

**Park-Euclid and 7th Street and Arizona Avenue
Water Quality Assurance Revolving Fund (WQARF) Sites
Community Advisory Board (CAB) Meeting**

**Monday, January 12, 2015
5:30 pm to 7:30 pm
Joel D. Valdez Main Library
101 N. Stone Ave., Lower Level One (LL1) Meeting Room
Tucson, Arizona**

MINUTES

CAB Members Present: Mark Verghougstraete, Bill Richards, Jacky Turchick, Jonathan Salvatierra, Harrison Smith, Diana Lett (applying for CAB reinstatement)

CAB Members Absent: Menachem Turchick, Richard Byrd, Keith Bagwell, Freya Eddy, Steven Turner, David Jonathas

ADEQ Staff Present: Caroline Oppleman, Community Involvement Coordinator (CIC); Gretchen Wagenseller, Project Manager; Hazel Cox, Hydrologist

Members of Public Present: Wally Wilson (Tucson Water), Ted Warmbrand (BSANA), Chris Perkovac (Hargis-contractor to ADEQ), Chuck Wesselhoff (Pima County Attorney's Office), Bob Boudra (AECOM), Joe Drazek (Quarles and Brady for Mission Linen), Montserrat Caballero (Pima County Health Department)

1. Call to order/introductions

Mr. Mark Verghougstraete called the meeting to order at 5:48 p.m. and initiated introductions. Because only five CAB members were in attendance, there was no quorum.

2. CAB meeting minutes 9/29/14

Item tabled due to lack of quorum. No other comments.

3. CAB membership

Item tabled due to lack of quorum. No other comments.

4. CAB charter update

Item tabled due to lack of quorum. No other comments.

5. Community Involvement Plan (CIP)

Ms. Caroline Oppleman provided a verbal description of the CIP and indicated that she would appreciate the CAB's input. She shared that the CIP provides background information on the WQARF process and reviewed Table of Contents. She indicated that the CIP outlines specific community involvement items and activities called for during the WQARF process.

Ms. Diana Lett inquired about the role of a CAB Selection Committee. Ms. Oppleman explained that after a CAB Selection Committee selects CAB members it disbands. Ms. Lett asked whether there is an ongoing newsletter for the Park-Euclid and 7th Street and Arizona Avenue sites. Ms. Oppleman replied no.

Ms. Jacky Turchick indicated her appreciation for the comprehensiveness of the document.

6. 7th Street and Arizona Avenue (ADEQ) -- see attached presentation

Ms. Gretchen Wagenseller gave an update on well replacement and the new ADEQ contractor's remedy evaluation. She added that, following the Proposed Remedial Action Plan (PRAP) that went out for public comment last year, ADEQ decided there are some data gaps regarding shallow soil gas and wanted to gather data further away from the source property to evaluate and confirm that the final remedy is appropriate.

Mr. Richards asked what depths Ms. Wagenseller was referring to regarding shallow and perched. She replied five feet for shallow and explained that when she says nested soil-gas monitor wells (most but not all) refer to depths of 15, 35, and 45 feet.

She followed her presentation with a discussion of general follow-up items from the last CAB meeting:

She said that Ms. Turchick had asked what happens after the feasibility study (FS) and she replied that the PRAP, which goes out for public comment. She said that Mr. Ted Warmbrand asked what ADEQ does if the site cleanup is too expensive. She replied that ADEQ's looks at several different kinds of cleanups as part of the FS from very cheap to very expensive, but the bottom line goal is protection of public health. ADEQ's job is to make sure that the remedial objectives that are finalized get addressed.

Ms. Wagenseller said there also was a question [she thought from Ms. Turchick about a Declaration of Environmental Use Restriction (DEUR)] and restricting land use to nonresidential that could affect both sites. When contamination is left in place at a site and it only meets nonresidential standards, ADEQ will do the best it can to get the owner to sign a DEUR indicating that the land only may be used for nonresidential; while ADEQ can't force an owner to do it, we won't sign off on the site and say things are environmentally good at the site if there's waste left there and the owner doesn't sign a DEUR.

