

From the Director's Desk ...

The annual water resources conference is quickly approaching. We hope you will be able to join us at the 2020 Mississippi Water Resources Conference. Mark your calendar for March 31-April 1 for the 2020 MWRC at the Jackson Hilton. The opening plenary begins at 8:00 a.m. on March 31 with Valerie Alley from Mississippi Department of Environmental Quality as the keynote presenter. Mr. Peter Nimrod from Mississippi Levee Board will be the keynote speaker during lunch on March 31, and Justin McDonald from U.S. Army Corps of Engineers (Mobile District MsCIP) will be the keynote on April 1. Learn more about restoration activities and the RESTORE Act program, flooding in the south Delta, and coastal water resources. Early registration ends February 28.



There will be a student presentation competition with both oral and poster presentations. All student oral presentations will be given on Tuesday beginning with Master's and followed by PhD candidates. Those students who are included with special topics sessions will give their presentations as scheduled. The poster competition will take place during the Welcome Reception Tuesday evening. An additional international poster competition for visiting student researchers not enrolled at a university will be added as a separate competition. All posters will be available for viewing throughout the conference.

Watch your email for updates on funding opportunities, job opportunities, as well as legislation. Previous newsletter issues are available for review on the institute's website, www.wrri.msstate.edu. Click on the Publications tab and scroll down for past *Proceedings* and Newsletters. If you would like to continue receiving updates on MWRRI activities, please let Jessie Schmidt know that you want to be added to the list. You can email her at jessie.schmidt@msstate.edu.

I look forward to seeing you at the conference!

Jason

Jason Krutz, Ph.D.

Researcher Profile: Dr. Drew Gholson

Assistant Professor, Delta Research and Extension Center, Mississippi State University, Stoneville, MS

Tell us a little bit about your background and your current position.

I earned my bachelor's in rangeland ecology and management, master's in water management and hydrological sciences, and doctoral degree in soil science - all from Texas A&M University. After completing my master's degree in 2009, I worked as a water specialist with a groundwater management district in Texas. In 2012 I transitioned to Texas A&M University Extension Service to coordinate the Texas Well Owner Network, a water well education program delivered state-wide. In 2017, I completed my doctoral degree while leading the Texas Well Owner Network program. In April 2019, I started as an assistant professor and the irrigation specialist with the MSU Delta Research and Extension Center and the National Center for Alluvial Aquifer Research.

What are your current research areas.

Overall, I plan to identify, evaluate, demonstrate, and transfer innovative technologies that can result in water conservation in furrow irrigated systems. I plan to have on-farm research in automation, sensor-based furrow irrigation in cotton, corn, and soybeans, and alternate wetting and drying (AWD) in rice. We want to look at whether or not implementing sensor-based automation can help growers save water, decrease runoff, and increase profitability. Additionally, Ph.D. student Dave Spencer's research is investigating the effect of conservation management systems on consumptive water use, runoff water quality under furrow irrigation, runoff water quality under simulated rainfall, soil quality, corn grain yield and plant growth, and economic profitability in furrow-irrigated corn production.

How does the Delta Water Center fit into your future plans? How can we help you be successful.

The National Center for Alluvial Research is a cooperative program between USDA's Agricultural Research Service (ARS) and Mississippi State University's Delta Research and Extension Center (DREC) to produce and communicate research aimed at:

- Conservation and sustainability of water resources for agriculture
- Development of management systems that increase profitability, conserve water and protect water quality

The priority of the Water Center is to save water for future generations.

As part of my outreach and research efforts, I will develop and deliver educational programs that support Mississippi growers with their irrigation needs, improve irrigation application efficiency, encourage them to adopt best management practices, and promote conservation.

As a Water Center, we will research and develop management systems that increase profitability, conserve water and protect water quality. As the Extension Irrigation Specialist, I will promote the adoption of these practices through outreach/education, trainings, and on-farm demonstrations. I hope to show producers that saving water also saves money and time while maintaining or increasing yields.

Student training – classification and major.

Major Advisor, Ph.D.

- Gene David Spencer, Mississippi State University, 2019-present

Graduate Committee, M.S.

- Achla Jha, Biological & Agriculture Engineering, Texas A&M University, 2019-present

Graduate Committee, Ph.D.

- Anna Gitter, Water Management & Hydrological Sciences, Texas A&M University, 2019-present

Recent publications:

Gholson, D. M., D. E. Boellstorff, S. R. Cummings, K. L. Wagner, M. C. Dozier. 2019. A survey of public perceptions and attitudes about water availability following exceptional drought in Texas. *Journal of Contemporary Water Research & Education* 166:1-11. [Download](#)

Gholson, D. M., D. E. Boellstorff, S. R. Cummings, K. L. Wagner, M. C. Dozier. 2018. Consumer water quality evaluation of private and public drinking water sources. *Journal of Water and Health* 16(3):369-379. [Download](#)

Gholson, D. M., D. E. Boellstorff, S. R. Cummings, K. L. Wagner, and M. C. Dozier. 2018. Outreach preferences for water resource information from extension and other sources. *Natural Sciences Education* 47:180001. [Download](#)

Awards and accomplishments, if any.

