### Tuesday, November 15, 2022

4:00 - 6:00 p.m. - Early Registration & Vendor Set-up

6:00 – 7:30 p.m. – Welcome Event

## Wednesday, November 16, 2022

7:30 a.m. – Registration/Tour Exhibits

8:30 a.m. – Opening Session/Welcome

Connie Owen, Kansas Water Office Director

8:40 a.m. - Presentation of Colors & Pledge of Allegiance

8:45 a.m. – Welcome Mayor Pro Tem Mark Hatesohl

9:00 a.m. - Governor's Office

9:10 a.m. - Water Legacy Award Presentation

10:00 a.m. - Break/Tour Exhibits

10:15 a.m. – Roger Pulwarty, Senior Scientist, NOAA

11:00 a.m. – Collin O'Mara, President & CEO, National Wildlife Federation

11:45 a.m. – Vendor networking and lunch set up

12:00 p.m. - Lunch

12:30 p.m. "Success Stories" Presentation

1:15 p.m. – Release for dessert bar

1:30 p.m. - Afternoon Breakout Session:

Lucas Bessire, Author

Facilitator: Matt Unruh, Kansas Water Office

2:15 p.m. - Break/Tour Exhibits

2:30 p.m. – 3:30 p.m. – Afternoon Breakout Sessions:

**Current Events: Drought** 

Moderator: Doug Kluck, NOAA Michael Sheer, Hazen and Sawyer

Ryan Larsen, U.S. Army Corps of Engineers, Northwestern Division

Jim Butler, Kansas Geological Survey, University of Kansas

Kevin Low, National Weather Service

## **Regenerative Agriculture to Restore Kansas Resources**

Moderator: Angela Anderson, Kansas Water Office

Andy Lyon, Kansas Dept. of Agriculture, Division of Conservation

Eric Fuchs, Understanding Ag

Michael Thompson, Soil Health Alliance

3:30 p.m. - Break/Tour Exhibits

3:45 p.m. – 4:45 p.m. – Afternoon Breakout Sessions:

## **Kansas Water Challenges from a Utility Perspective**

Moderator: Tracy Streeter, Burns & McDonnell
Toby Dougherty, City Manager, City of Hays
Matt Allen, City Manager, Garden City
Steve Shute, Vice-Mayor, City of Gardner

## **Groundwater Issues: Nitrate and Water Quality**

Moderator: Tom Stiles, Kansas Dept. of Health and Environment Fred Jones, City of Garden City Mike Schultz, Upper Republican RAC Rob Gavin, Kansas Dept. of Health and Environment

4:55 p.m. – 5:30 p.m. – Optional Session:

## A conversation on the Playa Lakes Joint Venture Tomorrow's Water program:

Join Playa Lakes Joint Venture and partners for an open meeting to discuss a successful model of partnering with local communities to create an actionable plan to ensure a clean and sustainable water supply. Tomorrow's Water is designed to be adaptable to the local situation, with each community addressing its priority needs and garnering local funding sources. All are invited to attend, particularly producers, city officials, and conservation partners concerned about water sustainability.

5:30 p.m. – 7:00 p.m. – Evening Social at Flint Hills Discovery Center

## Thursday, November 17, 2022

7:15 a.m. - Registration/Student Poster Set Up/ Tour Exhibits

8:00 a.m. – 9:15 a.m. – Concurrent Sessions

## A. Surface Water Issues

Moderator: Elizabeth Smith, Kansas Dept. of Health & Environment

- Aquatic Nuisance Species Status, Impacts, and Opportunities in Kansas; Chris Steffen, Kansas Dept. of Wildlife and Parks
- Utilizing the SWAT model & machine learning for predicting microcystin & geosmin occurrence in Cheney Reservoir; Chen Liang, University of Kansas
- Reconstructing historical water quality patterns in large Kansas reservoirs; Ted Harris, Kansas Biological Survey, University of Kansas; Jennifer Moody, Kansas Biological Survey, University of Kansas

## B. Education and Outreach

Moderator: Laura Downey, Kansas Association for Conservation and Environmental Education

- Unifying Water Buckets with Knowledge -- Improving Water Quality & Water Conservation; Stacie Minson, KCARE; Holly Dickman, City of Hays
- The Arc of Kansas Water Policy: Oral History Interviews; Rex Buchanan, Kansas Geological Survey, University of Kansas

## C. Water and Human Health

Moderator: Tatiana Lin, Kansas Health Institute

- Lessons learned from a voluntary drinking water testing project with schools and childcare facilities; Brian Bohnsack, Wichita State University
- A Movement for Clean Water in Kansas Schools; Jenna Gorton, Community Action; Tanya Dorf Brunner, Oral Health Kansas
- Empathy and the Impact of Utility Rates on Customers; Michelle DeHaven, Wichita State University

#### D. Groundwater Conservation Measures

Moderator: Lane Letourneau, Kansas Dept. of Agriculture, Division of Water Resources

- Preferences for Groundwater Management: A Survey of Kansas Irrigators; Nathan Hendricks, Kansas State University
- Are groundwater conservation management areas in the High Plains aquifer truly saving water; Donald O.
   Whittemore, Kansas Geological Survey, University of Kansas
- GMD 1's Proposed Four County LEMA, Katie Durham, Groundwater Management District 1; Mark Callender, Groundwater Management District 1

#### E. Sedimentation in Reservoirs

Moderator: Laura Totten, U.S. Army Corps of Engineers

- How Reservoir Sedimentation Changes the Future of Water in Kansas: Results from the Kansas River Reservoir Flood and Sediment Study; John Shelly, U.S. Army Corps of Engineers
- Update on the Tuttle Creek Lake Water Injection Dredging (WID) Demonstration; Josh Olson, Kansas Water Office
- North Carolina Ports Water Injection Dredging (WID) Results and Implications for Research and Development at Tuttle Creek; Zachary Tyler, U.S. Army Corps of Engineers, Engineer Research and Development Center (ERDC)

