

Poster Sessions

The Western Kentucky University Source Water Protection Program

Educating Water Resource Managers and the Public about the Vulnerability of Rural Karst Drinking Water Supplies

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Abstract

Since 1998, the Western Kentucky University Technical Assistance Center for Water Quality, with funding from the U.S. Environmental Protection Agency, has been working to provide technical, managerial, and financial assistance to rural drinking water providers in Kentucky. To improve public health within Kentucky, the Center's Source Water Protection Program assists water providers, their customers, and other local stakeholders with an approach that assumes that the better the quality of source water when it reaches the treatment plant, the easier and cheaper is to treat.

The roughly 50% of Kentucky underlain by karst aquifers present special challenges as these waters are especially vulnerable to contamination by rural land use, including bacteria, pesticides, and nutrients. Since land use is closely tied to groundwater quality in these areas, education about the functions of such systems can be a powerful tool for protecting vulnerable drinking water sources. A major component of this program provides education to landowners, local government officials, utility managers, citizens groups, and the public about source water issues.

This poster describes educational tools we are developing, with the module *Impact of Karst on Source Water Protection* as an example. Similar to other modules in the program, this has been designed as a workshop, but also includes printed materials and a website for wider dissemination. Subsections of the module include Concepts of Source Water Protection, Karst Landscapes and Aquifers, Karst Related Environmental Problems, Best Management Practices for Source Water Protection in Karst, GIS in Source Water Protection, and Partnerships for Source Water Protection.