

**NOTICE OF PUBLIC INFORMATION  
DEPARTMENT OF ENVIRONMENTAL QUALITY**

**2015 WATER QUALITY ASSURANCE REVOLVING FUND REGISTRY**

Pursuant to Arizona Revised Statute (A.R.S.) § 49-287.01(D)(E), the Arizona Department of Environmental Quality (ADEQ) is providing this annual report of the location, remedial status and score of the sites on the Water Quality Assurance Revolving Fund Registry (Registry) as of September 1, 2015. The Registry includes those sites within the state that may pose risk to public health, welfare or the environment from the release of hazardous substances and for which there is current or planned investigation and cleanup. There are 33 sites on the Registry:

21 in Maricopa County,  
7 in Pima County,  
2 in Gila County,  
1 in Graham County,  
1 in La Paz County and  
1 in Yuma County.

Sites on the Registry are scored based in part upon the type of contamination present, the location of the contamination and the number of people that may be affected. The maximum score a site may receive is 120. Scores are used to help determine relative risk from the site and do not necessarily mean that there is direct exposure of contaminants to humans or the environment. Whether the site is currently being remediated or investigated, ADEQ takes steps to identify the contamination and prevent exposure.

The Registry and additional information regarding these sites is available on the ADEQ web site at [http://www.azdeq.gov/environ/waste/sps/download/wqarf\\_registry2014.pdf](http://www.azdeq.gov/environ/waste/sps/download/wqarf_registry2014.pdf). With 48-hour notice, an appointment to review related documentation is available Monday through Friday from 8:30 a.m. to 4:30 p.m. at ADEQ Records Management Center, 1110 West Washington Street in Phoenix. Please contact (602) 771-4380 to schedule an appointment to review these documents.

**Note:** As an aside, there are ten (10) active National Priority List (NPL) sites, three (3) delisted NPL sites, and one (1) Superfund alternative site in Arizona, which all are federal Superfund cleanup sites. There are also eight (8) Department of Defense (DoD) cleanup sites in Arizona with an additional 204 formerly used defense sites that have been or will be investigated. Information about these sites is available at: <http://www.azdeq.gov/environ/waste/sps/federal.html>.

**7th Avenue and Bethany Home Road** - This site was placed on the WQARF Registry on August 25, 2004 and has a score of 29. The site is located in Phoenix and is bounded to the north by Rose Lane, to the south by Bethany Home Road, to the east by 5th Avenue, to the west by 8th Avenue, and includes the 2.6-acre former shopping center east of 7th Avenue that housed a dry cleaning facility, as well as a former dry cleaner west of 7th Avenue. Contaminants of concern at the site include tetrachloroethene (PCE), trichloroethene (TCE) and vinyl chloride.

ADEQ initiated an Early Response Action (ERA) evaluation of the 2.6-acre site in October 2004 to characterize the source area of PCE-contaminated soil below the site. A soil vapor extraction (SVE) system operated from June 2005 through January 2006. Confirmation soil samples confirmed successful remediation to levels below ADEQ Soil Remediation Levels (SRLs) and Groundwater Protection Levels (GPLs).

In 2008, an additional source was investigated. Concentrations in soil at the property did not warrant further remediation however, groundwater beneath the site contained PCE concentrations above the Aquifer Water Quality Standard (AWQS) of 5 parts per billion (ppb). TCE and vinyl chloride also were present above their respective AWQS.

In January 2012, a sample from a Salt River Project (SRP) irrigation well detected PCE at the AWQS for the first time. ADEQ completed the final Remedial Investigation (RI) report in April 2011, the Feasibility Study (FS) work plan in May 2011 and the FS was completed in November 2012. The FS recommended enhanced reductive de-chlorination as the remedy for the site. An additional ERA was initiated and a pilot test for enhanced reductive de-chlorination began in March 2013. The pilot test was completed in March 2014 and the Proposed Remedial Action Plan (PRAP) was finalized in April 2015. A Community Advisory Board (CAB) has been established for the site and was merged with the Central and Camelback CAB in 2013 and meets on a regular basis.

**7th Street and Arizona Avenue** - This site was placed on the WQARF Registry in April 27, 2000 and has a score of 40. The site is located in downtown Tucson, and is bounded approximately by Speedway Boulevard to the north, 8th Street and the railroad to the south, 4th Avenue to the east and Ash Avenue to the west. Contaminants of concern at the site include PCE, TCE, and cis-1,2-dichloroethene (cis-1,2-DCE).

