

AGENDA

Arkansas Water Resources and Watersheds Conference

July 13th and 14th

Don Tyson Center for Agricultural Sciences
1371 W Altheimer Dr., Fayetteville, AR 72704

July 13th – Morning

Hosted by the Arkansas Water Resources Center

8:25 am	Welcome and Moderator Harmful Algal Blooms (HABs)	Brian Haggard
8:30 – 8:55 am	Understanding the Nutrients Paradigm Related to HABs Using an Ecogenomic Framework	Ramesh Goel, University of Utah
8:55 – 9:20 am	Nitrogen and Phosphorus Budgets Predict Cyanotoxins Hazards in Lakes and Reservoirs	Thad Scott, Baylor University
9:20 – 9:45 am	Can Intake Depth be Used as a Tool for Managing Toxic Cyanobacterial Blooms in Surface Drinking Water Reservoirs?	Alan Wilson, Auburn University
9:45 – 10:10 am	Tackling Potentially Toxic Cyanobacteria Blooms: From Ground to Space	Keith Loftin, USGS Kansas Water Science Center Organic Geochemistry Research Lab
10:10 – 10:20 am	Follow-up Questions	
10:20 – 10:40 am	Break and Poster Session	<i>See list of contributors at end of agenda</i>
10:40 – 11:00 am	Photocatalytic TiO ₂ Treatment of HABs: What We Learned So Far	Wen Zhang, University of Arkansas
11:00 – 11:20 am	Rice and Barley Straw Extracts Inhibit Algal Growth: Harnessing Biodegradation for Management	Mary Savin, University of Arkansas System Division of Agriculture
11:20 – 11:40 am	Dissolved Nitrogen Form Mediates Phycocyanin Content in Cyanobacteria	Matthew Gladfelter, Auburn University
11:40 – 12:00 pm	Arkansas's HABs Response Program Update	

12:00 – 1:30 Provided Lunch and Poster Session

July 13th – Afternoon

Hosted by Arkansas Forests and Drinking Water Collaborative

1:30 – 2:15 pm	A discussion panel: Monitoring and Managing for Source Water Protection in Arkansas	Brett McDaniel & Trevor Voegele, Conway Corp Raven Lawson, CAW, James McCarty, BWD, Hal Halvorson, UCA
2:15 – 2:45 pm	Conservation that Pays: Incentivized conservation. Perspectives from natural resource professionals and landowners	Savannah Howell, AR Dept. of Agriculture – Natural Resource Division
2:45 – 3:15 pm	Conservation That Pays, Cont'd: Greens Ferry Lake RCPP – a review of conservation practices aimed at Source Water Protection	Amanda Mathis, NRCS Joy Wasson, AFDWC Chas McCoy, TNC
3:15 – 3:30 pm	Break and Background Virtual Tours	
3:30 – 4:00 pm	Forest and Fire Resiliency	McRee Anderson, TNC
4:00 – 4:15 pm	Forestry BMP Recent Survey Results	John Beasley, AR. Dept. of Agriculture – Forestry Division
4:15 – 4:45 pm	Source Water Protection on the Horizon: Beaver Water District	James McCarty, Land Conservation Projects Raven Lawson – Prescribed Fire, Arkansas CommuniTree Project – Joy Wasson

Evening Social Event: Marley's Pizzeria & Bar – 609 W Dickson St. #103 – 6:00 pm

Roomy hangout w/ Chicago-style pizzas and sandwiches. **Dinner provided**, drinks on your own.

July 14th – Morning

Hosted by Beaver Watershed Alliance

8:30 – 8:40 am	Beaver Lake Watershed, Source Water Protection	Becky Roark
8:40 – 9:00 am	Watershed Success Metrics	Erin Grantz & Dr. Sarah Lewis
9:00 – 9:30 am	City of Rogers Stormwater Management	Lance Jobe, City Engineer, City of Rogers

9:30 – 10:00 am	Forest Management & Landowner Assistance in Northwest Arkansas	Robert Floyd, AR Dept. of Agriculture – Forestry Division
10:00 – 10:30 am	Ag Initiatives & Soil and Water Health	Roger Cousins and Canton Ford, NRCS
10:30 – 11 am	Break	
11:00 – 11:30 am	Removing Low-head Dams and Replacing Road Crossings to Restore Stream Connectivity in Arkansas through Partnership	Tate Wentz, Water Quality Section Manager, AR Dept. of Agriculture - Natural Resource Division & AR Stream Heritage Partnership
11:30 – 12:00 pm	Utilizing the NRCS RCPP and Watershed Programs to Restore Streams, Riparian, and Wetlands in the West Fork White River Watershed to Protect NW Arkansas's Drinking Water Source	Sandi J. Formica and Matthew Van Eps, WCRC

