



Fact Sheet - Maryland Square PCE Site

January, 2016

http://ndep.nv.gov/pce/maryland_square.htm

The Nevada Division of Environmental Protection (NDEP) prepared this fact sheet to help keep residents informed of progress in the investigation and cleanup of the Maryland Square PCE Site. The Maryland Square PCE Site is located on the west side of S. Maryland Pkwy, just north of Twain Ave (see back page of this fact sheet for a map of the area). The **complete administrative record** for the Maryland Square PCE Site (including all reports referenced in this update) is available on-line at: <http://ndep.nv.gov/pce/foia.htm>.

A **Court Order** (“Permanent Injunction Governing the Cleanup of Hazardous Substances at and Emanating from Maryland Square Shopping Center”) was signed **December 27, 2010** in U.S. District Court. Among other obligations, this Order requires the cleanup of PCE-contaminated soil and groundwater and annual testing of indoor air in potentially affected homes. The NDEP is providing regulatory oversight for the planning, implementation, and reporting of this work.

Cleanup of PCE-Contaminated Soil and Groundwater

Soil Cleanup

In September, 2011, contaminated soil at the former dry cleaners was excavated and hauled to a permitted waste-disposal facility. Excavated soils were sampled and analyzed prior to disposal. Additionally, a chemical oxidant (potassium permanganate) was added to the bottom of the excavation to treat shallow groundwater. The excavation was back-filled with clean soil. The final report detailing cleanup of the source area soil was submitted to the NDEP in May, 2012.



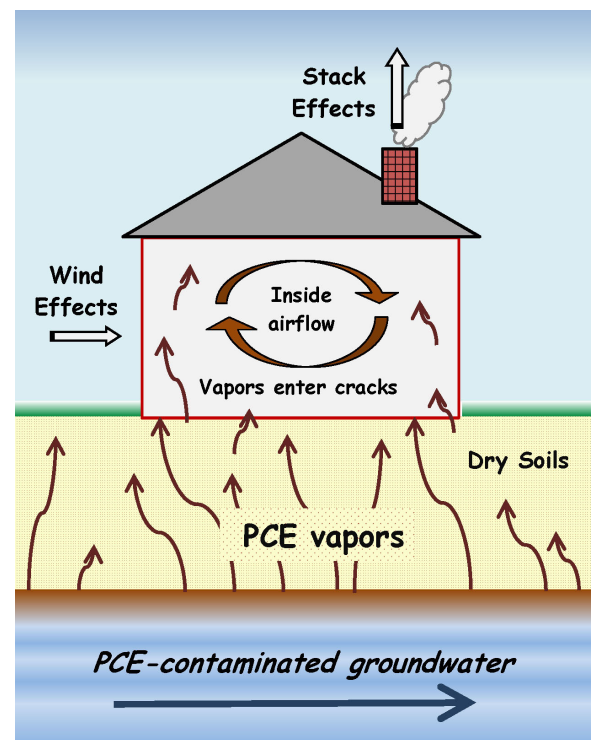
Groundwater Cleanup

In October 2014, the NDEP provided a *Proposed Plan for Cleanup of Groundwater* describing the remedy selected for cleanup of the groundwater. The NDEP presented the *Proposed Plan* and solicited public input at a **Community Meeting** held on **November 19, 2014** at the Winchester Cultural Center in Las Vegas. Comments on the ROD were accepted throughout a 90-day comment period (October 15, 2014 through January 13, 2015).

The **Record of Decision** (ROD) for Remediation of Groundwater at the Maryland Square PCE Site was published on March 31, 2015. The ROD describes the remedy selected to clean up PCE-contaminated groundwater at the Site. All comments and responses to comments on the Proposed Plan were compiled and provided as an appendix in the ROD.

How Do Solvent Vapors Enter a Building? The Vapor Intrusion Process

As the PCE in groundwater evaporates, it creates vapors that fill pore spaces in subsurface soil. Soil gas is the air found in the pore spaces between the soil particles. Contaminant vapors in the soil gas can migrate upward and into buildings that overlie the contaminated groundwater. The vapors move from areas of high concentration to areas of low concentration (diffusion) and from areas of high pressure to areas of low pressure (advection). Air pressure inside your home is typically lower than the air pressure in the soil; this pressure difference causes your house to act like a vacuum, drawing vapors into the house through foundation cracks and openings. This process is called “vapor intrusion.”



