Education

Ph.D. in Aquatic Ecology, University of Georgia, Athens, GA, 2013 B.S. in Biology, University of Memphis, Memphis, TN, 1978

Professional Experience

- Presently: Independent Scholar and Writer
 Editing, publishing, and marketing phase of authoring book, Saving Our Water and Ourselves, about how people share and protect water from local to international scales
- Practice and Policy Fellow, National Socio-Environmental Synthesis Center (SESYNC), Annapolis, MD (2016-2022)
 - Independently researched and wrote book on how people share and protect water around the world
- **Certified Chemical Analyst**, JLA, Inc., ISO-IEC accredited global food testing company offering services in agronomy, agricultural economics, statistical quality control, analytical systems, and food safety and manufacturing (2015-2018)
- Associate Editor, Initiated and co-launched Special Issue on Groundwater/Surface Water Interaction for Freshwater Science (2012-2014)
- K-12 Educational Program Coordinator, University of Tennessee at Martin Reelfoot Lake Research Center, Samburg, TN. Organized and facilitated outreach programs to increase use of UT Martin research facility by K12 teachers (2003-2006)
- **Secondary Education Science Instructor**, Taught Biology, Chemistry and AP Biology, at Craigmont High School, Memphis, TN (2001-2006)
- Middle School Art Instructor, Taught Exploratory Art at Raleigh-Egypt Middle School, Memphis, TN (1996-2001)
- **Sole proprietor, Free-lance artist and instructor**, Produced logos, resolutions, publications and advertising art for individuals, institutions and Fortune 500 clientele. Memphis, TN (1981-2006)

Funding, Grants, and Scholarships

- Dissertation Completion Award, University of Georgia Graduate School, 2012-2013, \$23,092
- UGA Department of Biology Graduate Teaching Assistantship, 2011-2012, \$15,452
- UGA Graduate School Innovation and Interdisciplinary Research Grant, 2011, \$1,000
- Air and Waste Management Association Graduate Scholarship Recipient, 2010, \$1,000
- Georgia Water Resources Institute: FY 2009 State Research Program 104B Grant, \$18,000
- USFWS/ GA DNR Graduate Research Assistantship, 2008-2009, \$24,000

Honors, Leadership and Service

- Best Paper in 2020 Case Studies in the Environment (University of California Press) https://doi.org/10.1525/cse.2020.1112837; \$2,000
- Frank Golley Memorial Leadership Scholarship, Odum School of Ecology, 2011-2012, \$2,787
- American Water Resources Association Richard A. Herbert Memorial Leadership Scholarship, 2008-2009, \$2,000
- President, American Water Resources Association, Student Chapter, UGA, 2007-2008
- President, Tennessee Educators of Aquatic & Marine Sciences (TEAMS), 2004-2006
- Organizer and Facilitator, Reelfoot Corps Teacher Training Workshops, 2004 -2006
- WET (Water Education Teams) Program Coordinator, 2004-2005
- Project WET (Water Education for Teachers) Facilitator, 2001-2005

Publications

- **Rugel, K.** (2024). Up close and personal: an essential ingredient in transboundary water basin agreements, Water International, 49:3-4, 532-539, DOI: 10.1080/02508060.2024.2321794
- **Rugel, K**. (2020). Stakeholders Reach Consensus in Troubled Waters: Apalachicola-Chattahoochee-Flint River Basin, Southeastern USA. *Case Studies in the Environment, 4*(1).
 - Winner of Best Paper in 2020 *Case Studies in the Environment* (University of California Press) https://doi.org/10.1525/cse.2020.1112837
- Rugel, K., Golladay, S. W., Jackson, C. R., McDowell, R. J., Dowd, J. F., & Rasmussen, T. C., 2019. Using hydrogeomorphic patterns to predict groundwater discharge in a karst basin: Lower Flint River Basin, southwestern Georgia, USA: *Journal of Hydrology: Regional Studies*, 23, 100603. https://doi.org/10.1016/j.ejrh.2019.100603
- **Rugel, K.,** Golladay, S. W., Jackson, C. R., & Rasmussen, T. C., 2016. Delineating groundwater/surface water interaction in a karst watershed: Lower Flint River Basin, southwestern Georgia, USA: *Journal of Hydrology: Regional Studies* 5: 1-19. http://dx.doi.org/10.1016/j.ejrh.2015.11.011
- Larned, S.T., M.N. Gooseff, A.I. Packman, **K. Rugel** and S.M. Wondzell, 2014. Groundwater-surface water interactions: current research directions. *Freshwater Science*, 34 (000-000). Published online November 2014. http://www.jstor.org/stable/10.1086/679491.
- **Rugel, K.,** C.R. Jackson, J.Romeis, S.W. Golladay, D.W. Hicks, and J.F. Dowd, 2012. Effects of center pivot irrigation on streamflows in a karst environment. *Hydrological Processes*, 26 (523-534), doi:10.1002/hyp.8149.
- Rugel, K., S. W. Golladay, and C. R. Jackson, 2011. Identifying groundwater/stream interaction in the lower Flint River Basin using multiple stream parameters and remote sensing data sets. *In* Proceedings of the 2011 Georgia Water Resources Conference, *held* April 11-13, 2011, *at* University of Georgia, Athens, GA.
- **Rugel, K.,** J.Romeis, C.R. Jackson, S.W. Golladay, D.W. Hicks, and J.F. Dowd, 2009. Use of historic data to evaluate effects of pumping stress on streams in southwest Georgia. *In* Proceedings of the 2009 Georgia Water Resources Conference, *held* April 27-20, 2009, *at* University of Georgia, Athens, GA.

