ALYSSA DAUSMAN, PH.D.

Senior Vice President and Chief Scientist

ORGANIZATION ROLE

Senior Vice President / Chief Scientist

PROJECT ROLE / FOCUS AREAS

Research strategy & coordination

Structured decision making

Hydrology

EDUCATION

Ph.D., Geosciences, Florida International University, 2008

MS, Geology, University of New Orleans, 2000

BS, Geology, Tulane University, 1996

PROFESSIONAL MEMBERSHIP

American Geophysical Union

International Association for Energy Economics

U.S. Department of State Bureau of Educational & Cultural Affairs Fellows Alumni

Seaside Institute

Alyssa Dausman, Senior Vice President and Chief Scientist, oversees all science and research at the Water Institute. As part the of the senior executive team, Alyssa works with the CEO and COO supporting all administrative and operations functions to maintain a sustainable and impactful nonprofit.

She continues to perform scientific research and strategically leads select large-scale projects or programs involving Structured Decision Making to support strategic planning such as the Louisiana Governor's Climate Task Force and the Capital Area Groundwater Conservation Commission in the Greater Baton Rouge area. As a result of her work, she was invited to speak in Paris, France at the United Nations Educational, Scientific, and Cultural Organization headquarters on integrating science into policy for water resource planning. She has also been funded by the Department of State to teach Structure Decision Making in Armenia to support natural resource planning.

Alyssa began her career as a hydrologist with the U.S. Geological Survey in Florida in 2000 after completing her B.S. at Tulane University and her M.S. at the University of New Orleans. She received her Ph.D. from Florida International University in 2008. During her years in Florida, she focused on numerical modeling and water availability in both the Floridan and Biscayne aquifers, as well as model independent parameter estimation and uncertainty analysis. This work led her to teach all over the world, including India, Portugal, and Mexico.

In 2011, she moved back to the northern Gulf to work on coastal restoration after the Deepwater Horizon Oil Spill. She was staffed to the Gulf Coast Ecosystem Restoration Task Force and was a senior representative to the U.S. Department of the Interior to support both the Gulf Coast Ecosystem Restoration Council (RESTORE Council) and restoration monitoring for the Natural Resource Damage Assessment process.

Alyssa later served as the Science Director for the RESTORE Council, an independent federal agency created by the RESTORE Act in 2012. She focused on Gulf restoration and science for the council, comprised of the governors of the five Gulf states and cabinet-level officials from six federal agencies. At the Council, she led the consensus-based development of the Initial Funded Priorities List—a $156 million suite of projects containing on-the-ground restoration activities. Alyssa also served as the senior scientist in drafting the Council's 2016 Comprehensive Plan.

A supporter of advancing educational opportunities and networking, Alyssa is a Director on the Board for the Newcomb Alumni Association at Tulane University. An avid yoga practitioner, Alyssa has also volunteered for over 10 years teaching yoga to active military in the Gulf Coast with the Warriors at Ease program, for which she was recognized with the Commemorative Service Award in 2020 by Naval Special Warfare.

PROFESSIONAL EXPERIENCE

2017–Present: Senior Vice President / Chief Scientist, The Water Institute

2023–Present: Adjunct Professor, Louisiana State University

2015–2017: Science Director, Gulf Coast Ecosystem Restoration Council

2011–2015: Science Advisor and Coordinator, United States Geological Survey (USGS)

2000–2011: Hydrologist, USGS

SELECTED PROJECTS

Long-Term Strategic Water Sustainability Planning. *Capital Area Groundwater Conservation Commission. (Ongoing).* Leading the development of a strategic plan for water resources sustainability in the greater Baton Rouge area utilizing a structured decision making (SDM) framework.

USACE Research & Development Strategy. *U.S. Army Corps of Engineers (USACE) (2021).* Led an interdisciplinary team that facilitated the development of a strategy for elevating and coordinating programmatic research and development across the entirety of the USACE R&D portfolio.

Louisiana Climate Action Plan. *Louisiana Governor's Office of Coastal Activities (2021).* Led the process to support the Climate Initiatives Task Force in developing a roadmap and specific actions to meet the state's goal of net zero greenhouse gas emissions by 2050. This effort engaged more than 140 experts, four Advisory Groups, and six Sector Committees, as well as the public, through a transparent process grounded in a SDM framework.

Data Synthesis. *Science for Nature and People Partnership (SNAPP) and National Center for Ecological Analysis and Synthesis (NCEAS) (2016–2020).* As part of the Coastal Restoration Working Group, worked to better define governmental agency needs for decision making, assessing past restoration projects, and develop tools that will help future decision making through comprehensive data assimilation and analysis.

Initial Funded Priorities Development. *Gulf Coast Ecosystem Restoration Council (2015).* Lead on developing the first set of restoration projects approved for over $156 million in funding for the Gulf Coast Ecosystem Restoration Council.

SELECTED PUBLICATIONS

1. Carruthers, T., Jones, B., Terrell, M., Scheibly, J., Player, B., Black, V., Ehrenwerth, J., Biber, P., Connolly, R., Crooks, S., Curole, J., Darnell, K., Dausman, A., DeJong, A., Doyle, S., Esposito, C., Friess, D., Fourqurean, J., Georgiou, I., … Waycott, M. (2024). Identifying and filling critical knowledge gaps can optimize financial viability of blue carbon projects in tidal wetlands. *Frontiers in Environmental Science*, *12*.

2. Mohamed, A., Yang, S., Chen, Y., Tsai, F., & Dausman, A. (2024). Complex unstructured-grid groundwater modeling using centroidal Voronoi tessellation refinement and curve fitting. *Journal of Hydrology*, *637*.

3. Kiskaddon, E., Dalyander, P. S., DeJong, A., McHugh, C., Parfait, J., Littman, A., Hemmerling, S. A., & Dausman, A. (2023). Evaluation of emission reduction and other societal and environmental outcomes: Structured decision making for the Louisiana climate action plan. *Journal of Environmental Management*, *345*(118936).

4. Hemmerling, S. A., Haertling, A., Shao, W., Di Leonardo, D., Grismore, A., & Dausman, A. (2024). "You turn the tap on, the water's there, and you just think everything's fine": A mixed methods approach to understanding public perceptions of groundwater management in Baton Rouge, Louisiana, USA. *Frontiers in Water*, *6*, 1289400.

5. Gittman, R., Baillie, C., Arkema, K., Bennett, R., Benoit, J., Blitch, S., Brun, J., Chatwin, A., Colden, A., Dausman, A., DeAngelis, B., Herold, N., Henkel, J., Houge, R., Howard, R., Hughes, A. R., Scyphers, S., Shostik, T., Sutton-Grier, A., & Grabowski, J. (2019). Voluntary restoration: Mitigation's silent partner in the quest to reverse coastal wetland loss in the USA. *Frontiers in Marine Science*, *6*.

6. Arkema, K., Bennett, R., Dausman, A., & Materman, L. (2019). United States: Blending finance mechanisms for coastal resilience and climate adaptation. In L. Mandle, Z. Ouyang, J. E. Salzman, & G. Daily (Eds.), *Green growth that works: Natural Capital Policy and Finance Mechanisms Around the World*. Island Press.