
CONFERENCE AGENDA

Tuesday, September 30, 2014

- 8:30–5:15 Field Trip: Water Resources of the Kansas River Alluvial Aquifer
(Holiday Inn conference entrance)
- 5:15–7:00 Conference Registration and Mixer
(Holiday Inn Brazilian A)

Wednesday, October 1, 2014

- 7:00–8:15 Registration** (Hallway), **Poster Session Setup** (Regency A&B), and **Continental Breakfast** (Regency C&D)
- 8:15–8:30 Plenary Session** (Regency A&B)
Introductions
Welcome: Rex Buchanan, Interim Director, Kansas Geological Survey
Announcements
- 8:30–9:20 Keynote Presentation—William Alley, Former Chief, USGS Office of Groundwater** (Regency A&B)
Fracking and Sustainability: Major Challenges in Earth Science Communication
- 9:20–10:00 Session I—Groundwater Modeling of Aquifer Systems** (Regency A&B)
- 9:20–9:40 Using a Three-Dimensional Hydrogeologic Framework to Investigate Potential Sources of Springs in the Death Valley Regional Groundwater Flow System: *Mary C. Hill, Claudia C. Faunt, Wayne R. Belcher, and Donald S. Sweetkind*
- 9:40–10:00 Simulation of Groundwater Flow and Chloride Transport in the Equus Beds Aquifer: *Brian Klager and Brian Kelley*
- 10:00–10:20 **Break** (Regency C&D), **Visit Exhibits** (Hallway)
- 10:20–11:20 Session II—Groundwater Modeling of Aquifer Systems (cont.)** (Regency A&B)
- 10:20–10:40 Evaluating Water Management Improvement Strategies in the Kansas Lower Republican River Basin: *Andrea Brookfield, Susan Stover, Chris Gnau, and Chris Beightel*
- 10:40–11:00 Post Audit Results for the Platte West Well Field Groundwater Model: How Good Were Our Predictions? *Luca DeAngelis*
- 11:00–11:20 Improving Our Understanding of Groundwater in the Ozarks: An Overview of the U.S. Geological Survey Ozark Regional Aquifer Study: *Brian R. Clark, Phillip D. Hays, and Anna Nottmeier*
- 11:20–12:00 Session III—Karst Hydrogeology, Groundwater Resources** (Regency A&B)
- 11:20–11:40 An Update on the Recharge Area of Selected Large Springs in the Ozarks: *Jerry L. Prewett, James W. Duley, and Cecil Boswell*
- 11:40–12:00 A New Artificial Recharge Approach Using Direct Push Wells for Aquifer Storage and Recovery in Near-Surface Aquifers: A Case Study in the Lower Republican River Basin: *Gaisheng Liu, Steve Knobbe, Ed Reboulet, Donald O. Whittemore, Falk Händel, and James J. Butler, Jr.*
- 12:00–1:00 **Lunch**—provided (Regency C&D)

