



State of Illinois
Pat Quinn, Governor

Illinois Environmental Protection Agency
Lisa Bonnett, Director

Fact Sheet # 4

September 19, 2014 Investigation Update Sauk Village Water Supply Contamination Issue Cook County, Illinois

Background

Vinyl chloride contamination was detected at low levels in 2009 in the Sauk Village's water wells used for the community water supply (CWS). In July 2012, notifications were made to Village residents that the same contaminant was found in the finished water, which is provided to CWS users, at a concentration of 50 percent of the federal drinking water standard. Vinyl chloride is a man-made chemical that is found in groundwater as a break-down product of solvent-related chemicals. Currently, the source water from the community supply wells and the finished water provided to residents is being treated and routinely sampled to make sure that it is safe for all uses.

On March 5, 2013, the Office of the Illinois Attorney General and the Illinois Environmental Protection Agency (Illinois EPA) entered into a Consent Order agreement with Sauk Village regarding steps that must be taken to address the drinking water contamination issue. Sauk Village is operating a temporary air-stripping treatment system on water from CWS Wells #1 and #2 (at the south end of town) and has agreed not to use Well #3 (at the north end of town). The treatment system pumps the contaminated water through a tower that allows it to make contact with the air. Since vinyl chloride is the type of chemical that easily evaporates into air, it is effectively "stripped" out of the water. The Village conducts regular sampling to ensure that the treated water meets all safety standards. Recently, the Illinois EPA approved a loan application for the Village to construct permanent treatment systems. Additionally, Sauk Village will develop maximum setback zones for community water wells in the Village to protect the groundwater from future contamination.

Does Illinois EPA know the source of the groundwater contamination that is affecting the public water supply wells?

No, the source is not known. Illinois EPA conducted a series of investigations from 2012 to 2014 in an attempt to locate the source or sources of the contamination. The investigations included review of historical records as well as interviews with local authorities and businesses regarding who may have used or disposed of solvents in the past.

The Agency recently completed a field investigation designed to better define the extent of groundwater contamination and to identify, if possible, the source or sources of contamination. Numerous borings and wells were installed to collect data about groundwater levels, flow direction and the distribution of chemical contamination in the area.

In 2012, Illinois EPA sampled thirteen private wells southwest and southeast of Sauk Village. Additional industrial wells were sampled southwest of Bishop Ford Highway and Sauk Trail to learn whether groundwater contamination originated in that area that may explain the



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chemical contamination found in the community wells #1 and #2. No vinyl chloride or related chemicals were found in either of these areas.

Results from further investigation work elsewhere in the Village and on commercial and industrial properties were unable to pinpoint a source of the chemical contamination for any of the Village's three community wells.

What are the results from the private well samples?

Of the 13 private wells and a few commercial wells tested in the unincorporated portion of Sauk Village, only one private well on the east side of the Village had a low level detection of vinyl chloride or other chemicals similar to those detected in the Community Water Supply. The Illinois Department of Public Health (IDPH) sent letters on October 22, 2012 to all the well owners whose well water was tested informing them of the test results and providing water use recommendations as appropriate.

Is the water treatment system effective in treating chemical contamination in the Sauk Village water system?

Yes. Routine monitoring data taken from several points along the treatment process and of the water that is distributed to the public demonstrates that the air stripping treatment system is working very well to eliminate the vinyl chloride contamination.

Is Illinois EPA able to loan Sauk Village money to install a permanent treatment system?

Yes. Sauk Village submitted an application package to Illinois EPA for a loan to construct the permanent treatment system for the Community Water Supply. The Agency executed a Loan Agreement for the improvements in January 2014. Construction of the permanent treatment system is underway at this time.

What health effects can result from consuming vinyl chloride in drinking water?

Exposure to low levels of vinyl chloride at or greater than the maximum contaminant level (MCL) of two parts per billion over many years may lead to impaired immune system function, kidney or liver damage, and may increase the risk of liver cancer. The Village's finished water that is distributed to residents does not exceed the MCL for vinyl chloride. The MCL is the federally-approved standard for community drinking water supplies for a given chemical or naturally-occurring constituent.

Who to contact for more information:

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Illinois EPA Groundwater Investigation Areas For Sauk Village



- Earlier fact sheets regarding this groundwater contamination in Sauk Village can be found at: <http://www.epa.state.il.us/community-relations/fact-sheets/sauk-village/index.html>
- A fact sheet on vinyl chloride by the Agency for Toxic Substances and Disease Registry - ToxFAQs about Vinyl Chloride: <http://www.atsdr.cdc.gov/toxfaqs/tf.asp?id=281&tid=51>
- Illinois Department of Public Health's Fact Sheet about Vinyl Chloride in Groundwater: <http://www.idph.state.il.us/envhealth/factsheets/vinyl-chloride.htm>

You may view water sampling results for the Sauk Village community water supply on the Illinois EPA web site at <http://www.epa.state.il.us/> For detailed steps, please refer to the Sauk Village **Fact Sheet #2** on the first link at the top of this page.

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