ADEQ operated a SVE system from June 2006 to July 2009 as an ERA for the site and decommissioned the SVE in July 2009. Groundwater monitor wells verify that the regional aquifer has not been impacted. ADEQ completed the final RI/FS in 2014 and the draft PRAP in 2014. Additional source investigation is on going and will require the PRAP to be revised. A CAB has been established for the site, merged with the Park-Euclid CAB in 2014 and meets on a regular basis.

**16th Street and Camelback** - This site was placed on the WQARF Registry in April 21, 1999 and has a score of 23. The site is located in Phoenix and is bounded approximately by Camelback Road to the north, Highland Avenue to the south, 17th Street to the east, and 15th Street to the west. The contaminant of concern at the site is PCE.

Based on the results of an ERA evaluation conducted in 2003, ADEQ determined that SVE was not a feasible remedy for the site. Due to a lack of funding, site activities were suspended from 2008-2012. In the spring of 2013, groundwater monitoring activities were resumed. The RI and FS reports were finalized in 2015. A final PRAP is expected in 2016. The site continues to naturally attenuate.

**20th Street and Factor Avenue** - This site was placed on the WQARF Registry in March 30, 2000 and has a score of 31. The site is located in Yuma, approximately 0.50 miles south of 16th Street and approximately 0.75 miles east of 4th Avenue. Contaminants of concern at the site include PCE, TCE, 1,1-dichloroethene (1,1-DCE), cyanide and di(2-ethylhexyl) phthalate.

In 2002, ADEQ conducted a soil removal action and cleaned out sumps and septic tanks at an active facility as part of an ERA. A soil vapor investigation was initiated in 2008. Vapor and groundwater monitoring is ongoing. No drinking water wells have been impacted. In February 2014, ADEQ completed the installation of a permanent asphalt-based engineered cap. The cap was placed over the cyanide impacted soils still remaining at a depth below one (1) foot at the site. The RI report was finalized in October 2014 and the FS work plan is available. The FS is expected to be completed in 2016. A CAB has been established for this site and meets on a regular basis.

**56th Street & Earll Drive** - This site was placed on the WQARF Registry on June 2, 2004 and has a score of 40. The site is located in Phoenix near 56th Street and Earll Drive. The plume is bounded by Earll Drive to the north, Roosevelt Street to the south, 56th Street to the east, and 26th Street to the west. Contaminants of concern at the site include PCE and TCE.

The site originally was investigated as part of the Motorola 52nd Street NPL site. However, groundwater data indicate that the two TCE groundwater contaminant plumes are separate and distinct plumes and it was disassociated from the larger Motorola 52nd Street NPL site. ADEQ and a potentially responsible party signed an agreement in 2015 to remediate the site. A pump and treat groundwater system was constructed and started operation in November 2013 as part of an ERA. ADEQ and the working party signed a Consent Order for operation and maintenance of the remedial system and to complete the RI/FS reports. A CAB has been established for this site and meets on a regular basis.

**Broadway-Pantano** - This site was placed on the WQARF Registry in December 15, 1998 and has a score of 57. The site is located in the east-central part of Tucson and is bounded approximately by Speedway Boulevard to the north, Calle Madero to the south, Pantano Wash to the east, and Craycroft Road to the west. Contaminants of concern in groundwater include PCE, TCE and vinyl chloride.

A groundwater containment system was installed in 2003 to prevent further westward migration of contaminated groundwater. This system was shut down in October 2012 due to low incoming groundwater contaminant concentrations. The sources of the groundwater contamination are the former Broadway North and South Landfills. A SVE system was installed at the Broadway North Landfill in 2000 to remove and treat contaminated volatile organic compounds (VOC) landfill gases contributing to the groundwater contamination. This system operated until 2002. The groundwater

RI report was finalized in June 2012. The landfill RI was finalized February 2015 and work on the FS has begun and the FS report is expected in 2016. A CAB has been established for this site and meets on a regular basis.

**Central Avenue and Camelback Road** - This site was placed on the WQARF Registry in June 21, 2000 and has a score of 32. The boundaries of the site are approximately Georgia Avenue to the north, Mariposa Street to the south, 2nd Street to the east and 1st Avenue to the west. Contaminants of concern at the site include PCE, TCE and cis-1,2-DCE. Other contaminants present due to past releases from gasoline underground storage tanks in the area include benzene, toluene, ethylbenzene, total xylenes, methyl tertiary butyl ether (MTBE), and 1,2- dichloroethane (DCA).