CONFERENCE AGENDA

- 1:10–2:10 Session IV A—Concurrent Session—Groundwater-Surface Water Interactions**
(Regency A)
- 1:10–1:30 Consequences of Rapid Snowmelt Events on Soil Nutrient Loss in a Mesic Tallgrass Prairie, the Konza Prairie LTER Site, Northeastern Kansas: *G. L. Macpherson*
- 1:30–1:50 Documenting Stream/Groundwater Interaction in the South Platte River: *Douglas Hallum, Steven Sibray, and Leslie Howard*
- 1:50–2:10 Integrated Water Management Modeling for Adaptive Management of Groundwater Systems in Nebraska: *Mahesh Pun*
- 1:10–2:10 Session IV B—Concurrent Session—Groundwater and Energy Production**
(Regency B)
- 1:10–1:30 Combustion of Pine/Macroalgae Pellets of Varying Mixture Composition: *Christopher Depcik, Edward Peltier, Val Smith, and Jin Ho Yun*
- 1:30–1:50 The Impacts of Carbon Dioxide Storage in the Saline Arbuckle Aquifer on Freshwater Aquifers in Kansas: *Tiraz Birdie, Lynn Watney, Paul Gerlach, Michael Killion, Eugene Holubnyak, Jennifer Raney, Tandis Banjoli, Gene Williams, Minh Nguyen, and Brownie Wilson*
- 1:50–2:10 Potential Impacts of Hydraulic Fracturing on Drinking Water Resources: *Steve Randtke*
- 2:10–3:10 Session V—Posters (Regency A&B) and Exhibits (Hallway) Session**
View and discuss posters with authors; visit exhibits
- Surface and Groundwater Data Collection and Application for Integrated Water Management in Nebraska: *Carol Myers Flaute, Mahesh Pun, and Jennifer Schellpeper*
- Playa Wetland Distribution and Geomorphology in Western Kansas Using a LiDAR-Derived DEM: *Melissa Goldade and William C. Johnson*
- Groundwater-Level and Storage-Volume Changes in the Equus Beds Aquifer near Wichita, Predevelopment to 2014: *Cristi V. Hansen and Joshua A. Whisnant*
- An Analysis of the Ohio River Basin Water Balance and Future Predictions under a Warming Climate: *Dave Howarth*
- Development of a Modeling Tool for Determining Fully Appropriated Areas in Nebraska: *Ruopu Li, Melissa Mosier, Mahesh Pun, Jessie Wietjes, Brandi Flyr, and Sudhansh Chinta*
- CO₂ Flux from Grassland Headwater Streams: *Michael Rawitch and G. L. Macpherson*
- Simulation of Groundwater Flow and Effects of Potential 21st Century Climate Scenarios on Lakes in the Sand Hills Region, Nebraska: *Nathan Rossman and Vitaly Zlotnik*
- Nitrate in Groundwaters in Farmers Elevator Company Site, Sylvan Grove, Kansas: *Samuel Stone, Shovan Barua, Michael Vega, Chris Steincamp, and Saugata Datta*
- Groundwater Management Resources and Tools on the Kansas Geological Survey Website: *Daniel R. Suchy, Brownie Wilson, Debora Stewart, and Dana Adkins-Heljeson*
- Little Arkansas River and Equus Beds Aquifer Water Quality Before and Concurrent with Large-Scale Artificial Recharge, South-Central Kansas, 1995–2012: *Daniel Tappa, Jennifer Lanning-Rush, and Andrew Ziegler*

CONFERENCE AGENDA

3:10–4:50	Session VI A—Concurrent Session—Groundwater Management (Regency A)
3:10–3:30	Michigan’s Groundwater Management Tool: <i>Brant O. Fisher</i>
3:30–3:50	Ten Years of Integrated Water Management in Nebraska: <i>Jennifer J. Schellpeper and Melissa Mosier</i>
3:50–4:10	INSIGHT: Development of a Web-Based Water Information System: <i>Brandi Flyr</i>
4:10–4:30	Creating the Climate for Conservation: Nested Systems to Support Agricultural Community Adaptation to Groundwater Scarcity: <i>Stephen Gasteyer</i>
4:30–4:50	Groundwater Modeling as a Tool in Drought Management, Rock Valley Rural Water District, Sioux County, Iowa: <i>Mike Gannon</i>
3:10–4:50	Session VI B—Concurrent Session—Groundwater Quality, Aquifer Characterization (Regency B)
3:10–3:30	CO ₂ as a Control on Microbial Activity in Anoxic Aquifers: <i>Matthew Kirk and Qusheng Jin</i>
3:30–3:50	A Case for Direct Groundwater Velocity Measurements: <i>J. F. Devlin</i>
3:50–4:10	Evaluating the Use of In-Well Heat Tracer Tests Monitored by DTS as a Method of Measuring Vertical Borehole Flow: <i>Steve Sellwood, David J. Hart, and Jean M. Bahr</i>
4:10–4:30	Characterizing a Glacial Till Aquitard using Ambient and Pumping Stresses: <i>David B. Hisz</i>
4:30–4:50	Recent Advances in Hydrogeologic Characterizations of the Shallow Subsurface Using Direct-Push Technology, Nuclear Magnetic Resonance, and Distributed Temperature Sensing: <i>Gaisheng Liu, James J. Butler, Jr., Steven Knobbe, Edward C. Reboulet, Geoffrey Bohling, Elliot Grunewald, and David Walsh</i>
5:00–6:00	Cash bar (Regency C&D)
6:00–7:00	Banquet (Regency C&D)
7:00	Speaker —Rex Buchanan, Interim Director, Kansas Geological Survey Topic: Induced Seismicity

