



Stephanie M. Glenn, Ph.D.

Houston Advanced Research Center (HARC)
4800 Research Forest Dr., The Woodlands, TX 77381
Phone (281) 364-6042 Fax (281) 363-7914
Email sglenn@HARCresearch.org

Education:

Ph.D. in Environmental Science and Engineering, June 2002
Rice University, Dept. of Environmental Science and Engineering, Houston, TX

Master of Science in Environmental Science, December, 1996
Indiana University, School of Public and Environmental Affairs, Bloomington, IN

Bachelor of Arts in Mathematics, June, 1994
Northwestern University, Evanston, IL

Professional Experience:

Program Director, Hydrology and Watershed, HARC, The Woodlands, TX, 2011 – Present
Research Scientist, HARC, The Woodlands, TX, 2002 - 2011

- Plans and executes research through the use of data management and spatial analysis
- Applies a wide variety of environmental science principles to sustainability concerns
- Develops and writes white papers, proposals and technical reports on environmental research issues
- Investigates water resources topics, focusing on sustainability and management practices
- Manages projects, including budgets, timelines, deliverables and project team members
- Develops water quality monitoring and modeling plans including Quality Assurance Project Plans (QAPP)

Post-Doc Research Associate to Professor Philip Bedient, Rice University, Dept. of Environmental Science and Engineering, Houston, TX, July 2002 - December 2002

- Evaluated pollutant fate and transport in ground and surface water at contamination sites
- Modeled ground water flow scenarios using GIS and MODFLOW
- Performed site analysis and prepared technical reports documenting on and off-site contaminant levels and locations
- Assisted graduate students with modeling software, data analysis, and thesis content
- Teaching assistant for Hydrology & Contaminant Transport

Research Associate to Professor Philip Bedient, Rice University, Dept. of Environmental Science and Engineering, Houston, TX, August 1999 – July 2002

- Modeled effects of groundwater overpumping on aquifer water levels
- Evaluated the effectiveness of integrating radar rainfall data in ground water modeling using GIS and MODFLOW
- Assisted with undergraduate labs such as Hydrologic Design lab; lecturing and grading for Groundwater Hydrology, Chemical Transport and Fate, and Watershed Analysis

Senior Information Management Specialist, Defense Programs Task Manager, U.S. Department of Energy, Washington, DC, December 1997 – December 2002

- Provided systems application support to 1200 users, performed software installation and data

migration to new systems

- Managed the Defense Programs Task, duties included conducting interviews, performance reviews, task organization, and weekly deliverables assessment
- Participated in distributed computational management for Defense Programs Information Architecture task
- Advised Defense Programs on mathematical applications for graphics presentations of technical data

Ecological Specialist at Rock Creek Park and the Department of Interior, National Park Service, Washington, DC, March 1997 – November 1997

- Identified species using quadrat methods for vegetation map of Rock Creek Park
- Conducted habitat assessment to determine effects of increased population on ecosystems
- Monitored/mitigated invasive exotics, accessing data from the Smithsonian Herbarium

Teaching Assistant, School of Public and Environmental Affairs, Bloomington, IN, Aug.-Dec. 1996

- Organized field equipment and literature for weekly labs in Forest Ecology
- Guided students in lab report assignments and identification of upland terrestrial species
- Located and prepared field study sites

Research Assistant to Professor Randolph, Indiana University, Bloomington, IN, May-Dec 1996

- Collected and organized data regarding carbon cycling in mixed-deciduous ecosystems
- Implemented field, laboratory and modeling methods to evaluate carbon pools and fluxes
- Analyzed environmental condition responses to model differing management scenarios

Traveling Technical Consultant, SEER Technologies, Cary, NC, July 1994 – July 1995

- Instructed clients on the use of SEER's Case tool, HPS
- Built applications and coded using SEER*HPS Rules Language
- Solved problems with previously built applications for a diverse clientele

Invited Reviews and Presentations:

- Reviewer for NSF International Research Experiences for Students (IRES) grants program; completed review in November 2009
- Participated in Center for Houston's Future Water Supply chapter as an invited reviewer in 2010, attended organization meeting with CHF for the water supply chapter
- Proposal reviewer for the Graduate Women in Science (GWIS) Fellowship Committee in 2011
- Reviewed journal article for peer reviewed Journal of Environmental Quality in January 2012
- Participated in NOAA's NERRS (National Estuarine Reserve Research Systems) proposal review process in 2012; the process involved the review of ten proposals through three submissions and amendments over six months and two all-day conferences with other reviewers across the country to discuss the positives and negatives on the proposals for funding
- Invited presenter in January 2014 at The Planning Workshop on Sustainability of Engineered Rivers in Arid Lands: Outlook to 2060; invited to present on ground and surface water interactions in these river basins
- Invited presenter in June 2015 at the International symposium on "Sustainability Research for Engineered River Basins" in Hannover, Germany; presented on sustainability of ground water
- Invited to chair sessions on the Water-Energy Nexus at the Center for Houston's Future Business Leadership forum in Galveston Texas in March 2016.

