Background
The Water Institute of the Gulf is a not-for-profit, independent applied research institute headquartered in Baton Rouge, Louisiana dedicated to providing advanced understanding and technical expertise to support management of coastal, deltaic and water systems, within Louisiana, the Gulf Coast and around the world. Our mission supports the practical application of innovative science and engineering, providing solutions that benefit society. More information about the Water Institute can be found at our website www.thewaterinstitute.org

Position Description
The Water Institute is seeking a Coastal Water Quality Modeler to conduct numerical modeling work in coastal and deltaic environments with a focus of simulating water quality constituents of nutrients, phytoplankton, salinity, total suspended solids, and dissolved oxygen. This is a full-time position with benefits and will report to and work closely with Melissa Baustian, Coastal Ecologist and Director of the RESTORE Act Center of Excellence as well as work closely with research engineers and water resource scientists from the Coastal & Deltaic Systems Modeling group. The position will provide technical support in the development and application of surface water quality models (e.g., Delft3D-WAQ, FVCOM, ROMS, EFDC/HEM3D, WASP, SWAT, FVCOM) to assess how coastal ecosystems respond to restoration alternatives, land use, climate change, and other stressors. Therefore, this candidate will be expected to work closely with partners from academia, industry, and local, state, and regional governments as necessary to generate exemplary, world-class applied research.

This position will involve working within a dynamic team of natural and social science researchers at the Water Institute supporting a variety of coastal restoration studies, mostly in coastal Louisiana. The incumbent will calibrate and validate an existing ecosystem model of coastal Louisiana and develop new regional models to estimate how various coastal restoration decisions can influence the estuarine hydrology, water quality, and biogeochemical cycles and budgets (nitrogen, phosphorus, and carbon). The position may also require integration of natural and human system data to assess the effectiveness of nature-based solutions.

We are seeking an early career scientist that is extremely motivated that wants to learn new skills, attract external funding, and is capable of effective cross-disciplinary collaboration. Responsibilities will reflect career stage and previous experience. Workload will vary from week to week, and the successful
candidate will be flexible, willing to occasionally work evenings, and travel for meetings and conferences. The Institute expects to offer a competitive salary and benefits commensurate with a candidate’s skills and experience. This is a full-time exempt position and is based in Baton Rouge, Louisiana.

Required qualifications include:

- PhD or MS degree plus two to three years of experience in oceanography, coastal or aquatic ecology, limnology, environmental science, engineering or other water-related field
- Excellent written skills, ability to describe highly technical information clearly (including writing technical reports, non-technical summaries, and publishing in peer-reviewed scientific journals)
- Strong oral communication skills for discussing highly technical concepts to diverse audiences (including oral presentations at project meetings and scientific conferences; discussions at stakeholder meetings)
- Ability to work harmoniously in a collaborative research team is crucial
- Pro-active attitude to problem solving, ability to work independently, and self-motivated

Desired qualifications include:

- Expertise in at least one numerical model that deals with hydrodynamics and water quality in rivers, estuaries, or coastal zones
- Experience in model development (e.g., Delft3D-WAQ) and programming at the source code level using FORTRAN, C, Python, Matlab, etc
- Knowledge and experience with data analysis and interpretation using statistical techniques with Matlab, R, SAS, etc
- Experience with integrated models, GIS, and high-performance computing are considered a plus
- Understanding of current scientific literature related to water quality of coastal ecosystems
- Strong project management and time management skills
- Identify and assist with acquisition of funding from public, private, and federal sources
- Field work experience in estuaries including the use of small boats

How to Apply

Interested persons should apply online at The Water Institute of the Gulf’s Career Center. Applications should include a cover letter highlighting accomplishments as they relate to the position, a full CV, PDF copies of representative writing (e.g., thesis or peer-reviewed publications), and the names and contact information of three references. Questions and clarifications on duties and qualifications can also be directed to Lyndsey Mitchell, HR Manager, via email at lmitchell@thewaterinstitute.org.

For additional information, please visit our website www.thewaterinstitute.org.