TRANSLATING COASTAL CLIMATE CHANGE IMPACTS TO VULNERABILITY, RISK, AND ADAPTATION

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The effects of climate change on sea-level rise (SLR) and – to a lesser extent – of other climate variables such as extreme event rainfall have been quantified within useful ranges of uncertainty under various assumptions of future behavior. To ultimately translate these effects into an adaptation plan, vulnerability and risk must first be accurately assessed. For coastal communities, two of the greatest vulnerabilities and risks will typically be from rainfall-induced and coastal surge flooding. A lesson that can be learned in Florida from our experiences over the last decade with FEMA Risk MAP updates and translated to climate change adaptation is that analyses of this nature need to be accurate to the parcel level to provide the guidance necessary to properly adapt. This presentation uses recent project examples along the east coast of Florida to demonstrate how climate change projections can be accurately translated to future vulnerabilities and risks at the parcel level as the basis for a meaningful adaptation plan.

PRESENTER BIO: Brett Cunningham, PE is a recognized expert in water resources with 32 years of experience in flood protection, water quality, water supply, natural systems, and integrated water resources planning. He excels in applying modeling and GIS to develop cost-effective water strategies. Brett serves as President of the FSA Education Foundation.