# Smithtown Groundwater Contamination

## New York

EPA ID#: NY0002318889

**EPA REGION 2**

Congressional District(s): 12

Suffolk

Smithtown

NPL LISTING HISTORY
Proposed Date: 9/30/1998
Final Date: 1/19/1999

# Site Description

The Smithtown Groundwater Contamination site is an area of contaminated groundwater which has impacted drinking water in the Town of Smithtown in a location that includes the Villages of Nissequogue and Head of the Harbor and the Hamlet of St. James. There are approximately 500 homes in the immediate vicinity of the site. Many homes in Smithtown use private wells for a potable water supply and septic systems for sanitary waste disposal. The site is situated south of Stony Brook Harbor and east of the Nissequogue River. While the site is located in a residential area, active commercial areas are located within one mile to the east and south.

Site Responsibility: This site is being addressed through Federal actions.

# Threat and Contaminants

In April 1998, EPA sampled 295 homes in the Smithtown area. Analytical results from this sampling event indicated the presence of volatile organic compounds (VOCs), particularly perchloroethylene (PCE), and its breakdown products, in residential private wells. PCE is a solvent used in dry cleaning and metal cleaning operations and is the principal contaminant in the groundwater within the impacted area. PCE is considered a potential human carcinogen by the U.S. Department of Health and Human Services. A removal action level (RAL) of 70 parts per billion (ppb) for PCE had been exceeded in six private wells. Under the Superfund Program, if any contaminant concentration exceeds its RAL, EPA is authorized to take an immediate, short-term action to address that contamination. In addition, private wells had detectable concentrations of VOCs above the maximum contaminant level (MCL) of 5 ppb for PCE. MCLs are the maximum permissible levels of a contaminant that may be present in water used for drinking purposes.

Contact with water containing VOCs, such as PCE, above the MCLs may cause an increased risk of adverse health effects from long-term exposure. Exposure to PCE can occur from ingestion of contaminated water, ingestion of food prepared with contaminated water, or inhalation of vapors from activities such as showering.

# Cleanup Approach

This site is being addressed in two phases: Immediate actions to provide alternate water supplies and a long-term remedial phase focusing on the cleanup of the entire site.

Response Action Status

Immediate Actions: Based on the results of well water samples taken in April 1998, EPA initiated a Superfund Removal Action to supply bottled water to six residences with wells contaminated above the RAL. In June 1998, bottled water deliveries were expanded to include wells contaminated above the MCLs. These actions were taken to protect the health of the public until a more permanent solution could be implemented.

In the fall and winter of 1998-99 EPA took further action. Where a public water supply was available, the impacted residences were connected. This included installing the service line from the water company’s distribution system at the property line to the house and disconnecting the well. At homes where water mains were not available, EPA installed individual carbon treatment systems or upgraded existing household treatment systems to EPA specifications.

Entire Site: EPA conducted an Remedial Investigation/Feasibility Study (RI/FS) to determine the nature and extent of the contamination at the site and develop remedial alternatives to address the contamination. EPA observed sporadic and isolated pockets of contamination and no contiguous groundwater plume was detected. The RI was not able to determine

the source(s) of the VOC contamination detected in the groundwater. The RI/FS documents, together with the Human Health Risk Assessment and Screening Level Ecological Risk Assessment reports, were finalized in June 2004. A proposed plan was released in June and a public meeting was held on June 29, 2004. Subsequently, a Record of Decision (ROD) was signed by EPA on September 30, 2004. A transcript of the public meeting and all the final documents are available at the Smithtown Library for public review.

# Cleanup Progress

In the 2004 Record of Decision (ROD), EPA selected a remedy of providing an alternate water supply to homes currently and potentially impacted by groundwater contaminated by VOCs, particularly perchloroethylene. In addition, the remedy includes long-term groundwater and surface water monitoring and the implementation of institutional controls to restrict use of contaminated groundwater.

The work to connect residences within the area designated in the ROD to water mains began in November 2005. All residences, that accepted EPA's offer, were connected to the public water supply. Construction at the site was completed by the end of September 2006. EPA connected several additional residences in December 2008 which could not be previously connected. EPA is currently preparing an Interim Remedial Action Report documenting the residential connections to the public-water supply. EPA will sample wells withing the remedial area and surface water in Stony Brook Harbor and the Nissequogue River in 2009. Once groundwater reaches drinking-water standards, EPA will prepare a Final Remedial Action Report.

# Site Repositories

Copies of site related documents are available at:

Smithtown Library 1 North Country Road Smithtown, New York (631) 265-2072