

# Waterworks

Kentucky Water Resources Research Institute at the University of Kentucky

Vol. 12, No. 1, 2006

## Water Pioneers: Empowering Youth to Make a Difference



The 2006 Robinson Scholars Sophomore Class at Mammoth Cave

In 2005, President Lee Todd launched the Commonwealth Collaboratives, a program that combines UK's research abilities with funding to address issues important to the state. Twenty-three projects were identified as Commonwealth Collaboratives including the Water Pioneers Water Quality Outreach Initiative. The Kentucky Water Resources Research Institute partnered with the Robinson Scholars Program (RSP) to introduce rising high school sophomore Scholars to water quality issues that impact their home communities. RSP is a scholarship and leadership development program that seeks to improve college attendance in a twenty-nine county region of Eastern Kentucky with a traditionally low college-going rate.

In June, the first group of Scholars participated in the Water Pioneers program at Mammoth Cave National Park. This weeklong study focused on

exploring various components of watersheds and the impact of humans on watersheds. Early in the week, Scholars did hands on activities to learn about their environment. They used GPS, studied topographical maps, and tested soil and water. These activities provided background information for students. One Scholar said, "I didn't have much of an understanding about watersheds before the program. I knew what I had

to for school. I didn't realize how many different things that impacted a watershed, or what a negative impact that humans can have on them."

Next, Scholars studied the different river basins in eastern Kentucky and divided into groups based on their home counties. Each river basin group began work on community service projects to educate others about the water quality in their towns. Representatives from Eastern Kentucky PRIDE also participated in the week-long activities at Mammoth Cave.

PRIDE is a nonprofit organization that encourages and assists citizens, local governments, schools and others in 38 counties of southern and eastern Kentucky to improve water quality in the region and promote environmental awareness and education.



KWRRI Program Director Stephanie Jenkins Coordinated Much of the Project and Instructed Students During the Summer Workshops

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# KENTUCKY RIVER WATERSHED GRANT ANNOUNCEMENT

In 2003, the Kentucky River Authority (KRA) initiated a Watershed Grant Program to provide financial assistance to local groups interested in engaging in watershed education, management or water quality sampling activities. Fifteen grants of up to \$3,000 have been awarded since the program's inception. Details about the 2004, 2005 and 2006 grant recipients can be found online at <http://www.uky.edu/OtherOrgs/KRWW>.

Based on the positive response from basin residents and the continuing willingness of the River Authority to assist grass-roots interest in improving Kentucky River watersheds, the KRA Board renewed their watershed grant program for FY2006-07 for a total of \$15,000 in available grant funding. The Kentucky River Authority is now soliciting applications for the fourth round of watershed grants.

## WHO SHOULD APPLY?

Local groups wanting to:

- Increase interest and understanding of the water quality within a local watershed;
- Educate public or students about local water quality status;
- Improve water quality of local water bodies; and
- Engender an appreciation of community water resources.

Grants will be awarded to legal non-profit organizations, such as schools, city/county agencies, environmental groups, youth organizations (i.e., Boy Scouts, Girl Scouts), etc.

## WHAT LEVEL OF GRANT FUNDING IS POSSIBLE?

Grants of up to \$3,000 will be awarded to individual applicants.

## WHY IS THIS IMPORTANT?

Water resources within the Kentucky River Basin provide a variety of functions and benefits to the basin's communities. These include recreational opportunities, drinking water, habitat for fish and other wildlife, and scenic attractions for tourists and residents. Protecting and improving water resources in the Kentucky River Basin will benefit current residents, as well as those of future generations.

## HOW CAN I OBTAIN A GRANT APPLICATION AND WHEN ARE COMPLETED APPLICATIONS DUE?

The application form is available online at [www.uky.edu/otherorgs/krww](http://www.uky.edu/otherorgs/krww) or can be mailed to you by requesting it from the Kentucky Water Resources Research Institute at the phone number listed below. Completed applications should be mailed (or e-mailed) by November 30, 2006. Grants will be awarded in January 2007. For more information, contact Malissa McAlister (see contact information below).

