



BRETT MCMANN, PE, CFM

THE WATER INSTITUTE
OF THE GULF



Company Role

Civil Engineer

Areas of Expertise

- Large Scale Coastal Restoration and Risk Reduction Planning
- Engineering Design and Management
- Regional Sediment Management
- Program and Project Management

Education

- M.S. – Civil Engineering, University of New Orleans - expected graduation 2022
- B.S. - Civil and Environmental Engineering, Minor Business Administration - May 2010

Registration / Certification

- Professional Engineer, Civil Water Resources and Environmental. LA No. 39894
- Professional Engineer, Civil Water Resources and Environmental. TX No. 124465

Professional Memberships

- American Society of Civil Engineers
- Louisiana Engineering Society
- American Shore and Beach Preservation Association

Experience Profile

Brett McMann, P.E., CFM, brings experience in the planning and design of flood protection and ecosystem restoration projects along the East and Gulf Coasts, most notably for the Louisiana Coastal Protection and Restoration Authority (CPRA), where he has been involved in the proposal, scoping, execution, and closeout of more than 20 task orders spanning planning, engineering, and program management roles.

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. Mr. McMann has experience in the planning and design of flood protection and ecosystem restoration projects along the East and Gulf Coasts for an array of local, state, federal, and private clients. Mr. McMann has had heavy involvement as part of the development team for Louisiana's 2012, 2017, and now 2023 Coastal Master Plans. 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.

Professional Experience

The Water Institute of the Gulf	2019 (June) -Present
• <i>Civil Engineer</i>	
ARCADIS, U.S. Inc.	2013 - 2019 (June)
• <i>Staff Engineer/Task Manager</i>	
Brown and Caldwell	2010 – 2013
• <i>Engineering Specialist</i>	

Selected Projects (continued on page 2)

2023 Coastal Master Plan / Statewide, LA, CPRA (ongoing) (2018-present), McMann led Arcadis' effort to develop a new database system for streamlining both the project attribute generation system as well as for data handoffs between various end-user model groups. 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, LA CPRA, (2015-2017): 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. Brett also assisted in planning and executing numerous public outreach engagements with local and regional stakeholders.

Virginia Coastal Master Plan (2021): Brett served in a supporting role to assist the Commonwealth, its stakeholders, and contractors in early plan framing and architecture considerations. This work ultimately helped lead to the creation of legislatively created state governmental bodies and programs intended to mimic other coastal states' programs, such as Louisiana's Coastal Protection and Restoration Authority and its multi-year master planning process.

Louisiana Watershed Initiative (LWI): Program Management and Investigation Report. Statewide, LA (2018-present). Brett serves as The Water Institute's project manager of a technical staff 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 leads the development of the LWI's data repository, Geographic Information Systems (GIS) and data management guidance strategies and coordinates all engagement of the Data and Modeling Technical Advisory Group.

Partnership for our Working Coast (2018-present): Brett serves 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 is analyzing 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 includes 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.

CDBG National Disaster Resilience Competition-Ohio Creek Watershed Transformation Plan (2017-2019):

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, living shoreline, green infrastructure, and public use spaces within the resiliency design.

CDBG National Disaster Resilience Competition-South Boston Resiliency Plan (2017-2019): Brett served as a team lead for the planning and prioritization of a flood risk resiliency system funded via HUD's NRDC grant competition to enable South Boston to continue to redevelop and redefine itself in the face of future sea level rise.

Gulf Coast Community Protection & Restoration District 6 Counties Flood Protection Study, Phases I, II, and III/Orange, Jefferson, Chambers, Harris, Galveston, Brazoria Counties, TX (2016-2018): Brett assisted in an effort to define storm surge risk reduction alternative measures by leading the alignment layout, quantities calculation, and cost estimation for various alternatives spanning approximately 50 miles of the Texas coast. This effort formed the foundation of multiple federal feasibility studies and now project implementation. Brett lead the effort to establish a universal project planning framework across various consultants and entities for uniform reporting.

Program Management and Advisory Services for the Calcasieu Ship Channel Salinity Control project (CS-0065, CS-0087), Cameron and Calcasieu Parishes, LA (2017-present) Brett served as a program manager tasked with overall project management, scheduling, scoping, risk analysis, procurement strategy, engineering design QA/QC, and public outreach strategy for the \$150M of salinity control features through the planning and feasibility stages of the project.

Selected Conference Proceedings 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 Quelmes, 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.
4. B McMann, R Brouillette, I. Harrouch. 2018 Planning Future Hurricane Protection in South Central and Southwest Louisiana. Proceedings of the State of the Coast Conference. June 1-3, 2018. New Orleans, LA.
5. B McMann, M. Schulze, H. Sprague, and K. Smyth. 2017. 2017 Coastal Master Plan: Appendix A: Project Definition. Coastal Protection and Restoration Authority- Version: Final. Baton Rouge, LA.
6. B McMann, P Tschirky, M Schulze, E Meselhe. 2016. Beneficial Use of Mississippi River Navigation Dredged Material. Proceedings of Ports 2016: 14th Triennial International Conference of the American Society of Civil Engineers. June 13-15, 2016. New Orleans, LA.