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

Professor, Department of Civil and Environmental Engineering Rutgers University-New Brunswick 500 Bartholomew Road, Piscataway, NJ 08854 **Phone:** 848-445-2983 | **Email:** Qguo@rutgers.edu **Web:** https://qizhong-guo.org

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)

AREAS OF EXPERTISE

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

EMPLOYMENT HISTORY

Rutgers University-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 Laboratory

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.

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.

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*.

TEACHING & MENTORSHIP

Courses Taught (Selected):

- Fluid Mechanics, Design of Environmental Engineering Facilities, 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**.