At this point during the meeting, the audio recording was interrupted due to technical difficulties; about three to five minutes of the meeting were not recorded.

7. Park-Euclid (AECOM) see attached presentations

Mr. Bob Boudra reviewed the vapor intrusion risk assessment (RA) presentation and shared:

- the RA used conservative models
- residential screening standards were met except for one compound that has no screening level
- when multiphase extraction stops, concentrations may increase or rebound over time as it gets back to equilibrium but that he does not expect this to be the case at residential areas further away from system – assessment of analytical results from samples taken a few weeks after system shut down concluded no unacceptable risk from volatile organic compounds
- the RA recommends continued monitoring of onsite shallow vapor wells to evaluate whether levels increase over time (to above the residential screening levels) and if so, conduct evaluation of other measures that may need to be taken to mitigate risk.

Mr. Salvatierra asked if the rebound has anything to do with any difference at the five-foot level. Mr. Boudra replied that they saw some decrease in concentrations in shallow depths during operation, so after the MPE system was shut off, there could be a concentration increase as the system equilibrates; the next long term monitoring is planned for this spring. Mr. Harrison Smith asked if a specific confidence level was calculated for the soil vapor data, and Mr. Boudra replied no, but that the models used are inherently conservative.

Mr. Boudra gave a presentation regarding FS progress and the estimated timing for the PRAP. He added that it is not a certainty that a DEUR will be required at the Park-Euclid site. He shared that the draft FS will be available for public comment and Ms. Oppleman added that the timing for the next CAB meeting will be tied to comment period that so that ADEQ can obtain CAB comments during the meeting.

Regarding the early response action, Mr. Boudra shared that full operation is slightly delayed but is expected to occur in February, continue for nine months and then be evaluated.

Ms. Turchick asked whether testing the water in the nearby detention basin had been considered. Mr. Boudra replied that the area is away from soil contamination so he wouldn't expect to find anything.

Mr. Salvatierra and Mr. Richards asked if PCE is visible if present on surface water, and Mr. Boudra explained the PCE is heavier than water so it would sink and dissolve, and could not be seen like a sheen on top of water.

8. Call to the public

No comments.

9. Future meeting (discuss change back to Tuesdays)/agenda [Discussion]

Tentative meeting date set for Monday, May 18, 2015 at the same venue. Agenda topics to include:

- CAB membership (annual co-chair nominations, new members (Diana Lett application) and/or terminations) [Discussion/Vote]
- CAB charter update (per membership/co-chair changes) [Discussion/Vote]
- Community Involvement Plan (CIP) [Discussion/Vote]
- Possible ADEQ presentation on DEURs
- 7th Street and Arizona Avenue (ADEQ presentation)
- Park-Euclid
 - Draft FS report (AECOM presentation)
 - Solicitation of CAB comments on draft FS report

A brief discussion about the public comment process and whether experience at other sites is factored into remedy selection at WQARF sites occurred as well as comments between CAB members and Mr. Wally Wilson regarding Central Arizona Project water allocation.

10. Adjournment

Meeting adjourned at 7:13 p.m.

*This meeting was recorded on a digital device as a record of the proceedings. To listen to recording, or for additional information about the content of this meeting, contact:
ADEQ: Caroline Oppleman at 602-771-6890.*

