



## WATER RESOURCES RESEARCH GRANT PROPOSAL

**Project ID:** 2003AR55B

**Title:** Viability of Obtaining Drinking Water From the Flooded Coal Mines in the Area of Greenwood, Arkansas

**Project Type:** Research

**Focus Categories:** Water Supply, Water Quality, Hydrogeochemistry

**Keywords:** municipal water use, coal mines, water chemistry

**Start Date:** 03/01/2003

**End Date:** 02/28/2004

**Federal Funds:** \$4349.00

**Matching Funds:** \$ 8699.00

**Congressional District:** 3

**Principal Investigators:** Davis, Ralph K (University of Arkansas)

**Abstract:** Greenwood, Arkansas, a city of 7,112 people in South Sebastian County, has faced a tremendous growth in population during the past ten years. This growth has necessitated the city to locate an additional water source to meet the needs of the city. The city now draws its water from a reservoir located on Vache Grasse Creek, a tributary of the Arkansas River. The reservoir is stressed during dry periods of the year, and future growth of the city is dependant upon finding additional water resources. Construction of a new or expanded reservoir would necessitate covering valuable farmlands and would be extremely expensive. The Fidelity and Greenwood #2 mines are abandoned underground coal mines found near the city. These coal mines include both surface pits and underground mines which are now filled with water. Based on the estimated volume of void space computed from old mine maps, these mines represent a huge potential reservoir of water that could be used to augment the water needs of the city. In order to utilize this source of water, further testing of the water and hydraulically connected areas is required. In addition, the city must insure compliance with the various local, state, and federal regulatory agencies that are involved in insuring a quality water supply.

---

*[U.S. Department of the Interior](#), [U.S. Geological Survey](#)*

*Maintain: [Schefer@usgs.gov](mailto:Schefer@usgs.gov)*

*Last Modified: Wed May 28, 2003 4:26 PM*

*[Privacy Statement](#) // [Disclaimer](#) // [Accessibility](#)*