



TCE Contaminated Groundwater

Euclid and Woods Roads Area – Spokane County

Fact Sheet – March 2009

DOH PUB NO 334-189

The Washington State Department of Health completed an assessment of trichloroethylene (TCE) found in groundwater east of the intersection of Woods and Euclid Roads in the Deep Creek area of Spokane County. The purpose was to look at the potential health impacts of past, current, and potential future exposures to TCE because the groundwater in the area is the source of drinking water for the nearby community.

Background

The TCE-contaminated groundwater at the site was discovered by the U.S. Environmental Protection Agency (EPA) in early 2005, while investigating the former Fairchild Nike Battery 87 site. This triggered EPA to do some private well testing in the area.

The tests found three private wells that had TCE levels higher than the federal drinking water standard, which is 5 micrograms per liter. TCE levels above this standard are considered unsafe.

Water treatment systems were installed at the properties that used those three wells. They worked. TCE levels in the treated water dropped below the drinking water standard and are no longer considered at an unsafe level. EPA monitors and maintains those water treatment systems.

What is trichloroethylene?

Trichloroethylene (TCE) is a colorless liquid mainly used to remove grease from metal parts.

TCE is also used to make other chemicals. It is found in some household products such as paint removers, spot removers, and glues. TCE is a common environmental contaminant found in groundwater.

How can I be exposed to TCE when it is found in groundwater?

When found in groundwater, TCE exposure can happen by being swallowed, breathed-in, or absorbed through skin contact. Some common exposure pathways for TCE are:

- Drinking TCE contaminated groundwater from a well
- Breathing TCE fumes when using contaminated water during showers and other water uses

Sometimes exposure can occur when TCE evaporates from shallow groundwater. The fumes move through the soil and enter buildings, which can potentially affect indoor air quality.

What health problems come from TCE exposure?

The ways TCE exposure affect health depend on several things: the amount a person is exposed to, the length of exposure, and the way a person is exposed.

Scientists are still trying to understand how exposure to TCE affects human health.

Much of what we know about health effects of TCE comes from studies of exposures at levels much higher than seen in the Euclid Road area.

Many of these high dose studies suggest that TCE can cause health effects such as kidney and liver cancer and non-cancer health effects.

How does the TCE in tap water affect my health?

- TCE levels in the tap water from the Woods and Euclid Roads area **do not currently pose a public health hazard.**
- Previous exposures to TCE in drinking water are unknown. There's no way to know how much or how long TCE was in the wells before it was discovered.
- It is unknown whether future exposures to TCE in groundwater will occur because the source, extent, and movement of the TCE in groundwater are uncertain.

What is being done to prevent further exposures to TCE?

EPA continued testing private wells in the area for TCE through 2007 to be sure that no other wells contained levels above drinking water standards. To date, only the three private wells previously mentioned contain TCE above the drinking water standard.

EPA is working with the Washington State Department of Ecology and the Spokane Regional Health District to transfer oversight from EPA to these two agencies in 2009. The agencies are working on a transition plan that will be shared with the community.

What steps are recommended to prevent future TCE exposures?

- Water treatment systems installed at the three affected properties should continue to be operated, monitored, and maintained until TCE levels in those wells drop and stay below the federal drinking water standard.
- The three private wells with treatment systems continue to have levels of TCE

above the federal drinking water standard **before the water has been treated.** These three wells should continue to be monitored for TCE.

- Other private wells in the area, and shallow monitoring wells installed by EPA, should continue to be monitored for TCE.

Helpful links

The Department of Health report on TCE Contaminated Groundwater – Euclid and Woods Roads Area is available online (<http://www.doh.wa.gov/ehp/oehas/hc95topresent.htm#E>).

Previous EPA reports and fact sheets on the Euclid Road Groundwater Site are available on the federal agency's Internet site (<http://yosemite.epa.gov/r10/CLEANUP.NSF/sites/Euclid>).

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