

EPA Explores Alternative Water Source

Wedron Groundwater Contamination Site

Wedron, Illinois

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For more information

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Engineers from the U.S. Environmental Protection Agency have been working at Wilbur Thompson Park to evaluate the installation of wells that could provide an alternative source to Wedron residents with contaminated drinking water. In April, Wedron Silica Co. gave U.S. EPA permission to access the park for engineering studies. Wedron Silica also offered to give financial support related to setting up an owners association with appropriate legal agreements for homeowners to maintain and operate the wells.

Wedron has a history of contaminated drinking water dating back 30 years. In the latest round of investigation and cleanup work, U.S. EPA sampled more than 50 private wells in Wedron. Eight private wells are affected by the contamination. Seven homes were found to exceed the safety limits for benzene in drinking water and two homes are close to the limit. U.S. EPA is providing bottled water for these nine homes and has installed temporary whole-house water treatment units. The private wells tap into a ground water plume that looks to be polluted by petroleum products from several potential sources. “Ground water” is an environmental term for an underground source of fresh water. A plume is a mass of contaminated ground water. The plume is moving, so U.S. EPA experts expect other wells besides the nine already identified could eventually be affected by the pollution and need a permanent alternative water source.

Under the authority of federal law,¹ U.S. EPA is spending around \$500,000 in taxpayer funds to protect residents in the nine target homes from exposure to contaminated water. Some of the money has also been used to investigate pollution threats to the rest of the town and look for sources of the contamination.



Water flows from a test well in Thompson Park in Wedron. U.S. EPA engineers are evaluating installing wells that could provide an alternative drinking water source to Wedron residents with contaminated wells.

¹ EPA undertakes emergency environmental actions under the authority of Section 104(a)(1) of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA commonly known as the Superfund law), 42 U.S. Code, and Section 300.415 of the National Oil and Hazardous Substances Pollution Contingency Plan. For more technical information read the documents posted on the Wedron website www.epa.gov/region5/cleanup/wedron/index.html including the Nov. 16, 2012, Action Memorandum, which authorizes funds to help Wedron residents.

Spring developments

Recently a leaking underground storage tank was uncovered on railroad property and was removed under the supervision of the U.S. EPA and the Illinois State Fire Marshal. U.S. EPA and Illinois EPA will oversee investigation and excavation work to remove contaminated soil where the tank was located.

Also this spring, U.S. EPA and Wedron Silica conducted geophysical studies to identify potable water in the aquifers below Wedron. The studies helped determine the depth of the layers of bedrock called an aquitard that lies between the two aquifers in Wedron. An aquifer is a layer of water-bearing rock, sand or gravel through which ground water flows, containing enough water to supply wells and springs. U.S. EPA will use information from the studies to evaluate two options for providing a drinking water source to the Wedron residents who currently have contaminated wells. The studies will show if the first option to install new semi-private deep wells in the Wilbur Thompson Park is safe. If the aquifers turn out to be safe, U.S. EPA officials expect that implementing the park option will take 120 days after legal agreements are in place. The studies will also show if a second option to replace individual private wells into the deeper aquifer is a safe option for the residents who currently have contaminated wells.



Workers remove a leaky underground storage tank from Illinois Railway property in Wedron. U.S. EPA engineers are looking at several possible sources of well water contamination in the town.

Other investigations

As part of its Wedron work, U.S. EPA completed the sampling for vapor intrusion of soil gas outside local homes. Vapor intrusion occurs when chemicals in the underground water give off dangerous gases that can rise up through the soil and seep into buildings through foundation cracks and holes, causing unsafe indoor air pollution. If high levels of soil gas are found in the latest sampling, U.S. EPA will check for vapor intrusion problems under basement concrete slabs, in crawl spaces and inside homes.

In April, U.S. EPA employees and an Agency contractor met with dozens of residents and other interested parties around Wedron to listen to their concerns about health risks, the environment and other issues. The interviews will help U.S. EPA develop a community involvement plan that will outline residents' preferred method of communication with the federal Agency. U.S. EPA officials heard residents voice concerns about their water but also other environmental issues.

During the week of May 20, Illinois EPA performed an underground investigation of the former Hoxsey gas station. Illinois EPA collected 20 soil samples and six ground water samples. The state environmental agency is currently awaiting laboratory results on the samples.

In June, U.S. EPA will work with the LaSalle County Highway Department to investigate whether an underground storage tank is under the county highway near the Hoxsey property by using ground-penetrating radar.

Next steps

U.S. EPA and Illinois EPA have identified several possible sources of the contamination, but the agencies believe there may be more. Current and former owners and operators of Wedron businesses may be responsible, including gas stations, fueling operations, farm supply businesses, laboratories, sand mining operations and railroads. The current and previous owners of the sand mining operations have agreed to work with U.S. EPA to investigate company property this summer. The federal Agency will oversee the investigation under a pending legal document. Environmental regulators are working to reach agreement for other parties to conduct additional investigation on railroad property. These investigations are needed to make sure all possible sources of contamination are found.