- Texas Environmental Excellence Award for Texas A&M AgriLife Extension Service, Texas Well Owner Network. 2018.
- American Society of Agronomy Extension Educational Materials Award for the *Texas Well Owner Network: Well Owner's Guide to Water Supply*. 2015.
- Texas A&M AgriLife Extension Superior Service Award—Team Category: Texas Well Owner Network. 2015.



Funded Research Projects

Research proposals recommended for USGS 104b funding beginning March 1, 2020 include:

- Innovative Nutrient Recovery Schemes for Sustainable Agricultural Systems – Dr. Veera Ganeswar Gude and Dr. Benjamin Magbanua from Mississippi State University. (two years)
- Irrigation Systems, Row Spacing, and Applied Fertilizer Effects on Water Use and Crop Productivity – Dr. Gurbir Singh, Dr. H.C. Pringle, Dr. Drew Gholson, Dr. Gurpreet Kaur, Dr. Nicolas Quintana, and Dr. Saseendran Anapalli from Mississippi State University, National Center for Alluvial Aquifer Research and Delta Research and Extension Center, and USDA-ARS. (three years)
- Multi-Scale Evaluation of the Impact of Hydrological Extremes on Coastal Wetland Vegetation – Dr. Wei Wu from University of Southern Mississippi. (two years)

The USGS 104g RFP has been released. Researchers must submit their full proposals to MWRRI no later than March 2 for consideration.

Upcoming Events

- The annual National Institutes on Water Resources meeting will be held February 10-11, 2020 in Washington, DC. More details and links for registration and overnight accommodations can be made at <https://niwr.site/accommodations/>.
- The 2020 Mississippi Water Resources Conference will be held March 31-April 1, 2020 at the Hilton Jackson. More details can be found at www.wrri.msstate.edu.
- A proposed workshop open to the aquatic conservation community in the southeastern US will be held at the Tennessee Aquarium (<https://www.tnaqua.org/>) and will occur on **April 2-3, 2020**.

Do you have a publication that you would like to share? Consider distribution through the MWRRI newsletter. Contact Jessie Schmidt for information.

Do you have an upcoming event that all those interested in water-related issues and agriculture would find interesting? Considering adding it to the newsletter and/or listserv. Also available is the MWRRI Twitter account - @MS_WRRI.

About the Mississippi Water Resources Research Institute (MWRRI)

The institute exists as both a federal and a state research unit. Established in 1964, the MWRRI is one of 54 institutes (one in each state, The District of Columbia, Guam, Puerto Rico, and the Virgin Islands) that form a national network to solve water problems of state, regional, or national significance. In 1983, the Mississippi legislature formally designated the MWRRI as a state research institute. Federal funds designated for the institute are used to consult with state water officials to develop coordinated research, technology transfer and training programs that apply academic expertise to water and related land-use problems. These various activities are funded through an annual grant from the United States Geological Survey (USGS). Mississippi state appropriations provide additional funds for cost share. The institute also assists state agencies in the development of a state water management plan, maintaining a technology transfer program, and serves as a liaison between Mississippi and federal funding agencies.

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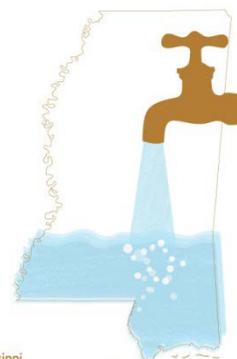
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2020 Annual Mississippi Water Resources Conference

Hilton Jackson, Jackson, MS

March 31-April 1, 2020

Sponsor & Exhibitor Application



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Exhibitor Table	Both Days – \$500 (full sponsor)	<input type="checkbox"/>	
Exhibitor Space (for standup exhibits)	Both Days – \$500 (full sponsor)	<input type="checkbox"/>	

- Sponsorships of \$500 and above will receive one (1) complimentary registration. A second person from the same organization can register for \$150.
- All sponsors and exhibitors will be recognized on the 2020 MWRC poster (company logo), from the podium, at luncheons, and in the program book as well as online on the conference website.
- In order to be included in the program book, all payments must be received no later than Friday, February 28, 2020.
- Sponsorship Questions: Please contact Jessie Schmidt, jessie.schmidt@msstate.edu

Please email this form to Jessie Schmidt, jessie.schmidt@msstate.edu

Or mail to MWRR, Box 9547, Mississippi State, MS 39762