

**EPA Update - Residential Vapor Intrusion Study Area
Middlefield-Ellis-Whisman (MEW) Superfund Site
Mountain View and Moffett Field, California
September 2012**

This EPA update provides information about the Residential Vapor Intrusion Study Area at the MEW Site in Mountain View and Moffett Field, California. EPA generally defines the Residential Vapor Intrusion Study Area as the residences overlying the shallow groundwater contamination plume. These residential areas are generally west of Whisman Road in the MEW Area South of U.S. Highway 101 and the eastern portion of the Wescoat Village on Moffett Field North of U.S. Highway 101. See links for maps.

[Vapor Intrusion Study Area - MEW Area - South of U.S. Highway 101 - updated December 2011](#)

[Vapor Intrusion Study Area - Moffett Field Area - North of U.S. Highway 101 - updated December 2011](#)

What Has Been Done in Residential Vapor Intrusion Study Area

EPA has conducted air sampling inside and outside of over 40 residences in the Residential Vapor Intrusion Study Area to assess whether low levels of the chemical TCE (trichloroethene) in shallow groundwater beneath the residences are potentially impacting indoor air quality through the vapor intrusion pathway. Vapor intrusion is the migration of volatile chemicals from the subsurface into buildings. Volatile chemicals (those that evaporate readily in air) may migrate upward through the soil and soil gas and enter buildings through cracks in the foundation and floors, and utility piping conduits.

EPA assessed TCE concentrations and other MEW Site-related volatile chemicals inside these residences by comparing the sample results with outdoor air results, and with short-term and long-term health-based screening levels. The residences sampled represent three building foundation types: cellar/basement, crawlspace, and concrete slab-on-grade. The results from all of the residential air sampling to date show that there is no immediate or short-term health concern from indoor TCE levels.

One residence with an earthen cellar (Residence 4) showed elevated levels of TCE in the earthen cellar and living space that exceeded EPA's indoor air cleanup level for long-term exposure of 1 microgram per cubic meter of TCE and required vapor intrusion control measures to lower those levels. Two unoccupied residences on Moffett Field had elevated levels of TCE in indoor air, which in 2006 prompted the new Wescoat Village residential development to be constructed with sub-slab ventilation systems to mitigate the potential for vapor intrusion.

It is important to note that the contaminated groundwater in the area is not used as a source of drinking water or other household uses.

EPA Vapor Intrusion Remedy

Based on the vapor intrusion sampling investigations conducted at the MEW Site since 2003, EPA determined that a vapor intrusion remedy is necessary at the MEW Site to protect the health of current and future occupants, including residents and workers, in buildings overlying the shallow subsurface contamination. In 2010, EPA selected the vapor intrusion remedy for the MEW Site in EPA's decision document called the [Record of Decision Amendment for the Vapor Intrusion Pathway](#). The vapor intrusion remedy includes engineering and institutional controls to ensure that residents and workers are protected from potential vapor intrusion into buildings overlying the shallow groundwater contamination.

As is the case with implementation of the soil and groundwater remedy at the MEW Site, the responsible parties are covering the costs of sampling and implementation of the vapor intrusion remedy.

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Existing Residences in the Residential Vapor Intrusion Study Area

As part of the vapor intrusion remedy, EPA is continuing to offer homeowners the opportunity to have indoor air sampled in homes within the Vapor Intrusion Study Area.

How Can Residents/Homeowners Get Home Tested?

If your residence is within the Vapor Intrusion Study Area (see link to most updated map of Vapor Intrusion Study Area) and you are interested in having the indoor air of your residence tested, please contact EPA Project Manager Alana Lee directly (see contact information on next page). There is no cost to the homeowner for indoor air testing.

What if there is a Vapor Intrusion Problem?

EPA recommends that a vapor intrusion control system be installed at an existing residence if indoor air sampling shows TCE results that exceed EPA's TCE indoor air cleanup level for long-term exposure (1 microgram per cubic meter of TCE).

With the consent of the homeowner, EPA and the responsible parties will work with the homeowner/resident to lower the TCE indoor air levels and to prevent the contamination from building up in the residence. This would generally include sealing any potential conduits and the installation of a sub-slab or sub-membrane vapor intrusion control system. There is no cost to the homeowner for the vapor intrusion control system selected to mitigate the home. Note that, EPA is not requiring residential owners to complete these response actions themselves.

Future Development in the Residential Vapor Intrusion Study Area

For future residential construction within the Vapor Intrusion Study Area, the vapor intrusion remedy requires installation of a vapor intrusion control system beneath new homes unless sufficient information is provided to EPA indicating that there is no potential for vapor intrusion into the building above the indoor air cleanup levels. The vapor intrusion control systems are similar to the radon mitigation systems and are fairly straightforward to install when a building is being constructed.

Vapor intrusion control systems that have already been installed in the Vapor Intrusion Study Area include the Classics residential development and the Wescoat Village housing area on Moffett Field.

EPA Vapor Intrusion Remedy and City Requirements for the Residential Vapor Intrusion Study Area

As part of the vapor intrusion remedy, EPA needs a mechanism to ensure that the remedy is implemented where necessary. Part of that process is ensuring that the community is aware of the vapor intrusion remedy requirements within the Vapor Intrusion Study Area. EPA has been working with the City of Mountain View to ensure that the City's permitting procedures spell out what the vapor intrusion remedy requires. Note that the City permitting procedures do not require that sampling be conducted nor that vapor intrusion control systems be installed in existing residences. However, the vapor intrusion remedy requires that new residential construction include installation of a vapor intrusion control system, unless sufficient information is provided to EPA indicating that there is no potential for vapor intrusion into the building above the indoor air cleanup levels.

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For any new building development - residential or commercial - the City of Mountain View's building permit procedures refer property owners to EPA to approve the installation of the appropriate vapor intrusion control system. When there is new construction in the Vapor Intrusion Study Area south of U.S. Highway 101, the City and EPA will work closely with the developers and responsible parties to ensure installation of the appropriate vapor intrusion control systems.

For More Information

EPA is committed to meaningful public involvement and informing the community, including residents, owners, and prospective home buyers, about the MEW Site, the vapor intrusion pathway, and the vapor intrusion remedy. It is important that the information provided is accurate, but also that sufficient context is provided so that the information does not unnecessarily alarm people. EPA welcomes your input on the most effective ways to ensure that everyone with an interest in the area is aware of the Vapor Intrusion Study Area, the potential vapor intrusion pathway, and the vapor intrusion remedy.

If you have any questions or comments, please contact:

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See also EPA's websites for more information on the MEW and NAS Moffett Field Superfund Sites and vapor intrusion:

www.epa.gov/region9/mew
www.epa.gov/region9/moffettfield
www.epa.gov/oswer/vaporintrusion