Publications and Presentations:

Glenn, S., Moreno-Earle, C., Wise, B., and Bedient, P. (2001) Modeling Effects of Groundwater Overpumping on Water Levels near Tampa, Florida: Building a Base for Accurate Water Balances through the Use of NEXRAD and GIS. Bridging the Gap: pp. 1-10. doi: 10.1061/40569(2001)89

Glenn, Stephanie, 2001. "Modeling Layered Aquifer Systems: A Case Study of the Effects of Ground Water Overpumping." In Hydrology and Floodplain Analysis, Third Edition. Bedient, P. and Huber, W., Upper Saddle River, N.J.

"Analysis of Recharge in Ground Water using NEXRAD in a GIS framework" presented and in the proceedings at the American Water Resources Association's Summer 2002 Specialty Ground Water/Surface Water Interactions Conference in Keystone, Colorado.

Poster presentation: "Threatened and Endangered Species in Big Bend National Park and Quality of Streams in Texas" at the USGS National Biological Information Infrastructure 2004 Annual Conference in Big Sky, Montana.

Chaired "Management Applications: Gulf Coast Aquifers and Groundwater Issues" Session at the Texas Groundwater 2004 Towards Sustainability Conference in Austin, Texas.

"Streams & Water Quality in Texas: Using Interactive Mapping Applications as part of the National Biological Information Infrastructure" presented at the Universities Council on Water Resources July 2005 River and Lake Restoration: Changing Landscapes in Portland, Maine.

"Invasives Species Tracking: Handhelds and GeoDatabases" presented at the Texas Invasives Pulling It Together Initiative Regional Conference, November, 2005 in Austin, Texas.

"Streams of Ecological Significance and Impaired Streams in a GeoDatabase Infrastructure" presented and in proceedings at the American Water Resources Association's May 2006 GIS & Water Resources Conference in Houston, Texas.

"Citizen Science: Invasive Species Monitoring Program of the Houston-Galveston Region" presented at the State of the Bay Symposium, January, 2007 in Galveston, Texas.

Chaired "Control & Management" session for the Texas Invasives Conference in November 2007, in Austin, Texas.

"As the Heron Flies: Trends in Population Abundance and Distribution of Texas Coastal Colonial Waterbirds" presented at the Estuarine Research Foundation's November 2007 biennial conference in Providence, Rhode Island.

"Groundwater Contamination and Water Quality Trends in the Gulf Coast Aquifer of Texas" presented at the American Water Resources Association's 2008 annual conference in New Orleans, Louisiana.

"An analysis of the relationship between land use and arsenic, vanadium, nitrate and boron contamination in the Gulf Coast aquifer of Texas", Stephanie M. Glenn, L. James Lester, Journal of Hydrology, Volume 389, Issues 1-2, 28 July 2010, Pages 214-226, ISSN 0022-1694, 10.1016/j.jhydrol.2010.06.002. (<http://www.sciencedirect.com/science/article/pii/S0022169410003379>)

"An analysis of the relationship between land use and arsenic, vanadium, nitrate and boron



contamination in the Gulf Coast aquifer of Texas – Summary Results”, presented to the Houston Council of Engineering Companies in June 2010.

“Water quality characterization and watershed planning in Double Bayou, a rural watershed of an urban estuary” presented at the Coastal Estuarine Research Foundation’s November 2011 biennial conference in Daytona, Florida.

Chaired lunch session on Tidal Riparian Zones at the American Water Resources Association’s June 2012 summer specialty conference on Riparian Ecosystems IV: Advancing Science, Economics, and Policy in Denver, Colorado.

“Communicating the Importance of Riparian Resources in Water Quality Management” presented at the American Water Resources Association’s June 2012 summer specialty conference on Riparian Ecosystems IV: Advancing Science, Economics, and Policy in Denver, Colorado.

“Stakeholder perceptions and priorities: modeling and data in watershed planning in Double Bayou, a rural watershed of an urban estuary” presented at the Coastal Estuarine Research Foundation’s November 2013 biennial conference in San Diego, California.

“Coastal watershed planning – Modeling Bacterial Loads in a rural watershed for BMP implementation” presented at the American Water Resources Association’s Annual conference in November 2014 in Washington, D.C.

“Wetland Functionality in Response to Energy Exploration and Production Operations on the Upper Gulf Coast” presented at the American Water Resources Association’s Annual conference in November 2015 in Denver, CO.