What happens when contamination becomes a vapor intrusion risk?

Environmental investigators identify if there is a potential problem



There's a known contaminated property or contamination in groundwater.



It's a chemical known to have potential for harmful vapors

There are homes/buildings and people in the area that could be affected

Where is this pollution coming from?



Properties that were once dry cleaners, gas stations and metal plating shops can be common sources.

These types of businesses often used a class of chemicals called *chlorinated solvents*. Specifically, the industrial solvent trichloroethylene (TCE) and the dry cleaning chemical perchloroethylene (PCE/Perc).



Test for soil vapors underground to determine the area of concern

Crews drill in the **public right-of-ways and** collect underground samples to determine the extent of contamination.



Testing area

Testing is expanded beyond the original area as needed, just to be sure.

Is my home in the affected area?

Immediate risk

If there is a known immediate risk, we will sample the nearby buildings right away, and take steps to install vapor mitigation systems (See step 4).

3. Test for vapor intrusion inside homes and buildings within the area of concern

So how does my home get tested?

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Area of concern

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This is the area we think has a risk for vapor intrusion into buildings. This area may change as work proceeds.

Testing beneath your home for vapors is called sub-slab sampling and involves drilling small holes in your basement floor to collect vapor samples from under the building.

Take steps to make the buildings safe for people

If testing finds a possibility of vapor intrusion, a mitigation system is installed. This system prevents harmful underground vapors from entering the building.

Vapor mitigation systems are simple, reliable, and proven to be effective.

> Vapor mitigation systems work by creating a pressure barrier that prevents vapor intrusion.

Pressure barrier





Determine the long-term solution

Mitigation systems installed first to protect human health

Feasibility Study

Technical review Examine and evaluate the site and the data to determine if cleanup of the pollution source is possible, and if so, what is the best way to do it.



Risk/benefit analysis Weigh the benefits of cleanup verses potential for safety risks, disruption to communities, costs, and additional pollution generated by remediation projects.



Public input

Gather and incorporate citizen feedback into the decision process





Solution Option A

Mitigation systems become the long-term solution where clean up of the source is not feasible.



Solution Option B

Mitigation systems plus remediation become the long-term solution when feasible.

