

**East Central Phoenix Water Quality Assurance Revolving Fund (WQARF) Sites
Community Advisory Board**

Thursday February 5, 2015

6 p.m. to 8 p.m.

**Arcadia High School – Mt. Olympus Room
4703 E. Indian School Road, Phoenix, AZ 85018**

FINAL MINUTES

CAB members present: Laura M. Ruffalo, Randy Dahl (Co-Chair), Janice Forwood, Karen Kay, Ed Rhodes, Jolene Morris (Co-Chair), Jacalyn Askin and Nathan Nelson

ADEQ Staff in attendance: Mel Bunkers, Project Manager; Wendy Flood, Community Involvement Coordinator (CIC); Scott Green, Remedial Projects Unit Manager

Members of the public present: Laura Menken, Hargis + Associates, Inc.; Brian Waggle, Hargis + Associates, Inc.; Kathy Hunter, Hargis + Associates, Inc.; Joe Guidice, City of Phoenix; Stacey Kinkel, resident

Call to Order and Welcome and Introductions – Meeting began at 6:05 p.m. Introductions were made by CAB Members and audience.

Accept and /or changes to the minutes of the August 2014 CAB meeting – Mr. Randy Dahl moved to accept the minutes with the correction of Jolene Morris’s requested change on page 2, end of the first paragraph. Ms. Laura Ruffalo seconded the motion; motion passed.

Discussion of Site Visit in December 2014 – Ms. Jolene Morris asked CAB members to offer questions or comments regarding the site visit held in December 2014. Members commented the soil vapor extraction (SVE) equipment and work completed to date was impressive and it helped to put the information into perspective. Ms. Wendy Flood thanked the board members for taking time to participate in the tour.

Presentation and discussion activities at all six ECP sites - ADEQ Project Manager, Mr. Mel Bunkers, went over the investigation history of all six sites, the WQARF process, focused source investigation and preliminary investigation results, clean-up process status and updates on the Draft Remedial Investigation (RI) Reports for three of the sites.

Mr. Dahl asked about the access issues at the former Bashas’ property. Mr. Bunkers responded that they just recently acquired access rights and had already started the drilling process.

32nd Street and Indian School – Mr. Bunkers provided a brief summary of SVE system operations at Maroney’s and Former Viking.

Mr. Todd Nelson asked if the carbon was changed in the system because it was collecting VOCs and that indicates the system is effective. Mr. Bunkers responded yes.

Mr. Dahl inquired about an estimate of contaminants removed. The ADEQ consultant responded that the amount could be provided for 32nd Street. ADEQ consultant stated that over 66 pounds have been removed from the Viking system.

Presentation and Review of the Draft Remedial Investigation Reports for the three ECP sites: (see attached presentation)

Mr. Bunkers noted that ADEQ had received a site conceptual drawing for the development of the former Baker Nursery showing residential/multi-use development.

38th Street and Indian School – Mr. Bunkers discussed and reviewed the Draft RI Report for this site. He covered the history and location of well drilling and concentration levels. The recent levels were presented, showing a decrease and he covered the history of the site.

Mr. Bunkers stated that ADEQ is recommending monitored natural attenuation, the frequency will be determined in the Proposed Remedial Action Plan.

Mr. Guidice, City of Phoenix, asked if the plume was contained. Mr. Bunkers indicated that it has decreased in magnitude, but moved historically. The ADEQ consultant added that due to additional well investigation the plume is defined based on the Aquifer Water Quality Standard for tetrachloroethylene.

Ms. Morris stated she had no comments. Ms. Flood and Ms. Morris confirmed that there were no further comments on the Draft RI from any CAB members or audience member. Ms. Flood reminded everyone the comment period ends at 5 p.m. on February 16, 2015.

40th Street and Indian School – Mr. Bunkers discussed and reviewed the Draft RI Report. The site history was also summarized as well as concentrations trends showing decline.

Mr. Bunkers stated that ADEQ is recommending monitored natural attenuation, the frequency will be determined in the Proposed Remedial Action Plan.

Ms. Ruffalo asked why we see declining PCE, is it from clean up or from better regulation. Mr. Bunkers said it was a combination of both.

Ms. Flood and Ms. Morris asked for comments. No formal comments were made at the meeting.

40th and Osborn – Mr. Bunkers discussed and reviewed the Draft RI Report. Mr. Bunkers and the ADEQ consultant further discussed the estimated groundwater plume based on the additional well installations, information regarding the SRP well and the lack of information related to a potential source.

