US Army Corps of Engineers®
Galveston District

BIOGRAPHY

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Patrick Kerr, PhD, PE, D.WRE

Chief of Hydraulics and Hydrology Branch
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Dr. Kerr is the Chief of the H&H Branch for the U.S. Army Corps of Engineers Galveston District Engineering and Construction Division, which oversees the Water Management, Water Resources, and Coastal Engineering Sections. He is responsible for overseeing the preparation of designs and studies for civil works water resource and coastal projects in an area of jurisdiction encompassing the Texas coast from Louisiana to Mexico, which spans across 50,000 square miles, includes 48 counties, two parishes and 367 miles of coastline. Previously he served the Chief of the Coastal Engineering Section at Galveston District, focusing on projects which included navigation, coastal storm and flood risk management, and eco-system restoration. He has served as responsible H&H engineer for numerous Galveston District projects, most notably Gulf Intracoastal Waterway Coastal Resilience Study, Galveston PAS: Dellanera Breakwater, Corpus Christi Shipping Channel Improvements Project, Houston Ship Channel Project 11, and LaQuinta Shipping Channel Feasibility Study.

Prior to joining the Corps, Patrick worked in consulting as an international subject matter expert on coastal resiliency and flood risk, where he was a licensed engineer in 13 states, served as lead coastal engineer on projects such as the Tottenville Shoreline Protection Project on Staten Island, NY, and was an instructor for FEMA at the Emergency Management Institute and field deployments. He also previously served as the City Engineer and Director of Redevelopment Engineering for the City of South Bend, Indiana, where he led the design and construction of Mayor Pete Buttigieg's Smart Street Initiative.

Patrick earned a B.S. in Civil Engineering from the University of Evansville, IN, and an M.S. in Civil Engineering from The Pennsylvania State University, where his research was on nutrient uptake stoichiometry and the discrimination of biogeochemical processing in streams. Patrick earned his PhD from the Department of Civil & Environmental Engineering and Earth Sciences at the University of Notre Dame, where his dissertation was focused on the advancement of large-scale highly scalable and accurate computational hydrodynamic models used to simulate coastal inundation, storm surge, and waves. He has published 9 peer-reviewed articles addressing riverine processes, coastal inundation and coastal levee design. After his PhD, he worked as a post-doctoral researcher at the University of North Carolina at Chapel Hill Institute of Marine Sciences simulating 3D baroclinicity and oyster larvae transport.

Patrick has over 20 years of H&H experience and has been recognized as a Diplomate, Water Resources Engineer (D.WRE) by AAWRE, the highest level of advanced post-license certification offered in the water resources engineering profession for Professional Engineers. He is an Eagle Scout, a volunteer ABET reviewer, den leader, soccer and baseball coach, catechist, husband, and father of three boys and a girl.