

Community Meeting

EPA and MDEQ will host an informational meeting on the Billings PCE Superfund site.

When: January 17, 2023, at 6:00 PM.

Where:

Broadwater Elementary
415 Broadwater Ave
Billings, MT 59101

Contact Information

U.S. EPA Region 8

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Web Links

EPA website to learn more about the Superfund program:
www.epa.gov/superfund

EPA website for more information about Billings PCE site:
www.epa.gov/superfund/billings-pce

Find Information About:

- The Billings PCE Superfund Site
- Upcoming investigations
- Project contacts for EPA, DEQ, and DPHHS
- Web links on Superfund, vapor intrusion, and chemicals of concern
- The January 2023 public meeting



US Environmental Protection Agency
10 West 15th Street, Suite 3200
Helena, MT 59626
Attn: R. Hoogerheide

Billings PCE Superfund Site Update

What is Superfund?

Superfund is EPA's program for cleaning up some of America's most contaminated land and responding to environmental emergencies, oil spills and natural disasters.

The Site

The Billings PCE Superfund Site (Site) consists of shallow groundwater contamination, extending from 24th and Central Avenue approximately three miles, east-northeast, through several mixed-use neighborhoods to the east of downtown Billings. Contaminated groundwater may produce indoor air concerns. In September 2021, the Environmental Protection Agency (EPA) added the Site to the Superfund National Priorities List, making the Site eligible for federal funding to expand environmental investigation and cleanup activities.

Contamination

The primary contaminants of concern at the Site are chlorinated, volatile organic chemicals (VOCs) including tetrachloroethene (PCE), trichloroethene (TCE), dichloroethene, and vinyl chloride as well as petroleum hydrocarbons. These contaminants can evaporate from shallow groundwater and contaminated soils underneath buildings and enter the indoor air through a process commonly called "vapor intrusion".

These vapors can be inhaled and may pose short-term and long-term risks to public health. Contaminated groundwater may also pose a health concern if it is used for drinking water or residential uses. Contaminated soils may also pose a health concern to on-Site workers who contact the soils, which can continue to be a source of contamination for the groundwater plume if not addressed.

Locate Your Property

Wondering whether your property is located within or near the Billings PCE study area? Use this web link to find out. <https://arcg.is/OKyfvL1>



What is Vapor Intrusion?

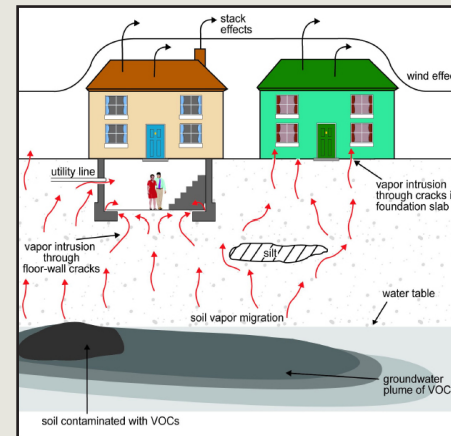
Vapor intrusion is a way that VOCs in soil or groundwater may enter buildings and contaminate air inside the structure (indoor air). Chlorinated VOCs are liquids that can evaporate easily and become a vapor capable of moving through the air and soil. When a chemical is released, either from a spill above ground or leak underground, it has the potential to enter groundwater and travel through the soil and water underground. If that chemical is volatile, it can become a vapor, and seep through openings, like cracks in basements, foundations, sewer lines, or into nearby buildings.

Factsheet: What is vapor intrusion?
https://www.atsdr.cdc.gov/docs/vapor-intrusion_508.pdf

Why is Vapor Intrusion Important to Me?

When vapors intrude indoors, you can be exposed by breathing indoor air. This exposure may cause health effects, depending on the type and amount of chemical, as well as how often and how long you are exposed.

A person exposed to high amounts of PCE and TCE vapors for a short amount of time might experience dizziness, headaches, nausea, and poor coordination. A person exposed to lower amounts of PCE and TCE vapors over a longer period of time might experience harmful health effects including neurological symptoms, immune effects, liver or kidney effects, or certain cancers.



While groundwater is not used for potable water, a person may be exposed to these chemicals if they drink water from a contaminated irrigation well or use contaminated irrigation water for recreational purposes such as watering houseplants, filling a pool, or playing in sprinklers.

2022 Activities

March/April – Collected indoor air, sub-slab vapor and soil gas samples in 48 structures. Results indicate that nine residential structures are impacted by vapor intrusion. EPA is taking action to protect public health (see "Upcoming Activities" below).

May and October – Collected groundwater samples from approximately 80 monitoring wells and 40 residential wells to better determine the underground locations and concentrations of contaminants during high-water and low-water seasons. Results are pending

August – Collected 103 soil gas samples to delineate the soil gas plume. Thirty-five samples were collected from the municipal sewer lines to determine if contaminants may be entering structures by moving through sewer lines or utility corridors. Results are pending.

October/November – Sampled crawlspace air and/or sub-slab vapor from 112 structures, to determine if these structures were also being impacted by vapor intrusion. Results are pending.

Upcoming Activities

November 2022 through February 2023 – Work with property owners to install vapor mitigation systems (similar to radon mitigation systems) at nine impacted structures. These systems are anticipated to be installed in early 2023.

January/February 2023 – Screen up to 200 structures using EPA's Trace Atmospheric Gas Analyzer (TAGA) mobile laboratory. TAGA uses a 300-foot tube and on-board instrumentation to analyze indoor air and map the results in real time. This information can be used to determine if these structures are being impacted by vapor intrusion and identify locations where vapors may be entering.

May and October 2023 – Collect additional groundwater samples from existing monitoring wells. Additional irrigation wells will also be sampled. EPA will also work with an environmental contractor to begin a comprehensive groundwater investigation and evaluate cleanup alternatives to address the groundwater contamination.

Fall 2023 – The Agencies will prepare the Feasibility Study to address the indoor air contamination exposure pathway. The Feasibility Study is the way the Agencies conduct the development, screening, and detailed evaluation of cleanup alternatives. Once finalized, EPA will issue a Proposed Plan detailing the preferred cleanup alternative for public review and comment.

If you would like to have your house or business tested for vapor intrusion contamination or your irrigation well sampled, email or call: **Roger Hoogerheide, EPA Remedial Project Manager** e: hoogerheide.roger@epa.gov | t: (406) 422-9725