

SITE REGISTRY REPORT

PROPOSED WATER QUALITY ASSURANCE REVOLVING FUND (WQARF) SITE 51st Avenue and Camelback Road Glendale and Phoenix, Maricopa County, Arizona August 18, 2021

Site Location

The proposed 51st Avenue and Camelback Road Water Quality Assurance Revolving Fund (WQARF) Registry Site (the Site) consists of contaminated groundwater located in the vicinity of the intersection at North 51st Avenue and West Camelback Road along the border of Glendale and Phoenix, Arizona. The Site investigation area is generally bounded to the north by West Bethany Home Road, to the east by North 43rd Avenue, to the west by North 59th Avenue, and to the south by West Indian School Road.

Background

In August 2019, the ADEQ Underground Storage Tank (UST) program referred monitoring well data from a UST facility located at the northwest intersection of 51st Avenue and Camelback Road that had detections of trichloroethene (TCE) in groundwater at concentrations ranging from 406 to 1,440 micrograms per liter ($\mu\text{g/L}$). In 2020, two monitoring wells were drilled as part of the Preliminary Investigation (PI) and sampled in January 2021. The maximum concentration of tetrachloroethene (PCE) detected in groundwater was 1,730 $\mu\text{g/L}$, TCE at 1,440 $\mu\text{g/L}$, and 1,1-dichloroethene (1,1-DCE) at 626 $\mu\text{g/L}$ at the Site. These concentrations are above their respective Aquifer Water Quality Standards (AWQS) for PCE (5 $\mu\text{g/L}$), TCE (5 $\mu\text{g/L}$), and 1,1-DCE (7 $\mu\text{g/L}$). The lateral extent of groundwater contamination for the PCE, TCE, and 1,1-DCE plumes is currently unknown.

Based upon the initial investigations, it appears that there are many possible sources of groundwater contamination. Contamination was detected within an industrial and commercial area along W. Camelback Road. According to an Environmental Data Research (EDR) Report, at least 13 facilities historically used and disposed of chlorinated solvents and another 24 facilities operated within one mile as dry cleaners that may have used PCE and or TCE in their processes.

Based on nearby UST and WQARF investigations conducted in this area, the depth to water is approximately 192 to 194 feet below ground surface (ft bgs) with estimated flow to the south-southwest and southeast. According to boring log descriptions from drilling of associated site monitoring wells, soils are primarily silty sands (up to 300 ft bgs) with intermittent silty gravel layers (up to 250 ft bgs) and a poorly graded sand at the water table around 195 ft bgs.

The E&E score for the Site is 29 out of a possible 120. ADEQ proposes that the Site be added to the WQARF Registry established pursuant to Arizona Revised Statutes (ARS) §49-287.01(D). This Site Registry Report (SRR) was prepared to meet the requirements of ARS §49-287.01(B).

Rationale for Registry Listing

- PCE, TCE, and 1,1-DCE have been detected in groundwater above AWQS at maximum concentrations of 1,730, 1,400, and 626 $\mu\text{g/L}$ respectively. The extent of contamination in groundwater is unknown at this time.
- One SRP well is located downgradient. In 2020, TCE was detected at a concentration of 3.2 $\mu\text{g/L}$ in this well, an increase from 2019 which was 0.8 $\mu\text{g/L}$. This well will be part of the SRP well network providing drinking water to City of Goodyear.
- The Site is located northwest of the West Central Phoenix (WCP) WQARF Sites; groundwater flow direction is to the south-southwest.