## WHERE SHOULD COMPLETED APPLICATIONS BE SENT?

Kentucky Water Resources Research Institute (KWRI)  
Attn: Malissa McAlister  
233 Mining and Mineral Resources Building  
Lexington, KY 40506-0107  
Ph: (859)257-1299  
E-mail: [mlmcal2@uky.edu](mailto:mlmcal2@uky.edu)

## Water Pioneers

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These representatives collaborated with each watershed team on their community service projects. The volunteers also are assisting the students on the implementation of their projects. The week ended with a historical canoe tour of the Green River and a reflective camp fire discussion.

Scholars are currently working on implementing their community service projects while KWRI and RSP staffs gear up for the program's second year. We also are developing a second phase of the program that would allow Water Pioneers to travel, meeting other students from watersheds in partnering states and regions. Through this information exchange, students will investigate similarities and differences in regional water quality and will learn from the educational journeys of students from very different watersheds and areas of the country. The exchange will allow youth across the United States to communicate and educate others about the importance of water quality. We hope to implement phase two by May 2007, and are looking for funding sources for this project. If you are interested in supporting Water Pioneers, contact Bobbi Silver at 859-257-5874.



**Instructional Expertise for the Workshop was Provided in Part by University of Kentucky Cooperative Extension and by Eastern Kentucky PRIDE**

# More Photos from the Summer 2006 Water Pioneers Program



See these photos and two hundred more in the *Water Pioneers Slideshow*, which chronicles the summer workshops from sampling to canoeing to dining to presenting.

Now available for online viewing at:

[http://www.uky.edu/WaterResources/Water\\_Pioneers\\_06\\_Slideshow.pps](http://www.uky.edu/WaterResources/Water_Pioneers_06_Slideshow.pps)

*NOTE: Microsoft PowerPoint required to view slideshow.  
Download times will vary based on internet connection, computer memory, etc.*

# KWRRRI Staff Present Adaptive Web Model for Research Translation at EPA Science Forum

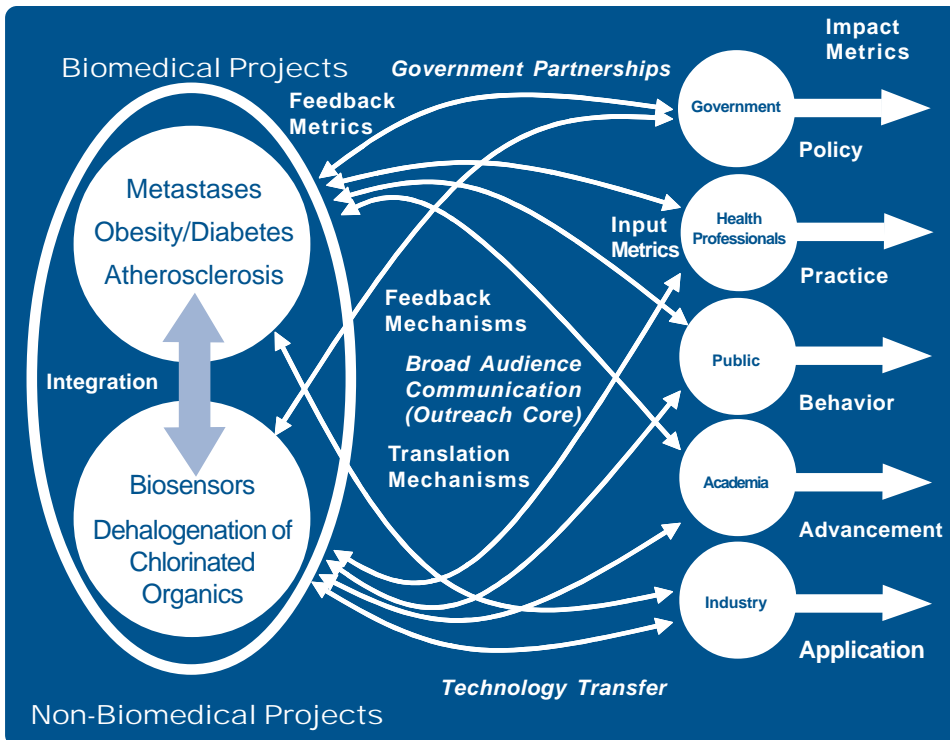
In 2005, the KWRRRI began providing research translation support for the University of Kentucky Superfund Basic Research Program (UK-SBRP) and now coordinates all Research Translation Core (RTC) activities. In this capacity, KWRRRI Communication Director Anna Goodman Hoover presented a poster entitled "An Adaptive Model for Research Translation: Communicating the Relationships Among Toxics, Disease, & Nutrition" at the 2006 EPA Science Forum, May 16-18, in Washington, D.C. The poster was co-authored by KWRRRI Director Dr. Lindell Ormsbee and UK-SBRP Community Outreach Core Principal Investigator Dr. Lisa Gaetke.