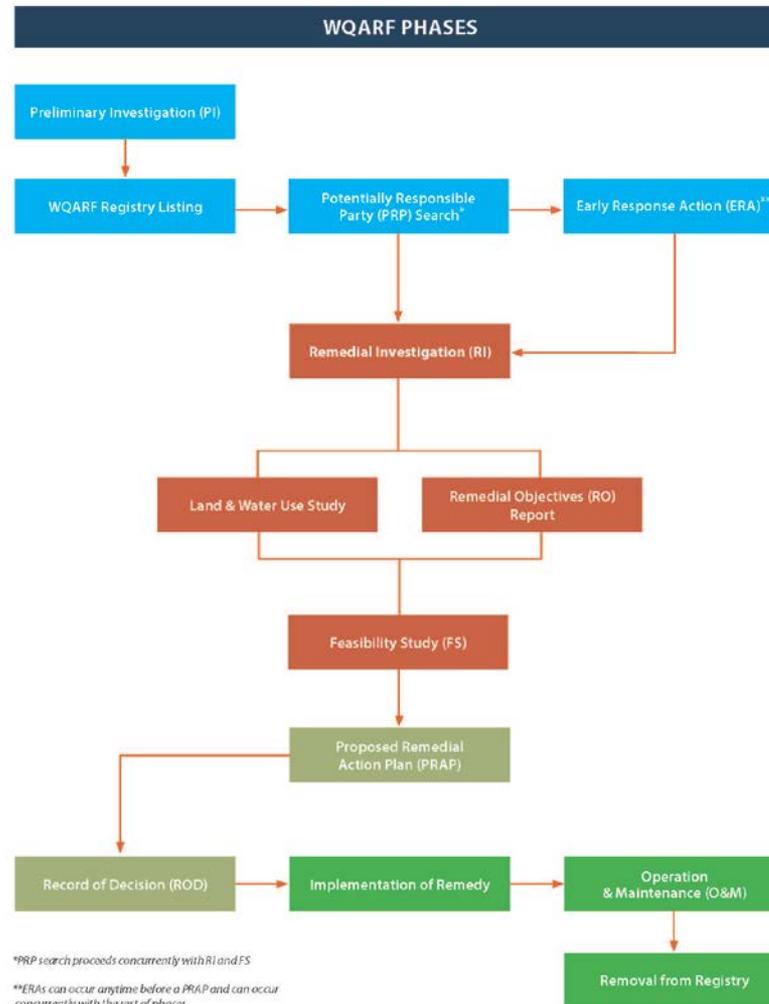


Park-Euclid-
7th Street and Arizona Avenue WQARF Site
Community Advisory Board Meeting
January 12, 2015

