



Region 7

Iowa
Kansas
Missouri
Nebraska

Fact Sheet

August, 2003

Engineering Evaluation/Cost Analysis Available

Newton County Mine Tailings, Newton County, Missouri

INTRODUCTION

The United States Environmental Protection Agency (EPA) is releasing the Engineering Evaluation/Cost Analysis (EE/CA) for actions to address private drinking water wells contaminated by metals at the Newton County Mine Tailings Site, Newton County, Missouri. The EE/CA evaluates various alternatives for addressing contamination at the site. Based on this evaluation, EPA recommends that public water supply systems be expanded into the areas of the site with contaminated ground water. The public is invited to comment on this recommendation.

SITE BACKGROUND

The Newton County Mine Tailings Site is located in the extreme southwest corner of the state of Missouri. The Site is within the Tri-State Mining District that covers approximately 2,500 square miles in northeast Oklahoma, southeast Kansas, and southwest Missouri. The Tri-State District was one of the foremost lead-zinc mining areas in the world, producing lead and zinc continuously from 1850 until 1970. The majority of the production in the Missouri portion of the District came from underground mining, but the ores were all milled on the surface. Milling processes included crushing, grinding, gravity concentration, and floatation. Mining, milling, and smelting wastes were generally deposited on the ground surface. These wastes include development rock, chat, sands, fine tailings, and slag, which were disposed of on the ground surface. Additionally, smelting of the ore occurred in the City of

Granby from the early 1850s through the 1920s. Several minor smelters were also located along Shoal Creek in the northwest portion of the County. The mine wastes and smelter activities resulted in the contamination of soil and water throughout portions of the County.

Public Comment Period Announcement

EPA is currently asking for comments on the Engineering Evaluation/Cost Analysis for the Newton County Mine Tailings Site. The 30-day comment period runs from August 7, 2003 through September 7, 2003.

Written comments can be sent to:

Debbie Kring, EPA
Office of External Programs
901 N. 5th Street
Kansas City, Kansas 66101
e-mail: kring.debbie@epa.gov

EPA will hold an availability session to present and discuss the EE/CA on August 7, 2003 from 7:00 to 9:00 p.m. at the Reddings Mill Fire Department.

HEALTH EFFECTS

EPA has determined that lead and cadmium contamination is present in ground water at the site at levels that may pose a threat to human health. Exposure

to these metals may occur by drinking contaminated ground water. Ingestion of lead and cadmium may result in toxic effects to the brain, the central nervous system, and kidneys. Children are more sensitive to lead and cadmium than adults and may develop permanent health problems from exposure.

ENGINEERING EVALUATION/COST ANALYSIS (EE/CA)

The EE/CA presents evaluations of various options for addressing contaminated ground water at the site. EPA compares the alternatives under consideration on the basis of effectiveness, cost, implementability, and other factors. The following alternatives were evaluated for the Newton County Mine Tailings Site.

- No Action - The NCP (Section 300.430(e)(6)) requires consideration of a no-action response as a baseline for comparing other technologies in the alternative selection process. The no action alternative will not be carried forward in the EE/CA because a no-action response fails to address the potential risks associated with contamination at the site.
- Bottled Water - This alternative consists of continuing the bottled water program, currently on-going, to residences with contaminated water wells. The alternative includes continued monitoring and well-sampling, along with institutional controls (ICs) to prevent the drilling of new, shallow residential wells in the contaminated portion of the aquifer.
- Point-of-Use Treatment - This alternative would include placement of in-home treatment units at residences with contaminated wells to remove metals from drinking water. The alternative also includes continued monitoring and well-sampling, along with ICs to prevent the drilling of new, shallow residential wells in the contaminated portion of the aquifer.

- New Deep Aquifer wells - Two alternatives were developed that involve drilling new water wells into the deep, un-contaminated aquifer to replace the shallow contaminated wells at individual residences. One alternative would place a deep well at each individual home which currently has a contaminated shallow well. The second alternative involves drilling a deep well to supply several homes within an area of contamination. A monitoring and ICs program would be required for this alternative also.
- Establishment of a Rural Water District - This alternative involves establishing a new rural water district to construct a public water supply system throughout the area of contaminated ground water. Each residence located within the district would be connected to the public water supply.
- Expansion of Existing Public Water Supplies - This alternative consists of expanding existing public water supply lines from the cities of Diamond and Granby, and from the Missouri American Water Company. It also includes the construction of a city water supply in and around the city of Wentworth. Isolated homes, not easily served by expansion of existing water supplies, would receive a new deep aquifer water well.

EPA'S PREFERRED ALTERNATIVE

After comparing the alternatives, EPA's preferred alternative for the Newton County Mine Tailings Site is the expansion of existing public water supply systems, construction of a new water system in and around Wentworth, and new deep water wells for isolated homes in locations not economically served by the expanded systems. This alternative meets the requirements for overall protection of human health and the environment. A final decision on how to address the contaminated residential water wells at the site will not be made until after the comments received during

the public comment period are reviewed and evaluated.

ADDITIONAL INFORMATION

An Administrative Record File consisting of site-related documents, including the EE/CA, has been prepared for the site and is available for public review. The Administrative Record File can be viewed at the following locations:

Granby City Hall
302 N. Main
Granby, MO 64844

Environmental Protection Agency
901 N. 5th Street
Kansas City, Kansas 66101

If you have questions about this fact sheet or need additional information regarding this site, please contact:

Debbie Kring,
Community Involvement Coordinator
U.S. Environmental Protection Agency
Region 7
Office of External Programs
901 North 5th Street
Kansas City, Kansas 66101
(913) 551-7003 or
toll free at 1-800-223-0425
E-mail: kring.debbie@epa.gov