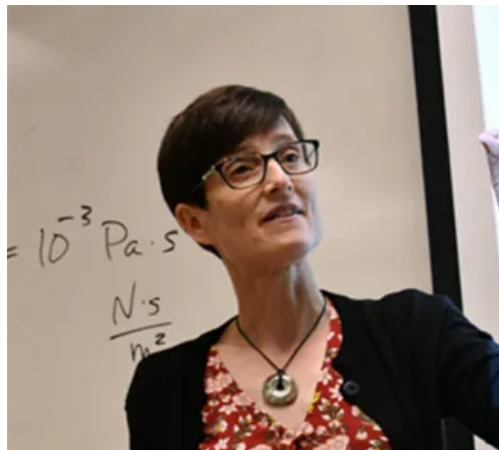


*The Carolinas Chapter of the
Association of Environmental & Engineering Geologists presents:*

2023 Darcy Lecture Series in Groundwater Science & Dinner Meeting in Greenville, SC

Guest Speaker:

Dr. Alicia Wilson



Meeting Details:

- Place:** Birds Fly South Ale Project at Hampton Station,
1320 Hampton Ave, Greenville, SC 29601
- Food:** MooHogz Craft BBQ (brisket, ribs, collards, cheese mac, beans, cole slaw)
- Date:** Thursday, March 23, 2023
- Time:** 5:30 PM socializing begins, 7:00 buffet dinner, 8:00 Dr. Wilson's talk
- Cost:** AEG and ASCE members \$35; non-members \$45; public-sector employees and teachers \$20. **Students free** w/ college ID.
- Reservations:** Please make reservations and prepay by 6:00 PM on Monday, March 16, 2023 at <http://aegcarolinas.org/news/>. *Registration will be \$5 more at the door.*
Students - register by March 20 by emailing meeting planner Jonathan Gerst at jgerst@peakhydrogeologic.com.
- Continuing Education:** 1 CE credit for Dr. Wilson's presentation.

Presentation:

Subseafloor Hydrogeology: Moving beyond watersheds

The field of submarine groundwater discharge (SGD) was launched in the 1990s by the remarkable discovery, via naturally-occurring isotopic tracers, that saline groundwater was discharging to the South Atlantic Bight in very large volumes. Subsequent studies confirmed that saline groundwater discharges to the Atlantic Ocean in volumes that rival river discharge. All available evidence indicates that this saline groundwater is highly enriched in nutrients compared to river water, so the nutrient contributions of this submarine discharge exceed that of river discharge. These findings have been slow to find widespread acceptance, however, because it has been exceedingly difficult to confirm this flow by means other than the original isotopic tracers. This discharge does not occur near the shoreline, and no conceptual models for SGD far from shore existed.

This changed recently when new studies using heat as a tracer identified clear pulses of groundwater discharge 10-15 km offshore in the South Atlantic Bight. This talk investigates this 20-year mystery and the recent discoveries that suggest that it may be time to rewrite chemical budgets for the coastal ocean.

Dr. Wilson's Biography:

Alicia Wilson is a professor of hydrogeology in the School of the Earth, Ocean, and Environment at the University of South Carolina. She specializes in coastal hydrogeology, with a particular focus on coastal ecohydrology and submarine groundwater exchange. A fellow of the Geological Society of America, Wilson has served as the chair of the GSA Hydrogeology Division and the Director of the School of the Earth, Ocean, and Environment. She is a recipient of the University of South Carolina's Mungo Undergraduate Teaching Award. Wilson holds a Ph.D. from the Johns Hopkins University, an M.S. from Stanford University, and a B.A. from Dartmouth College. She held a National Research Council Postdoctoral Research fellowship at the USGS in Reston, Virginia, and held a postdoc at the University of California, Santa Barbara.

Darcy Lecture Series:

The Henry Darcy Distinguished Lecture Series in Groundwater Science fosters interest and excellence in groundwater science and technology. It was established in 1986 and named in honor of Henry Darcy of France for his 1856 investigations that established the physical basis upon which groundwater hydrogeology has been studied ever since. Each year, a panel of scientists and engineers invites an outstanding groundwater professional to share his or her work with their peers and students through this lecture series. The Darcy Lecture Series is most often presented at universities and professional associations throughout the world.