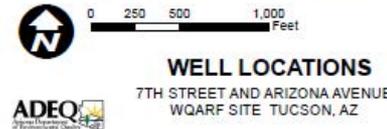
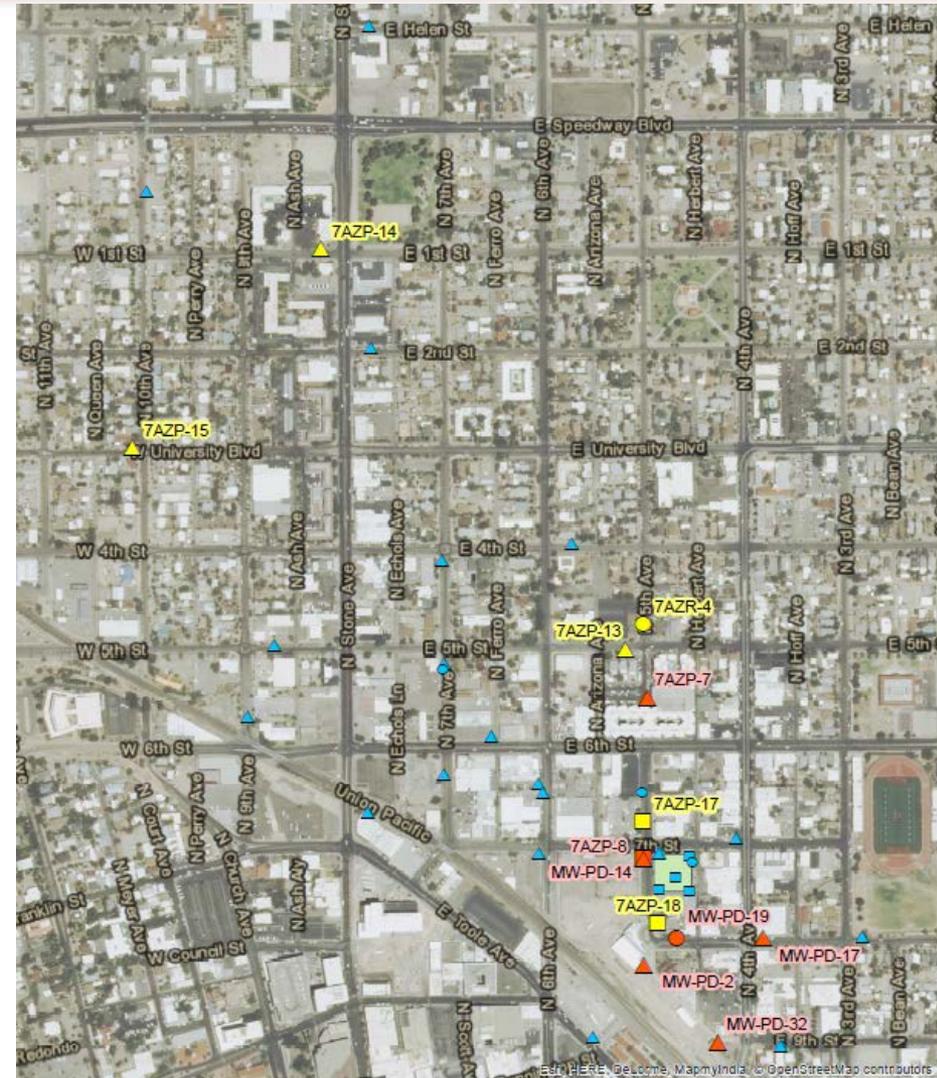
7th Street and Arizona Avenue Site—Update on Well
Replacement and New Contractor Remedy Evaluation



7th Street and Arizona Avenue Site—WQARF Process Overview



- Six wells installed in November/December 2014.
 - Five wells were “replacement” wells
 - The sixth well is a replacement well for the 7AZP-13 perched well



- Hargis + Associates (Hargis) hired to evaluate the planned final remedy of soil vapor extraction/air injection.
- Evaluation includes reviewing all data in the Final Remedial Investigation and Feasibility Study Reports.
- Evaluation also includes addressing any additional data gaps.

- Data gap being addressed--
Collecting shallow soil gas samples on and around the Former Oliver's Cleaners Property.
- Data will be used to evaluate potential risk from migration of volatile organic compounds in soil gas.
- These results will be used in Hargis' remedy evaluation.



- Hargis' remedy evaluation report is scheduled for completion in March 2015.
- Hargis also will be conducting site-wide groundwater sampling/reporting in spring 2015.