Mr. Bunkers stated that ADEQ is recommending monitored natural attenuation the frequency will be determined in the Proposed Remedial Action Plan, as well as installation of a deeper well near the highest concentrations that were recently detected.

Mr. Dahl wanted a comment added that this site has a different contaminant called TCE (trichloroethylene) and this contaminant could have been inadvertently introduced to the site by a different mechanism than a commercial entity (i.e. a hobbyist, backyard mechanic). Ms. Flood verified that Mr. Dahl's comment would be "the identified TCE could be related to a non-commercial; inadvertent source and that should be considered".

Ms. Morris also asked about the redistribution of contaminants in the soil when construction begins at the site. The ADEQ consultant responded that the collected data does not indicate that there are any surface (soil) contaminants. The primary concern is groundwater and the data do not suggest there is a nearby surface source.

Ms. Karen Kay comment/question is how much effort is made in finding a source. ADEQ (Mr. Scott Green) has a group that does the responsible parties searches. The process runs parallel to the site investigation and feasibility study.

An audience member inquired about additional wells above the contaminant area, to the northeast. ADEQ indicated that the flow of the groundwater is to the southwest. The ADEQ consultant further added that additional sets of wells were installed to more clearly define the contaminant area and to see if there is a connection to another site.

The audience member raised an additional question about the impact on residential citrus fruit and irrigation water provided by SRP in her neighborhood. ADEQ plans to address this in the next CAB meeting.

Mr. Nelson questioned the depth of well BMW-02B and a car being a possible source. ADEQ consultant responded it was approximately 115 feet with the water level between 35 and 45 feet. ADEQ consultant indicated that option wouldn't be a possibility because the concentrations are not seen in the shallow wells. Mr. Nelson also mentioned other possible sources of VOC. ADEQ responded that it would most likely be a commercial entity but the type of business was not indicated in their search.

Mr. Ed Rhodes questioned if A to Z Rents at Indian School and 40st Street was not suspect. ADEQ Consultant looked north of BMW-05A and didn't find anything in their searches that would indicate them as a source.

Ms. Morris inquired about personal wells in the area and could a private citizen have dumped contaminants in their well. ADEQ indicated that information was covered in the Land and Water Use study and not a likely scenario. ADEQ consultant said data and groundwater flow point to an up gradient source and there would be more evidence in the shallow wells.

An audience member asked about receiving data on well (BMW-02B). Ms. Flood can be contacted directly for assistance in obtaining the information. It can also be covered at future CAB meetings.

An audience member inquired about property values. Ms. Morris stated that realtors are required to provide a site disclosure and that the ECP site doesn't affect the drinking water. Her experience has not shown a negative effect to sales. Ms. Flood also stated there are other factors that affected property value other than the Superfund site. She also stated that the contaminants are deep underground and there are no direct exposure pathways to resident; it is more a right-to-know issue for the public.

Remedial Objectives – Mr. Bunkers provided the definition of a remedial objectives and that ADEQ looks to the public to provide some input. .

Ms. Flood opened the discussion for solicitation of remedial objectives. The CAB was reminded to send them to Mr. Bunkers for all three sites and is due no later than 5 p.m. on February 16, 2015. These will be incorporated into an RO Report that will go out for a 30-day public review before finalized. Mr. Green further described remedial objectives for the CAB.

Mr. Nelson indicated that there were not any concentrations levels referenced and wondered if there was a target in mind. ADEQ indicated the current RO clean up goal is set by whatever use it is intended for (e.g. drinking water as opposed to irrigation water). Mr. Nelson's comment is to make sure the clean-up goals are whatever standard is set for the intended use.

Ms. Morris asked if the RO is a living document due to the fact, if a standard changes in the future (either higher or lower) then the new standard will be followed/used. ADEQ stated that was correct.

An audience member expressed surprise that SRP was not in attendance and questioned communication methods. ADEQ stated that SRP sometimes attends and are on the mailing list. SRP also receives copies of reports and have commented. ADEQ stated that there is excellent interagency communication with SRP and the City of Phoenix.

Mr. Bunkers finished by providing future activities information.

Call to the Public – Audience members asked if the CAB uses Nextdoor.org to notify the meetings. ADEQ stated that the CAB is allowed to use other resources like Nextdoor to advertise the meeting.

