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**OKLAHOMA NSF EPSCoR**

**2025 ANNUAL STATE CONFERENCE**

May 14-15, 2025 \* Camp trivera \* OKC, okLAHOMA

# Day 1: Wednesday, May 14 (9:00 AM - 6:00 PM)

### 8:00 AM - 9:00 AM: Registration & Breakfast

* Attendees check in and grab coffee

### 9:00 AM - 9:15 AM: Opening Remarks, Kevin Wagner and Hank Jenkins-Smith

* Brief welcome and introductions
* Overview of the day’s schedule

### 9:15 AM - 10:10 AM: Plenary Session 1: Social Dynamics

* Intro by Moderator: Hank Jenkins-Smith (OU)
* Oklahomans’ Public Perceptions of Water Quality, Quantity, and Re-Use Challenges, Michael Long (OSU)
* The Economics of Wicked Problems in the Electricity Sector, Christopher Malloy (OU)
* Scientific Perspectives on S3OK: Findings from the EPSAN Survey, Kuhika Gupta

### 10:10 AM - 10:25 AM: Morning Break

* Coffee, tea, and light snacks
* Networking opportunity

### 10:25 AM - 11:20 AM: Plenary Session 2: Changing Subseasonal to Seasonal Weather Patterns

* Intro by Moderator: Jason Furtado (OU)
* Subseasonal Predictability of Cold Air Outbreaks in the Central U.S., Ollie Millin (OU)
* Precipitation Whiplash Events Across the State of Oklahoma, Bryony Puxley (OU)
* The Complex Food-Energy-Water Nexus in the Southern Great Plains: Case Studies on the Beef Cattle Industry and Hydraulic Fracturing, Yuting Zhou (OSU)

### 11:20 AM - 12:15 PM: Plenary Session 3: Terrestrial Water & Carbon Dynamics

* Intro by Moderator: Xiangming Xiao (OU)
* Enhancing Wildfire Risk Prediction: Leveraging Machine Learning and Fire Behavior Models for Danger Level Evaluation and Forecasting, Jia Yang (OSU)
* Understanding Soil Microbial Dynamics Under Grazing Management: Context-Dependent Outcomes, Eloa Araujo (NRI)
* Rooted in Change: How Eastern Redcedar Encroachment Reshapes Carbon and Water in Tallgrass Prairie Ecosystems, Chris Zou (OSU)

### 12:15 PM - 1:05 PM: Lunch Break

* Buffet-style lunch
* Networking opportunity

### 1:05 PM - 2:00 PM: Plenary Session 4: Variable & Marginal Quality Water Supplies

* Intro by Moderator: Mark Krzmarzick (OSU)
* Bridging Field Data and Life Cycle Assessment for Sustainable Treatment Wetlands, Mary Foltz (OSU)
* Using Industrial Byproducts as a Finisher in Bioretention Cell Underdrains to Remove Neonicotinoid Insecticides from Stormwater, Jason Vogel (OU)
* Ligand-Assisted Elemental Recovery in Produced Water, Clint Aichele (OSU)

### 2:00 PM - 2:15 PM: Afternoon Break

* Coffee, tea, and light snacks
* Networking opportunity

### 2:15 PM - 3:10 PM: Plenary Session 5: Sustainable Infrastructure

* Intro by Moderator: K.K. “Muralee” Muraleetharan (OU)
* Moving Towards Sustainable & Resilient Power Systems in the 21st Century, Paul Moses (OU)
* Resilience Framework for Multihazard Risk Assessment: Wind and Urban Fire in Electrical Distributions Networks, Scott Harvey (OU)
* Socially Sustainable Transportation Infrastructure Resilience: Vulnerability Assessments, Interdependency Modeling & Network Interventions, Arif Sadri (OU)

### 3:10 PM - 3:45 PM: Plenary Session 6: S3OK Education & Workforce Development

* Intro by Moderator: Honey Bryan (OK NSF EPSCoR)
* Sparking Student STEM Interest Through Collaborative Family and Community Engagement, Eileen Castle (Jasmine Moran Children’s Museum)
* Educational Programming Impacts, Heather Johnston (Science Museum of Oklahoma)

### 3:45 PM - 4:05 PM: Year 5 External Evaluation Report, Michael Miller (Office Of Educational Innovation and Evaluation, Kansas State University)

### 4:05 PM - 4:15 PM: Closing Remarks, Kevin Wagner (OK NSF EPSCoR)

### 4:15 PM – 6:00 PM: Poster Session & Networking Reception

* Attendees can walk around and interact with poster presenters in a designated area
* An informal reception with drinks and appetizers. Great opportunity for networking

# Day 2: Thursday, May 15 (9:00 AM - 1:30 PM)

### 8:30 AM - 9:00 AM: Registration & Breakfast

* Attendees check in and grab coffee.

### 9:00 AM - 9:15 AM: Opening Remarks, Kevin Wagner (OK NSF EPSCoR)

* Quick overview of publications, proposals, people reached, students graduated.
* Overview of the day’s schedule

### 9:15 AM - 10:00 AM: Plenary Session 1: FRAMEWORK INTRO & OVERVIEW, Hank Jenkins-Smith, Maggie Corwin, Nina Carlson

* Oklahoma’s Challenges & Need for a Framework
* Process for developing the Framework.
* Key components of the Framework
* Framework Solutions Overview

### 10:00 AM - 10:15 AM: Morning Break

* Coffee, tea, and light snacks
* Networking opportunity

### 10:15 AM - 11:45 AM: Socially Sustainable Solutions for Oklahoma

* Novel Hybrid Treatment and Reuse Options for Stormwater and Municipal Wastewater, Bob Nairn (OU)
* Enhancing Water Availability for Agricultural & Oilfield Applications, Mark Krzmarzick (OSU)
* Natural Hazards and Utility Resilience, K.K. “Muralee” Muraleetharan (OU)

### 11:45 PM - 12:45 PM: Lunch Break with Keynote Speaker, Addressing Wicked Problems in Polarized Times, Dr. Tom Birkland (NCSU)

* Buffet-style lunch

### 12:45 PM - 1:15 PM: Future NSF EPSCoR Efforts (E-CORE & E-RISE proposals)

* Review key focus areas of S&T Plan
* E-CORE proposal planning efforts, Mike Long (OSU)
* E-RISE proposal efforts
* Other NSF EPSCoR opportunities & efforts
  + NSF EPSCoR - Focused EPSCoR Collaborations Program (previously Track 2)
    - Potential Produced Water Research with NM, Kevin Wagner (OSU)
  + NSF EPSCoR Research Fellows (Previously Track 4)

### 1:15 PM - 1:30 PM: Closing Remarks, Hank Jenkins-Smith And Kevin Wagner

* Final comments and summarization of efforts to wrap up the project