

West Van Buren

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

Boundaries:

The West Van Buren WQARF Site (Site) is located in the western portion of Phoenix, Arizona. The Site is bounded approximately by W. McDowell Road to the north, 7th Avenue to the east, W. Buckeye Road to the south and 75th Avenue to the west. In addition, a finger shaped plume exists between 7th Avenue and 27th Avenue between Buckeye Road and Lower Buckeye Road.

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:

Since 2001, over 50 [monitor wells](#) have been installed to further delineate the plume for a total of 117 groundwater monitor wells. Groundwater monitoring and sampling is currently conducted on a semiannual basis.

The draft [Remedial Investigation](#) (RI) report was completed on Oct. 31, 2008. The [Remedial Objectives](#) (ROs) solicitation occurred and the proposed ROs are under management review. An Early Response Action (ERA) has been proposed by the Roosevelt Irrigation District (RID) and approved by ADEQ. ADEQ and RID are currently negotiating terms of the proposed work plans for the ERA.



**Installation of
Monitoring Well**

Community Involvement Activities:

A [community advisory board](#) (CAB) was formed in December 1999 for this site. Details of meeting [agendas](#) and minutes can be viewed at the ADEQ Web site. These meetings are open to the public. The most recent [fact sheet](#) can be viewed on the ADEQ Web site.

Site History:

1987: The November 13, 1987 Decision Record created the Van Buren Tank Farm WQARF area. The Amended Decision Record dated December 11, 1987 changed the name to the West Van Buren Area.

1992: In November, [Univar](#) (formerly Vopak, formerly Van Waters and Rogers Inc.) began [soil vapor extraction](#) (SVE) system operation.

1994: [ChemResearch Company](#), Inc. entered into a [Resource Conservation and Recovery Act](#) (RCRA) consent order with ADEQ.

1996: On September 20, 1996, Univar entered into Consent Order W-109-96 with ADEQ.

1997: [Maricopa County](#) began SVE system operation. After six months of operation, soil containment levels were reduced below the regulatory standards. In May, [American Linen Supply Company](#) (ALSCo), 720 W. Buchanan Street, settled with ADEQ for \$2 million dollars.

1998: In April, West Van Buren Area (WVBA) was placed on the [WQARF Registry](#) with an Eligibility and Evaluation score of 50 out of a possible 120. In October, [Dolphin Incorporated](#), 740 S. 59th Avenue, began SVE and [air sparge](#) systems operation system at their facility.

2000-2006: In 2000, Reynolds, between 35th Avenue and 43rd Avenue and West Van Buren Street and Southern Pacific Railroad right-of-way, excavated and removed contaminated soil from their site and received a No Further Action (NFA) for soils in specific areas from ADEQ. In January 2000, Dolphin entered into RCRA Consent Order Z-2-00. Consent Judgment CV 2000-001824 was filed. Dolphin satisfied the Consent Order and Consent Judgment which were closed June 6, 2006.

2001: In March, ALSCo began an [early response action](#) (ERA). By October, over 900 pounds of [volatile organic compounds](#) (VOCs) was removed from the soil and the system operation was ceased. In October, [Union Pacific Railroad Company](#) and Maricopa County settled with ADEQ for \$450,000.

2002: In June, [Reynolds/Alcoa](#) settled with ADEQ for \$1.96 million. In August, Univar received a NFA determination for soil from ADEQ and the Univar Consent Order W-109-96 was terminated by ADEQ. In December, Dolphin ceased remedial system operation and conducted rebound testing.

2003: The groundwater [pump and treat system](#) ceased operation in September after treating approximately 118 million gallons of groundwater.

2004: In April, Dolphin completed rebound testing and received ADEQ authorization for SVE system shut down.

2006: In September, ADEQ installed seven monitor wells and sampled 125 groundwater monitor wells as part of the semi-annual sampling process.

2007: A new Land and Water Use Questionnaire was sent to stakeholders to update the Land and Water Use Study completed in October 2001. In June, ADEQ completed installation of six groundwater monitor wells. [Air Liquide](#) signed a consent order to continue conducting investigation work on their property.

2008: Three monitor wells were installed by ADEQ to help delineate the extent of the groundwater contamination and to further investigate potential source areas. Air Liquide completed the installation of four groundwater monitor wells and conducted monthly monitoring and quarterly sampling. [Prudential Overall Supply](#) (Prudential) signed a consent order to continue investigating soil and groundwater at their facility. Prudential also conducted a passive soil gas survey at their facility in May and June and installed three groundwater monitor wells in July. Water levels were measured monthly and groundwater samples were collected in August and September.

2009: Air Liquide and Prudential Overall Supply continued to do work under consent orders. ADEQ solicited comments for the ROs. ADEQ signed a working agreement with RID to review its regional groundwater ERA proposal.

2010: Groundwater monitoring and sampling was conducted in June and September. Groundwater sampling of RID wells and surface sampling of RID canals was also conducted in June 2010. Prudential Overall Supply (Prudential) performed a pilot test to determine if soil vapor extraction would be suitable for soil remediation.

Contaminants:

The current contaminants of concern in groundwater include [tetrachloroethene](#) (PCE), [trichloroethene](#) (TCE), 1,1-[dichloroethane](#) (1,1-DCA), cis-1,2-[dichloroethene](#) (cis-1,2-DCE), 1,1-[dichloroethene](#) (1,1-DCE) and [chromium](#). Contaminants of concern at the Site may change as new data become available.

Public Health Impact:

Municipal groundwater in the area is not used for drinking water purposes. The area is served by the [City of Phoenix](#) municipal water system or other regulated systems. If you own a private well, are using that well for drinking water, live within the Site boundaries, and have not had your well tested, please contact the ADEQ Project Manager.

Site Hydrogeology:

The WVBA is within the Basin and Range Physiographic Province and is generally characterized as a series of extended terrains. The Basin and Range Province consists of high-angle normal faulting which created broad basins and surrounding mountain ranges. Historically, the Gila, Salt and Aqua Fria River system influenced the WVBA. However, due to upstream reclamation projects, these streams are no longer perennial and the river system influence has declined.

The [aquifer](#) is divided into three sections: the upper [alluvial](#) unit (UAU), middle alluvial unit (MAU) and the lower alluvial unit (LAU). Contamination in the Site to date has been limited to the UAU and the MAU.

The UAU is composed primarily of coarse-grained sediment deposited by the ancestral Salt River. The UAU extends from the surface to approximately 200 feet below ground surface (bgs) in the eastern portion of the Site and to approximately 400 feet bgs in the western portion of the Site.

The MAU is composed of thick sequences of clay, silt and sand with some interbedded gravel and cobbles lens. The MAU is approximately 100 feet thick in the eastern portion of the Site and approximately 500 feet thick in the western portion of the Site.

As of September 2006, the water level in the aquifer was approximately 98 feet bgs in the eastern portion of the Site and 130 feet bgs in the western portion of the Site. Water levels are influenced by pumping and drought conditions. Multiple sources are responsible for the commingled plume of contaminated groundwater. Contaminated groundwater also enters the Site from the east.

Groundwater flows generally to the west. However, when Roosevelt Irrigation District wells are pumping and fields are being irrigated, groundwater flow can change as much as 180 degrees from normal flow.

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 [Harmon Branch Library](#), 1325 S. 5th Avenue, Phoenix, (602) 262-4636.

Site information can also be reviewed at 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.