ORGANIZATION ROLE

Senior Vice President / Chief Scientist

PROJECT ROLE / FOCUS AREAS

Technical coordination

Team 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

ALYSSA DAUSMAN, PH.D.

Senior Vice President and Chief Scientist

Alyssa has more than 20 years of experience working in hydrology and science to support decision-making. She led strategic planning efforts for the Louisiana Governor's Climate Task Force as well as for the Capital Area Groundwater Conservation Commission in the greater Baton Rouge area utilizing structured decision making.

She 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 while working with the USGS. 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 RESTORE Council and restoration monitoring for the Natural Resource Damage Assessment process. In addition to serving as the Institute's Senior Vice President and Chief Scientist, Dr. Dausman serves as the Chief Scientist of the RESTORE Act Center of Excellence for Louisiana. She also is an adjunct professor at LSU in geology.

Alyssa previously served as the Science Director for the Gulf Coast Ecosystem Restoration 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, Alyssa 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.

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 Coordination, United States Geological Survey

2000–2011: Hydrologist, United States Geological Survey

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 structured decision making.

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).* Project Director. The Institute is advising the Governor's Office through a one-year planning process to support the Climate Initiatives Task Force in developing a roadmap and specific actions to meet the state's ambitious goal of net zero greenhouse gas emissions by 2050. This effort engages more than 140 multidisciplinary experts across the Task Force, four Advisory Groups, and six Sector Committees, as well as the public, throughout a transparent and collaborative planning process grounded in a Structure Decision Making (SDM) framework.

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

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

Restoration Monitoring Development. *Natural Resource Damage Assessment Process.* Support to the Department of Interior and Trustee Council post-Deepwater Horizon Oil Spill to develop monitoring practices and plans for restoration projects.

SELECTED PUBLICATIONS

1. 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*.
2. Chen, Y.-H., Vahdat-Aboueshagh, H., Tsai, F., Dausman, A., & Runge, M. (2023). Unstructured-grid approach to develop high-fidelity groundwater model to understand groundwater flow and storage responses to excessive groundwater withdrawals in the Southern Hills Aquifer System in southeastern Louisiana. *Journal of Hydrology: Regional Studies*, *46*.
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. DeAngelis, B.M., Sutton-Grier, A.E., Colden, A., Arkema, K.K., Baillie, C. J., Bennett, R.O., Benoit, J., Blitch, S., Chatwin, A., Dausman, A., Gittman, R.K., Greening, H.S., Henkel, J. R., Houge, R., Howard, R., Hughes, A.R., Lowe, J., Scyphers, S.B., Sherwood, E. T., Westby, S., Grabowski, J.H. Social Factors to Landscape-Scale Coastal Restoration: Lessons Learned from Three U.S. Case Studies. *Sustainability* 2020, *12*, 869.
6. Gittman RK, Baillie CJ, Arkema KK, Bennett RO, Benoit J, Blitch S, Brun J, Chatwin A, Colden A, Dausman A, DeAngelis B, Herold N, Henkel J, Houge R, Howard R, Hughes AR, Scyphers SB, Shostik T, Sutton-Grier A and Grabowski JH (2019) Voluntary Restoration: Mitigation's Silent Partner in the Quest to Reverse Coastal Wetland Loss in the USA. *Front. Mar. Sci.* 6:511. doi: 10.3389/fmars.2019.00511
7. Arkema K, Bennett, R, Dausman A, Materman, L. (2019) United States: Blending Finance Mechanisms for Coastal Resilience and Climate Adaptation chapter Green Growth that Works, chapter 14