

7th Street and Arizona Avenue Water Quality Assurance Revolving Fund Site - Spring 2013

SITE DESCRIPTION

The Arizona Department of Environmental Quality (ADEQ) is investigating groundwater and soil contamination at the 7th Street and Arizona Avenue Water Quality Assurance Revolving Fund (WQARF) Site, which is located in downtown Tucson. The ADEQ WQARF program, which is also known as state superfund, investigates and cleans up contaminated groundwater and soil sites throughout the state.

The 7th Street and Arizona Avenue WQARF Site is bounded approximately by 1st Street to the north, 4th Avenue to the east, 8th Street and the railroad to the south, and 10th Avenue to the west.

Soils and the perched groundwater aquifer at the site are contaminated with tetrachloroethene (PCE), trichloroethene (TCE), and cis-1,2 dichloroethene (cis-1,2 DCE). Depth to groundwater is about 65 feet below ground surface (bgs) in the perched aquifer and 173 feet bgs in the regional aquifer.

SITE HISTORY

Dry cleaning businesses were located on the property at 300 E. 7th Street from approximately 1928 to 1989, when the Oliver's Cleaners building was destroyed by fire. After the building remains were removed, seven underground storage tanks beneath the building were excavated and removed from the property in 1991. Five of the tanks held dry cleaning solvent and two held heating and waste oil.



Several groundwater monitor wells have been installed at the 7th Street and Arizona Avenue WQARF Site.



Groundwater monitor wells were installed near locations of historic dry cleaning operations.

During tank removal, soil contaminated with total petroleum hydrocarbons (TPH) was discovered beneath the two heating and waste oil tanks. Sampling of a nearby groundwater production well revealed no detections for TPH. The TPH release was not considered significant and the issue was closed. Further assessment in March 1997 near the underground storage tanks at the former Oliver's Cleaners indicated a maximum concentration of PCE in the soil at 26 milligrams per kilogram. TCE, toluene, and xylenes were also detected in the soil but at concentrations not likely to result in groundwater impact. The sources of PCE contamination correlate to the locations of the former underground PCE storage tanks.

In January 1992, a taxi company located directly northwest of the former Oliver's Cleaners was characterizing a gasoline release at its property and discovered PCE, TCE, and cis-1,2 DCE in the shallow perched aquifer groundwater monitor wells at levels above regulatory limits.

The 7th Street and Arizona Avenue site was placed on the WQARF Registry in April 2000.

SITE INVESTIGATION/CLEANUP ACTION

The property at 300 E. 7th Street is currently used as a paved parking lot for nearby Fourth Avenue businesses. ADEQ regularly monitors the groundwater and soil vapor.

A soil vapor extraction (SVE) system was installed

and began operation in late June 2006. The system operated almost continuously from startup through shut down in June 2009. During operation, approximately 750 pounds of volatile organic compounds (VOCs) were removed. During 2008, seven additional monitor wells were installed to further characterize the extent of contamination and to monitor the effectiveness of the SVE system.

Additional soil gas samples were collected in October 2011 and May 2012. Groundwater samples were collected in May 2012. Three new monitoring wells were installed in October 2012, two perched aquifer wells and one regional aquifer well. One new perched aquifer well at the northern end of the plume was dry but contained measureable VOC soil vapor. The new regional aquifer well contained no measureable VOCs. So far, no VOCs have been detected in the regional aquifer.

A Remedial Investigation/Feasibility Study Work Plan will be completed in March 2013.

HEALTH/WATER QUALITY

There are potential health risks associated with exposure to VOCs through drinking contaminated groundwater. Therefore, cleanup activities are important to ensure the quality of future drinking water supplies. ADEQ has completed a drinking water well inventory. The nearest known drinking water wells are located one-half to one mile northeast of the site and are completed in the regional aquifer. Therefore, no one is known to be drinking contaminated water from this site; however, if you are using a private well near the site, please contact the ADEQ project manager.



Groundwater samples are taken from wells in the 7th Street and Arizona Avenue WQARF Site.



Periodic sampling takes place at the site to monitor the levels of contaminants in the groundwater.

Another potential exposure route is through breathing contaminated soil vapors. Therefore, cleanup activities are also important to remove any potential exposure to contaminated soil vapors. The former Oliver's Cleaners property is now a paved parking lot and ADEQ reduced the concentration of soil vapors greatly by operating an SVE system. Therefore, no one is known to be exposed to contaminated soil vapors at this time.

FOR MORE INFORMATION:

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Complete public files regarding the site are located at ADEQ's Phoenix offices. Call (800) 234-5677 Ext: 771-4380 for information. Hearing impaired persons may call ADEQ's TDD line at (602) 771-4829.

For more information on this WQARF site or other WQARF sites in the State of Arizona, please visit the ADEQ Web site at:
www.azdeq.gov/envIRON/waste/sps/index.html