Oral Presentations

Rugel, K., 2018. "Getting to Water: How neighbor and nation are sharing our most precious resource."

4th International Conference on Water Resources and Wetlands, *held* September 7, 2018, in Tulcea Romania

- Rugel, K., S.W. Golladay, C.R. Jackson, R.J. McDowell, J.F. Dowd, 2017. "Effects and Drivers of Groundwater-Surface Water Interaction in the Lower Flint River Basin, Southwestern GA, USA." Presentation to University of Wisconsin Milwaukee ACF Issues Class, held May 25, 2017, Jones Ecological Research Center, Newton, GA
- Rugel, K., S.W. Golladay, C.R. Jackson, 2013. "Uptake of groundwater cations by stream biofilms." 2013 Annual Meeting of the Society of Freshwater Science, *held* May 21, 2013, Jacksonville, FL
- Rugel, K., S.W. Golladay, C.R. Jackson, 2013. "Physiochemical heterogeneity at multiple scales in a groundwater-dependent stream: Lower Flint River Basin, southwestern Georgia, USA." 8th annual International Association of Hydrological Sciences Groundwater Quality Conference 2013, held April 22, 2013, University of Florida, Gainesville, FL
- Rugel, K., R. McDowell, J.F. Dowd, S.W. Golladay, C.R. Jackson, 2012. "Investigating groundwater/stream interaction between the Upper Floridan Aquifer and streams in the Lower Flint and Chattahoochee River Basins, GA, USA." Geological Society of America Southeastern Meeting, *held* April 1-2, 2012, Asheville, NC
- Rugel, K., R. McDowell, J.F. Dowd, S.W. Golladay, C.R. Jackson, 2011. "Comparing bedrock fracturing trends with stream reach chemistry in a karst basin: Lower Flint River Basin, Georgia, USA." 4th Annual Greater Atlanta Geomorphology and Hydrology Research Conference, *held* December 3, 2011, University of Georgia, Athens, GA
- Rugel, K., S.W. Golladay, C.R. Jackson, 2011. "Combining isotopic and physiochemical analyses with remote sensing imagery to identify groundwater/stream interaction in a karst region: Lower Flint River Basin, SW Georgia, USA." North American Benthological Society, *held* May 24, 2011, Providence, RI
- Rugel, K., S. W. Golladay, and C. R. Jackson. 2011. "Identifying groundwater/stream interaction in the lower Flint River Basin using multiple stream parameters and remote sensing data sets." 2011 Georgia Water Resources Conference *held* April 11-13, 2011, University of Georgia, Athens, GA
- Rugel, K., 2009. "Using streamflow records and end-member mixing to analyze surface water and groundwater connectivity in the Lower Flint River Basin, southwest Georgia." Graduate Student Symposium, *held* January 23-24, 2009, Odum School of Ecology, University of Georgia, Athens, GA
- Rugel, K., J.Romeis, C.R. Jackson, S.W. Golladay, D.W. Hicks, and J.F. Dowd. 2009. "Use of historic data to evaluate effects of pumping stress on streams in southwest Georgia." Georgia Water Resources Conference, *held* April 27-20, 2009, University of Georgia, Athens, GA
- Rugel, K., J.Romeis, C.R. Jackson, S.W. Golladay, D.W. Hicks, and J.F. Dowd. 2008. "Assessing the effects of groundwater withdrawals on baseflow recession behavior of Coastal Plain streams in southwest Georgia using historic stream flow record," Southeastern Environmental Flows Partnership Conference, Athens, GA
- Rugel, K., 2008. "Investigating the effects of groundwater withdrawals on Coastal Plain streams in the Lower Flint River Basin." Odum School of Ecology Graduate Student Symposium, University of Georgia, Athens, GA
- Rugel, K., 2007. "Ecological impacts of groundwater pumping in Coastal Plain streams: Investigating groundwater-surface water connections in the Lower Flint River Basin." Joseph W. Jones Ecological Research Center, Newton, GA

Association Memberships

International Water Resources Association