

## Billings PCE Superfund Site

### Site Overview

- Primary contaminants of concern are chlorinated hydrocarbons that were routinely released into groundwater by dry cleaners and other businesses in and around downtown Billings
- Once in the environment, the contaminant can vaporize. As the gases rise to the surface, they become trapped under impervious materials such as asphalt and building foundations
- Cracks in foundation, side walls or other openings in the foundation allow these gases to enter the indoor air (vapor intrusion) where they may cause health concerns
- The groundwater plume starts around 14<sup>th</sup> and Central and extends past the Phillips 66/Conoco Refinery (see figure in package)
  - Plume is approximately 950 acres and underlies over 4000 structures

### Site Status

- Since 2022, over 200 residential and commercial structures have been sampled for indoor air concerns.
  - Includes approximately 170 single-family residences, 3 schools, 3 churches, 6 HUD buildings and over 2 dozen buildings in the Central Business District
- Groundwater samples are collected semi-annually
- 27 radon mitigation systems were installed in 2023 and 2024
  - Post mitigation sampling indicates 60 to 90% reduction in contamination beneath and inside the home proving to be an effective remediation method thus far
- Anticipate presenting a cleanup plan to the public in February/March to address indoor air concerns with cleanup decision anticipated in late summer/early fall
- Estimate 500 structures will get mitigation systems installed
- Ongoing investigations around 7<sup>th</sup> and Central
- Investigating secondary releases around 2<sup>nd</sup> Ave and N 29<sup>th</sup> St and S 23<sup>rd</sup> St and Minnesota Ave.

### Basis for Briefing

- Discuss adoption of city ordinance to address vapor intrusion (VI) within areas of concern identified on the attached figure.
  - City ordinance would apply VI-related restrictions on new structures and on major changes to existing structures within the areas of concern
  - Example ordinance provided in package

It is more cost effective for cities to address VI issues through restrictions on new structures prior to building occupancy than having to remodel new buildings later to address VI issues. EPA recommends this proactive approach to better protect human health and the environment.

**Table 4-2 Institutional Controls per Sub-area  
Billings PCE Superfund Site OU 1  
Billings, Montana**

Institutional Control	Operable Unit 1 Sub-area <sup>2</sup>		
	A	B	C
<b>Governmental Controls</b>			
Governmental Controls impose restrictions on land or resource use using the authority of a government entity. Typical examples of governmental controls include zoning and building codes.			
<b>City of Billings ordinance</b> requiring for vapor barriers or other mitigation for new construction	Yes	Yes	No
<b>City of Billings ordinance or policy</b> prompting notification to the EPA of building permit applications for projects that may affect VI mitigation system.	Yes, if the structure has a VI mitigation system	Yes, if the structure has a VI mitigation system	Yes, if the structure has a VI mitigation system
<b>Proprietary Controls</b>			
Proprietary controls refer to controls on land use that are considered private in nature because they tend to affect a single parcel of property and are established by private agreement between the property owner and a second party who, in turn, can enforce the controls.			
<b>Property Access Agreement</b> granting EPA the right of access to a property to inspect, monitor, and perform other activities pertaining to a VI mitigation system	Yes, if the structure has a VI mitigation system	Yes, if the structure has a VI mitigation system	Yes, if the structure has a VI mitigation system
<b>Property Access Agreement</b> prohibiting interference and activities incompatible with a VI mitigation system	Yes, if the structure has a VI mitigation system	Yes, if the structure has a VI mitigation system	Yes, if the structure has a VI mitigation system
<b>Informational Devices</b>			
Informational devices provide information or notification often as recorded notice in property records or as advisories to local communities other interested persons that residual contamination remains on site. As such, informational devices generally do not provide enforceable restrictions			
If mitigation is declined, a <b>deed notification</b> will be applied informing effected parties of the decision and continued mitigation availability	Yes	Yes	Yes
<b>Direct outreach</b> (e.g., letter and fact sheet twice per Five Year Review Cycle) regarding availability of mitigation without additional sampling	Yes for residential structures only	No	No
<b>Direct outreach</b> (e.g., letter and fact sheet twice per Five Year Review Cycle) regarding availability of sampling and mitigation, if warranted based on sampling	Yes for commercial structures only <sup>1</sup>	Yes	Yes
<b>Direct outreach</b> (e.g., fact sheet once per Five Year Review Cycle) reporting on the status of the OU 1 interim remedy.	Yes	Yes	Yes

**Notes**

<sup>1</sup>Because mitigation systems will be available to residential structures, sampling to determine the occurrence and magnitude of VI is not needed. Sampling related to operating and maintaining mitigation systems will be completed as necessary.

<sup>2</sup>Refer to Figure 4-1.

