



38th Annual Indiana Water Resources Association Symposium

"Threats To and From Indiana's Water Resources"

**Turkey Run Inn, Turkey Run State Park, Marshall, Indiana
June 28-30, 2017**

Cosponsored by



Online Registration Only!

(Includes Wednesday banquet, Thursday lunch, break snacks, and hospitality room)

**Registration BEFORE / ON or AFTER
Wednesday, June 14, 2017**

IWRA Member:	\$110 / \$140
Non-member:	\$140 / \$170
Student:	\$55 / \$65
1-day Member:	\$85 / \$115
1-day Non-member:	\$95 / \$125
Banquet Guest:	\$50 / \$50
Student Presenter:	\$0 / \$0

Please register at:

<https://38th-annual-iwra-symposium.eventbrite.com>

Note: All non-student presenters are expected to pay the Symposium registration fee. If your employing organization cannot pay the registration fee, please contact Jeff Martin, 317-600-2748, jdmartin@usgs.gov. Fees and **dues** may be paid online or at the Symposium by cash or check. If you need an invoice please email jdmartin@usgs.gov

Lodging:

Participants are responsible for their own reservations. A block of rooms has been reserved for IWRA **until Wednesday, June 7, 2017** at the Turkey Run Inn. Use the IWRA group code **0627WS** to obtain rooms at the reduced rate. Reservations should be made by calling 1-877-563-4371 and listen to the prompts (Turkey Run is the last option: #7). The call center is open 8 am to 8 pm daily. (Do not try the web site as it will not accept the group code).

Rates (excluding tax):

Cabin	\$63.99
Double (1 double bed)	\$54.99
Double Double (2 double beds)	\$75.99
Queen (1 queen bed)	\$75.99
Queen Queen (2 queen beds)	\$86.99
Campsites are available	

Please note: Rates will not be changed at check-in or after the cutoff date, or for those who do not identify their group affiliation

AGENDA

Wednesday, June 28

Time	Topic	Speaker
11:00	Registration	
12:00	Opening and Welcome	Jeff Martin, USGS, 2017 IWRA President
12:05	Indiana Water Resources	Bruno Pigott, Commissioner, IDEM
12:35	Environment Indivisible: EPA Policy for Air and Water Protection	Janet McCabe, Former Acting Assistant Administrator, USEPA
1:05	Drinking Water and Lead	Mary Hollingsworth, IDEM, Drinking Water Branch Chief
1:25	Overview of IDEM's Emergency Response Program	Aaron Green, IDEM, Emergency Response Section Chief
1:45	Water and Quality of Life in Indiana: Modernizing the State's Approach to a Critical Resource	W. William Weeks, Conservation Law Center and Jack Wittman, INTERA, Inc.
2:10	Break	
2:40	Climate Change Impacts and Strategies for Adaptation for Water Resource Management in Indiana – A Summary of Findings from the Indiana Climate Change Impacts Assessment Report	Natalie Chin, Purdue University
3:05	Climate Smart Agriculture: How to Be Prepared for the Next Floods and Droughts	Shannon Zezula and Tony Bailey, USDA
3:30	What's in the Rain? Precipitation Chemistry and Atmospheric Deposition in Indiana	Marty Risch, USGS
3:55	1913: Indiana's Devastating Flood of Record—and Relevance Today	Trudy E. Bell, Editor and Writer
4:55	Introduce Poster Presentations	1 minute each
5:20	Social Hour / Poster Presentations / Cash Bar	
7:00	IWRA Banquet and Awards	
	Poster Presentations:	
	Assessment of Simulated Precipitation from Updated CLIGEN Database: Impacts on Urban Runoff	Jingqiu Chen, Purdue University
	Effects of Trace Organic Contaminants on Algal Community Structure and Function	Brittany Maule, Ball State University
	Long-term and Short-term Response of Water Quality Conservation Measures within Western Lake Erie Basin	Lawrence Sekaluvu, Purdue University
	Enhancement and Testing of Indices for Comprehensive Assessment of Water Quality	Valeria Mijares, Purdue University
	Using Diatom Species Assemblages to Assess the Quality of the Wabash River	Ellen O'Neil, Indiana State University
	Enhancing Water Use Efficiency in Greenhouse Tomato Production	Meng-Yang Lin, Purdue University