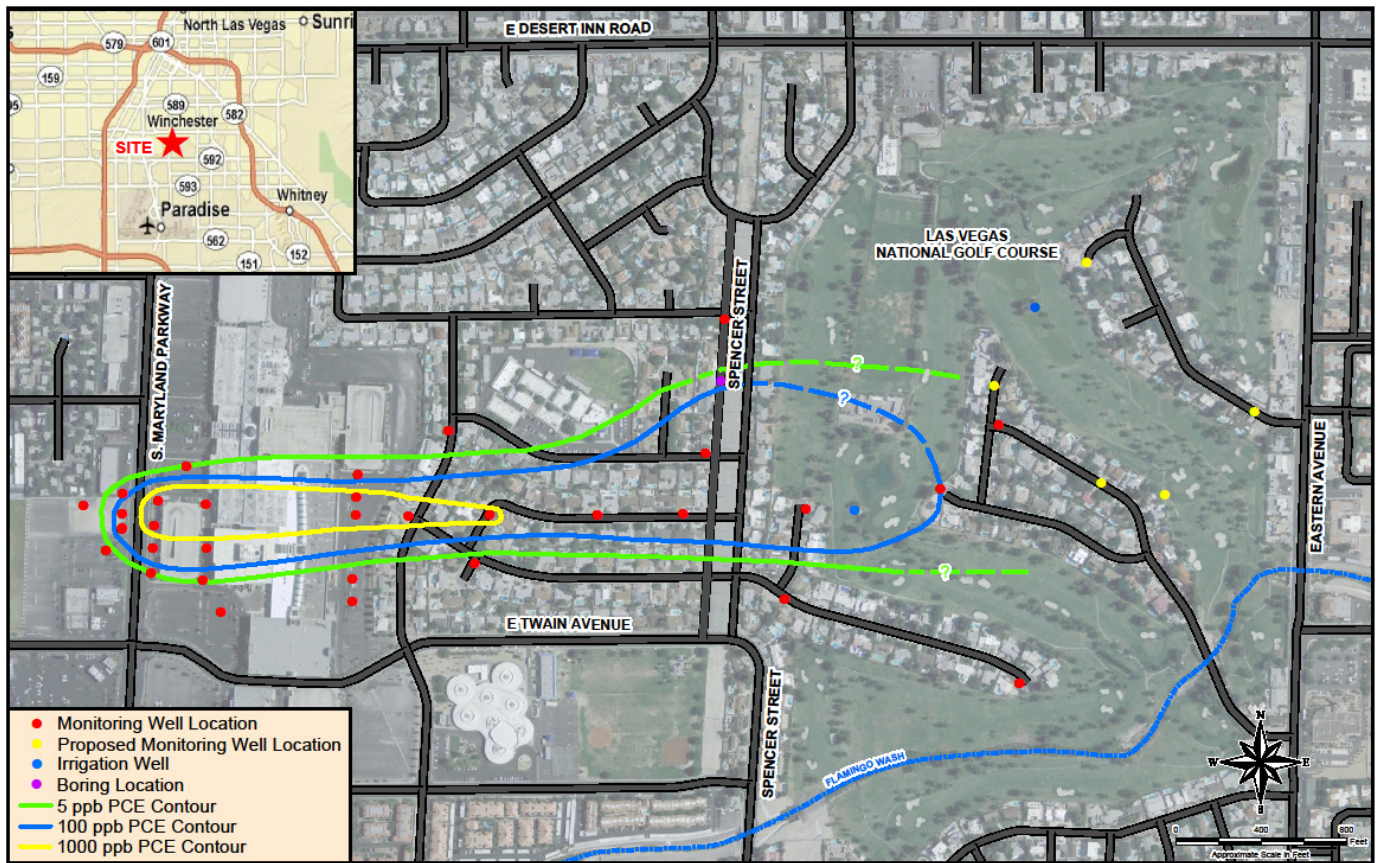
Annual Indoor Air Sampling: Groundwater data are evaluated periodically to determine which homes will be offered indoor air sampling. Homes overlying the portion of the PCE plume that contains more than 100 ppb PCE are offered indoor air sampling. The sampling is voluntary and performed at no cost to the homeowner. The homeowner will be asked to sign an access agreement and follow instructions to ensure that the sample collected is representative of indoor air quality. The indoor-air sampling is typically conducted in late winter (February-March) each year.

The Cleanup Process at the Maryland Square PCE Site

Following selection of a contractor, the Responsible Party (RP) will prepare a **Remedial Design and Remedial Action (RD/RA) Plan** for the cleanup. Long-term monitoring will continue throughout the cleanup until cleanup goals are achieved.

The Administrative Record

The NDEP adds reports and other documents to the Maryland Square PCE website as these become available. The quarterly reports are available at <http://ndep.nv.gov/pce/foia.htm>.

