

# Governor's Conference on the Future of Water in Kansas

Hilton Garden Inn  
Manhattan, Kansas

# 2024



Kansas Center for Agricultural Resources and the Environment  
(KCARE)/Kansas Water Institute (KWI)  
November 13 & 14, 2024

## Tuesday, November 12

---

- 4:00 - 6:00 p.m. Early Registration & Vendor Set Up
- 6:00 - 7:30 p.m. Welcome Event

## Wednesday, November 13

---

- 8:00 a.m. Registration/Tour Exhibits
- 9:00 a.m. Opening Session/Welcome
- 9:10 a.m. Presentation of Colors
- 9:15 a.m. City of Manhattan Welcome
- 9:30 a.m. KWA Strategic Implementation Planning Update
- 10:30 a.m. Governor Laura Kelly
- 10:40 a.m. Water Legacy Award Presentation
- 10:45 a.m. Break/Tour Exhibits
- 11:00 a.m. Hannes Zacharias, University of Kansas
- 11:45 a.m. Jonathan Lundgren, Ecdysis Foundation
- 12:30 p.m. Lunch
- 1:15 p.m. "Success Stories" Presentation
- 1:45 p.m. Release for Dessert Bar and Vendor Networking
- 2:15 p.m. Afternoon Breakout 1
- 3:15 p.m. Break/Tour Exhibits
- 3:30 p.m. Afternoon Breakout 2
- 5:30 p.m. Evening Social - Flint Hills Discovery Center

## Thursday, November 14

---

- 7:15 a.m. Registration/Student Poster Set Up/Tour Exhibits
- 8:00 a.m. Concurrent Session 1
- 9:15 a.m. Break for Student Posters
- 9:45 a.m. Concurrent Session 2
- 11:00 a.m. Break for Student Posters
- 11:30 a.m. Concurrent Session 3
- 12:30 p.m. Lunch
- 1:15 p.m. Student Poster Awards
- 1:40 p.m. Senator Carolyn McGinn, Kansas State Senate District 31
- 2:20 p.m. Closing Remarks - Connie Owen, KWO
- 2:30 p.m. Adjourn

## HANNES ZACHARIAS

*Professor of Practice, University of Kansas*

Hannes Zacharias currently serves as the "Robert A. Kipp, Professor of Practice in Public Administration" at the University of Kansas in Lawrence, KS, following over 35 years of experience in city and county government in jurisdictions both small and large. Hannes has over 50 years of experience in paddling rivers throughout the Midwest.



## JONATHAN LUNDGREN

*Director, Ecdysis Foundation*

Dr. Lundgren is an agroecologist, Executive Director of Ecdysis Foundation, and CEO for Blue Dasher Farm. Lundgren's research and education programs are helping applied science evolve in ways that foster the evolution of a regenerative food system. One of his priorities is to re-envision how science is conducted to help fuel a revolution in regenerative agriculture. He regularly interacts with the public and farmers around the world regarding ecologically intensive farming and how diversity fuels the resilience and productivity of an agroecosystem and rural communities.



## CAROLYN MCGINN

*Senator, Kansas Senate*

Senator McGinn has also served on the Kansas Water Authority since 2019. As a member of the Legislature and the Kansas Water Authority, Senator McGinn has been a significant voice for water, supporting funding for the State Water Plan Fund and many water conservation and protection programs.



