BRETT MCMANN, PE, CFM

Project Manager

Brett McMann, PE, CFM, brings experience in the planning and design of flood protection and ecosystem restoration projects along the East and Gulf Coasts. He has worked extensively for agencies such as the Louisiana Coastal Protection and Restoration Authority spanning planning, engineering, and program management roles and currently leads all The Water Institute's efforts on the Louisiana Watershed initiative.

Brett earned a bachelor's degree in civil and environmental engineering with a minor in business administration from Louisiana State University and is pursuing his master's degree in civil engineering with a focus on coastal engineering from the University of New Orleans. Brett has had heavy involvement as part of the development team for Louisiana's 2012, 2017, and now 2023 Coastal Master Plans. He has served as a project manager on several large projects undertaken by The Water Institute including the Partnership for Our Working Coast modeling effort in Port Fourchon and the statewide Louisiana Watershed Initiative. Brett has experience in the planning and design of levees, pump stations, shoreline armoring, marsh creation, streambank restoration, coastal ecosystem restoration, wetlands value assessments, borrow source identification, engineering feasibility and cost-benefit analysis, municipal utility replacement, and field condition assessments.

ORGANIZATION ROLE

Project Manager

PROJECT ROLE / FOCUS AREAS

Large scale coastal restoration and risk reduction planning

Engineering design and management

Regional sediment management

Program and project management

EDUCATION

BS Civil and Environmental Engineering, Minor Business Administration, 2010

PROFESSIONAL MEMBERSHIP

American Society of Civil Engineers

Louisiana Engineering Society

PROFESSIONAL EXPERIENCE

2019–Present: Civil Engineer/Project Manager, The Water Institute

2013–2019: Staff Engineer/Task Manager, ARCADIS, U.S. Inc.

2010–2013: Engineering Specialist, Brown and Caldwell

SELECTED PROJECTS

Louisiana Watershed Initiative (LWI): Program Management and Investigation Report. *Louisiana Office of Community Development. (Ongoing). Project Manager.* Brett serves as The Water Institute's project manager for a technical staff of nearly two dozen team members charged with the development of a statewide, comprehensive $1.2B Watershed-based Floodplain Management Program. The Institute presently provides a broad array of services to the state, including development of coastal compound flooding analysis methodologies, data and model repository development, legislative and policy support, planning and policy support, and leadership of technical stakeholder groups. In addition to Institute project management, Brett has been heavily involved in the development of the LWI's data repository, consequence modeling strategy, Geographic Information Systems (GIS) and data management

guidance strategies and coordinates all engagement of the Data and Modeling Technical Advisory Group.

2023 Coastal Master Plan / Statewide, LA. *CPRA. (Ongoing). Project Scientist.* Prior to his time at the Water Institute, McMann led Arcadis' effort to develop a new database system for streamlining both the project attribute generation system. Brett works with others at The Water Institute to characterize both the likelihood and effects that disruptions to access of critical and essential facilities will have on low-lying coastal communities in future decades. This analysis focuses on the changes to access and drive times which coastal communities may have to facilities such as pharmacies, hospitals, emergency response, grocery stores, etc. due to high tide flooding.

2017 Coastal Master Plan / Statewide. *CPRA. (2015–2017). Project Scientist.* Brett led Arcadis' effort to develop attributes for several hundred ecosystem restoration and hurricane protection projects to facilitate numeric modeling and prioritization analysis. This effort included GIS analysis, cost estimation, planning-level design, data and document production automation, and regular interdisciplinary team coordination of roughly 20 internal staff and countless external partners such as The Water Institute of the Gulf, the RAND Corporation, USGS, academia, and local governmental partners.

Partnership for our Working Coast. *Greater Lafourche Port Commission. (Ongoing). Project Manager.* Brett served as project manager of an Institute-wide transdisciplinary team working for a public-private partnership consisting of the Greater Lafourche Port Commission and its tenants. The study team analyzed the ecological, risk reduction, and social benefits of various dredged sediment placement areas under consideration by the port as part of its federally authorized deepening project. The analysis included development of numeric ecosystem and risk models as well as social return on investment analysis to arm the port and its stakeholders with the best science available for future decision making.

Enhancing Benefits Evaluation for Water Resources Projects: Towards a More Comprehensive Approach for Nature-Based Solutions. *U.S. Army Engineer Research and Development Center (ERDC) and The National Science Foundation. (Ongoing).* Brett led one of the 6 case studies comprising the report, which focused on the monetization of nature-based solutions for the prior Southwest Louisiana Coastal Study. Brett performed the scientific analysis for the quantification methodologies utilized to examine how National Ecosystem Restoration (NER) and National Economic Development (NED) goals could be examined coincidentally and how cost-benefit analysis from the feasibility study changed when done so.

CDBG National Disaster Resilience Competition-Ohio Creek Watershed Transformation Plan. *City of Norfolk, VA. (2017–2019). Civil Design Lead-Coastal Elements.* Brett served as co-lead for all civil design of flood protection, living shoreline, and coastal engineering tasks of a $120M flood risk resiliency system funded via HUD's NRDC grant competition. Brett coordinated with and lead an interdisciplinary architectural and engineering team to synthesize storm water, nature based shoreline solutions, and public spaces within the resiliency design.

CDBG National Disaster Resilience Competition-South Boston Resiliency Plan. *City of Boston, MA. (2017–2019). Coastal Resilience Engineer.* Brett served as a team lead for the planning of a flood risk resiliency system funded via HUD's NRDC grant to enable South Boston to redefine itself in the face of sea level rise.

SELECTED CONFERENCE PROCEEDING AND PRESENTATIONS

1. Bienn, H.C., A. Cobb, Z. Cobell, J. Fischbach, S.A. Hemmerling, K. Jankowski, E. Jarrell, D. Johnson, B. McMann, J. Parfait, H. Roberts, R. Sanderson, Y. Wang, and E.D. White. (2020). 2023 Coastal Master Plan: High Tide Flooding. Version I. (pp. 1-70). Baton Rouge, Louisiana: Coastal Protection and Restoration Authority.
2. I. Alday, M. Monclús, S. Hemmerling, B. McMann. Urban, Water, and Social Integration Plan for Queilmes, Argentina. 2020.
3. B McMann, R Simoneaux III. 2018. Development of Project Attributes and Costs for the 2017 Coastal Master Plan. Louisiana Civil Engineer-Journal of the Louisiana Section. February 2018. Vol. 26 No. 2.