

Agenda

Wednesday, June 25, 2025

12:00-1:00 Registration / Poster setup

1:00	Welcome to the 2025 IWRA Symposium	Garth Lindner, <i>IWRA President</i> , Indiana Department of Natural Resources,
1:10	Legislative and Executive Order Updates	Ryan Mueller & David Knipe, Indiana Department of Natural Resources

Theme: Understanding the Fundamentals

Moderators: Julie Good, Allen Co. SWCD and Oliver Wittman, INTERA, Inc.

2:00	Update on Indiana Mesonet	Beth Hall, Indiana State Climate Office
2:20	Changing Rainfall Variability and Precipitation Effectiveness Implications for Agricultural and Ecological Drought	Trent Ford, Illinois State Water Survey
3:00	Break with Snacks	
3:20	Developing a Watershed Management Plan for Lake Monroe	Maggie Sullivan, Friends of Lake Monroe
3:40	Chemical features that differentiate Crawford Uplands and Mitchell Plateau Springs	McKailey Sabaj, Indiana Geological & Water Survey
4:00	Where do Southern Indiana Mineral Springs Originate?	Tracy Branam, Indiana Geological & Water Survey
4:20	U.S. Geological Survey real-time water quality supergauge network: Accessing data and case studies	Aubrey Bunch & David Lampe, United States Geological Survey
4:40	Aquifer "Safe Yield" Evaluations Based on Site-Specific Testing and Potential Regional Interactions	Luke Johnstone, Mundell & Associates
5:00	Poster Presentation Overview and Introductions	Moderator: Laura Esman, IWRRC

5:10-6:00 Social Hour / Poster Presentation / Cash Bar

Poster Presentations

Nitrate loss from a drained agricultural watershed in central Indiana: effects of crop type and hydrologic flow path

***Dibya Chakraborty,
Indiana University Indianapolis**

Evaluation of a Novel Open-Source Three-Dimensional Groundwater Borehole Flow Sensor

***Ayobami Oni,
Purdue University**

Investigating reactor geometry and hydraulic retention time in algal-bacterial treatment of high-strength industrial effluent

***Karthik Shivaram,
Purdue University**

A circular strategy for agro-industrial wastewater: Microalgal remediation and bio-oil production

***Levent Kilic,
Purdue University**

Drainage Water Recycling Impacts on Amphibian Population in a Wetland Ecosystem

***Ronnie Bernard,
Purdue University**

Assessing Potential Water Stress from Increasing Technology on the Wabash River Basin

***Ayomide Adepeju,
Purdue University**

Assessing and addressing the quality of Indiana's most sensitive aquatic habitats, using mayflies as an indicator

**Luke M Jacobus,
Indiana University Columbus**

Fish assemblages of the Wabash River prior to modification of upstream dam releases

**Mark Pyron, Max Stafford,
Noah Dilley,
Ball State University**

6:00

Awards Banquet and Cash Bar

**Mark Basch,
Indiana Department of
Natural Resources**

8:00

Social and Networking- Cabin Suite - see map

Thursday, June 26, 2025

Breakfast Served from 8:00-9:00 AM

9:00

Keynote: Freshwater Salinization Syndrome:
A Small Story about Salt and Its Big Global Impacts
Sujay Kaushal, University of Maryland

Theme: Collaborative Solutions | Moderators: David Lampe, USGS and Aubrey Bunch, USGS

10:00

A Novel Water Quality Index from Long-term Water Quality Monitoring in the Western Lake Erie Basin

Julie Davis Good & Gabriel L. Curtis,
Allen County SWCD

10:20

Evaluating Bank Restoration and Stabilization in the Yellow River in Northern Indiana: Mitigating Sediment and Nutrient Transport

Aleia M Dumond,
United States Geological Survey

10:40

Farmers Helping Hellbenders RCPP: Landscape Conservation

Eliza Hudson,
Purdue University

11:00

Break

11:30

A Strategic Path Forward: Indiana's Water Monitoring Network

Jill Hoffmann,
White River Alliance

11:50

Strengthening Local Watershed Management: 20 Years of the Indiana Watershed Leadership Academy

Jane Frankenberger,
Purdue University

12:10

Water Governance Models: A Multi-state Synthesis

Theresa Landewe, Jack Wittman,
& Erik Anderson, **INTERA, Inc**

12:30

Lunch, Sponsored by Mundell & Associates

Theme: Innovative Technology | Moderator: Austin Pearson, Indiana State Climate Office

1:30

Climate-Resilient Irrigation: UAS-Based Approaches for Estimating Crop Water Requirements

Takhellambam Bijoychandra Singh,
Purdue University

1:50

Constructed Ponds As Common, Understudied Habitats on Agricultural Landscapes

Tyler Hoskins,
Purdue University

2:10

Estimating Biogeochemical State of Inland Water Bodies with Remote Sensed Parameters and Machine Learning Methods

Isaac Bradford*,
Purdue University

2:30

Effects of Long-Term Storage on the Isotopic Compositions of Different Types of Environmental Waters

Carlynn Diersing*,
Indiana University Indianapolis

2:50

Break with Snacks

Thursday, June 26, 2025

Theme: Future Challenges | Moderator: Aleia Dumond, USGS

3:20	Characterization of Primary Microplastics Collected from US Shorelines	Mathew Simpson, Ball State University
3:40	Microplastics in the Himalayas: A Deep Learning-Based Approach for Environmental Monitoring in Sagarmatha (Mt. Everest) National Park	Simon Baniya*, Ball State University
4:00	Building a Resilient Indiana: Harnessing Green Practices to Tackle Future Development Challenges	Maria Iturbide-Chang, Hoosier Environmental Council
4:20	Safeguarding Water While Storing Carbon Dioxide: A Case Study from the Midwest	Babak Shabani, INTERA, Inc.
4:40	Award presented to Outstanding Oral Presentation	Laura Esman, IWRRC
4:50	Dinner on your own.	
7:00	IWRB Board Meeting- Cabin Suites - see map	
7:30	Social and Networking- Cabin Suites - see map	

***Student presentation**

Friday, June 27, 2025

Breakfast Served from 8:00-9:00 AM

9:00-9:30	Challenges with Aging Water Resources (Ogle and Strahl Dams)	Joe Miller, P.E. Banning Engineering
10:00-12:30 Field trip to Ogle and Stahl Dams, Dave Nance (Retired DNR) and Joe Miller (Banning Engineering)		