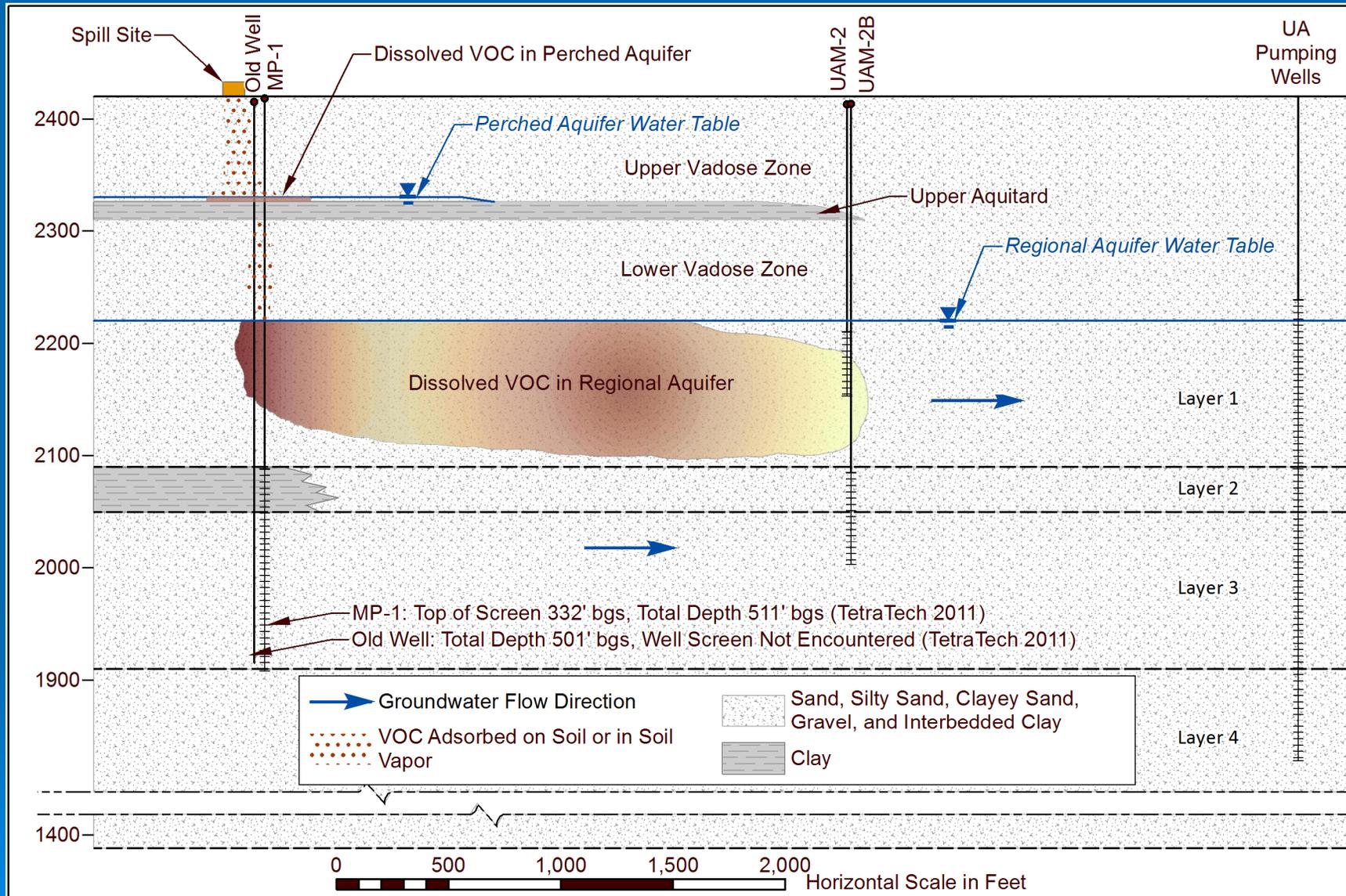
Status Update
Park – Euclid WQARF Site
Park – Euclid Group

Community Advisory Board Meeting
January 12, 2015

Status Update Topics

- Shallow Soil Gas Risk Assessment Results
- Feasibility Study Progress
- Lower Vadose Zone Early Response Action

Conceptual Site Model



Shallow Soil Gas Risk Assessment

- Described in the Feasibility Study Work Plan
- Installation and sampling of six new vapor probes and sampling of seven existing vapor wells (5 feet below ground surface)
- Included initial screening of attenuated soil gas concentrations (April and June, 2014) against USEPA Regional Screening Levels (RSLs)

Shallow Soil Gas Risk Assessment

(continued)

- Based on conservative screening, PCE and TCE were selected for further evaluation using USEPA's Johnson and Ettinger model
- Maximum detected concentrations (VW-07) modeled using site-specific and default values
- Results compared to residential RSLs

