

**DRAFT SITE REGISTRY REPORT**  
**PROPOSED WATER QUALITY ASSURANCE REVOLVING FUND (WQARF) SITE**  
**7<sup>TH</sup> Street and Missouri Avenue**  
**Maricopa County, Arizona**  
**April 2016**

The proposed 7<sup>th</sup> Street and Missouri Avenue Water Quality Assurance Revolving Fund (WQARF) Registry site (the Site) consists of contaminated soil and a groundwater contamination plume located in the vicinity of the intersection of 7<sup>th</sup> Street and Missouri Avenue, Phoenix, Arizona. The Site is approximately bounded to the north by East Montebello Avenue, to the south by East Georgia Avenue, to the west by North 6<sup>th</sup> Street, and to the east by North 10<sup>th</sup> Street.

### **Background**

The alluvial basin in which the Site is located is commonly referred to as the West Salt River Valley sub-basin. Sediments within the West Salt River Valley sub-basin may range up to several thousand feet in thickness and are commonly subdivided into three major water-bearing units: the Upper Alluvial Unit (UAU), Middle Alluvial Unit (MAU), and Lower Alluvial Unit (LAU). The groundwater surface at the Site lies within the UAU, which is unconfined and estimated to be approximately 250 to 300 feet thick. The UAU is composed predominantly of gravel, sands and silt. Groundwater flow direction at the Site is to the north-northeast and the depth to groundwater is approximately 85 feet below ground surface.

Recent investigations have identified the main source of a release of hazardous substances as the former Kino Drapery Cleaners that operated at 5340 North 7<sup>th</sup> Street, Phoenix, Arizona from 1971 to 1981. A much smaller and apparently separate secondary source in the area was identified at the currently operating Fashion Cleaners located at 736 East Missouri Avenue, Phoenix, Arizona.

Chlorinated solvents tetrachloroethene (PCE) and trichloroethene (TCE) were initially detected in 2004 from groundwater samples from several monitor wells in the area of 7<sup>th</sup> Street and Missouri Avenue. PCE and TCE were detected in monitoring wells installed to assess a gasoline-range hydrocarbon release from an underground storage tank (UST) system at a convenience store located at the northwest corner of 7<sup>th</sup> Street and Missouri Avenue. In addition, since 1998, PCE has consistently been detected above the Aquifer Water Quality Standard (AWQS) for PCE of 5 part per billion (ppb) in a Salt River Project Agricultural Improvement and Power District (SRP) irrigation well, 14.0E-9.6N, located immediately north of the convenience store.

In 2010, based on the results of a soil vapor survey, ADEQ installed monitoring wells around the Fashion Cleaners facility located northeast of the intersection of 7<sup>th</sup> Street and Missouri Avenue at 736 East Missouri Avenue, Phoenix, Arizona. In the well immediately downgradient of Fashion Cleaners, PCE has been detected at concentrations ranging from 3.1 to 21 parts per billion (ppb) with the most recent sample detecting 8.3 ppb, above the AWQS.

In 2013, ADEQ installed additional monitoring wells in the area of 7<sup>th</sup> Street and Missouri Avenue. Groundwater monitoring results suggested that a release of PCE had also occurred from a source generally southwest of the 7<sup>th</sup> street and Missouri Avenue intersection. Also in 2013, ADEQ installed a monitor well upgradient of the former location of Kino Drapery Cleaners. Results from the upgradient monitor well indicated no upgradient source of PCE.

In 2014, ADEQ collected soil and soil vapor samples from beneath the currently building located at the southwest corner 7<sup>th</sup> Street and Missouri Avenue. Results indicated that a release of PCE had occurred to the subsurface from the former location of Kino Drapery Cleaners. Concentrations as high as 5,480,000 micrograms per cubic meter (ug/m<sup>3</sup>) were detected beneath the building currently occupying the source area.

As of June 2013, PCE concentrations detected in the groundwater beneath the Site are as high as 850 ppb. The most recent concentration detected in the SRP well is 56 ppb, well above the AWQS for PCE. No City of Phoenix active drinking water supply wells are located within four miles downgradient of the Site.

The E&E score for the Site is 42 out of possible 120. The Arizona Department of Environmental Quality (ADEQ) proposes that the Site be added to the WQARF Registry established pursuant to Arizona Revised Statutes (ARS) 287.01. This Site Registry Report (SRR) was prepared to meet the requirements of ARS 287.01(B).

#### **Rationale to list the Site on the WQARF Registry**

- PCE is present in the groundwater at concentrations as high as 850 ppb, well above the AWQS of 5 ppb. Early Response Actions (ERA) should be considered at the Site.
- The primary source of contamination at the Site is a release from the former location of Kino Drapery Cleaners. Soil vapor concentrations near this release currently exceed screening criteria and may be a threat to receptors in the area. An additional separate and smaller release has occurred from Fashion Cleaners, which is currently in operation.
- The contamination has impacted an SRP production well, 14.0E-9.6N, above the AQWS for PCE. This well is located less than 0.1 miles north of the main source area.