12:00 – 1:00 pm Lunch Provided

July 14th – Afternoon Field Tour

1:15 pm	Load buses for demonstration tours – buses leave at 1:30 pm	
1:45 – 2:10 pm	Demonstration Site - Riparian/Forestry Establishment, led by Dirk Phillip, Associate Professor – Forages, Department of Animal Science, University of Arkansas	
2:30 – 2:50 pm	Demonstration Site - Low Impact Development Parking Lot at Mount Kessler, City of Fayetteville, led by Ted Jack, City Planner, City Fayetteville and Barry Williams, Vice President of Landscape Architecture, Crafton Tull	
3:15 – 3:45 pm	Demonstration Site - West Fork of the White River, Large-Scale Stream Restoration and Utilizing the PL 566 Program, led by Sandi Formica and Matt Van Eps, Watershed Conservation Resource Center	

Student Research Posters

1. Nutrients Stimulate Cyanobacterial Growth and Toxin Concentrations at Lake Fayetteville, Lillie Haddock, Arkansas Water Resources Center
2. A Snapshot of SARS-CoV-2 in Wastewater Treatment Plants, Katie Loethen, University of Arkansas
3. Photocatalytic TiO₂ Treatment of Cyanobacteria, Zane Wood, University of Arkansas
4. Antibiotic Resistant Genes in Agricultural Reuse Water, Celest Sebag, University of Arkansas

5. Gypsum Has the Potential to Control Phosphorus in Aquaculture Ponds, Ansley Hamid, Auburn University
6. The Diazotroph, *Raphidiopsis*, Dominates After Reduced and Oxidized Nitrogen Additions, Matthew Gladfelter, Auburn University
7. Controlling HABs with Flue Gas Desulfurization Gypsum (FGDG), Hannah Zinnet, Auburn University
8. Biochar: Literature Review and Management Options for HABs?, Brittany McIntyre, Arkansas Water Resources Center
9. Microcystin-LR Removal from Water via Enzymatic Linearization and Ultrafiltration, Cannon Hackett, University of Arkansas
10. Land Use Effects on Water Quality in the Rapidly Urbanizing White Oak Bayou Watershed, Arkansas, Brandy Everett, University of Central Arkansas

EcoREU Student Research Posters

1. Separation of Intra- and Extracellular Antibiotic Resistance genes, Amy Cao, EcoREU Program University of Arkansas
2. Climate Change Impacts on Water Quality of Brewer Lake, Arkansas, Blessing Oni, EcoREU Program University of Arkansas
3. Furrow-Irrigated Rice from Space: A Case Study from Arkansas, Grecia Hernandez, EcoREU Program University of Arkansas
4. Managing Landscapes for Wildlife: An Assessment of Yard Features That Are Associated with Suburban Nine-banded Armadillos and Eastern Cottontails, Matthew McElroy, EcoREU Program University of Arkansas
5. Evaluating Underwater Cameras as an Effective Technique for Darter's in the Little Red River, Morgan Beal, EcoREU Program University of Arkansas
6. Determining Whether Relationships Exist between Stream Hydrogeomorphology or Catchment Land Use and Riparian River Cane Population Characteristics in Northwest Arkansas, Tuimalata Puletiuatoa, EcoREU Program University of Arkansas
7. King Rail Habitat Selection in Southeast Arkansas, Aiyana Dawson, EcoREU Program University of Arkansas
8. Impact of Mixing Speed on Diffusive Boundary Layer Thickness for Measurements of Contaminant Diffusion Coefficients in Hydrogel Layers, Diana Castro, EcoREU Program University of Arkansas
9. Effects of Precipitation and Hurricane Impact in Guanica's Dry Forest Soil Bacterial Community, Brian Martinez, EcoREU Program University of Arkansas

Faculty, Government and Consulting Posters

- A. 3D Printing of Terrain Models for Education and Research, Yanli Zhang, Stephen F. Austin State University