Soil Gas Sampling Locations



Soil Gas Sampling Results

Table 2
Summary of Results from Target VOC Analyses
 Vapor Intrusion Risk Assessment
 Park - Euclid WQARF Site, Tucson, Arizona

Location ID	Type	Sample Date	Analyte Fraction Units	c-1,2-DCE V mg/m3	PCE V mg/m3	t-1,2-DCE V mg/m3	TCE V mg/m3	VC V mg/m3
VW-01-05	SA	04/22/2014		<0.0068	0.88	<0.0067	<0.0091	<0.0043
VW-02-05	SA	04/22/2014		<0.0016	0.0095	<0.0016	<0.0021	<0.0010
VW-03-05	SA	04/21/2014		<0.0016	0.022	<0.0016	<0.0021	<0.0010
VW-04-05	SA	04/21/2014		<0.0016	0.38	<0.0016	<0.0021	<0.0010
VW-05-05	SA	04/21/2014		<0.0016	0.18	<0.0016	<0.0021	<0.0010
VW-06-05	SA	04/21/2014		<0.0016	0.0059	<0.0016	<0.0021	<0.0010
VW-07-05	SA	04/22/2014		0.10	6.4	<0.044	0.070	<0.028
VW-08	SA	06/25/2014		0.0034	0.26	<0.0016	0.0038	<0.0010
VW-09	SA	06/25/2014		0.0035	0.31	<0.0016	0.0040	<0.0010
VW-10	SA	06/25/2014		<0.018	0.39	<0.017	<0.024	<0.011
VW-11	SA	06/25/2014		0.0020	0.15	<0.0016	0.0023	<0.0010
VW-11	FD	06/25/2014		0.0026	0.18	<0.0016	0.0030	<0.0010
VW-12	SA	06/25/2014		0.0017	0.13	<0.0016	<0.0021	<0.0010
VW-13	SA	07/09/2014		0.0068	0.40	<0.0016	0.0059	<0.0010

Risk Assessment Results

Table 3
Comparison of Predicted Concentrations of PCE and TCE in Indoor Air to RSLs for Residential Indoor Air

Analyte	CAS Number	Maximum Detected Concentration in Soil Gas (mg/m ³)	Predicted Concentration in Indoor Air (mg/m ³)	Residential Indoor Air RSL (USEPA 2014) (mg/m ³) ⁽¹⁾	Basis for Residential Indoor Air RSL?	Predicted Indoor Air Concentration > Residential Indoor Air RSL?
Tetrachloroethene	127-18-4	6.38	0.00656	0.0110	CR = 1 x 10 ⁻⁶	No
Trichloroethene	79-01-6	0.0699	0.000077	0.00048	CR = 1 x 10 ⁻⁶	No

⁽¹⁾ RSLs are based on a target HQ of 1 for non-carcinogens or a target CR of 1 x 10⁻⁶. For chemicals that had RSLs both for an HQ of 1 and a CR of 1 x 10⁻⁶, the lower of the two resulting RSLs was selected.

Notes:

Includes field duplicate for sample location VW-11.

Acronyms:

CR - cancer risk

mg/m³ - milligrams per cubic meter

PCE - tetrachloroethene

RSL - Regional Screening Level

TCE - trichloroethene

USEPA - U.S. Environmental Protection Agency

References:

U.S. Environmental Protection Agency (USEPA). 2014. USEPA Master Regional Screening Level (RSL) Table. May.

Risk Assessment Results

(continued)

- Initial screening used an attenuation factor of 0.01 from soil gas to estimate indoor air concentrations.
- None of the offsite locations contained any results that that required additional evaluation beyond the initial screening.
- Only PCE and TCE were carried forward beyond initial screening (VW-07 in the source area).

Risk Assessment Results

(continued)

- Results of site-specific modeling predicted indoor air concentrations below residential (and commercial) RSLs.
- Limitations include no published screening levels for cDCE and potential concentration rebound
- No unacceptable risk of exposure to VOCs in indoor air identified during the risk assessment.

