

## **16th Street and Camelback**

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

#### **Boundaries:**

The [16th Street and Camelback Site](#) (Site) is bounded approximately by Medlock Drive to the north, 17th Street to the east, Highland Avenue to the south, and 14th Place to the west.

#### **Site Status Update:**

The Arizona Department of Environmental Quality ([ADEQ](#)) is conducting an [early response action](#) (ERA) on the Site. A [remedial investigation](#) (RI) has not been initiated at the Site. ADEQ has continued groundwater monitoring and sampling from 1996 to the present. Based on the January 2008 groundwater sampling event, the current highest concentration of [tetrachloroethene](#) (PCE) and 1,2-[dichloroethane](#) (DCA) in groundwater is 29 micrograms per liter ( $\mu\text{g/L}$ ) and 4.8  $\mu\text{g/L}$ , respectively. The sampling results for 1,2-[dichloropropane](#) (DCP) continue to show no detection in concentrations above laboratory reporting limits. The Arizona [Aquifer Water Quality Standards](#) (AWQS) for PCE, 1,2-DCP, and 1,2-DCA is 5.0  $\mu\text{g/L}$ .

Sampling of the southern plume indicates that the concentrations of 1,2-DCA in groundwater has decreased to below AWQS levels for over two consecutive sampling events. The southern plume appears to have [naturally attenuated](#).

#### **Community Involvement Activities:**

A community advisory board will be formed when an RI is initiated at this site.

#### **Site History:**

**1994:** A consent decree was signed in January between [Bank One](#) and ADEQ. Bank One paid a settlement to ADEQ to be used for the investigation and clean up of the property. Six [monitor wells](#) were installed.

**1995:** ADEQ conducted a soil vapor survey. PCE concentrations were detected in soil from 1.3 to 2.3  $\mu\text{g/L}$ .

**1996:** ADEQ installed four additional permanent groundwater monitoring wells and four temporary groundwater well points.

**1999:** The Site was added to the [WQARF Registry](#) on April 21, 1999 with an eligibility and evaluation (E&E) score of 23 out of a possible 120.

**2002:** In May, ADEQ began an early response action (ERA) evaluation at the Site. The ERA evaluation was designed to determine if [soil vapor extraction and air sparge](#) remediation was feasible to provide source control and remediate the PCE groundwater contamination.

**2003:** In January, ADEQ installed two vapor extraction wells, one sparge point and two observation wells. A pilot study was conducted to determine the feasibility of installing a vapor extraction/air sparge remediation system. In April, ADEQ received the results from the pilot study and requested that an ERA completion report be prepared. The results of the pilot study indicated that installation of a remediation system at the Site is not feasible or cost effective.

**2004:** An ERA completion report was completed. Groundwater monitoring of the well network continued at the Site. There were 13 wells monitored and sampled on the Site as part of the monitoring well network. [Passive diffusion bags](#) are used at the Site due to a drop in the depth of groundwater. Passive diffusion bags were first used during the 1<sup>st</sup> Quarter 2004 sampling event.

**2004-2006:** ADEQ installed an additional well (MW-12) in January 2004 on the property located on the southwest corner of 16th Street and Camelback. The purpose of the well was to aid in defining the down gradient extent of PCE contamination. Due to declining water levels, in April 2006 ADEQ installed well MW-3A to replace well MW-3. The purpose of well MW-3A is to collect contamination data from the source area of the southern plume.

**2006:** The highest concentration of PCE in groundwater at the Site was 89 µg/L based on the August 2006 sampling event. The highest concentration of 1,2-DCA in groundwater was detected at 7µg/L. No concentrations of 1,2-DCP were detected above laboratory reporting limits.

**2007:** Based on the October groundwater sampling event, the highest concentration of PCE and 1,2-DCA in groundwater was 24 µg/L and 3.4 µg/L, respectively.

### **Contaminants:**

The Site is divided into a northern and a southern portion. The current contaminants of concern in groundwater include [tetrachloroethene](#) (PCE) at the northern portion of the Site and 1,2-[dichloropropane](#) (DCP) and 1,2-[dichloroethane](#) (DCA) in the southern portion of the Site. Contaminants of concern at the Site may change as new data become available.

### **Public Health Impact:**

No one is known to be at risk of exposure to these contaminants. The contaminated groundwater is not used for drinking water purposes. Drinking water provided by the city of Phoenix is tested regularly to ensure that it meets all state and federal water quality standards.

### **Site Hydrogeology:**

According to data collected from [Salt River Project](#) (SRP), the regional groundwater flow direction beneath the Site has changed from southwest (1948, 1953), to northeast (1960, 1973), to northwest (1968), and to the west (1978). The direction of groundwater as of January 2004 was east .0004 ft/ft to the west.

As of August 2006, the depth to groundwater beneath the Site was approximately 73 feet below ground surface (bgs). One groundwater monitoring well at the Site is dry.

**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 site information at the ADEQ Main Office located at 1110 W. Washington Street, Phoenix. With 24 hour notice an appointment to review related documentation is available 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, Arizona. Please contact (602) 771-4380 or (800) 234-5677 to schedule an appointment to review these documents.