

MODELING THE 2023 COASTAL MASTER PLAN

EVENT DATE: 06-16-2020

A TECHNICAL INTRODUCTION TO THE PREDICTIVE MODELING AND DECISION-SUPPORT TOOLS

A suite of individual modeling tools was developed for the 2012 Coastal Master Plan and integrated and improved for the 2017 Coastal Master Plan. The Coastal Protection and Restoration Authority (CPRA) is once again improving and utilizing these modeling tools to support the development of the 2023 Coastal Master Plan, building upon existing technical efforts. This three-hour workshop will be held to provide a more in-depth and technical discussion of the overall modeling process and to lay a technical foundation for future modeling discussions.

Topics of discussion will include processes and underlying assumptions related to the predictive models used for Coastal Master Plan analyses as well as the tools utilized for project evaluation and selection. Predictive models include the Integrated Compartment Model (ICM), the Advanced Circulation and Simulating Waves Nearshore models (ADCIRC+SWAN), and the Coastal Louisiana Risk Assessment model (CLARA). The ICM is the primary landscape modeling tool for predicting hydrologic, vegetative, and morphological changes to coastal Louisiana wetlands. This workshop will include discussion of ICM model components, model calibration, validation, and performance assessment. Additional discussion will be provided around modeling of tropical storm surges, flood risk, and associated economic damages with ADCIRC+SWAN and CLARA, including how ICM-produced landscapes inform that modeling. An overview of the scenario-analysis methodology and decision framework used to assess candidate projects for the 2023 Master Plan will also be discussed.

This modeling workshop will be aimed at a technical audience of practicing modelers and researchers; examples of likely interested attendees include (but are not limited to): academic researchers; educators; engineering and consulting professionals; technical staff from federal, state and municipal agencies; and NGO partners.



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