While the internet often is used as an information dissemination tool, many scientific and health-related websites frequently rely upon complex technical language to explain complicated processes.

Often, however, site visitors do not have adequate background for complete comprehension of all materials. The working diagram for a project currently under development, the UK-SBRP RTC poster outlined the design of a tailored website that will guide users from specific audiences through information geared toward their particular needs.

Upon implementation, the UK-SBRP RTC website will greet visitors with a welcome page that provides very basic information about Superfund. At the end of this page, visitors will be questioned regarding their specific areas of interest. The ensuing page routing will result from visitor answers, with the questions on each page determining not only the content but also the style of the next page.

The new UK-SBRP Research Translation website is slated to go live in 2007.



The UK-SBRP Research Translation Core created and utilizes this model to inform development, implementation, and evaluation of programs and projects like the one discussed above

## Environmental Protection Scholarship Recipients Named

The Kentucky Water Resources Research Institute congratulates the following students who will be supported through the Environmental Protection Scholarship during the 2006-2007 academic year:

- i **Joseph C. Carpenter**, Chemistry - Kentucky State University
- ii **Elizabeth K.M. Carrier**, Civil Engineering - University of Kentucky
- iii **Sarah M. Mardon**, Geology - University of Kentucky
- iv **Wesley C. Smith**, Geology - Morehead State University

The Environmental Protection Scholarship Program is administered through KWRRRI and funded by the Kentucky Department for Environmental Protection .

The objectives of the program are to promote environmental education at the undergraduate and graduate level in the state universities, and to assist the state's Environmental Protection agencies in their effort to hire the best graduates available for their professional staff.



## Last Print Issue of *Waterworks*!

To continue providing the most up-to-date information possible in an environmentally sustainable manner, KWRRI's *Waterworks* will move to an online format in 2007 following the launch of a new and improved KWRRI website. *Waterworks* subscribers will continue to receive mailed reminder cards when new issues become available, as well as occasional emailed updates when time-sensitive information arrives on the KWRRI News page.

Help us ensure that you continue to receive timely information about the Kentucky Water Resources Research Institute by completing the form located at:

[www.uky.edu/WaterResources/WaterworksMailingListForm.htm](http://www.uky.edu/WaterResources/WaterworksMailingListForm.htm)

If you do not have internet access, please complete and mail the form below to: Anna Goodman Hoover, KWRRI, University of Kentucky, 233 Mining & Minerals Resources Bldg., Lexington, KY 40506-0107.

*\*\*Please note that there is an optional box at the end of the form for individuals who need to receive hard copies of the web-formatted *Waterworks*.\*\**

### Sign Me Up for *Waterworks* Online!

First Name: \_\_\_\_\_

Last Name: \_\_\_\_\_

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State: \_\_\_\_\_

Zip Code: \_\_\_\_\_

Email Address: \_\_\_\_\_

Telephone: \_\_\_\_\_

Fax: \_\_\_\_\_

I have limited internet access and wish to continue receiving regular printouts of *Waterworks* via surface mail.

