

Presenter: Jason Evans [14:00 to 14:30]

Presentation Title: Local Sea-Level Rise (SLR) Planning Through the South Atlantic Regional Sea Grant Resilience Initiative

Abstract: The Sea Grant College Program has in recent years funded a number of pilot studies that focus on planning for future flood risk conditions and overall climate change resilience within coastal communities. These projects have typically involved university professors, legal experts, and students working in conjunction with planning practitioners and local government officials, with an overall purpose of communicating objective information about how climate change will affect local flood risk profiles. Beginning in 2016, the Sea Grant programs of Florida, Georgia, South Carolina, and North Carolina sponsored a Southeast Atlantic Regional Resilience Project that proposed to apply consistent data development approaches (e.g., infrastructure GIS), specific analytic tools (e.g., FEMA's HAZUS-MH model), and policy recommendations (e.g., enhanced creditable activities through the Community Rating System) for partner communities in each of the four states. The overall project has revealed surprisingly substantial differences in the quality of basic infrastructure datasets, particularly with regard to local stormwater features and essential facilities that are fundamental components of effective flood hazard planning and mitigation. Other technical issues, such as examples of substantial mismatch between FEMA's regulatory Flood Insurance Rate Maps (FIRMs) and other "current condition" flood assessment approaches, have also raised some level of planning concern within communities.

Such mismatches have also prompted broader discussion that reflect growing understanding about a need to move beyond FIRMs as a standalone local flood planning standard. Using a number of lessons learned in Satellite Beach, the session will conclude with some specific thoughts about how CRS, FIRMs, and other NFIP tools—while clearly informative—are inadequate stand-alone bases for local governments in the coastal zone to undertake future flood planning and associated climate adaptation efforts.

Jason Evans, PhD.

Jason Evans is an interdisciplinary systems and landscape ecologist broadly interested in the emergent geo-spatial interfaces between human and natural systems. Most of his current research projects involve collaborations with several regional Sea Grant programs to assist local governments along the southeastern U.S. coast with sea-level rise (SLR) adaptation. Dr. Evans is working with numerous communities including: Monroe County and the Village of Islamorada, Florida; St. Marys and Tybee Island, Georgia; and Hyde County, North Carolina.

Another body of his recent research focuses on land cover change, wildlife habitat, and life cycle assessments for various bioenergy systems (including ethanol, biogas, and wood pellets) across the U.S. Dr. Evans also has extensive experience and very strong ongoing interest in the ecology, management and restoration of Florida springs ecosystems.