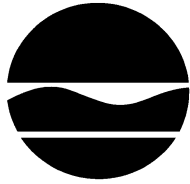


NEW YORK STATE
DEPARTMENT OF



ENVIRONMENTAL
CONSERVATION

Information on DEC's spill
response program is available
at: www.dec.state.ny.us

*For further information
contact:*

Joseph E. Haas II
Engineering Geologist I
NYSDEC
(631) 444-0332

Bill Fonda
Regional Citizen Participation
Specialist
NYSDEC
SUNY Bldg. 40
Stony Brook NY 11790-2356
(631) 444-0350

FACT SHEET

MTBE Contamination
Birch Street Plant
West Hempstead, New York
February 2007

This fact sheet has been written to provide the residents of West Hempstead, NY with the initial findings and status associated with the detection of the gasoline fuel oxygenate Methyl-tert-butyl ether (MTBE) in the West Hempstead Water District distribution system. The New York State Department of Environmental Conservation (DEC) has investigated the degree and extent of MTBE contamination impacting the Water District. While the investigation to identify the source(s) of the MTBE is on-going, the DEC has implemented interim remedial measures to mitigate and remediate the MTBE contamination.

Spill Description and Background Information

On June 26, 2006, the West Hempstead Water District notified the DEC that MTBE was detected at concentrations above the New York State Department of Health (DOH) maximum contaminant level (MCL) of 10 ug/L within their public water distribution system. Through testing of several water samples, the Water District determined that the MTBE had entered the distribution system through an impacted public supply well (Well #3) which was operating at the Birch Street plant. Well #3 is one of four relatively shallow wells (approximately 180 feet deep) at the plant which produces water derived from the Upper Glacial aquifer. Also present in the plant are four deep wells (approximately 600 feet deep) which produce water from the deeper Magothy aquifer which are not impacted by MTBE. Since the initial detection of MTBE, the shallow public supply wells have not been used to provide drinking water to the community. After the Water District notified the DEC of the MTBE impact, the DEC immediately commenced an investigation that included petroleum storage facility inspections and environmental sampling in the vicinity of the Birch Street plant. Utilizing New York State Environmental Protection and Spill Compensation Fund monies, DEC hired a standby contractor Environmental Assessment & Remediations (EAR), to conduct a subsurface investigation to determine the nature, extent and source of the MTBE contamination impacting the Birch Street plant. In addition, the DEC has directed the implementation of IRMs to address the MTBE contamination.

Subsurface Investigation

On July 3, 2006, EAR began collecting data to determine the nature, extent and source of the MTBE impacting the Birch Street plant. In conducting the investigation, EAR installed numerous multi-level wells and temporary borings on the well field property, along the public right of ways, and on some private properties to collect groundwater.

The results of the investigation to date have identified a dissolved groundwater contaminant plume that is several hundred feet wide and extends north from the Birch Street plant for at least 1800 feet to the vicinity of Bedell Terrace. The contaminant plume consists primarily of the gasoline oxygenate MTBE but also contains other oxygenates such as tert-amyl-methyl-ether (TAME), and tert-butyl-alcohol (TBA). Groundwater and the dissolved contamination exists at approximately 30 - 180 feet below the land surface. Although two of the shallow Upper Glacial wells at the plant continue to be contaminated by MTBE, the deep Magothy wells have not been impacted. All water distributed to West Hempstead residents is routinely tested and meets Federal and State drinking water standards. The DEC has identified the OK Petroleum Service Station at 164 Hempstead Avenue, West Hempstead as a source of the MTBE contamination. However, the investigation to identify other potential source(s) of the MTBE contamination is on-going.

Interim Remedial Measures

To address the current impacts, and to prevent or minimize further impacts to the public supply wells, the DEC has developed two IRMs. One IRM has already been installed at Well #3 to treat the water that is pumped and discharged to the land surface. Continued pumping of Well #3 is necessary to maintain control of the contaminant plume and to prevent impact to the deeper Magothy wells. The water is being treated by an air stripping system that is located on the Birch Street plant near Well #3. This system has been operational since August 2006. The second IRM will treat the remainder of the contaminant plume that extends from the northern boundary of the plant to the vicinity of Bedell Terrace. It consists of two recovery wells located on the plant that pump the contaminated groundwater through piping to a second air stripping tower. The treated water is discharged to the Nassau County storm drainage system that extends from the end of Birch Street to Hempstead Lake. The second IRM began operating in early January 2007. DEC anticipates operating both IRMs for the next two to three years.