	Statistical Correlation between NDVI and Land Surface Temperature Using Geo-spatial Techniques in Greater Cairo Region, Egypt	Mohamed Aboelnour, Purdue University
	Investigation of Variable Contaminant Loads in Fish as a Result of Foraging and Habitat Specialization	Timothy D. Malinich, Purdue University
	Assessing Factors Shaping Residents' Adoption of Water Quality Improvement Practices across Different Types of Landownership	Rachel Scarlett, Purdue University
	Moving from Concern to Caretaking: Catalyzing the Citizen Science Movement	Lauren Travis, Indiana University
	Concentrations and Patterns of Neonicotinoid Insecticides in Agricultural Leachate	Adam Alford, Purdue University
	Nutrients Dynamics in Riparian Zones of Agricultural Watershed in North Carolina	Maria Laura Ortiz de Zarate, Purdue University
	Why Did the Waterfalls in Fitch's Glen Dry Up? Investigating the Processes Leading to the Reactivation of a Swallow Hole in a Small Catchment Underlain by Buried Karst Located near Logansport, IN	Zachary Meyers, Purdue University
	Climate Change Impacts on Indiana Water Quality	Garett Pignotti, Purdue University
	Water and Nutrient Recovery from Aquaculture Effluents through Vegetable Production	Teng Yang, Purdue University
	Can There Ever Be Enough? Implementing BMPs in Elliot Ditch, Indiana Using the LTHIA-LID Model and a Power Analysis	Sanoar Rahman, Purdue University
	Wetland Management to Reduce Agricultural Nutrient Loads	Stuart Smith, Purdue University
	Climate Change Impacts on Subsurface Drainage in Indiana	Charlotte Lee, Purdue University
	The Effect of Floodplain Creation on Soil Processes in Agricultural Channels	Celena Alford, Purdue University
	Residential Perspective on Rain Barrels and Rain Gardens: Implication from a Study in the Region of the Great Bend of the Wabash River Watershed	Yuling Gao, Purdue University

Thursday, June 29 (Breakfast on your own)

Time	Topic	Speaker
8:30	The Indiana Water Resources Research Center (IWRRRC): A Year in Review	Linda Prokopy, Purdue University
8:50	Protection of Water Resources in Indiana Oilfields	Brian Royer, IDNR
9:10	Regional Evolution of Precipitation Patterns in Indiana	David J. Smith, IDNR
9:30	Soil-Water Storage Under Differing Land Management	Tanja N. Williamson, USGS
9:50	Climate Change: Effects on Agriculture, Floods, Droughts, Water Supply, Public Health, and Research Needs	Sushant Mehan, Purdue University
10:10	Break	

