

# Western Avenue PCE

## Water Quality Assurance Revolving Fund ([WQARF](#)) Site

### Boundaries:

The Western Avenue Plume WQARF Site (Site) is located in Goodyear/Avondale, Arizona. The groundwater contamination plume is bounded approximately by Hill Drive (north of Western Avenue) to the north, 3rd Street to the east, State Route 85 to the south and the Phoenix-Goodyear Airport to the west.

The plume boundaries depicted on the [site map](#) represent the Arizona Department of Environmental Quality's (ADEQ) interpretation of data available at the time the map was constructed. The map is intended to provide the public with basic information as to the estimated extent of known contamination as of the date of map production. The actual extent of contamination may be different. Therefore, the plume may change in the future as new information becomes available.

### Site Status Update:

Although contaminants at the Site have been decreasing through time and are significantly lower than those first discovered, ADEQ continues to monitor a network of wells, including City of Goodyear water well COG #1 tracking contamination at the site and possible threats to drinking water.



### Community Involvement Activities:

A [community advisory group](#) (CAG) was formed in January 2001 in conjunction with the [PGA North](#) and South Superfund Sites and meets on a regular basis. CAG members are selected from [applications](#) that are received. These meetings are open to the public. Details of meeting [agendas](#) and minutes for 2010 and 2011 can be viewed at the ADEQ Web site.

### Site History:

**1993:** [Tetrachloroethene](#) (PCE) was detected [upgradient](#) of the [National Priority List](#) PGA South Site. Subunit A wells at the [Phoenix-Goodyear Airport \(PGA\) South Site](#) showed an increasing trend in PCE.

**1994:** ADEQ conducted soil vapor sampling at the [City of Goodyear Public Works](#) facility and also at Western Dry Cleaners. The [soil vapor](#) sampling did not detect any significant concentrations of PCE.

**1995:** Two [monitor wells](#) were installed to characterize the groundwater quality east and north of the PGA-South Site.

**1998:** The Site was placed on the [WQARF Registry](#) in December with a score of 51 out of a possible 120.

**2000:** In October, ADEQ installed five monitor wells as part of an [early response action](#) (ERA) evaluation. The purpose of the ERA evaluation was to (1) better define the lateral and vertical extent of contamination, (2) gain a better understanding of where the source area may be located, and (3) to determine the approximate mass of PCE within the plume.

**2001:** In March, ADEQ conducted a soil gas survey at the former Aladdin Dry Cleaners property. Results of the soil gas survey indicated minor concentrations of PCE. In July, ADEQ began a RI at the Site.

**2002:** In October, a draft Industrial Survey was completed as part of the draft [Remedial Investigation](#) report (RI) to focus on any potential source areas. The data obtained from the Industrial Survey indicated that additional source investigations would not be required as part of the RI.

**2006:** The highest concentration of PCE in groundwater in March was 3.2 micrograms per liter ( $\mu\text{g/l}$ ). The draft RI Report, including the Land and Water Use report, went out to public comment in August and only one comment was received during the 30-day comment period. This comment did not require a change in the RI.

**2007:** The highest concentration of PCE in groundwater was 12  $\mu\text{g/l}$  in the August sampling. Prior to the August sampling results, the last exceedence of 5.0  $\mu\text{g/l}$  in Well MW-2 occurred in April 1999 (10 sampling events during this time period at or below 5.0  $\mu\text{g/l}$  PCE).

**2008:** A new well was installed north of City of Goodyear water well COG #1 before the end of the year. This well will aid in the delineation of the Western Avenue WQARF plume boundaries.

**2009:** ADEQ finalized the RI report. The RI incorporates the [Remedial Objectives report](#) that was completed in January 2009. [The Feasibility Study](#) (FS) phase has begun, and groundwater monitoring continues at the site.

**2010:** Groundwater monitoring continues at the project site. Groundwater elevations are captured on a monthly basis and water quality samples are collected twice per year. The FS is being developed utilizing the data collected and the RI report.

### **Contaminants:**

The current contaminant of concern in groundwater is tetrachloroethene (PCE), a [solvent](#) commonly used in dry cleaning. Contaminants of concern at the Site may change as new data become available.



**Sampling Monitoring Well on Western Avenue**

## Public Health Impact:

Due to high [nitrate](#) concentrations from historical agricultural land practices, the upper groundwater [aquifer](#) is used mainly as an irrigation source. Public drinking water supplied to the area is regularly tested to ensure compliance with regulatory standards.

## Site Hydrogeology:

Groundwater beneath the site exists in three units termed Subunit A, Subunit B, and Subunit C. The Site is concerned with the PCE contaminated groundwater that exists in Subunit A. Subunit A consists of [alluvial](#) sediments located between the ground surface and approximately 130 feet below ground surface (bgs). Subunit B consists of a thick clay layer and underlays Subunit A. Subunit C consists of alluvial sediments and is believed to exist between approximately 240 and 360 feet bgs.

Groundwater flow is generally to the west. The depth to water in August 2007 ranged from approximately 61 to 72 feet bgs. Water levels are currently nine to 16 feet lower than the highest levels in early 2001. The groundwater gradient at the Site is approximately .002 feet per foot (ft/ft). A groundwater divide appears to be present at the site with groundwater flowing to the northwest, north of Well MW-7 and southwest, south of Well MW-7.

## Contacts:

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\*In Arizona, but outside the Phoenix area, call toll-free at (800) 234-5677.

## Information Repository:

Interested parties can review select site documents at the [Sam Garcia Western Avenue Library](#) located at 495 E. Western Avenue in Avondale, (623) 333-2665.

The complete official site file can be reviewed at the ADEQ Main Office located at 1110 W. Washington Street, in Phoenix. Please contact (602) 771-4380 or (800) 234-5677 to schedule an appointment with 24-hour notice to review these documents. Once all documents requested have been collected, you will be contacted for a review Monday through Friday from 8:30 a.m. to 4:30 p.m. at the ADEQ Records Management Center, 1110 W. Washington Street in Phoenix, AZ.