In January 2003, as part of an ERA, ADEQ completed construction of a groundwater treatment system to remediate and control the migration of contaminated groundwater. In June 2004, ADEQ initiated an ERA evaluation of the Maroney's Drycleaner facility. A SVE system was installed in November 2007 and is currently in operation. Passive and active soil gas surveys were conducted in the vicinity of the former drycleaner's building and additional SVE wells were installed and added to the system. The RI and FS reports were finalized in 2015. The PRAP is expected in 2016. A CAB has been established for this site, merged with the 7th Avenue and Bethany Home Road CAB and meets on a regular basis.

**Cooper Road and Commerce Avenue** - The site was listed on the WQARF Registry on June 14, 2004 and has a score of 33. The site is located in Gilbert near Guadalupe Road and Cooper Road, and the plume is bounded by Encinas Street to the north, Neely Ranch Preserve to the south, Golden Key Street to the east, and Horne Street/Dish Drive to the west. Contaminants of concern at the site in groundwater include PCE and TCE.

In 2001, groundwater samples collected from a Town of Gilbert monitoring well detected PCE concentrations above the AWQS. A Town of Gilbert public supply well is located nearby. Installation of off-site monitor wells began in 2003 and quarterly groundwater monitoring has been conducted at the site since March 2005. Construction and start up of a SVE/air sparging (AS) and groundwater pump and treat remediation system was completed 2008; start-up of the AS component occurred in May 2009. The groundwater pump and treat system began continuous operations in August 2010. In 2015 the RI report was finalized and FS work plan approved. The FS report is expected in 2016. A CAB has been established for the site and meets on a regular basis.

**East Central Phoenix (ECP) 24th Street and Grand Canal** - This site was placed on the WQARF Registry in May 18, 2000 and has a score of 29. The site is located in Phoenix. The plume is bounded by Pinchot Avenue to the north, Windsor Avenue to the south, 25th Street to the east and 22nd Street to the west. The contaminant of concern at the site is PCE.

The RI began in 2007. As part of a prospective purchaser agreement CVS Pharmacy conducted a site investigation and installed monitoring wells. Additional monitoring and soil vapor wells have been installed since 2007. Following completion of contaminant plume characterization, the RI report will be prepared. Design of an SVE system, as part of an ERA, is near completion. Construction and

start-up of the SVE system will occur in 2016

**ECP 32nd Street and Indian School** This site was placed on the WQARF Registry in May 18, 2000 and has a score of 29. The site has two (2) separate plumes of groundwater contamination. The plumes are bounded by Monterosa Street to the north, Clarendon Avenue to the south, 32nd Place to the east and 30th Street to the west. Contaminants of concern at the site include PCE and TCE.

ADEQ conducted a soil vapor investigation along 31st Street and Fairmont Avenue to help characterize contaminants in the shallow subsurface soil. In 2013, a SVE treatment system at the Maroney's dry cleaner began operating and in 2014 a SVE treatment system at Former Viking dry cleaner began operations.

A vapor intrusion indoor air assessment study took place during the summer of 2013. The indoor air of residences in the study area was sampled. A second sampling event occurred in February 2014 to compare data on a seasonal level. This assessment focused on residences (specifically single-family homes and ground-floor residences of multi-unit buildings) and schools. Results indicated that the threat to residences was minimal and that no indoor mitigation systems were necessary. A CAB has been established for this site and meets on a regular basis.

**ECP 38th Street and Indian School Road** - This site was placed on the WQARF Registry in September 21, 1998 and has a score of 25. The site is located in Phoenix, and the plume is bounded by Indian School Road to the north, Piccadilly Road to the south, 38th Street to the east and 36th Street to the west. The contaminant of concern at the site is PCE.

ADEQ conducted an ERA installing a SVE system to remediate the source of PCE in the soil and groundwater. The system was started in 1994, operated intermittently and was decommissioned in March 2003. In 2014, additional groundwater monitor wells were installed. The RI report and FS work plan were finalized in 2015. A CAB has been established for this site and meets on a regular basis.

**ECP 40th Street and Indian School Road** - This site was placed on the WQARF Registry in September 21, 1998 and has a score of 25. The site is located in Phoenix, and the plume is bounded by Devonshire Avenue to the north, Picadilly Road to the south, 40th Street to the east and 38th Street to the west. Contaminants of concern at the site include PCE and TCE.