9:15 a.m. – Break/Tour Student Posters

#### **Book Signing with Lucas Bessire**

9:45 a.m. - 11:00 a.m. - Concurrent Sessions

#### A. Arkansas River Basin Water Quality Issues Panel

Moderator: Susan Metzger, Kansas Center for Agricultural Resources and the Environment and the Kansas Water Resources Institute

- Derek White, Colorado farmer
- Jonathan Aguliar, Kansas State University
- Tom Stiles, Kansas Dept. of Health and Environment
- Nicole Rowan, Colorado Dept. of Public Health and Environment

- Steve Frost, Kansas Dept. of Agriculture
- Cindy Lair, Colorado Dept. of Agriculture
- Frank Mercurio, Syracuse Dairy
- Fred Jones, City of Garden City
- Donald O. Whittemore, Kansas Geological Survey, University of Kansas

#### B. Groundwater Modeling

Moderator: Richard Rockel, Kansas Water Office

- Recharge enhancement in depleting aquifers: Delay of drainage by low-permeability sediment; Gaisheng Liu, Kansas Geological Survey, University of Kansas
- Three-Dimensional Model of the Kansas River Valley from Drillers' Logs; Geoffrey Bohling, Kansas Geological Survey, University of Kansas
- Evaluating groundwater conservation using emerging remotely sensed products; Sam Zipper, Kansas Geological Survey, University of Kansas

## C. Flood Data and Mapping Tools

Moderator: Joanna Rohlf, Kansas Dept. of Agriculture

- Visualizing Flood, Drought, and Fire from one tool: The Rapid Image Viewer; Kenneth Ekpetere, University of Kansas
- Lower Missouri River: Flood Risk Data for the Future; Will Zung, Stantec; Anish Pradhananga, Stantec
- It's Finally Here: A Live Flood Mapping Tool for Kansas; Jude Kastens, Kansas Biological Survey, University of Kansas

### D. Emerging Issues

Moderator: Carrie Ridley, Kansas Geological Survey

- Produced Water Reuse and Recovery in Kansas: Assessing our Options; Edward Peltier, University of Kansas
- Water Implications of the Energy Transition Away from Emitting Carbon Dioxide; Franek Hasiuk, Kansas Geological Survey, University of Kansas

## E. Stream Erosion and it's Impacts

Moderator: Andy Klein, Kansas Forest Service

- Using Low-Tech, Process-Based, In-stream Structures to Restore Incised Streams and Riparian Ecosystems;
   Huy Le, Juniper Environmental
- Marysville Dam Failure; Michael Mansfield, U.S. Army Corps of Engineers, Kansas City District
- Impacts to Recreation from Sedimentation in the Kansas River Basin Jennifer Henggeler, U.S. Army Corps of Engineers, Kansas City District

11:00 a.m. - Break/Tour Student Posters

11:15 a.m. - 12:10 p.m. - Mini Concurrent Sessions

#### A. Playa Lakes in Kansas

Moderator: Mike Carter, Playa Lakes Joint Venture

- Evaluating Playas in Western Kansas: Recharge to the High Plains aquifer and Economics of Cropping;
   Tony Layzell, Kansas Geological Survey, University of Kansas; Jude Kastens, Kansas Biological Survey,
   University of Kansas
- Kansas Wetlands & The Kansas Water Initiative; Matthew Hough, Ducks Unlimited, Inc.; Jim Pitman, Ducks Unlimited, Inc.

## B. Crops in a Changing Climate

Moderator: Sarah Sexton-Bowser, Kansas State University

- DropXL Sorghum: Developing Water Optimized Sorghum for Kansas using drone imagery and data driven approaches; Md Adbullah Al Bari, Kansas State University; Sarah Sexton-Bowser, Kansas State University
- Managing cropping systems for stability in the face of climate variability; Lucas Haag, Kansas State University

#### C. Municipal Water Supply

Moderator: Brad Mears, Kansas Municipal Utilities

- Current Status and Projects of the Drinking Water Protection (DWP) Program at the Kansas Department of Health and Environment; Logan M. Smith, Kansas Dept. of Health and Environment
- Municipal Water Project Planning & Implementation in an Unprecedented Environment; Jake White, Burns & McDonnell; Brian Meier, Burns & McDonnell

#### D. Hydrologic Trends in Kansas

Moderator: Sam Zipper, Kansas Geological Survey

- Long-Term Water-Quality Constituent Concentrations, Loads, and Trends in the Little Arkansas River, South-Central Kansas, 1995–2021; Mandy Stone, U.S. Geological Survey; Brian Klager, U.S. Geological Survey
- Technical Assistance and Western Kansas: The Wild West of Hydrology; Lori Schrader, Stantec; Tara Lanzrath, KS Dept. of Agriculture

## E. Management Techniques for Groundwater

Moderator: Tim Boese, Groundwater Management District 2

• Flickner Innovation Farm: Growing for the Future; Ray Flickner, Flickner Farms

• Feasibility of Augmenting Streamflow on Rattlesnake Creek from Pumped Groundwater; Jim Schneider, Olsson

12:10 p.m. – Break

12:30 p.m. - Lunch

1:15 p.m. – Student Poster Awards

Susan Metzger, Kansas Center for Agricultural Resources and the Environment (KCARE) and the Kansas Water Resources Institute (KWRI)

1:40 p.m. – Closing Speaker

Burke Griggs, Associate Professor of Law, Washburn University

2:20 p.m. – Closing Words

Connie Owen, Kansas Water Office