## 2:15 - 3:15 P.M.

### CONSERVATION USING TECHNOLOGY

KAW NATION/BIG BASIN

Moderator: Lane Letourneau  
*Kansas Department of Agriculture*

Katie Durham, *Groundwater Management District 1*

Pat Janssen, *Producer*

Fred Jones, *City of Garden City*

Shannon Kenyon, *Groundwater Management District 4*

### KANSAS CLIMATE VARIABILITY AND WATER SUPPLY

RESILIENCY

FLINT HILLS

Moderator: Rollin Hotchkiss  
*Brigham Young University*

Gary Janzen, *City of Wichita*

Joshua Roundy, *University of Kansas*

Tom Stiles, *Bureau of Water, Kansas Department of Health and Environment*

## 3:30 - 4:30 P.M.

### ADVANCING WATER AND CROP MANAGEMENT WITH OPENET

KAW NATION/BIG BASIN

Moderator: Rachel O'Connor  
*Environmental Defense Fund*

Sam Zipper, *Kansas Geological Survey*

Dwane Roth, *Front Porch Farms*

Sarah Sexton-Bowser, *Kansas State University*

### PUBLIC WATER SUPPLIERS IN KANSAS WATER MANAGEMENT

FLINT HILLS

Moderator: Daryn Martin  
*Kansas Rural Water Association*

Joe Buchanan, *Morris RWD and Neosho RAC Chair*

Holly Dickman, *City of Hays*

Matt Higgins, *City of Elkhart and Cimarron RAC Member*

Michelle Wirth, *WaterOne and Missouri RAC Chair*



Governor's Water Conference 2024



## Water Legacy Award & "Success Stories"

We will award the Water Legacy Award to an individual who has made a lasting impact on the State's water resources.

"Success Stories" recipients will be recognized for their extraordinary measures that they are taking to conserve, reuse or adopt better practices to help ensure the future of our state's water resources.

Read Thursday's presentation abstracts:



8:00 - 9:15 A.M.

## EMERGING ISSUES - MCDOWELL/TUTTLE/ALCOVE

Moderator: Tony Stahl (Kansas Department of Health and Environment)

- **3D Printed Passive Samplers for PFAS Detection in Natural Waters;** *Edward Peltier and Nathaniel Sheehan, KU*
- **Supporting the Health of Kansans by Monitoring Wastewater for Diseases;** *John Anderson, KDHE*
- **How to Optimize Water Infrastructure Planning and Design with Decarbonization in Mind;** *Ghina Yamout, CDM Smith*

## HPA GROUNDWATER MONITORING AND MODELING - KONZA PRAIRIE A/B/C

Moderator: Keadron Pearson (KWO)

- **Where is it coming from? A modeling assessment of the larger-than-expected inflow to the depleting High Plains Aquifer in Kansas;** *Gaisheng Li, KGS*
- **Lifting the Fog of Aquifer Heterogeneity: An Airborne Electromagnetic Survey of the High Plains Aquifer in Northwest Kansas;** *Jim Butler, KGS*
- **Integration of Airborne Electromagnetic and Sediment Log Data for Characterization of the High Plains Aquifer in Portions of Groundwater Management District 4;** *Geoffrey Bohling, KGS*

## ONLINE WATER TOOLS AND RESOURCES - BIG BLUE RIVER

Moderator: Kayla Savage (Kansas Commerce)

- **Integrating and Aggregating Kansas Water Data;** *William Duncan, KU*
- **Kansas Water Hub;** *Vijay Ramasamy, Governor's Office*
- **Accessing Technical Assistance through the Kansas Infrastructure Hub;** *Matt Volz, Kansas Infrastructure Hub*

## WATER QUALITY MONITORING AND TRENDS - KAW NATION

Moderator: Ben Growcock (KDHE)

- **Assessing changes in stream nitrate concentrations and transport patterns from expanding corn-soy cultivation in the Great Plains;** *Breanna Rivera-Waterman and Amy Hanson, KU*
- **Regulatory Monitoring and Enforcement at Animal Feeding Operations: The Effects on Surface Water Quality in Kansas;** *Dietrich Earnhart, KU*
- **Bromide Concentrations in the Kansas River at De Soto, Kansas, January 2021 through October 2023;** *Thomas Williams, USGS*

## ECOSYSTEM RESTORATION AND MANAGEMENT ON WATER RESOURCES - FLINT HILLS

Moderator: Andy Klein (KFS)

- **Woody plant encroachment in Kansas rangelands threatens sustainable water resources;** *Jesse Nippert, K-State*
- **Building Partnerships to Protect Rathbun Lake;** *Martin Braster, Rathbun Land and Water Alliance*
- **Bringing Life Back to Methodist Cove; Harlan County Lake Ecosystem Restoration Section 1135 Project;** *Brad Schleeter, Olsson, and Leigh Mitchell, USACE*

