Miracle Mile

Water Quality Assurance Revolving Fund (WQARF) Site

Boundaries:

The Miracle Mile Site (Site) is located in northwest Tucson, and is bounded approximately by Wetmore Road to the north, Flowing Wells Road to the east, Prince Road to the south, and La Cholla Boulevard to the west.

The plume geographic 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:

Due to the presence of contaminants in the groundwater, Flowing Wells Irrigation District (FWID) and ADEQ constructed a wellhead treatment system to remove arsenic and volatile organic compounds (VOCs) from water produced by two FWID water supply wells. The treatment system has been operational since December 2006. Since start-up, the system has treated almost 600 million gallons of water and removed 3 pounds of trichloroethene (TCE).

Flowing Wells Irrigation District Water Tank

Community Involvement Activities:

A community advisory board (CAB) was formed in November 1999. Details of meeting agendas and minutes for 2008 and 2009 can be viewed at the ADEQ Web site. These meetings are open to the public. The most recent fact sheet can be found on the ADEQ Web site.

Site History:

1983: Groundwater was found to be contaminated beneath a trailer park within the Miracle Mile study area. ADEQ began investigating the Site by researching facilities in the area that may have been the source of contamination. ADEQ also distributed questionnaires concerning the use of hazardous substances to knowledgeable parties.

1988: Additional soil and groundwater sampling was conducted. ADEQ also performed facility inspections and reissued questionnaires to knowledgeable parties. Research was completed to determine historic land use activities and property ownership.

1990-2004: Between 1990 and 2004, ADEQ installed 32 groundwater monitor wells to investigate the groundwater conditions and contamination in the perched and regional aquifers as part of the remedial investigation (RI).

In September 1998, the Site was placed on the WQARF Registry with an eligibility and evaluation score of 62 out of a possible 120. Also in 1998, FWID formally requested ADEQ to conduct an interim remedial action (IRA) to address the loss of available water from FWID wells due to VOC contamination.

Installation of Monitor Well at Site

In March 2001, in response to the request for an IRA from FWID and after completion of a water supply study to identify and evaluate alternate water supplies, FWID re-equipped FWID-72 and constructed surface storage facilities.

In Summer 2002, ADEQ abandoned the inactive Fairfax Industrial Park industrial production well to prevent potential cross-contamination between the contaminated perched aquifer and the underlying regional aquifer. Also, between 2001 and 2004, passive soil gas surveys and soil borings were completed to obtain soil gas and soil samples to investigate potential soil contamination.

2006: FWID and ADEQ constructed a joint arsenic and VOC wellhead treatment system. Groundwater produced from FWID-70 and FWID-75 water supply wells is treated by this system and is delivered to customers in FWID's service area. In December, the wellhead treatment system became operational.

2007: The Draft RI Report summarizing Site characterization activities was completed and released for public comment. The public meeting soliciting input on proposed Remedial Objectives (ROs) was held.

2008: The granular activated carbon in the FWID VOC wellhead treatment system was changed out in October 2008. Also in October 2008, the Proposed RO Report was issued for 30 days of public comment.

Contaminants:

The current contaminants of concern in groundwater are trichloroethene (TCE), 1,1-dichloroethene (1,1,-DCE) and chromium. Contaminants of concern at the Site may change as new data become available.

Public Health Impact:

The Arizona Department of Health Services completed a draft baseline human health risk assessment in January 1995 on the Miracle Mile Interchange Area. No significant health risks associated with this Site were identified at this time. No one is known to be drinking contaminated water from the Site; however, if you are drinking water from a private well within the boundaries of the Site, please contact the ADEQ Project Manager.

The FWID operates two production wells downgradient from the regional aquifer contaminant plume. ADEQ samples these FWID wells on a semi-annual basis to ensure these wells have not been impacted by contamination from the Site.

The Crescent Manor Mobile Home Park was switched from a local supply well to Flowing Wells Irrigation District water in December 1993, when sampling indicated that the water exceeded the federal drinking water maximum contaminant level (MCL) for TCE. However, quarterly sampling conducted by ADEQ since 1995 has not indicated exceedances for the TCE MCL. Therefore, the Crescent Manor Mobile Home Park is again using water from its private well.

Site Hydrogeology:

The Site is located within the Tucson Basin, a northwest trending alluvial valley covering an area of about 750 square miles in the Santa Cruz River drainage basin of southeastern Arizona. The subsurface materials underlying the Site are predominately fine to coarse-grained sands and silts, interbedded with clay and gravel-sized sediments. A clay aquitard of variable thickness occurs at around 80 feet below ground surface (bgs), underlying the perched aquifer.

Depth to the perched aquifer is about 70 feet bgs, and the regional aquifer is about 160 feet bgs. The current flow direction in the regional aquifer is generally to the north/northwest.

Contacts:

Name	Phone/Fax	E-Mail
Gretchen Wagenseller, ADEQ Project Manager	(520) 628-6708*/ (520) 628-6745 fax	wagenseller.gretchen@azdeq.gov
Eileen Palese, ADEQ Community Involvement Coordinator	(520) 628-6712*/ (520) 628-6745 fax	palese.eileen@azdeq.gov

* In Arizona, but outside the Tucson area, call toll free (888) 271-9302.

Information Repository:

Interested parties can review select Site information at the Flowing Wells Branch Library located at 1730 W. Wetmore Road in Tucson, (520) 594-5225.

The complete official Site file is located in Phoenix at the ADEQ Central Office at 1110 W. Washington Street; however, select documents are also available in Tucson at the Southern Regional Office at 400 W. Congress, Suite 433. Files are available for review Monday through Friday from 8:30 a.m. to 4:30 p.m. To arrange for a time to review the Site file at the main ADEQ office, please call the ADEQ Records Management Center with 24-hour notice at (602) 771-4380 or (800) 234-5677 (Arizona toll-free). Please call (520) 628-6715 to arrange a file review appointment at the Southern Regional Office.