New Jersey Sea Level Rise and Coastal Inundation Mapper

Richard Lathrop (Ecology, Evolution and Natural Resources, Grant Walton Center for Remote Sensing and Spatial Analysis), Lisa Auermuller (Institute of Marine and Coastal Sciences, Jacques Cousteau National Estuarine Research Reserve), Jim Trimble (Grant Walton Center for Remote Sensing and Spatial Analysis) and John Bognar (Grant Walton Center for Remote Sensing and Spatial Analysis)

While sea level rise is a world-wide phenomenon, mitigating its impacts is a local decision-making challenge and is going to require site-specific remedies. Through their land use planning, development and management decisions, local decision-makers will greatly influence future impacts of sea level rise and global climate change. Faced with a variety of conflicting mandates and uncertainty as appropriate responses, local land use planner and managers need from place-based decision support system tools. To address these needs, we have developed the New Jersey Sea Level Rise and Coastal Inundation Mapper (www.NJFloodMapper.com) to help decision-makers visualize the vulnerability of key infrastructure within their communities to sea level rise or storm surge. The project has three main outcomes: 1) enhanced GIS/LiDAR-based assessment of coastal infrastructure and habitat vulnerability to sea level rise; 2) worked with user groups to develop a suite internet-accessible, user-friendly mapping and visualization tools to meet their identified needs; and 3) extensive outreach to local communities to promote enhanced preparedness and land use planning decisions in the face of continued sea level rise. The project is a collaboration between the Rutgers University Center for Remote Sensing & Spatial Analysis (CRSSA), the Jacques Cousteau National Estuarine Research Reserve (JC NERR), and the NOAA Coastal Services Center.