10:40	Indiana Conservation Partnership Accomplishment Reporting	Jordan Seger, Indiana State Dept. of Agriculture and Jill Reinhart, USDA
11:00	Successes and Challenges in Quantifying the Impact of Watershed-Scale Conservation on Working Lands	Elizabeth Willows, University of Notre Dame
11:20	Nitrogen and Phosphorus Dynamics in Restored Large Riverine Floodplains	Sara McMillan, Purdue University
11:40	Spatial Analysis of Phosphorus Stream Data in Indiana	Christa Phelps, IDEM, OWQ (presenting work done as a student)
12:00	Lunch at the Turkey Run Inn (Provided in registration)	
1:20	Making Measureable Improvements in Water Quality in Indiana's Agricultural Watersheds: A Review of Indiana's Success Stories Highlighting Flowers Creek, Miami County	Angie Brown, IDEM, OWQ, and Jill Reinhart, USDA
1:40	Investigation of the Effects of Conservation Farming in the School Branch Watershed	Marty Risch, USGS
2:00	Ag Nutrient Reduction Strategies: A Case Study	Jill Reinhart, USDA
2:20	Neonicotinoid Seed Treatments: Efficacy, Non-target Effects, and Best Management Practices	Christian Krupke, Purdue University
2:40	Break	
3:10	Streamgage and Water-Quality Monitoring Optimization in Indiana	Jeff Frey, USGS
3:30	Who's Pumping All That Water in Indiana?	Allison Mann and Mark Basch, IDNR
3:50	Voluntary Monitoring Program Update	Robert K. Schmidt, IDNR
4:10	Updates on Efforts to Characterize Ground Water Quality in Indiana through the Statewide Ground Water Monitoring Network	Kevin Spindler, IDEM, OWQ, Ground Water Section
4:30	Standardization and Analysis of Water-Well Records within the Glaciated Part of the United States	Les Arihood, USGS
4:50	Session ends	
5:30	Dinner at the Turkey Run Inn (On your own)	
7:00	IWRA Business Meeting and Social All members and friends are welcome!	

Friday, June 30 (Breakfast on your own)

Time	Topic	Speaker
8:30	Arsenic in Groundwater Related to the Proximity and Thickness of Overlying Fine-Grained Sediment and Well Construction Characteristics	Andrew Sargent, Simon Property Group
8:50	The Impact of Coal Ash on Indiana's Water Resources	Indra Frank, Hoosier Environmental Council
9:10	Rethinking Indiana's Regulated Drainage to Provide Multiple Benefits	Jane Frankenberger, Purdue University

9:30	Old, Nutrient-free Groundwater Moderates the Solute Chemistry of Baseflow in Three Small Catchments Located in Shades State Park and Ross Hills Reserve	Marty D. Frisbee, Purdue University
9:50	Progress Toward Solving the Combined Sewer Overflow Problem, West Lafayette, IN	Terry R. West, Purdue University
10:10	Break	
10:40	Effects of Land Cover, Wetlands, and Karst on Riverine Stressors in the Blue River, Southern Indiana	Martha Carlson Mazur, Bellarmine University School of Environmental Studies
11:00	The Sacramento River Levee Setback: 2-Dimensional Modeling Techniques to Assess Geomorphic Evolution and Design Ecologically Functional Floodplains	John Stofleth, cbec eco engineering
11:20	Brink of Failure? U.S. High Hazard Potential Dams	Trudy E. Bell, Editor and Writer
11:40	The Story of Turkey Run	Aaron Douglass, IDNR
12:00	Lunch at the Turkey Run Inn (On your own)	
1:00	The Story of Turkey Run (A Brief Walk About)	Aaron Douglass, IDNR
2:00	Adjourn	

Please contact Jeff Martin, 2017 IWRA President, jdmartin@usgs.gov, (317) 600-2748 for information about the conference, IWRA membership, invoices, or student scholarships. For information about registration and fee payment, contact Cyndi Wagner, 2017 IWRA Registrar, CWAGNER@idem.in.gov, (317) 308-3381.

2017 Symposium Committee:

Jeff Martin, Sally Letsinger, Rosy Hansell, Cyndi Wagner, Joe Schmees, Mark Basch, Kathleen Fowler, Martha Clark Mettler, Lisa Holscher, Randy Bayless, Jane Frankenberger, Marty Risch, Laura Esman, Linda Prokopy, Keith Cherkauer, Melissa Widhalm, and Jeff Frey.

*This is the thirty-eighth annual Indiana Water Resources Association Symposium.
IWRA is a scientific and educational not-for-profit organization established to encourage interdisciplinary communication between persons working in all aspects of water resources.
IWRA is an affiliate of the American Water Resources Association.*

<http://www.iwra.info/>