



Meet Erin Haacker

Erin Haacker, PhD

Assistant Professor, Department of Earth and
Atmospheric Sciences

University of Nebraska-Lincoln

haacker@unl.edu

Erin Haacker is an assistant professor of hydrogeology at the University of Nebraska-Lincoln in the Department of Earth & Atmospheric Sciences. Since starting her PhD program in Environmental Geosciences and Environmental Science and Policy at Michigan State University in 2011, her work has focused on various modeling approaches to characterize the High Plains (Ogallala) Aquifer. This work has led to her favorite part of research: collaborations across several fields related to water sustainability for agriculture. In her work as a postdoc at the Nebraska Water Center, she led an author team of students and postdocs to investigate the applications of model integration across disciplines in water resources management. She is currently working with her students to combine statistical and numerical modeling approaches to assess groundwater models that are used for regulatory purposes, and to integrate insights from social science. She teaches courses including Groundwater Modeling, Environmental Geology, and Groundwater Geology. Dr. Haacker works with Girls Code Lincoln and participates in outreach events for the Nebraska State Museum to bring programming and water science to the public.

“How do you plan to advance UCOWR’s mission of leading in education, research and public service in water resources?”

There are many professional organizations that focus on water resources, but UCOWR has unique strengths in connecting academics from many disciplinary backgrounds. There is a story that Charles V. Theis had help from a mathematician friend to adapt equations for heat transfer to the flow of groundwater to wells; although Theis’s friend, Clarence Lubin, did the work to derive what is now known as the Theis Equation, he declined to be listed as a co-author, in part because he was working from well-established principles in his own field. Given the massive flux of scientific papers published every year, and the demonstrated value of taking knowledge from one field and applying it to others, I believe that the network of experts comprised by UCOWR is exactly the type of environment in which research can transcend disciplines to create quantum leaps in understanding hydrologic systems. It is no longer possible to keep up with a broad discipline, let alone recent advances in allied fields, which only increases the importance of this kind of peer-to-peer cross-disciplinary network.

Our physical environment is changing, and organizations like UCOWR can connect water experts across disciplines as varied as hydrogeology, agricultural economics, geomicrobiology, and water law. It is vital for all these fields to come together to form a shared understanding of important hydrologic systems, from the atmosphere to the oceans, especially social dynamics and decision making. Likewise, it is vital for students to be drawn into this kind of interdisciplinary network, to afford the kinds of opportunity that I was lucky to have as a student and postdoc. My focus in UCOWR would be to find ways to increase student involvement in the organization, and to promote collaborations across disciplines. I would work to increase the number of roundtable discussions, encourage student inclusion in roundtables, and build on these and other events to create cross-disciplinary working groups united around specific topics. I would also seek more public-facing opportunities for UCOWR to communicate water science broadly. For example, the Association of Women Geoscientists distributes a list of suggested speakers, and UCOWR could maintain an analogous list. I look forward to UCOWR’s part in the future of hydrologic research, education, and service.