# Waterworks

*is published by the Kentucky Water Resources Research Institute at the University of Kentucky, with the support and collaboration of the Department of the Interior, U.S. Geological Survey and the University of Kentucky, Grant Agreement No. 06HQGR0087.*

**Lindell E. Ormsbee**  
Director

**James A. Kipp**  
Associate Director

**Steve Hampson**  
Associate Director of KRCEE

**Malissa McAlister**  
Kentucky River Basin Coordinator

**Stephanie Jenkins**  
Program Coordinator

**Edwin Ebrahimi**  
Administrative Staff Officer

**Charles Etta Mynhier**  
Staff Support Associate

**Anna Goodman Hoover**  
Communications Director

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*Waterworks* Editor  
233 Mining & Minerals Resources Building  
University of Kentucky  
Lexington, KY 40506-0107  
aghoov2@uky.edu  
(859) 257-1299, fax (859) 323-1049

*Previous issues of *Waterworks* can be viewed on the KWRRI web site at <http://www.uky.edu/WaterResources>*



## From Director Lindell Ormsbee

Greetings from UK. This issue of Waterworks focuses primarily on two different partnerships: The Water Pioneers and the UK Superfund Basic Research Program. The first partnership grew out of the UK Commonwealth Collaboratives initiative that seeks to focus the university research community on critical issues in Kentucky. One of those issues continues to be environmental education. In this case, the KWRRI was able to partner with the UK Robinson Scholars Program to develop and implement an environmental curriculum targeting high school sophomores from eastern Kentucky. The final program resulted in a week long hands on field experience at Mammoth Cave National Park. KWRRI Program Coordinator Stephanie Jenkins deserves an incredible amount of credit for helping this program become a success. We would also like to thank the staff of Mammoth Cave National Park as well as the staff of Eastern Kentucky PRIDE for their support and active involvement.

The second partnership highlighted in this quarter's newsletter is one with the UK Superfund Basic Research Program (UK SBRP). Since 2005, the KWRRI has been

coordinating the research translation activities of the UK SBRP as a result of a 3 year grant from the National Institutes of Environmental Health Sciences (one of 27 institutes and centers of the National Institute of Health). The UK SBRP supports both biomedical and non-biomedical projects. A unique feature of the biomedical research is the investigation of how nutrition can modulate the toxicity of Superfund pollutants, and thus modulate health and disease outcome associated with Superfund chemical insult. For more information on the UK SBRP and the ongoing research translation activities, see: <http://www.uky.edu/Research/Superfund/>.

The relation between the environment and health will be highlighted in an upcoming meeting in Louisville on Monday, November 13<sup>th</sup> which will be sponsored by the Kentucky Environmental Quality Commission. For more information, please check out the EQC website at: <http://www.eqc.ky.gov>. On a related issue, Secretary LaJuana Wilcher presented me with a copy of the report of the Mercury Task Force in a ceremony in Frankfort on September 29, 2006. The task force and the associated report were developed partly in response to a

request from the EQC, which I currently serve as chairman. A copy of the final report is now available on the EQC website.

As most of you are aware, Secretary Wilcher resigned from office in September. It has been a pleasure to work with her, both in my capacity as chairman of the EQC and the director of the KWRRI. Secretary Wilcher has been a strong advocate for the environment and water resources in particular. We wish her much success in the coming years and look forward to her continued contributions to the Commonwealth of Kentucky.

Finally, on a sad note, we report the death of Dr. Wesley Birge, who passed away on June 15, 2006. Dr. Birge made several outstanding contributions to the field of environmental toxicology and was a strong supporter of the KWRRI. As you may remember, Dr. Birge was presented with the 2006 award for outstanding contributions in water resources research at the annual KWRRI meeting last March. His strong contributions to water resource science and his determined spirit will be greatly missed.