ADEQ conducted an ERA, by installing a SVE/AS system to remediate the source of PCE in the soil and groundwater. The system was started in December 2004 and was shut down in June 2005. In 2014, additional groundwater monitor wells were installed. The RI report and FS work plan were finalized in 2015. A CAB has been established for this site and meets on a regular basis.

**ECP 40th Street and Osborn** - This site was placed on the WQARF Registry in May 18, 2000 and has a score of 30. The site is located in Phoenix, and the plume is bounded by Weldon Avenue to the north, Osborn Road to the south, 41st Street to the east and 39th Street to the west. The contaminant of concern at the site is PCE.

In 2014, additional groundwater monitor wells were installed. Following contaminant plume characterization, the RI report will be prepared. A CAB has been established for this site and meets on a regular basis.

**ECP 48th Street and Indian School Rd.** - This site was placed on the WQARF Registry in March 26, 1999 and has a score of 32. The site is located in Phoenix, and the plume is bounded by Monterosa to the north, Fairmont Avenue to the south, 47th Place to the east and 45th Street to the west. The contaminant of concern at the site is PCE.

ADEQ and SRP entered into an agreement to conduct a source control interim remedial action (IRA) in 2004. SRP constructed a SVE system to remediate the source of PCE in soil. The system was removed by SRP in 2012 and due to low concentrations.

A vapor intrusion indoor air assessment study took place during the summer of 2013. The indoor air of residences in the study area was sampled. A second sampling event occurred in February 2014 to compare data on a seasonal level. This assessment focused on residences (specifically single-family homes and ground-floor residences of multi-unit buildings) and schools. Results indicated that no indoor air mitigation systems were necessary. A CAB has been established for this site and meets on a regular basis.

**Estes Landfill** - This site was placed on the WQARF Registry in April 28, 1998 and has a score of 50. The site is located in Phoenix, south of Sky Harbor Airport and is bounded approximately by the Salt River to the north, Magnolia Street to the south, State Route 153 to the east, and 37th Street to the west. Contaminants of concern at the site include vinyl chloride, cis-1,2-DCE and TCE in groundwater.

In January 2008, methane and VOC vapor samples were collected from the landfill. Review of the analytical results has confirmed that detected VOCs at the surface or boundary of the landfill are below Arizona Ambient Air Quality Guidelines (AAQGs). The RI/FS has been completed and since the PRAP was initially completed in 2002, the final proposed remedy for the Site has been changed. It was concluded that the source of the groundwater contamination is the former liquid waste disposal pit and not the current soil covered landfill. The current soil covered landfill only contains the debris and refuse that was disposed. There is no indication that the current landfill is impacting groundwater quality. ADEQ finalized a revised PRAP in 2015. Contaminant concentrations in groundwater have been declining over time and the plume has decreased in size.

ADEQ is in the process of completing the ROD for 2016 which calls for Monitored Natural Attenuation, and is continuing to monitor the site bi-annually.

**Klondyke Tailings Project** - This site was placed on the WQARF Registry in September 28, 1998 and has a score of 69. The site is located approximately two (2) miles north of the town of Klondyke in Section 6, Township 7 South, Range 20 East. The site boundaries are irregular and defined by the extent of the soil contamination above the residential SRL for lead of 400 milligrams per kilogram

(mg/kg). The current contaminants of concern in the soil include antimony, arsenic, cadmium, copper, lead, manganese, mercury, vanadium and zinc.

Sampling to determine the extent of off-site soil contamination began in 2006. To date, approximately 2,500 soil samples have been collected from the site and adjacent properties. The limits of the 400 mg/kg residential soil remediation level for lead have been defined to extend approximately 0.50 miles from the site and impact nine (9) properties within the site.

ERA activities continue at the site. These activities have included geophysical surveys and minor repairs to the berms on the tailings piles. Aerial photography, topographic mapping, historic aerial photography analysis, floodplain delineation, and analysis of the 10-, 25-, 50- and 100-year floodplains, and a geomorphology study of Aravaipa and Laurel Creeks were done to evaluate possible remedies due to the site's location near these creeks. ADEQ selected gabion mattresses for erosion protection in October 2007. In June 2008, erosion protection installation was completed on the upper tailings pile and the clean soil cap was seeded.

ADEQ, with the EPA's assistance, evaluated soil removal options on the residential properties. In 2012, EPA initiated the planned removal of contaminated soils from three (3) properties. During June 2012, approximately 2,000 cubic yards of contaminated soil were removed from two of the properties. An additional 1,040 cubic yards of contaminated soil was removed in October 2013. In 2014, the Final RI was completed and in February 2015 the FS work plan was approved. The downstream tailings pile will be capped in 2016 and additional removal activities from residential properties will be conducted. A CAB has been established for the site and meets on a regular basis.

