

## Remedial Investigation

### Stone – Grant Water Quality Assurance Revolving Fund (WQARF) Site

Tucson, Arizona

#### Client

Arizona Department of Environmental Quality

#### Timeframe

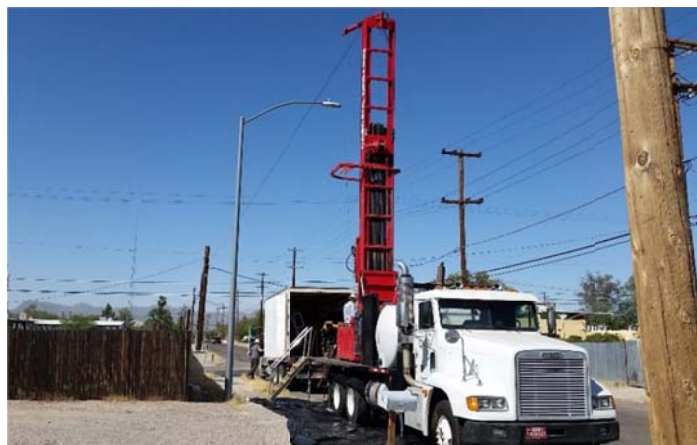
2016 – Present (July 2019)

#### Contract Amount

\$620,000

#### Personnel

Alison Jones	Kristi Sagar
Michael Chambers	Jake Alden
Ben Daigneau	Graham Kilduff



Clear Creek Associates (CCA), a wholly owned subsidiary of GLA, was retained by the Arizona Department of Environmental Quality (ADEQ) to conduct a Remedial Investigation (RI) of the Stone-Grant Water Quality Assurance Revolving Fund site. Preliminary investigations had found tetrachloroethene (PCE) and trichloroethene (TCE) in soil vapor above regional screening levels. The objectives of the RI were to:

- Establish the nature and extent of the contamination and the sources;
- Identify current and potential impacts to public health, welfare, and the environment;
- Identify current and reasonably foreseeable uses of land; and
- Obtain and evaluate other information necessary for identification and comparison of remedial alternatives.

PCE and TCE were identified in shallow (10 feet and shallower) and deeper (greater than 10 feet) soil vapor at concentrations exceeding regional screening levels. PCE and TCE were also detected in perched groundwater above the Aquifer Groundwater Quality Standards (AWQSS) and Maximum Contaminant Levels (MCLs) in recent previous investigations and at a nearby LUST site, but perched groundwater was not encountered during the RI. No impacts to the regional aquifer were identified. Two sources of PCE and TCE, both former dry-cleaning locations, were identified based on the soil vapor survey data.

Indoor air quality monitoring results indicated that inhalation of PCE in indoor air was a potential exposure route for PCE.

CCA formulated a conceptual site model (CSM) that was consistent with the extent of impacts to groundwater, soil, and soil vapor at the Site. The Draft RI was submitted to ADEQ.; CCA will revise and finalize the report after the required public comment period.

#### Project Highlights

- Installation of five nested monitoring wells, screened at depths to monitor perched groundwater and the regional aquifer, and one monitor well screened only in the regional aquifer.
- Discrete-depth soil vapor samples and groundwater samples were collected during drilling of some wells to delineate the extent of contamination and to determine the appropriate screened intervals.
- Shallow soil vapor surveys.
- Collection of deeper soil vapor samples from wells screened in the vadose zone
- Groundwater monitoring
- Indoor air quality monitoring
- Formulation of a Conceptual Site Model
- Land and Water Use Study
- Preparation of an RI report