Thursday, October 2, 2014

7:00–8:00	Continental Breakfast (Regency C&D)
8:00–9:50	Session VII—High Plains Aquifer (Regency A&B)
8:00–8:10	Introduction to the session
8:10–8:30	The High Plains Aquifer: Past, Present, and Future: <i>Erin M. K. Haacker, Anthony D. Kendall, and David W. Hyndman</i>
8:30–8:50	Simulating the Land Surface Response to Drought and Climate Change Across the High Plains: <i>Anthony D. Kendall and David W. Hyndman</i>
8:50–9:10	WRF Model Sensitivity to Land Surface Model and Cumulus Parameterization under Short-Term Climate Extremes over the Southern Great Plains of the United States: <i>Lisi Pei, Nathan Moore, Shiyuan Zhong, Lifeng Luo, Dave W. Hyndman, Warren E. Heilman, and Zhiqiu Gao</i>
9:10–9:30	Assessing the Major Drivers of Water-Level Declines: New Insights into the Future of the High Plains Aquifer: <i>James J. Butler, Jr., Donald O. Whittemore, and Brownie Wilson</i>

CONFERENCE AGENDA

- 9:30–9:50 Analysis of Chemical Storage and Transit Times to Characterize Water Movement Through a Thick Unsaturated Zone Overlying the High Plains Aquifer, Northwestern Kansas: *Britney S. Katz, Randy L. Stotler, Daniel R. Hirmas, Donald O. Whittemore, James J. Butler, Jr., Jon J. Smith, and Greg A. Ludvigson*
- 9:50–10:10 Break (Regency C&D), Visit Exhibits (Hallway)**
- 10:10–11:50 Session VII—High Plains Aquifer (cont.) (Regency A&B)**
- 10:10–10:30 Hydrogeomorphic Attributes of the High Plains Playas, Western Kansas: *William C. Johnson, Mark W. Bowen, and Melissa M. Goldade*
- 10:30–10:50 Hydrostratigraphic Drilling Record Assessment (HyDRA): Assessing the Utility of Drillers’ Logs in Development of Three-Dimensional Aquifer Models: *Carolyn F. Helm and Geoffrey C. Bohling*
- 10:50–11:10 Developing a Groundwater Model for the High Plains Aquifer in West-Central Kansas: Hydrostratigraphic Characterization and Delayed Recharge: *Brownie Wilson, Gaisheng Liu, Geoffrey C. Bohling, Donald O. Whittemore, and James J. Butler, Jr.*
- 11:10–11:30 Sedimentologic and Stratigraphic Characterization of Cored Sediments from the High Plains Aquifer System of Western Kansas: *Greg A. Ludvigson, Jon J. Smith, John Doveton, Rolfe Mandel, Laura Murphy, Anthony Layzell, Randy L. Stotler, and Richard Sleezer*
- 11:30–11:50 Recharge Characteristics of the High Plains Aquifer Near a Predominately Dry River: *Molly Long, Donald O. Whittemore, James J. Butler, Jr., and Randy L. Stotler*
- 11:50 Concluding Remarks, Invitation to Next Year’s Conference**