



Maryland Department of the Environment

Morris Mill Road Trichloroethylene (TCE) Plume Site

**Groundwater Health Assessment and
Cleanup Goals**

November 8, 2012





Agenda

- Background
 - Site History
- Action Plan
 - Site Investigation Activities
 - Remedial Alternatives
- Risk Assessment And Health Issues
- Questions and Answers





History of Investigation

- Late July 2012: Resident in area sends sample to private lab for analysis.
- Early August: Resident notifies WiCHD. Owner of property is advised to abandon and seal existing well and replace with confined aquifer well.
- Early September 2012: 4 properties sampled by WiCHD.
- Mid to End September 2012: Sample results received. WiCHD collects samples from 34 additional properties and notifies MDE of initial results.
- Early October 2012: Sample results received. 5 additional properties sampled by WiCHD.
- Mid October 2012: MDE initiates area-wide investigation.
- Early November 2012: MDE samples 46 properties and WiCHD samples 23 properties.





Area of Concern





Ongoing Investigation

- Providing Safe Drinking Water For Impacted Homes
- Conducting Groundwater Investigation
 - Identify Vertical And Horizontal Extent Of Contamination
 - Groundwater And Soil Gas Sampling





Long Term Remedial Goal Options

- Public Water System Hookup
- Community Supply Well
- New Wells In Deeper Aquifer
- MDE Evaluating All Options





Near Term Remedial Goals

- Bottled water for homes with groundwater concentrations in excess of 2.2 ug/L
- Whole home water treatment will be evaluated on a case by case basis for homes having concentrations in excess of 5 ug/L for sensitive populations
- Whole home water treatment for groundwater concentrations in excess of 30 ug/L





What is a Public Health Concern for MDE?

- Reducing risks to human health and the environment from hazardous substances
 - Primary goal of federal and State environmental protection laws since early 1970's
- Maryland's Controlled Hazardous Substance Act authorizes MDE to assess and clean up sites where hazardous substances have been released into the environment.
 - MDE is actively working in the Morris Mill area to address Trichloroethylene (TCE) and some of its byproducts in the groundwater.



Trichloroethylene (TCE)

- A volatile solvent most often used to remove grease from metal parts and is used in a variety of other industrial processes. TCE can be found in paint removers, brake cleaners, adhesives and some other household items.
- TCE poses a potential hazard for non-cancer effects and has been classified as a human carcinogen.
- Based on these potential hazards we have and are assessing the following routes of exposure.



Exposure Routes

- Ingestion Of Groundwater
- Dermal Contact With Groundwater
- Inhalation Of Volatiles From Household Use
- Vapor Intrusion Into House From TCE In Groundwater





Health Concerns and Questions

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Additional Information

- Wicomico County Health Department
(410) 749-1244 or <http://www.wicomicohealth.org>
- Maryland Department of the Environment
(410) 537-3437 or
http://www.mde.state.md.us/programs/Land/MarylandBrownfieldVCP/Pages/programs/landprograms/errp_brownfields/default.aspx
- Department of Health and Mental Hygiene
(410) 767-6500 or
<http://ideha.dhmh.md.gov/OEHFP/EH/SitePages/Home.aspx>
- U.S. Environmental Protection Agency
(800) 438-2474 or <http://www.epa.gov/aboutepa/region3.html>
- Agency for Toxic Substances and Disease Registry
(215) 814-3140 or <http://www.atsdr.cdc.gov/dro/r3.html>





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