



HUGH J. ROBERTS, PE

Senior Vice President and Chief Operating Officer

Hugh J. Roberts, Senior Vice President and Chief Operating Officer, has nearly 20 years of experience working with decision makers around the country in addressing essential questions of climate and flood resilience. Hugh's applied research focuses on climate adaptation for communities and ecosystems, working with interdisciplinary teams at the intersection of engineering design, planning, policy research, ecology, and technology solutions.

ORGANIZATION ROLE

Senior Vice President/Chief Operating Officer

PROJECT ROLE / FOCUS AREAS

Urban and coastal resilience

Flood risk

Compound flooding

Numerical modeling

Flood forecasting

EDUCATION

MS, Civil Engineering, Notre Dame, 2004

BS, Civil Engineering, Notre Dame, 2002

CERTIFICATIONS

Professional Engineering: LA

Hugh's decades of experience working with municipalities and regions facing climate change-driven economic, societal, and environmental risks has helped inform the tough decisions community, regional, state, and national leaders are making as they work to adapt to a changing environment. His experience working across multiple levels of government, and with collaborators in industry, universities, and research institutions, has helped communities develop approaches to climate mitigation and adaptation that both address the local needs and builds off lessons learned and replicable processes developed by communities facing similar challenges.

PROFESSIONAL EXPERIENCE

2019–Present: Senior Vice President/Chief Operating Officer, The Water Institute

2007–2018: Urban and Coastal Resiliency Practice Leader, Numerical Modeling Practice Leader, and Project Engineer and Associate Project Manager, Arcadis

SELECTED PROJECTS

Louisiana Watershed Initiative. *Coastal Protection and Restoration Agency (CPRA). (Ongoing)* Team lead for the development of model guidelines and standards for compound flooding effects (pluvial, fluvial and coastal) in the flood transition zone. The model guidelines in the compound flooding transition zone include consideration of model integration (e.g., coupling HEC-RAS and ADCIRC), selection of coincident events for simulation, and the creation of the joint probability framework.

Overseeing the development of the Louisiana FloodID system. The goals of FloodID are to advanced storm surge and compound flood hazard forecasts, provide decision support dashboards assisting multiple emergency support functions, and develop a system that could support the state beyond hurricane storm surge in coastal areas to year-round, statewide flood forecasting. The FloodID program leverages the LWI compound flood models and 2023 Louisiana Coastal Master Plan storm surge models to support the development of flood hazard forecasts.

In addition to transition zone and flood forecasting lead, playing the role of program advisor supporting modeling and data related aspects (i.e., the development of a model repository), the development of consequence modeling approaches, and supporting the evaluation of various flood risk management policies.



Combined River Basins Flood Studies. *Texas General Land Office. (Ongoing)* Coastal and compound flood risk lead in the initial phases of the program, working with USACE to develop standard operating procedures for HEC-HMS and HEC-RAS model development and flood recurrence analysis procedures. Technical advisor supporting coastal and compound flood model development and flood mitigation project evaluation.

2023 Coastal Louisiana Master Plan Model Improvement. *Louisiana Coastal Protection and Restoration Authority. (Ongoing).* Project manager coordinating aspects of flood risk for the 2023 Coastal Master Plan. This effort includes flood hazard modeling for current and future conditions, with and without project implementation scenarios, as well as coordinating with other coastal flood risk model users to create a single set of models to be used across studies within the state.

2012 and 2017 Coastal Louisiana Master Plans. *Louisiana Coastal Protection and Restoration Authority. (2010–2017).* Flood risk and mitigation team lead for the development of both the 2012 and 2017 Coastal Master Plans. The master plans are the foundation of the state's 50-year, \$50 billion-dollar plan for coastal restoration and protection, as well as determine the funding for annual spending in the state.

Resilient Houston. *Rockefeller Foundation, the City of Houston (2018–2020).* Technical Advisor. The Institute oversaw a multidisciplinary team of experts in the development of a comprehensive resilience strategy for Houston. A companion document, *Living with Water Houston*, was developed concurrently, bringing together Dutch, Louisiana, national, and local experts to develop flood risk reduction recommendations at the regional, city, bayou, and neighborhood scales.

Climate Ready Boston. *City of Boston. (2016).* Project manager and technical lead to assess the city's vulnerabilities related to climate change. The study advanced specific strategies and actions to help Boston plan for the end-of-century effects of climate change and supported the city's ambitious and comprehensive Climate Action Plan released in 2014.

City of Charleston Dutch Dialogues™
City of Charleston (2018–2019). Urban resilience and flood risk subject matter expert supporting the implementation of the resilience planning process. Following the resilience planning effort, Charleston City Council unanimously adopt the Dutch Dialogues™ recommendations to guide future water management and land-use actions.

Embarcadero Seawall Resiliency Project. *Port of San Francisco (2019).* Led the development of the multi-hazard risk assessment (MHRA) to prioritize the \$5 billion redevelopment of the San Francisco waterfront from Fisherman's Wharf to AT&T Park. The Embarcadero Seawall supports over \$100 billion in assets and annual economic activity along the waterfront and many of the city's iconic destinations. The Seawall also supports key utility and transportation infrastructure including BART, Muni, and ferry networks, and serves as a critical emergency response and recovery area. The MHRA process was structured to transparently weigh multiple hazards (seismic and flood including climate change) and life safety, economic, environmental, societal, and governance risks to prioritize program sequencing and prioritization.

Resilient Bridgeport. *City of Bridgeport. (2017).* Design lead and project manager for the HUD funded resiliency design projects funded through the Rebuild by Design (RBD) and National Disaster Resilience Competition (NDRC) including a MS4 system and stormwater park as part of the RBD.