

Qizhong (George) Guo, Ph.D., P.E., BC.WRE

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EDUCATION

- **Ph.D., Civil Engineering (Water Resources)**, University of Minnesota, Minneapolis, MN, Sept. 1991
- **M.S., Civil Engineering (Water Resources)**, University of Minnesota, Minneapolis, MN, Feb. 1987
- **B.E., Civil Engineering (Hydraulic & Hydropower)**, Tianjin University, Tianjin, China, July 1982

PROFESSIONAL REGISTRATION & CERTIFICATION

- **Board-Certified Water Resources Engineer (BC.WRE)**, American Academy of Water Resources Engineers (May 2010–Present)
 - **Professional Engineer (P.E.)**, Civil Engineering, State of Minnesota (July 1992–Present)
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AREAS OF EXPERTISE

- Urban Stormwater and Flood Management
 - Inland, Estuarine, and Coastal Water Restoration
 - Hydraulics, Hydrology, and Water Resources Engineering
 - Green–Grey–Blue–Smart (GGBS) Water and Urban System Resilience
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EMPLOYMENT HISTORY

Rutgers, The State University of New Jersey-New Brunswick, Piscataway, NJ

Professor; Associate Professor; Assistant Professor | Sept. 1992–Present

- Department of Civil and Environmental Engineering

Lemna Corporation, St. Paul, MN *Research and Development Engineer* | April–August 1992

University of Minnesota, Minneapolis, MN *Research Associate; Research Assistant; Teaching Assistant* | Sept. 1985–April 1992

- St. Anthony Falls Hydraulic Laboratory
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PUBLICATIONS

Author of over 200 publications, including books, journal articles, and technical reports.

Selected Books

- Guo, Q. (Ed.). (2017). *Guidelines for Certification of Stormwater Manufactured Treatment Devices*. American Society of Civil Engineers (ASCE).
- Guo, Q. (2013). *Automatic Vacuum Flushing Technology for Combined Sewer Solids*. IWA Publishing.
- Horikawa, K. & Guo, Q. (Eds.). (2009). *Civil Engineering (Vols. 1-2)*. UNESCO, Eolss Publishers.

Selected Journal Articles

- Lin, Z., Meneses, D. M., & **Guo, Q.** (2025). Impacts of Reflective Heat Gain on Substrate Temperatures and Plant Growth Heterogeneity of a Constructed Green Roof. *Journal of Sustainable Water in the Built Environment*, ASCE.
 - **Guo, Q.** (2023). Strategies for a resilient, sustainable, and equitable Mississippi River basin. *River*.
 - Byrne, B. A. & **Guo, Q.** (2021). Removal of Salt Marsh-Impairing Tidal Flow Restrictions: Impact on Upstream Flooding. *Journal of Hydrologic Engineering*, ASCE.
 - Weinstein, M. P., **Guo, Q.**, & Santasieri, C. (2021). Protecting People and Property While Restoring Coastal Wetland Habitats. *Estuaries and Coasts*, CERF.
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PRESENTATIONS (Selected)

- **Invited Speaker:** "Green, Grey, Blue, and Smart (GGBS) Infrastructure for Pluvial, Fluvial, and Coastal Flood Resilience." Morgan State University, NSF CREST, Sept. 11, 2025.
 - **Invited Speaker:** "Flood Mitigation and Ecosystem Enhancement through Green Stormwater Infrastructure and Blue Acres Floodplain Restoration." University at Buffalo - SUNY, Sept. 24, 2021.
 - **Plenary Address:** "Mitigating Combined Sewer Overflow (CSO) and Restoring Urban Water Environment." Sustainable Cities: The iSEE Congress 2018, University of Illinois, Oct. 5, 2018.
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PROFESSIONAL ACTIVITIES & SERVICE (Selected)

- **Principal Investigator:** Implemented six rain gardens, two porous parking lots, and three Blue Acres of floodplain restoration via National Fish and Wildlife Foundation grant.
 - **Principal Investigator:** Led a multi-disciplinary team on a flood risk reduction strategy study for the **State of New Jersey Governor's Office of Recovery and Rebuilding** following Superstorm Sandy.
 - **Chair:** ASCE Task Committee on Guidelines for Certification of Stormwater Manufactured Treatment Devices.
 - **President:** Chinese American Water Resources Association.
 - **Media Expert:** Featured in *Gothamist*, *Science Channel*, *Fox 5*, *MSNBC*, *The Star-Ledger*, and *North Jersey Record*.
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TEACHING & MENTORSHIP

Courses Taught (Selected):

- Fluid Mechanics, Design of Environmental Engineering Facilities, Advanced Hydrology, Sediment Transport, Analysis of Receiving Water Quality, Coastal Engineering, and Green Infrastructure for Water Management.

Research Advising and Mentoring:

- Supervised **15 Doctoral students**, **65 Master's students**, and **4 Postdoctoral scholars**.