Mr. Nelson stated he shares information with Arcadia Osborn Neighborhood Association.

Next Meeting date and agenda topics –

The CAB decided to hold the next meeting on July 9, 2015 at The Bridge United Methodist Parish (formerly Alders Gate) at 3530 N 32nd Street, Phoenix, AZ 85018-5609. Agenda topics/action items include:

- Other communication methods outside of ADEQ notifications like Nextdoor for CAB members.
- Groundwater data update, specifically:
 - 40th Street and Osborn Road Site
 - 24th Street and Indian School Site, and
 - Wells drilled on Bashas property.
- Updates for sites with active remediation.
- Well BMW-02B results.
- Update on Viking system and removal numbers
- Information related to SRP irrigation and possible effect to citrus trees.
- General ECP site status update.

Adjournment

Ms. Morris motioned to adjourn and Ms. Kay seconded the motion. Meeting adjourned at 8:30 p.m.



East Central Phoenix (ECP) Water Quality Assurance Revolving Fund (WQARF) Site

**Presentation and Review of the
Remedial Investigations (RIs) and
Solicitation of the Remedial Objectives (ROs)
at Three Sites and Other Site Activities**

Community Advisory Board Meeting

February 5, 2015

6 ECP WQARF Sites

- ECP 24th Street and Grand Canal
- ECP 32nd Street and Indian School Road
- ECP 38th Street and Indian School Road
- ECP 40th Street and Indian School Road
- ECP 40th Street and Osborn Road
- ECP 48th Street and Indian School Road



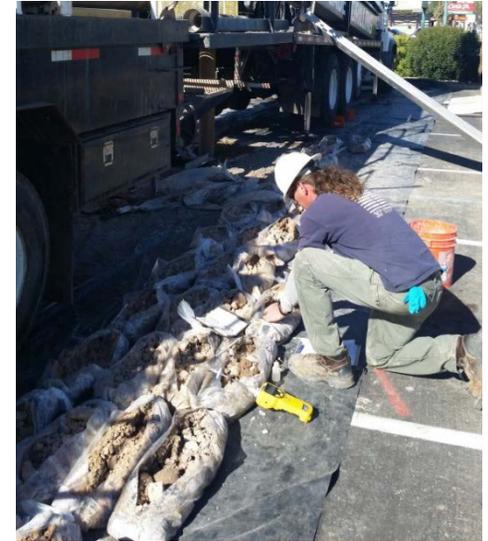
 East Central Phoenix WQARF Site Project Community Involvement Area

Note:
Dashed where inferred, queried where uncertain.

General Overview

6 ECP WQARF Sites

- Groundwater sampling conducted in December 2014
 - A total of 174 groundwater samples were collected across all 6 ECP Sites
- New soil vapor (SV) and groundwater well drilling in Dec 2014/Jan 2015
 - 5 SV wells at 32nd/Indian School Maroney's Site for a system modification
 - 4 groundwater and 4 SV wells 24th/Grand Canal Site (CVS – 1 groundwater, 4 SV)
 - Additional groundwater wells to be drilled by end of March 2015



WQARF Phases



**PRP search proceeds concurrently with RI and FS*

***ERAs can occur anytime before a PRAP and can occur concurrently with the rest of phases*

General Overview 2 ECP ERA & RI Sites

- 32nd St and Indian School Rd Site
 - Maroney's SV well field expansion for modified soil vapor extraction (SVE) system, start-up end of January
 - Continued operation and maintenance (O&M) at Former Viking Cleaners SVE System
 - A total of 4 carbon change-outs have occurred since start-up in July 2014
 - Continued O&M at Former Viking Cleaners SVE System
 - Negotiated access for the former Bashas property, new owners have developed a building and site conceptual drawing
- 48th St and Indian School Rd Site
 - Draft Early Response Action (ERA) Feasibility Study (FS) Submitted January 2015
 - Additional GW monitoring well installations planned for 2015



- 24th St and Grand Canal Site
 - Coordinated and obtained private property access
 - Conducting groundwater and soil vapor investigation at CVS property and adjacent properties to characterize the site



