University of Arkansas I Division of Agriculture

The UA Division of Agriculture Arkansas Water Resources Center (AWRC) is one of 54 institutes established through the Water Resources Research Act of 1964. The overall program has focused on providing information to local, state, and federal agencies to assist in management and protection of Arkansas' water resources. Each year, the AWRC administers several projects focused on regional water quality issues, with the majority of the projects focused on the impacts on non-point and point sources on water quality, stream and other aquatic system processes, and factors impacting the quality of water supply reservoirs. The Center hosts an annual research conference each spring, and its training and information dissemination programs are intricately involved with the research projects. Typically about 50 students are trained through participation in research projects administered by the AWRC and also at the AWRC Water Quality Laboratory.

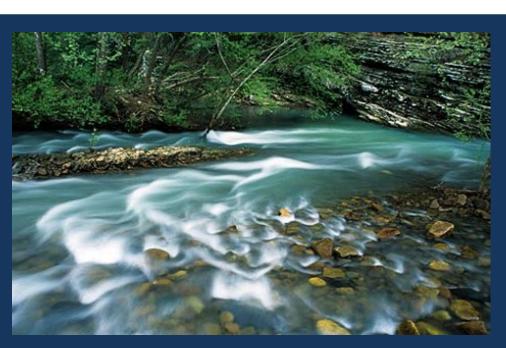
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Funded Research Projects

The following projects were funded through the USGS 104B program in 2009 and 2010:

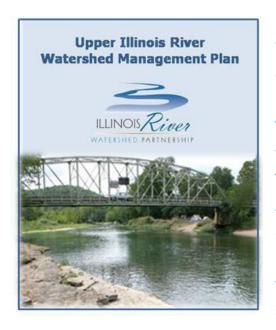
- Longitudinal evolution of nutrients in a mixed-use watershed under storm and non-storm flow regimes
- Denitrification, internal nitrogen cycling, and nitrogen retention in river impoundment reservoirs
- Land-use effects on resistance and resilience of stream metabolism to flood events in Ozark Highland headwater streams
- Determination of the magnitude of mercy methylation in the water column of a high organic carbon river, lower Ouachita River, Union and Ashley Counties, Arkansas
- Assessment of water quality and stream bank stability following BMP implementation on the upper Strawberry River watershed





In Memory of Dr. James Joshua Romeis

Water Quality and Watershed Management Planning



In 2008, the AWRC teamed up with the Illinois River Watershed Partnership to manage its volunteer water quality monitoring program and write the Watershed Management Plan for the Upper Illinois River Watershed. The AWRC trained over 25 local volunteers to collect water samples from 37 sites throughout this watershed. The volunteers dropped the collected water samples at AWRC Water Quality Lab which analyzed the samples, and the volunteer data was used to help prioritize the HUC 12s within the Upper Illinois River Watershed. The first draft of the Watershed Management Plan was submitted, and it will be completed in June 2010.