**Los Reales Landfill** - This site was placed on the WQARF Registry in April 23, 1999 and has a score of 32. The site is an active municipal sanitary landfill (approximately 380 acre waste footprint) located in southeast Tucson and has been in operation since 1967. Contaminants of concern at the site include PCE and TCE.

The City of Tucson has implemented a groundwater pump and treat system as required by a 1995 remedial action plan. A portion of the treated water is re-injected into the aquifer and a portion is used for dust control at the landfill. In 2013, the City submitted to ADEQ a PRAP modification of transitioning to "groundwater sampling only" based on continued plume stability (apparent natural attenuation). Wells were installed in 2015 as part of the data collection to finalize the remedial action plan.

**Miracle Mile Area** - This site was placed on the WQARF Registry in September 18, 1998 and has a score of 62. The site is located in Tucson and is bounded approximately by Ruthrauff Road to the north, Prince Road to the south, Pomona Road to the east, and La Cholla Boulevard to the west. Contaminants of concern at the site include TCE and chromium.

The local water provider is operating an ADEQ-funded wellhead treatment system as an ERA to remove TCE. In fiscal year 2013, the final RI report was issued and the FS was initiated and data gaps investigated for the purpose of providing a summary of remedial alternatives in 2016. A CAB has been established for this site and meets on a regular basis.

**Park-Euclid** - This site was placed on the WQARF Registry in April 23, 1999 and has a score of 51. The site is in Tucson and is approximately bounded by 8th Street to the north, 14th Street to the south, Mountain Avenue to the east, and Park Avenue to the west. Contaminants of concern at the site include PCE, TCE, vinyl chloride, trans-1,2-DCE and cis-1,2-DCE.

ADEQ negotiated an Agreement to Conduct Work with potentially responsible parties Mission Linen and Haskell Linen (Park-Euclid Working Group) in 2010. In November 2011, ADEQ completed the final RI and Remedial Objective (RO) reports. The Park-Euclid Working Group submitted a FS work plan in June 2013, has implemented the FS and expects completion of the report in fiscal year 2016. A CAB has been established for this site, merged with the 7th Street and Arizona Avenue CAB, and meets on a regular basis.

**Payson PCE** - This site was placed on the WQARF Registry in April 29, 1998 and has a score of 63. The site is located in Payson and the plume is bounded approximately by Frontier Street to the north, Cedar Lane to the south, Beeline Highway (State Route 87) to the east, and McLane Road to the west. The contaminant of concern in the groundwater at the site is PCE.

Two (2) groundwater treatment systems have been constructed. An Interim Groundwater Treatment System (IGTS) was constructed to remediate the contamination in the source area. The IGTS operated from October 1998 to January 2003 and was shut down due to low levels of contamination in the source area. The IGTS was decommissioned in July 2013.

An Expanded Groundwater Treatment System (EGTS) began operation in October 1998 and continues to operate treating contaminated water and preventing the contamination plume from migrating further. Treated water from the EGTS is delivered to the Town of Payson drinking water system.

ADEQ completed the ROD in June 2007. Groundwater monitoring takes place twice per year. The Periodic Site Review was completed in November 2013. In December 2015, Enhanced Reductive Dechlorination (ERD) method will begin and is expected to reduce the time for completion of the overall remedy.

**Pinal Creek** - This site was placed on the WQARF Registry in October 23, 1998 and has a score of 97. The site is located in Gila County in and around the cities of Globe, Town of Miami, and the communities of Claypool and Wheatfield. The site includes the BHP Copper and Freeport McMoRan (formerly Phelps Dodge) Miami mining properties, and the drainages and underlying aquifers of Miami Wash, Bloody Tanks Wash, Russell Gulch, and Pinal Creek. The site also includes the entire floodplain of Pinal Creek from the Old Dominion Mine to the Salt River, plus those portions of the communities underlain by contaminated groundwater. Contaminants of concern in groundwater at the site include heavy metals such as aluminum, iron, manganese, copper, cobalt, nickel, zinc, cadmium, and other contaminants such as sulfate, acidity, and dissolved solids. Localized soil and stream sediment contamination are being investigated; contaminants of concern include arsenic, lead, copper, cadmium, manganese, nickel, and zinc.

