

Kentucky Water Resources Research Institute

WHO WE ARE

The Kentucky Water Resources Research Institute is part of a nationwide association of 54 federally authorized water resource institutes and centers located at land grant universities throughout the United States and its territories. The Institute operates under the authority of the Water Resources Research Act of 1984 in cooperation with the U.S. Geological Survey, U.S. Department of Interior. Located in Lexington on the campus of the University of Kentucky, the Institute has over 40 years of involvement in water resources issues and has established itself as an important link between water-related personnel at academic institutions; local, state, and federal government agencies; and the private sector.

WHAT WE DO

The Institute program has 3 objectives:

1. To plan, facilitate or conduct research to help address local, state, and national water resources issues,
2. To promote education and training of new and existing water scientists and engineers through their participation in water resources research and outreach activities, and
3. To support technology transfer and the dissemination of research results through outreach to those who manage or use the nation's resources.



Red River, Creation Falls

RESEARCH

KWRRI supports research through administering the Water Resources Research Act, Section 104b base grant. This U.S. Geological Survey program is used to fund research efforts at any of Kentucky's universities. Investigators initiating a new research effort related to water are especially targeted. The current focus of the program is to provide small (\$5000) student research enhancement grants to support research in a wide range of disciplines. The Institute also manages a variety of research projects and provides technical support through contracts with local, state, federal, and non-government organizations.

EDUCATION/TRAINING

Support for student research assistants is currently the primary focus of projects funded through the 104b program. KWRRI also administers a scholarship program for the Kentucky Department for Environmental Protection to assist them in recruiting undergraduate and graduate students in critical discipline areas who promise to work for the agency following graduation. In addition, the Institute is coordinating the Water Pioneers – a group of high school sophomores from the Robinson Scholars Program who represent counties with historically low rates of college attendance.

OUTREACH

An annual water resources symposium is hosted by the Institute to encourage sharing of information related to research, management, and educational efforts going on in the Commonwealth. In addition, Institute personnel serve as technical experts on a wide variety of State panels and advisory committees. KWRRI also publishes an e-newsletter and maintains a Web site to provide easy access to publications and other information about our activities.



CONTACT INFORMATION

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2008-2009 Student Research Enhancement Projects (USGS 104b Annual Institute Program)

1. The Effect of Clay Mineralogy on the Infiltration Capacity of Grass Lawns
Samuel Boateng: Department of Physics and Geology, Northern Kentucky University
Student: Georgia Knuehl (undergraduate – Geology)

2. Identification of Human and Animal Fecal Sources in Central Kentucky Watersheds by PCR of 16sDNA Markers from Host Specific Fecal Anaerobes
Gail Brion: Civil Engineering, University of Kentucky
Alan Fryar: Earth and Environmental Sciences, University of Kentucky
Student: Tricia Coakley (graduate student - Earth and Environmental Sciences)

3. Development of a Composite Sediment Transport Model Applicable to Watersheds in the Bluegrass Region of Kentucky
James Fox: Civil Engineering, University of Kentucky
Student: Joseph Russo (graduate student – Civil Engineering)

4. Comparison of Eastern Hemlock and Hardwood Dominated Forest Stream Assemblages
Sherry Harrel: Biological Sciences, Eastern Kentucky University
Student: Aric Payne (graduate student – Biology)

5. A Comparison of Methods for Measuring Suspended Sediment and Discharge in Wadeable Streams
Christine McMichael: Institute for Regional Analysis & Public Policy, Morehead
Steven Reid: Earth System Science, Morehead State University
Student: Susan Brown (undergraduate – Biology)
Student Thom Platt (undergraduate – Biology)

6. Evaluating Carbon Pool Patterns in Agricultural and Forested Streams along Kentucky Lake
Iin Handayani: Soil Science, Murray State University
Student: Melissa Graves (graduate student – Agronomy, Soil Science)
Student: Robert Tokosh (graduate student – Agronomy, Soil Science)