurricane storm surge, the effects of sea-level rise on communities and regions, the impacts beach sand mining on the island of Montserrat in the West Indies, and a community resilience study for Horry County, South Carolina. She teaches environmental geology at WCU and has co-instructed a geology field course on San Salvador Island in the Bahamas.

Areas of Expertise

Hazard Mapping, Climate Change Adaptation, Sea-Level Rise, Coastal Processes, Natural Hazard Vulnerability Assessments, Storm Surge & Tropical Storms, Flood Exposure & Resilience, Geographic Information Systems (GIS)

Event Appearances

[Presenter] A New Approach to Flood Mapping: Creating Supplemental Flood Zones Using Data from the Storm of Record in Horry County, South Carolina

North Carolina Planning Conference

Education

North Carolina State University
Graduate Certificate Climate Adaptation

North Carolina State University
Graduate Certificate Geospatial Information Science

East Carolina University
M.S. Geology

Western Carolina University
B.S. Geology
