News Release

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ENVIRONMENTALLY SPEAKING: Hidden Hazards at Abandoned Coal Mines

Last June, Dean Barnes of Hartford in Sebastian County discovered a small hole in his yard about fourteen feet from his house. This was not an ordinary critter hole but an occurrence geologists call a land subsidence.

The cave-in occurred as a result of the collapse of a portion of an abandoned underground coal mine known as the Blind Pig Slope. The Mining Division of the Arkansas Department of Environmental Quality received an email about the situation on June 13, sent staff to visit the site on the same day, and declared the site an emergency three days later.

The Office of Surface Mining Reclamation and Enforcement (OSMRE) of the U.S. Department of the Interior, which provides funding for ADEQ’s Abandoned Mine Land (AML) Reclamation Program, agreed with the emergency declaration.

ADEQ Mining Division staff prepared all necessary environmental documentation, developed specifications and invited contractors to view the site and bid, all within two weeks
from the first notification of the subsidence. In less than five weeks from the emergency declaration, the initial site work to secure the subsidence had been completed.

Initial work involved excavation of the subsided area, which was then stabilized with a large concrete plug and backfilled. AML grant funding from OSMRE covered the entire cost, $19,765.

A nonemergency AML reclamation project was developed to permanently stabilize the house and prevent further subsidence in the immediate residential area. This included drilling boreholes into the mine complex around the perimeter and underneath the edge of the house. A downhole camera placed in the boreholes allowed the examination of the mine complex to prepare for pumping a low-pressure, specialized grout mix into the mine underneath the house. The grouting work began Feb. 3. The expected cost for this, also covered by AML grant funding, is $85,106.

“These occurrences above long-abandoned underground coal mines are becoming more common,” said James Stephens, ADEQ’s Mining Division chief. The division responded to three such emergency situations in 2014 alone, he said.

In the 19th and 20th centuries, dozens of coal mining companies operated in Arkansas in the Arkansas River Valley between the western border of the state and Russellville. Many underground mines were abandoned in the early 20th century, leaving mine configurations that made subsidence inevitable. Before Congress passed the Surface Mining Control and Reclamation Act of 1977, coal companies ceased mining and left the sites without attempting to restore the land and water they had scarred and polluted.
Structures over these old mines are subject to damage when the mines collapse. ADEQ’s Mining Division has protected or repaired homes, schools, waterlines, gas lines, streets, and even a portion of Highway 71 through the AML Reclamation Program.

The division has overseen the reclamation of 149 abandoned mine sites on over 4,000 acres. Three sites and 215 acres are currently in the reclamation process. Now there are only three active coal mines in the state: one underground and one above ground in Sebastian County and one underground in Scott County.

Anyone with concerns about an abandoned mine should contact Stephens at 501-682-0809, Stephens@adeq.state.ar.us.