The Pinal Creek Group (PCG), which previously consisted of BHP, Freeport McMoRan and Inspiration Copper, have been conducting remedial actions including source control since 1988 and have completed a RI, risk assessments, a FS, and a recommended remedial action plan. They also have conducted a well replacement program for contaminated private and public supply wells. The PCG has been conducting groundwater extraction and treatment from the alluvial and the regional aquifers since 1988. To speed up aquifer restoration, groundwater remedy optimization pilot tests have been conducted near the source area in Bloody Tanks Wash. In Kiser Basin, water is now being injected to improve recovery. At Live Oak, a large scale pilot test has begun to speed up restoration of the groundwater.

**Shannon Road/El Camino del Cerro** - The El Camino del Cerro WQARF site and Shannon Road-Rillito Creek WQARF site were administratively combined into one site, the Shannon Road/El Camino del Cerro WQARF site, in January 2005 based on sampling results showing there is a single plume. The El Camino del Cerro site was placed on the WQARF Registry in August 18, 1998 and has a score of 71. The Shannon Road-Rillito Creek site was placed on the WQARF Registry in April 23, 1999 and has a score of 53.

This combined site is located in northwest Tucson and is bounded approximately by Orange Grove Road to the north, El Camino del Cerro Road on the south, Meadowbrook Park on the east, the Santa Cruz River on the west. The site consists of industrial and residential properties, and a former landfill which occupies approximately twenty (20) acres in the southwest portion of the site. Contaminants of concern in groundwater at the site include PCE, TCE, 1,1-DCE, vinyl chloride, and benzene.

The contaminant plume has impacted three (3) community wells, two of which were removed from service. One (1) of these wells now has a wellhead treatment system capturing the plume and removing VOCs to meet drinking water standards. The RI was finalized in 2015 and the FS work plan has been approved. The FS began in 2015 and alternatives evaluation is expected to be completed in 2016. A CAB has been established for the site and meets on a regular basis.

**Silverbell Jail Annex Landfill** - This site was placed on the WQARF Registry in April 23, 1999 and has a score of 51. The site is located at 3200 North Silverbell Road in northwest Tucson. The site is bounded approximately by Sweetwater Drive on the north, Grant Road/Ironwood Hills Drive on the south, Interstate 10 on the east, and Silverbell Road on the west. Contaminants of concern at the site include PCE, TCE, cis-1,2-DCE and vinyl chloride.

In 2001, the City of Tucson began operation of a full-scale SVE system to remove and treat contaminated VOC landfill gases contributing to the groundwater contamination. In April 2008, the system was shut down and the equipment was removed. The City of Tucson periodically conducts soil-gas rebound testing.

In 2010, the City of Tucson proposed to install a pump-treat-inject system to address the highest VOC concentrations. A concern at this site is the overlapping of the northern part of the Kinder Morgan Silvercrock Wash Release (SWR) site MTBE groundwater plume with the southern part of the Silverbell Landfill PCE groundwater plume. The SWR site is currently being addressed through the Voluntary Remediation Program. ADEQ, the City of Tucson and Kinder Morgan meet

periodically to coordinate sampling and cleanup of the two sites. Final system design is planned for fiscal year 2016. The City of Tucson continues to conduct groundwater and soil vapor (methane) monitoring according to the remedial action plan.

**South Mesa** - This site was placed on the WQARF Registry in August 18, 1998 and has a score of 31. The site is located in Mesa and is bounded approximately by Broadway Road to the north, Southern Pacific Company railroad to the south, Stapley Road/Cooper to the east, and Union Pacific Railroad the west. The contaminant of concern at the site is PCE.

Two (2) remedial action projects at the site have significantly reduced the contamination by treating pumped groundwater and extracting vapors from the soil. ADEQ began an ERA in June 2004 to address the remaining subsurface contamination. A SVE well was installed and connected to the system; operations began in September 2004. ADEQ shutdown the SVE system in November 2007 and removed it from the site in June 2008.

The RI, RO and FS reports have been completed. A PRAP is under review for groundwater monitoring with contingencies. A ROD is scheduled for 2016.

**Tyson Wash** - This site was placed on the WQARF Registry in June 23, 1998 and has a score of 46. The site is located in the Town of Quartzsite and the contaminated groundwater plume is bounded by Sunset Street to the north, Oregon Avenue to the west, Main Street (Business I-10) to the south, and Central Boulevard (SR-95) to the east. The known groundwater contamination exists northwest of the intersection of State Highway 95 and Business Route I-10 in Quartzsite. Contaminants of concern at the site include PCE and TCE.