## ENVIRONMENTAL JUSTICE AND PUBLIC ENGAGEMENT - BIG BASIN

Moderator: Sarah Green

- **Environmental Justice in Kansas: Addressing Water Disparities through Pollution Prevention and Education;** *Cris Brazil and Arthur Fink, K-State*
- **Effective Public Engagement Strategies and Solutions for Uncertain Times in Water Management;** *Nicole Wall and Stacey Roach, Olsson*
- **Inclusive Water Resources Planning Missteps, Baby Steps, and Giant Steps towards "Water is for Everyone";** *Jennifer Henggeler, USACE*



9:45 - 11:00 A.M.

## EDUCATION AND OUTREACH - MCDOWELL/TUTTLE/ALCOVE

Moderator: Holly Dickman (City of Hays, KS)

- **Empowered Educators: Enhancing Water Education and Community Leadership Across Kansas;** *Laura Downey and Rachel Walhe, KACEE*
- **Finding the Next Generation of Water Workforce;** *Tonya Bronleewe and Analisa Munhall, Environmental Finance Center, Wichita State*
- **Conservation Program Assistance Directory;** *Katie Goff, Kansas Water Office*

## WATER AND RECREATION - BIG BLUE RIVER

Moderator: Don George (KDWP)

- **Aquatic Invasive Species - KS Distributions, Impacts, and KDWP AIS Management Projects;** *Chris Steffen, KDWP*
- **Educational connections and community collaborations at Emporia State University's Prophet Aquatic Research & Outreach Center;** *Daphne Mayes, Alexandra Hayes, Emporia State, and Phil Tauton*
- **The Kansas Ecological Review Tool: Introducing an online platform for statutorily required ecological reviews in accordance with the Kansas Nongame and Endangered Species Conservation Act;** *Diedre Kramer, KDWP*

## PLAYA LAKES AND WETLANDS - BIG BASIN

Moderator: Abe Lollar (Ducks Unlimited)

- **How partnerships and planning play a part in proper playa performance;** *Miruh Hamend, Playa Lakes Joint Venture*
- **Remote Sensing and Machine Learning for Wetland Identification;** *Devin Wilson, CDM Smith*
- **Crop Yield Tendencies of Farmed Playas;** *Jude Kastens, Kansas Biological Survey*

## MUNICIPAL WATER SUPPLY - FLINT HILLS

Moderator: Fred Jones (City of Garden City)

- **Evaluating Direct Potable Reuse for Small Communities: Learning from the Village of Cloudcroft, NM;** *Greta Zornes, CDM Smith*
- **Synthesizing drinking water distribution networks based on readily available data;** *Emma Russin, KU*
- **South Well Field Project Delivers Sustainable Supply to McPherson and the Small Systems it Serves;** *Christopher Unruh, McPherson BPU, and Jeff Heidrick, Burns and McDonnell*

## SURFACE WATER ALGAE BLOOMS - KONZA PRAIRIE A/B/C

Moderator: Riley Vande Ven (KWO)

- **Potential CyanoHAB initiation and transport in northeast Kansas wetlands and slow-moving streams, 2021–23;** *Ariele Kramer, USGS*
- **Peeping Eyes in the Sky: Utilizing Satellite Remote Sensing for Early Detection of Harmful Algal Blooms in Kansas Waters;** *Jeeban Panthi, K-State*
- **Blue-green algae in the Kansas River Basin: Is the future tinted blue-green?;** *Ted Harris, KBS*

## IRRIGATION TECHNOLOGY AND POLICIES - KAW NATION

Moderator: Wes McCary (KWO)

- **Has water conservation in the Sheridan-6 LEMA propagated outside of the area?;** *Donald Whittemore, Kansas Geological Survey*
- **Efficiency and water use: Dynamic effects of irrigation technology adoption;** *Micah Cameron-Harp and Nathan Hendricks, K-State*
- **Environmental Governance of the High Plains Aquifer: What irrigation policy looks like on, or below, the ground;** *Adam Zwickle, Michigan State University*

11:30 A.M. - 12:30 P.M.

