



# WRRRI Newsletter

Summer Issue

July 2014

## From the Director's Desk

### Introducing Joe Street, WRRRI Interim Director

Joe Street is Interim Director of the Water Resources Research Institute. He is also Associate Director of the Mississippi State University Extension Service. Joe has worked at MSU for over 34 years. Previously, he served as head of the Delta Research and Extension Center in Stoneville and head of the North Mississippi Research and Extension Center in Verona. Prior to going into administration, Joe was responsible for rice research and Extension efforts at the Delta Research and Extension Center. He received his undergraduate and master's degrees in Plant Pathology from Mississippi State University and his doctorate degree in Agronomy was awarded by Auburn University. Joe is also a three year veteran of the US Army and served 23 years with the Mississippi National Guard.



### From Joe ...

It is my privilege to serve as Interim Director of WRRRI. I inherit a strong staff with great experience and expertise in water resources research and management. Jessie Schmidt, WRRRI Coordinator, has worked tirelessly for the past seven years to ensure the business side of WRRRI is effectively managed and the research side is properly coordinated. This past year under Wayne Wilkerson's leadership, WRRRI took two significant steps forward – the designation by MDEQ and EPA of WRRRI as a Center of Excellence for Watershed Management and the hiring of Richard Ingram as the Center's new Director and WRRRI Associate Director.

In Mississippi, like elsewhere in the country, we are facing serious challenges to the sustainability of our ground and surface water resources. These challenges impact agriculture, industry, recreation, and public water supplies. I look forward to focusing our research and management efforts to address these challenges and encourage you to work together with us to protect these valuable resources.

Respectfully,

*Joe Street*

## Addition to WRRRI Staff

WRRRI welcomes Center of Excellence for Watershed Management Director Richard Ingram. Many of you will be familiar with Richard who previously worked at MDEQ. With over 21 years of experience at MDEQ, Richard brings a wealth of knowledge to the Institute. While at MDEQ, Richard served most recently as Director of the Office of Land & Water Resources. Other positions he held at MDEQ included: MDEQ Special Projects Administrator; Office of Pollution Control Special Projects Director; Statewide Manager of the Basin Management Program; Yazoo River Basin Coordinator, and Statewide Coordinator of MDEQ's Source Water Assessment and Wellhead Protection Programs. While serving in these capacities, Richard also served as Chair of the Delta Conjunctive Water Management Work Group; State Co-chair of the Mississippi River/Gulf of Mexico Watershed Nutrient (Hypoxia) Task Force Coordinating Committee; member of the Gulf of Mexico Alliance Coordinating Team and Nutrients Priority Issue Team; and as Executive Committee member and Chair of the Water Quality Technical Section of the Lower Mississippi River Conservation Committee. Prior to joining MDEQ, Richard was a consulting petroleum geologist. Richard received a B.S. in Business Administration from Belhaven College, a B.S. degree in Geology from Millsaps College, and a M.S. in Geological Engineering from the University of Mississippi. Richard will also be Associate Director of the Water Resources Research Institute.



## Change of Leadership at WRRRI: Wayne Wilkerson Retires

Former Director of MWRRI, Wayne Wilkerson retired January 31, 2014. Wayne had led the Institute since April, 2011. Along with directorship of the Institute, teaching and advising responsibilities with MSU's Landscape Architecture program, and other duties, Wayne also established new connections with Toyota, Inc., Yokohama Tire, MDOT, USGS, USDA, and US EPA. Under Wayne's leadership, MSU, MDEQ and US EPA Region 4 signed a MOU that designated WRRRI as a Center of Excellence for Watershed Management. Wayne also guided the Institute to become a major resource in the area of Green Infrastructure and Low Impact Development. We thank Wayne for his leadership and wish him the best in his retirement, although we hope he will continue the good work for which he is known.



## 2014 USGS 104b Funded Projects

### **“Water Quality in Bangs Lake: Effects of Recurrent Phosphate Spills to a Coastal Estuary”**

Dr. Kevin Dillon  
Associate Professor  
University of Southern Mississippi

Cooperators: Mark Woodrey – Grand Bay National Estuarine Research Reserve &  
Mississippi State University  
Kim Cressman and Larissa Graham – Grand Bay National Estuarine Research  
Reserve  
Dr. Ruth Carmichael – Dauphin Island Sea Lab  
Dr. Jane Caffrey – University of West Florida

### **“Responses of Water Quality and Wetland Plant Communities to Multi-scale Watershed Attributes in the Mississippi Delta”**

Dr. Gary N. Ervin  
Professor  
Department of Biological Sciences  
Mississippi State University

Dr. Robert Kröger  
Assistant Professor  
Department of Wildlife, Fisheries and  
Aquaculture  
Mississippi State University

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## Upcoming Events

July 17, 2014: Advisory Board Meeting at USGS (Pearl, MS)

- Update on MWRRI Activities
- 2015 Conference Planning
- Mississippi Water Resources Research Priorities
- Upcoming USGS 104b Research Program RFP
- Future Direction

August 15, 2014: Closing Date for Water Resources Competitive Grant RFP

Fall: Request for Proposals for USGS 104b Research Program

## 2014 Mississippi Water Resources Conference

Water, Sustainability, and Climate

April 1-2, 2014

Generally, the State of Mississippi has plentiful supplies of clean water from both ground and surface water sources. We also have the second highest annual rainfall of the United States. However, there are some areas of the state where ground and surface water supplies are limited during certain times of the year. Groundwater declines occurring in the Mississippi Delta over the past 20 years are the result of withdrawing more water for irrigation than natural recharge provides. From the context of sustainable water resources for current and future generations, this has become a concern for many.

