# DIANA R. DI LEONARDO, P.G.

*Research Scientist: Water Resources*

Diana Di Leonardo is a Research Scientist with The Water Institute in the Applied Geosciences Department. She had four years of experience researching and working on the Louisiana coast as part of Mead Allison's research group at Tulane University prior to coming to the Water Institute. Di Leonardo also spent two years at Tulane working with a research group that builds lab scale delta models. Prior to arriving in Louisiana, Di Leonardo explored the Oregon and Washington coasts for her master's research. She participated in hundreds of nearshore survey transects to track sandbar migration and demarcate flood maps. These rocky coast environments provide a fascinating contrast to Louisiana's marshes. She earned her BA in Geosciences from Hamilton College and her MS in Geology from Oregon State University.

## COMPANY ROLE

Geoscientist

## PROJECT ROLE / FOCUS AREAS

Coastal Geology

Wetland and Fluvial Fieldwork

Big Data Science

## EDUCATION

MS Geology, Oregon State University, 2013

BS Geosciences, Hamilton College, 2010

## PROFESSIONAL MEMBERSHIP

American Shore and Beach Association

Professional Geologist, registered in Louisiana, #1298

## PROFESSIONAL EXPERIENCE

2018-Present: Research Scientist: Applied Geosciences, The Water Institute

2016-2019: Laboratory Supervisor, Tulane University

2013-2016: Laboratory Specialist, Tulane University

2010-2012: Graduate Teaching Assistant, Oregon State University

## SELECTED PROJECTS

**Capital Area Groundwater Conservation Commission: Phase 2: Long Term Strategic Planning for Water Resources.** *(Ongoing).* The Capital Area Groundwater Conservation Commission will use the data and information provided by this project to make critical aquifer management decisions

**SmartPort.** *(Ongoing).* This project aims to develop tools for ports along the Mississippi River, including a shoaling forecast using crowd sourced data.

**Barrier Island Topographic State: Indicators of Resistance vs Resilience** *(Ongoing)* Support the Monitoring and Adaptive Management Strategy of the Louisiana Trustee Implementation Group relating to barrier islands. There is an identified need for barrier island creation, restoration, and maintenance (resilient/maintained over time) with the goal of reducing land and habitat loss. This project will develop and document an approach for assessing and characterizing barrier island response to natural processes (e.g., changes to dune morphology and island resistance or resilience to overwash and sea-level rise).

**Partnership for Our Working Coast, Louisiana.** The Partnership for Our Working Coast is working to identify beneficial, nature-based solutions for dredge material to contribute to Louisiana's coastal sustainability efforts, protect coastal communities, and support America's Working Coast.

## SELECTED PUBLICATIONS


1. Di Leonardo, D., B. McMann, M. M. Baustian, M. C. Bregman, C. Esposito, I. Y. Georgiou, S. A. Hemmerling, H. Jung, and M. D. Miner. 2023. "A Community-Informed Transdisciplinary Approach to Beneficial Use of Sediment for Wetland Restoration in Louisiana, USA." Proceedings of Coastal Sediments Conference.
2. Hemmerling, Scott A., Christine Demyers, Jessica Parfait, Edwin Piñero, Melissa M Baustian, Martijn Bregman, Diana Di Leonardo, Christopher Esposito, Ioannis Y Georgiou, Audrey Grismore, Hoonshin Jung, Brett Mcmann, Michael D Miner. 2023. A Community-Informed Transdisciplinary Approach to Coastal Restoration Planning: Maximizing the Social and Ecological Co-Benefits of Wetland Creation in Port Fourchon, Louisiana, USA. Frontiers in Environmental Science. In press.
3. Beltrán -Burgos, M., Esposito, C.R., Nepf, H.M., Baustian, M.M., and Di Leonardo, D.R. (In review*).* Seasonal Sediment Dynamics in a Freshwater Marsh of the Mississippi River Delta. *Journal of Geophysical Research: Biogeosciences.*
4. Esposito, C. R., Di Leonardo, D., Harlan, M., Straub, K. M. 2018. Sediment Storage Partitioning in Alluvial Stratigraphy: The Influence of Discharge Variability. Journal of Sedimentary Research, 88(6), 717–726. doi: 10.2110/jsr.2018.36
5. Stephens, J.D., M.A. Allison, D.R. Di Leonardo, H.D. Weathers III, A.S. Ogston, R.L. McLachlan, F. Xing, E.A. Meselhe. 2017. Sand dynamics in the Mekong River channel and export to the coastal ocean. Continental Shelf Research (147), 38-50.
6. Di Leonardo, Diana and Ruggiero, Peter, 2015. Regional Scale Sandbar Variability: Observations from the Pacific Northwest. Continental Shelf Research (95), 74-88. http://dx.doi.org/10.1016/j.csr.2014.12.012