

Ephrata Landfill

Ephrata, Grant County, Washington

Fact Sheet, January 2011



The Washington State Department of Health completed a health consultation that looked at contaminants in private well groundwater near the Ephrata Landfill to see if there is a potential health threat for people.

Overview

The Ephrata Landfill site is located in Ephrata, Washington. The landfill ran as an open dump from 1942 until 1961. It was operated by the City of Ephrata until 1974, when Grant County took it over. The county still runs the landfill today.

In 1975, about 2,300 drums of industrial waste were buried at this site. The U.S. Environmental Protection Agency added the landfill to the list of potential hazardous sites in 1979. An assessment done in 1990 showed the upper three aquifers were contaminated with metals, solvents, and other chemicals. Contractors removed 2,353 drums from the landfill in 2008. Water in the area where the drums were stored was contaminated. More than 6,000 gallons of contaminated water were removed and taken to a disposal facility. The drums were burned after samples were sent to a lab for testing. Grant County and the City of Ephrata are currently conducting a Remedial Investigation/Feasibility Study under an agreed order with the Department of Ecology. Interim remedial actions are continuing and a Cleanup Action Plan for this site will be developed and implemented.

In July 2009, Grant County collected water samples from several private wells in the area surrounding the landfill. The samples were tested for the chemicals found at the site. Treatment systems were added to wells that had contaminants above federal standards. Drinking water samples were taken before and after the treatment systems were installed.

Health Assessments

The Department of Health looked at a variety of information to see if there are potential health effects from contaminants in private wells, including those with installed treatment systems, around the Ephrata Landfill. This included:

- The **type** of contaminants (benzene, vinyl chloride, 1,2-dichloroethane).
- **The length of time** a person may be exposed to the contaminants.
- **The amount** of exposure a person may have to the contaminants.
- **How a person may be exposed** to the contaminants (breathing in, eating/drinking, or touching/skin contact).
- **Conditions** where the contaminants are found and how people use that site (example: in water used for drinking, showering, cooking).

What We Found

Samples showed the private well water contained calcium, magnesium, sodium, and potassium, as well as the chemicals benzene, 1,2-dichloroethane, and vinyl chloride. Calcium, magnesium, potassium, and sodium are essential nutrients and were found below levels expected to cause health effects. Evaluation for these items was not necessary. Benzene, 1,2-dichloroethane, and vinyl chloride were evaluated.

Report Conclusions

Using groundwater from private wells near the Ephrata Landfill for drinking, showering, bathing, and cooking is not expected to harm people's health at current concentrations.

A treatment system was installed to remove the chemicals from some private wells. However, vinyl chloride exceeded the drinking water maximum contaminant level (MCL). The Department of Health encourages action to ensure that residents do not drink water that exceeds MCLs.

Information on Chemicals

Benzene is a flammable colorless liquid found in the environment. Natural sources include volcanoes and forest fires, but it is also found in crude oil and gasoline. Exposure to certain levels may cause drowsiness, dizziness, rapid heart rate, tremors, confusion, unconsciousness, vomiting, sleepiness, convulsions, and increase the risk of cancer (mainly leukemia).

1,2-dichloroethane is a clear, man-made liquid. It's commonly used in the production of vinyl chloride, which is used to make plastic and vinyl products. Breathing or drinking certain levels may increase the risk of cancer and cause nervous system disorders, liver and kidney diseases, and lung effects.

Vinyl chloride is a colorless man-made gas used to make a variety of vinyl and plastic products. It also forms from the dechlorination of PCE, which is used as a solvent in dry cleaning and other applications. Exposure to certain levels may cause liver or nerve damage, immune reactions, and increase the risk of cancer of the liver, brain, blood, and lungs.

Resources

Health Consultation Report – Ephrata Landfill, December 2010
www.doh.wa.gov/consults

Contacts

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