As part of an ERA, a groundwater treatment system was constructed in 2003 to reduce contaminant concentrations in the aquifer and prevent migration of the plume to private drinking water wells. The RI and FS have been completed, the PRAP was completed in June 2008, and the ROD was completed in June 2009. The site is in the O&M phase.

An In-Situ Chemical Oxidation (ISCO) pilot test was conducted in April 2013 for a period of six (6) weeks. The purpose of the pilot test was to inject reagent to decrease concentrations of PCE in the groundwater. The ISCO pilot test operated until May 28, 2013 and results indicate a decrease of PCE concentrations. A full scale ISCO system was then placed in operation on June 5, 2014 and is expected to reduce the overall time for cleanup.

**Vulture Mill** - This site was placed on the WQARF Registry in April 28, 1998, and has a score of 65. The site is located just east of U.S. Route 89/93 about one (1) mile northwest of the center of the Town of Wickenburg. The eastern boundary of the site is approximately 0.25 miles west of the Hassayampa River. Contaminants of concern at the site include lead and arsenic.

The ROD was signed in September 1999. ADEQ has implemented the remedy, which consists of excavation of contaminated soil, placement in a consolidation pile, installation of a clean soil cover, and planting of vegetation to control erosion. Presently, the site is used as pasture and inspected annually. The last inspection occurred in 2015. Negotiations with the owner to place a Declaration of Environmental Restriction on the property continues.

**West Central Phoenix (WCP) - East Grand Avenue** - This site was placed on the WQARF Registry in April 15, 1998 and has a score of 31. The site is located in Phoenix and is bounded approximately by Whitton Avenue to the north, Earll Drive to the south, 27th Avenue to the east, and 33th Avenue to the west.

Field investigative activities were completed in December 2001 and the RI report has been completed. In 2004, a working party constructed and operated a SVE system at the former Van Waters & Rogers facility. In September 2011, the SVE system was shut down. The working party is in the process of completing the FS and has implemented groundwater monitoring. A CAB has been established for this site.

**WCP North Canal Plume** - This site was placed on the WQARF Registry in April 15, 1998 and has a score of 27. The site is located in Phoenix and the approximate boundaries of this site are Indian School Road on the north, West Flower Street on the south, 33rd Avenue on the east and 43rd Avenue on the west. Contaminants of concern at the site include PCE, TCE and chromium.

The RI was initiated in February 2001 and ADEQ conducted an ERA evaluation in 2005. In 2013 and 2014, as part of the remedial investigation, groundwater monitoring and sampling was conducted. In 2014 a passive soil gas survey on 33rd Avenue was completed. Based on these data, additional groundwater, soil gas, and soil investigations are proposed to complete the RI investigation and prepare the draft RI report in 2016. A CAB has been established for this site.

**WCP North Plume** - This site was placed on the WQARF Registry in April 15, 1998 and has a score of 55. The site is located in Phoenix and is bounded approximately by Highland Avenue to the north, Indian School Road to the south, 37th Avenue to the east, and 43rd Avenue to the west. Contaminants of concern at the site include PCE and TCE.

A SVE system was installed at the F&B facility as part of an ERA. The SVE system has been updated to improve operation. Further evaluations are being conducted to address groundwater contamination.

Through a working party agreement, a SVE system was operated at the Hill Brothers Chemical Company. A No Further Action (NFA) determination was issued for this facility following confirmation sampling and a public notice for review.

The RI and RO reports for this site are complete and the FS is underway. A CAB has been established for this site.

**WCP West Grand Avenue** - This site was placed on the WQARF Registry in April 21, 1998 and has a score of 22. The site is located in Phoenix and is bounded approximately by Osborn Road to the north, Earll Drive to the south, 33rd Avenue to the east, and 34th Drive to the west. The contaminant of concern at the site is TCE.

A draft PRAP is being reviewed by ADEQ and the ROD will be completed in 2016. All COCs are below AWQS and the site is expected to be delisted soon. A CAB has been established for this site.

**WCP West Osborn Complex** - This site was placed on the WQARF Registry in August 11, 1998 and has a score of 52. The site is located in Phoenix and is bounded approximately by the Grand Canal to the north, Van Buren Street to the south, 33rd Avenue to the east, and 55th Avenue to the west. Contaminants of concern at the site include TCE and PCE.

RI and RO reports have been completed. FS reports for the deep and shallow plumes for the project site have been approved. PRAPs were completed for the deep and shallow plumes and are being reviewed by ADEQ. A CAB has been established for this site.