Feasibility Study Update

Remedial Objectives (RO)

- *To restore soil conditions to the remediation standards for non-residential use specified in A.A.C. R18-7-203 (specifically background remediation standards prescribed in R18-7-204, predetermined remediation standards prescribed by R18-7-205, or site-specific remediation standards prescribed by R18-7-206 that are applicable to the hazardous substances identified (tetrachloroethene (PCE), trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE) and trans-1,2-dichloroethene (trans-1,2-DCE), and vinyl chloride).*
- *To protect for the use of the groundwater supply by the University of Arizona (UA) near the Park-Euclid WQARF site from contamination from the site. This action is needed for the present time and for as long as the UA wells are used for potable purposes, the resource remains available, and their use is threatened as a result of contamination from the Park-Euclid WQARF site. This action is also needed to protect potential future use of the groundwater supply for the City of Tucson, which is not expected within the next five to ten years.*

Review of Feasibility Study Requirements

- Consideration of remedial strategies and measures to develop potential remedial alternatives to achieve the Remedial Objectives
- Development of a reference remedy and two alternative remedies capable of meeting the Remedial Objectives.
- Each remedy may contain multiple components to address the various hydrogeologic units.

Review of Feasibility Study Requirements

(continued)

- One alternative remedy will be more aggressive and one alternative less aggressive than the reference remedy.
- Perform comparative analysis of the reference and alternative remedies based on stated criteria.
- A Feasibility Study Report will be prepared that will present the Proposed Remedy.

REMEDIAL STRATEGIES
AAC R18-16-407(F)

No Action	Controlled Migration
Monitoring	Containment
Source Control	Plume Remediation

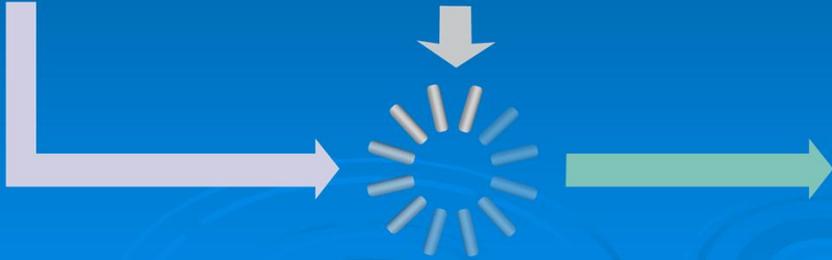
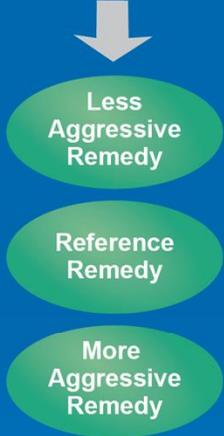
REMEDIAL MEASURES
AAC R18-16-407(G)

Well Replacement	Replace Water Supply
Well Modification	Engineering Controls
Water Treatment	Other



CRITERIA
AAC R18-16-407(H)(1-3)

1	Achieve ROs
2	Consistency with Water Management Plans of Providers
3	Practicability
4	Risk
5	Cost
6	Benefit / Value



PROPOSED REMEDY

Proposed FS Schedule

- Develop and Evaluate Alternatives (September – December 2014) - **Completed**
- Develop Remedies and Cost Estimates (December 2014 – January 2015) – **In process**
- Draft Feasibility Study Report Preparation (January – March 2015)
- ADEQ Review of Draft FS Report (March 2015)
- Finalize Draft FS Report (March – May, 2015)
- Draft Feasibility Study Report available for public comment (May 2015)

Lower Vadose Zone Early Response Action Status

- Construction Completed
- Startup during the week of January 19
- Normal operation to begin week of February 2
- Operation for approximately nine months
- Rebound testing following system shutdown
- May be a component of the recommended alternative for the lower vadose zone and Regional Aquifer in the FS