From water quality to water supply, a wide range of research and other projects were presented during the 2014 Water Resources Conference that focused on issues facing not only Mississippi, but also the southern United States. Students from colleges and universities as well as water resources planners, managers, regulators, users, and researchers from state and federal agencies, academic institutions, industry, and others described projects and shared results of numerous water resources projects with conference attendees.

More than 120 people assembled at this year's conference which was held April 1-2 in Jackson, MS. Representatives from USGS, MDEQ, USDA and US EPA as well as MSU, UM, and JSU, and public and private companies shared their perspectives on water quality and quantity research and management efforts. Posters also highlighted the work of students and professional researchers.

### Speakers included:

#### Opening Plenary Session

**Theme: Delta Water Resources**

#### Panelists:

**Kay Whittington**, Director

MDEQ Office of Land and Water Resources

**Chip Morgan**, Executive Vice President,  
Delta Council

**Dr. L. Jason Krutz**, Mississippi Agricultural  
and Forestry Experiment Station

(MAFES) Research Associate Professor and MSU Associate Extension Professor



**Luncheon Speakers Tuesday, April 1**

**Theme: Federal Water Resources Priorities and Activities**

**W. Scott Gain**, Director, Water Science Center

Tennessee U.S. Geological Survey

**Chris Thomas**, Chief, Pollution Control & Implementation

Branch, Water Protection Division

U.S. EPA Region 4 – Atlanta, GA



**Luncheon Speaker Wednesday, April 2**

**Theme: Building MSU's Center of Excellence for  
Watershed Management**

**Richard Ingram**, Associate Director, MWRRI and Director, Center of  
Excellence for Watershed Management, Mississippi State University



**Technical Sessions:**

Session #1: **Coastal Water Quality**

Session #2: **Delta Water Management**

Session #3: **Groundwater Assessment**

Session #4: **Water Policy/Management**

Session #5: **Delta Groundwater**

Session #6: **Climate**

Session #7: **Wetlands**

Session #8: **Nutrients & Modeling**

Session #9: **Surface Water Assessment/Management**

Session #10: **Nutrient Reduction**



**Sponsors and Organizers:**

Mississippi Department of Environmental Quality

Mississippi Water Resources Research Institute

U.S. Geological Survey Mississippi Water Science Center



The Proceedings will be distributed in the near future featuring all presentations.

## About the Institute

The Mississippi Water Resources Research Institute (MWRRI) was authorized by Mississippi's Governor Paul B. Johnson in 1964 and is one of 54 institutes in the United States that form a network of coordinated research programs to solve water problems of state, regional, or national significance. In 1983, the Mississippi Legislature formally designated MWRRI as a state research institute. Federal legislation specifies that each institute consult with leading water officials of the state in developing a coordinated research technology transfer and training program that applies academic expertise to water and related land-use problems. These activities are funded in large part through an annual grant from the U.S. Geological Survey. MWRRI's state authorization charges it with carrying out the responsibilities listed below:



1. Assist state agencies in developing and maintaining a state water management plan;
2. Consult with state and local agencies, water management districts, water user associations, the Mississippi legislature, and other potential users to identify and establish water research, planning, policy, and management priorities.
3. Negotiate and administer contracts with local, regional, state and federal agencies and other Mississippi universities to mitigate priority water and related problems;
4. Report to the appropriate state agencies each year on research projects' progress and findings;
5. Disseminate new information and facilitate transfer and application of new technologies as they are developed;
6. Be a liaison between Mississippi and funding agencies as an advocate for Mississippi water research, planning, policy, and management needs; and
7. Facilitate and stimulate planning and management that:
  - a. Deals with water policy issues facing the state of Mississippi;
  - b. Supports state water agencies' missions with research on encountered and expected problems;
  - c. Provides water planning and management organizations with tools to increase their efficiency and effectiveness.

## About MWRRI's Advisory Board

MWRRI's Advisory Board was established to provide input on the following Institute activities:

- Prioritizing current and emerging state, regional and national water and water-related research problems;
- Identifying opportunities to effectively collaborate with local and state governments and agencies, water user associations, other universities, federal government agencies, and the legislature in formulating MWRRI's research program;
- Assisting on the selection of research projects to be funded from USGS funds;
- Advising on disseminating and transferring information and technology produced by research.

Advisory Board members include representatives from the Mississippi Public Service Commission, Mississippi Department of Environmental Quality, Mississippi Department of Marine Resources, Mississippi Soil & Water Conservation Commission, U.S. Army Corps of Engineers Engineering Research and Design Center, Mississippi/Alabama Sea Grant Consortium, University of Mississippi, University of Southern Mississippi, Jackson State University, Delta Council, USDA Natural Resources Conservation Service, U.S. Geological Survey, and the USDA Agricultural Research Service National Sedimentation Laboratory. Five at large seats representing water stakeholders/users in private sector business and regional water management/waterway districts also serve three year staggered terms.

## Center of Excellence for Watershed Management

On April 9, 2013, MSU through the MWRRI was designated by MDEQ and Region 4 of the U.S. Environmental Protection Agency as a Center of Excellence for Watershed Management through a Memorandum of Understanding (MOU). The MOU designated MWRRI to serve as the point of contact and primary coordinating entity for colleges and universities in Mississippi for the primary purpose of utilizing their diverse talents and expertise to help communities identify watershed-based problems and develop and implement locally-sustainable solutions. Through this initiative, MWRRI will coordinate with MDEQ and Institutions of Higher Learning across the state to support MDEQ's watershed management priorities.