## Institutional Controls Sub-area Boundary Written Descriptions

### Area A

Area A encompasses 155 acres. The perimeter begins at the intersection of Central Ave and 8<sup>th</sup> St. W and travels east 1,870 feet to Montana Ave. It then goes 4,090 feet northeast on Montana Ave. and turns left onto Division St. The perimeter goes north 1,390 feet north on Division St. and turns left onto Clark Ave. It goes west two blocks and turns left on 2<sup>nd</sup> St. W. It then goes south three and turns right on Broadwater Ave. The perimeter of Area A then zigzags west one block to 3<sup>rd</sup> St. W, south one block to Custer Ave., west one block to 4<sup>th</sup> St. W, two blocks south to Miles Ave., one block west to 5<sup>th</sup> St. W, one block south to Howard Ave., west one block to 6<sup>th</sup> St. W, one block south to Cook Ave., one block west to 7<sup>th</sup> St. W., one block south to St. Johns Ave., one block west to 8<sup>th</sup> St. W, and finally one block south to the starting point – the intersection of 8<sup>th</sup> St. W and Central Ave.

### Area B

Area B encompasses 550 acres. The perimeter begins at the intersection of Central Ave and 8<sup>th</sup> St. W and travels east 1,870 feet to Montana Ave. The perimeter then continues to travel east to State Ave, crossing the railroad corridor in the process. It continues east on State Ave. 800 feet and turns left onto 1<sup>st</sup> Ave. S. The perimeter then zigzags northeast one block to S 41<sup>st</sup> St, one block southeast to 2<sup>nd</sup> Ave. S, two blocks northeast to S 39<sup>th</sup> St., one block southeast to 3<sup>rd</sup> Ave. S, one block northeast to S 38<sup>th</sup> St., one block southeast to 4<sup>th</sup> Ave. S, eight blocks northeast to S 30<sup>th</sup> St., one block northwest to 3<sup>rd</sup> Ave. S, and three blocks northeast to S 27<sup>th</sup> St. The perimeter travels 3,770 feet northwest and turns left on 4<sup>th</sup> Ave. N. It goes 2,280 feet southwest and turns right onto N 33<sup>rd</sup> St. It immediately turns left onto Burlington Ave., travels one block west and turns left onto 1<sup>st</sup> St. W. The perimeter then zigzags south two blocks to Clark Ave., one block west to 2<sup>nd</sup> St. W, one block south to Yellowstone Ave., one block west to 3<sup>rd</sup> St. W, one block south to Wyoming Ave., one block west to 4<sup>th</sup> St. W, two blocks south to Custer Ave., one block west to 5<sup>th</sup> St. W, two blocks south to Miles Ave., one block west to 6<sup>th</sup> St. W, two blocks south to Cook Ave., one block west to 7<sup>th</sup> St. W, one block south to St. Johns Ave., one block west to 8<sup>th</sup> St. W, and finally one block south to the starting point – the intersection of 8<sup>th</sup> St. W and Central Ave.

### Area C

Area C encompasses 1,100 acres. The perimeter begins at the intersection of Daniel St. and Industrial Ave. and travels east 1,790 feet to S Plainview St. The perimeter travels east an additional 2,350 feet to Florine Lane. It goes east an additional block to Rhea Ln., north one block to Kluge Ln., east one block to S 8<sup>th</sup> St. W, north two blocks to Cline Ave., and east one block to S 7<sup>th</sup> St. W. The perimeter then travels east to State Ave. via two underpasses and follows State Ave. east to 4<sup>th</sup> Ave. S. After turning left onto 4<sup>th</sup> Ave. S, it travels 4,800 feet northeast and turns right onto S 27<sup>th</sup> St. It goes one block southeast then turns left onto 5<sup>th</sup> Ave. S., three blocks northeast to S 24<sup>th</sup> St., one block northwest to 4<sup>th</sup> Ave. S, one block northeast to S 23<sup>rd</sup> St., then three blocks northwest to 1<sup>st</sup> Ave. S. It follows 1<sup>st</sup> Ave. S 2,390 feet northeast as it merges with Montana Ave. to S 18<sup>th</sup> St. Crossing the railroad corridor, the perimeter goes 1,480 feet northwest to 3<sup>rd</sup> Ave. N. It goes southwest 3,400 feet and turns right onto N 27<sup>th</sup> St, northwest one block to 4<sup>th</sup> Ave. N, then five blocks southwest to N 32<sup>nd</sup> St. It turns right and goes one block to 6<sup>th</sup> Ave. N and turns left onto Division St. It goes two blocks south and turns right onto Burlington Ave. The perimeter then zigzags two blocks west to 2<sup>nd</sup> St. W, two blocks south to Clark Ave., one block west to 3<sup>rd</sup> St. W, two blocks south to Wyoming Ave., one block west to 4<sup>th</sup> St. W, two blocks south to Custer Ave., one block west to 5<sup>th</sup> St. W, two blocks south to Miles Ave., one block west to 6<sup>th</sup> St. W, two blocks south to Cook Ave., and one block west to 7<sup>th</sup> St. W. It then goes north three blocks to Terry Ave. It goes west three blocks to 10<sup>th</sup> St. W then continues its zigzag, going south one block to Miles Ave., west two blocks to 12<sup>th</sup> St. W, south two blocks to Cook Ave., west 670 feet to 13<sup>th</sup> St. W, south two blocks to Lynn Ave., west one block to 14<sup>th</sup> St. W, south one block to Central Ave., and west one block to Regal St. Finally, the perimeter goes south 1,380 feet to the starting point – the intersection of Daniel St. and Industrial Ave.