**West Van Buren** - This site was placed on the WQARF Registry in April 10, 1998 and has a score of 50. The site is located in Phoenix and is bounded approximately by McDowell Road to the north, Lower Buckeye Road to the south, Seventh Avenue to the east, and 75th Avenue to the west. In addition, a finger shaped plume exists from approximately West Buckeye Road and South 41st Avenue to West Watkins Street and South 11th Avenue. Contaminants of concern at the site include PCE, TCE, 1,1,1-trichloroethane (1,1-TCA), 1,1-DCA, 1,1-DCE, cis-1,2-DCE, and chromium.

Air Liquide USA, LLC and Air Liquide America Specialty Gases, LLC (Air Liquide) signed a Consent Order in 2007 to conduct investigative work on their property. Air Liquide performed a SVE pilot test in 2012 and determined that VOC levels were below remediation action levels. Air Liquide currently performs groundwater monitoring in accordance with their Consent Order.

ADEQ conducted an ERA from 1999 to 2003 at the former American Linen Supply Company (ALSCo) that consisted of SVE/AS and groundwater pump and treat remediation systems. ADEQ issued ALSCo a NFA determination for soil in 2008.

ChemResearch Company Incorporated (ChemResearch) excavated and disposed of contaminated soil in 1995. ChemResearch is currently under a Consent Order with the ADEQ Resource Conservation and Recovery Act (RCRA) program to perform groundwater monitoring and remediate soil beneath the western portion of their facility.

Dolphin Incorporated (Dolphin) operated SVE/AS systems from 1998 to 2002. In December 2002, Dolphin shutdown the SVE/AS systems. Dolphin satisfied the terms of their Consent Order and Consent Judgment with the ADEQ RCRA program in 2006.

Maricopa County Materials Management (MCMM) operated a SVE system at their facility in 1997. MCMM settled with ADEQ in 2001.

Union Pacific Railroad Company settled with ADEQ in 2001.

Penn Racquet Sports Incorporated settled with ADEQ under a Consent Decree in 2013.

Prudential Overall Supply (Prudential) entered into a Consent Order to investigate soil and groundwater contamination at their facility in 2008. Prudential currently operates a SVE system and performs groundwater monitoring.

Reynolds Metals Company (Reynolds) operated a SVE system periodically from 1989 to 1991. ADEQ issued Reynolds an NFA for soil for 14 release areas in 2000.

Van Waters and Rogers Incorporated (VW&R) installed and periodically operated a SVE system from 1992 to 1998. ADEQ issued VW&R an NFA determination for soil in 2002.

Roosevelt Irrigation District (RID) submitted an ERA plan which was conditionally approved on June 24, 2010. RID submitted a modified ERA plan which was approved on February 1, 2013. RID installed liquid-phase granular activated carbon wellhead treatment systems on four (4) of RID's wells within the West Van Buren Area plume.

ADEQ finalized the RI and RO report for WVBA in August 2012. RID and the West Van Buren Working Group (WVBWG), under working agreements with ADEQ, submitted separate FS work plans in July 2013 and draft FS reports in July 2014. In 2014, three (3) additional monitoring wells were installed by ADEQ to delineate the extent of the contamination and to investigate potential source areas. Air Liquide continued to monitor groundwater conditions underneath their facility. Prudential continued to operate their SVE system and monitor groundwater conditions below their facility. The operations and maintenance manual (O&M) for RID's modified ERA was put out for public comment in June 2014. The WVBWG and RID submitted individual regional FS reports for WVB. RID submitted a PRAP to ADEQ in 2015 and the WVBWG entered into a working agreement to complete a PRAP in November 2015. A CAB has been formed for this site and meets on a regular basis.

**Western Avenue Plume** - This site was placed on the WQARF Registry in December 15, 1998 and has a score of 51. The site is located in Avondale and Goodyear and is bounded approximately by San Xavier Boulevard to the north, State Route 85 to the south, 3rd Street to the east and Phoenix Goodyear Airport to the west. The contaminant of concern at the site is PCE.

The final RI report and FS were completed in May 2009 and November 2013, respectively. The PRAP was completed in late 2014 and ADEQ is preparing the ROD for monitored natural attenuation with contingencies. The City of Goodyear Municipal Well No. 1 (COG-1) is located in the Western Avenue site. Historically, PCE has not been detected at this well above the AWQS of 5 ppb. Groundwater monitoring wells at the site are currently being sampled along with COG-1. The Community Advisory Group (CAG) was disbanded with the approval of the PRAP.