## FLOOR MAPPING AND MITIGATION - MCDOWELL/TUTTLE/ALCOVE

Moderator: Terry Medley (Kansas Dept. of Agriculture)

- **Setting the Stage for the Future of Flood Mapping in Kansas;** *David Weiss, KBS*
- **We Know the Problems, But Not the Solutions!: Using FEMA Scoping Programs to Identify and Screen Alternatives;** *Dan Fricke and Chris Shultz, JEO Consulting*

## RESILIENT LIVESTOCK FEED SYSTEMS - BIG BASIN

Moderator: Russell Plaschka (Kansas Dept. of Agriculture)

- **Water-Smart Sorghum Forage Systems for Beef and Dairy;** *Sarah Sexton-Bowser, K-State*
- **Resilience planning to sustain irrigated cattle and dairy feed and forage systems;** *Susan Metzger, K-State*

## RESERVOIR SEDIMENTATION - KAW NATION

Moderator: Gary Kepley (U.S. Army Corps of Engineers)

- **Update on Reservoir Sustainability Work in Kansas;** *John Shelley, USACE*
- **Economic Analysis of Sediment Management Alternatives;** *Rollin Hotchkiss, USACE*

## WATER HISTORY LESSON - KONZA PRAIRIE A/B/C

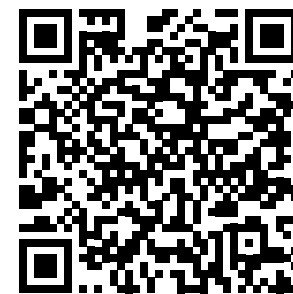
Moderator: Cris Beightel (KDA-DWR)

- **Grand Diversions: Dreams of Big Water for the High Plains;** *Mark Jakubauskas, KU*
- **Growing the Garden City: Early History of Irrigation and Specialty Crop Production in Southwest Kansas;** *Jeremy Gill, Hays Public Library*

## HOLISTIC FARM MANAGEMENT - FLINT HILLS

Moderator: Jennifer Simmelick (Kansas Soil Health Alliance)

- **Adopting a Soil Health Mindset to Save the Ogallala Aquifer;** *Brice Custer, Kansas Soil Health Alliance, and Nick Vos, Stevens County farmer*
- **On-farm solar arrays to enhance recharge, produce energy, and diversify farm income;** *Sam Zipper, KU, and Hanna Szydowski, KGS*



SCAN ME

SCAN THE QR  
CODE TO SIGN  
UP FOR PDH  
HOURS.

# SPONSORED BY

## RECEPTION LEVEL

City of Hays  
Burns and McDonnell  
Western Kansas Irrigation, Inc.

## PLATINUM LEVEL

Evergy	Kansas Corn
Hy-Plains Feedyard	Kansas Soybean Commission
JEO Consulting Group	US Geological Survey Water Science Center
KDHE - BEFS, Watershed Management	VandWater

## GOLD LEVEL

City of Wichita, Public Works and Utilities	Kansas Municipal Utilities
Conestoga Energy Partners	Kansas Rural Water Association
Ducks Unlimited	KU Edwards Campus & KU Geology Department
Farm Credit Associations of Kansas	Stantec
Kansas Biological Survey	State Association of Kansas Watersheds
Kansas Department of Agriculture Division of Conservation	The Nature Conservancy
Kansas Department of Health & Environment	Olsson
Kansas Forest Service	USDA-NRCS
Kansas Geological Survey	WaterOne
	Witt O'Brien's

## SILVER LEVEL

Alfred Benesch & Co.	Kansas Grain and Feed Association
CDM Smith	Kansas Grain Sorghum Commission
Foulston Siefkin LLP	Kansas Livestock Association
HDR	Kansas Water Resources Consulting
Hinkle Law Firm	League of Kansas Municipalities
Kansas Agribusiness Retailer Association	Renew Kansas Biofuels Association
Kansas Alliance of Wetlands and Streams	LRE Water
Kansas Association of Conservation Districts	Pankratz and Hodge, P.A.
Kansas Groundwater Management District 4	Professional Engineering Consultants