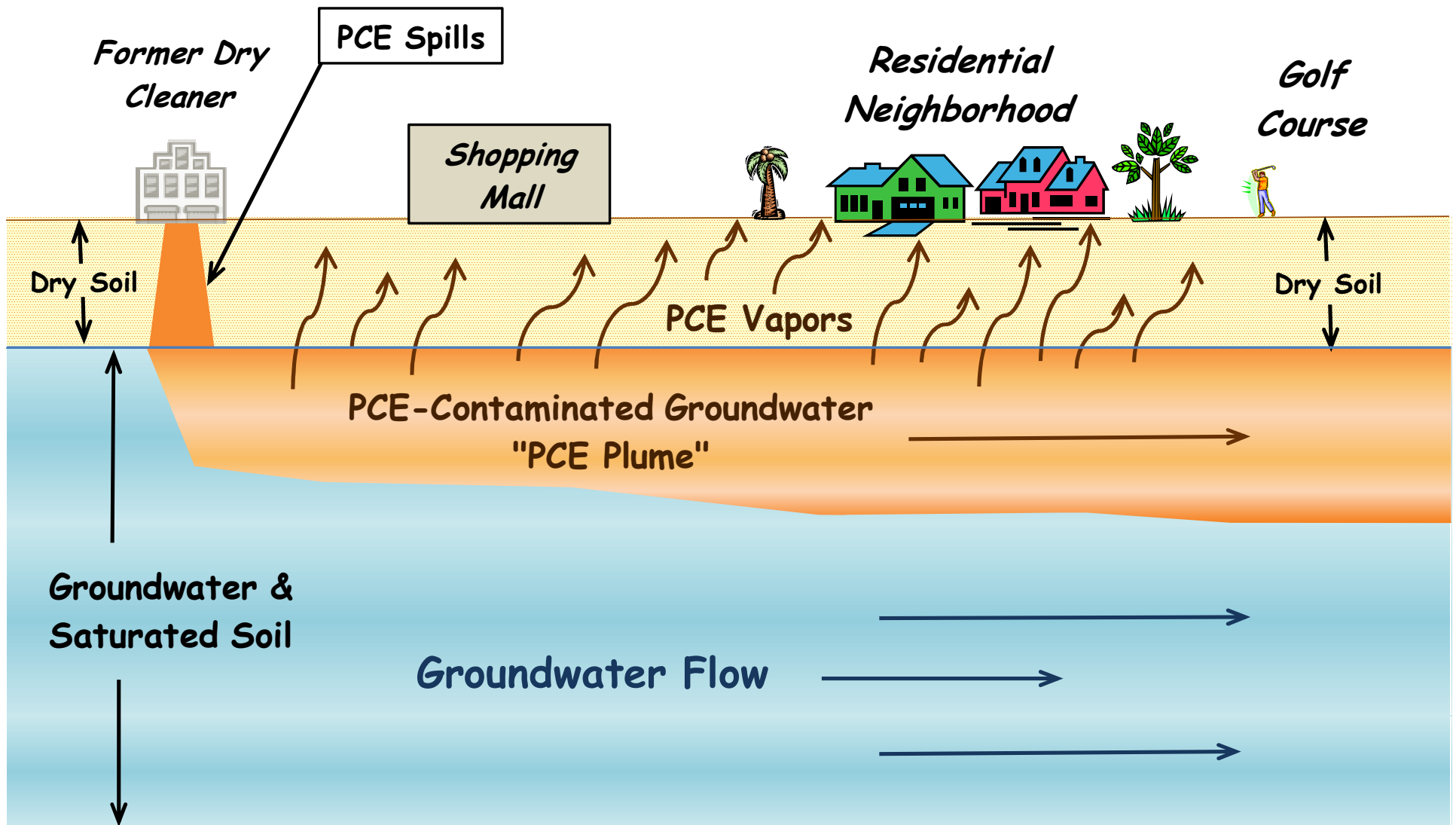


The PCE plume in groundwater, showing the estimated 5, 100, and 1000 parts-per-billion (ppb) concentration contours for PCE. NEED TO UPDATE THIS FIGURE FOR 2015-16

Please Note: City drinking water supplied by the Las Vegas Valley Water District (LVVWD) is not affected by this PCE plume. Moreover, municipal drinking water undergoes regular testing to ensure that it meets all federal and state drinking water standards. For reference, the drinking water standard for PCE is 5 ppb.

West

East



Conceptual site model for the Maryland Square PCE Site, showing the source at the former dry cleaners in the former Maryland Square Shopping Center and the PCE plume in groundwater. The plume extends eastward from the source area and underlies commercial, residential and recreational properties.