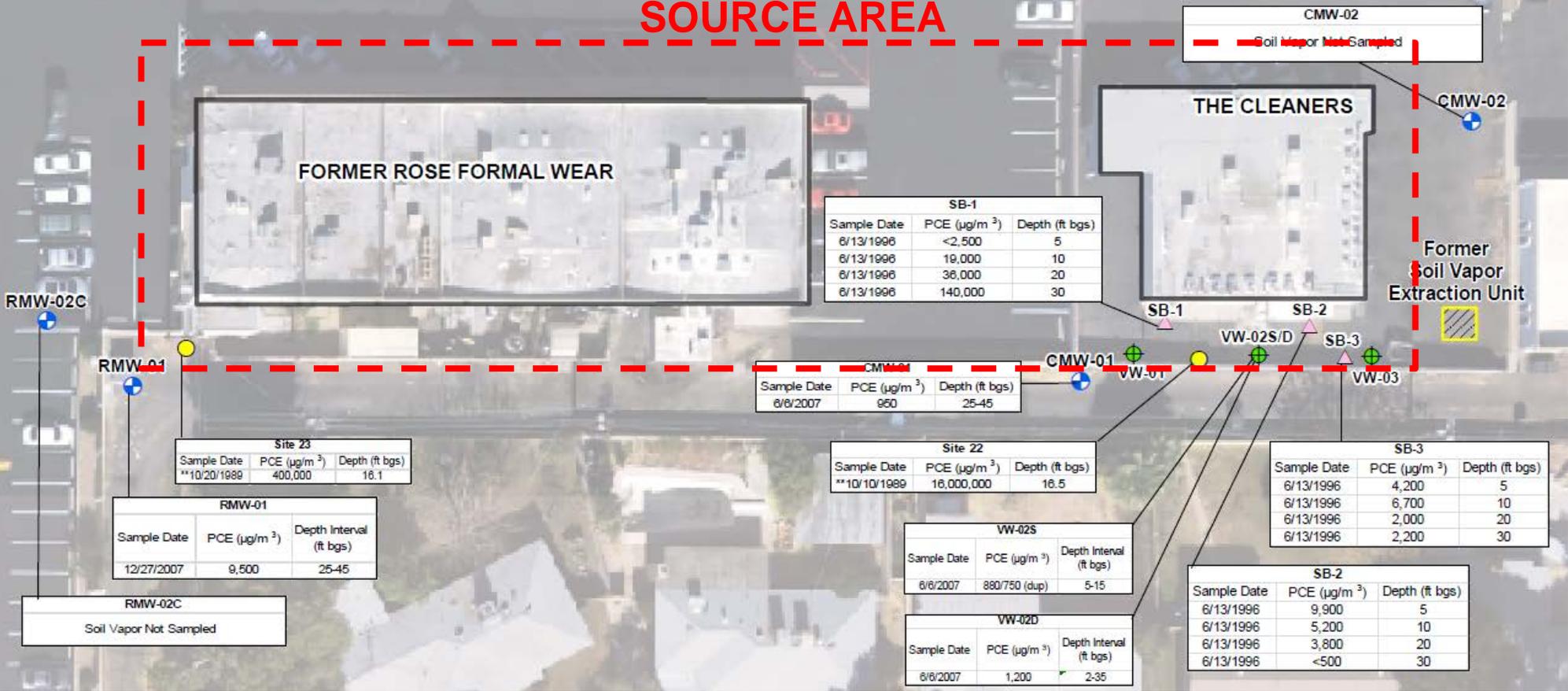
- 38th St and Indian School Rd Site
 - Well vault repairs at CMW-04 and CMW-01
 - Released Draft RI Report for Public Comment & Solicitation of ROs
- 40th St and Indian School Rd Site
 - Released Draft RI Report for Public Comment & Solicitation of ROs
- 40th St and Osborn Rd Site
 - New owners of the Baker Nursery property have developed a building & site conceptual drawing
 - Released Draft RI Report for Public Comment & Solicitation of ROs



- Summarizes investigations conducted to date at study area.
- Contains Land and Water Use Report detailing current and reasonably foreseeable future land and water uses.
- Will address comments to Draft RI Report in text and/or Responsiveness Summary Appendix.
- Will include the Remedial Objectives (ROs) Report

38th St/Indian School Rd

SOURCE AREA



- Groundwater Monitor Well Locations
- Soil Vapor Extraction Well Locations
- Soil Vapor Sample Locations
- Soil Boring Locations
- Former Soil Vapor Extraction Unit

Note: Soil Vapor Extraction (SVE) system operated from 1994 to 1995. System decommissioned in 2003.

** Soil vapor sample collected prior to SVE treatment.

ft bgs = feet below ground surface

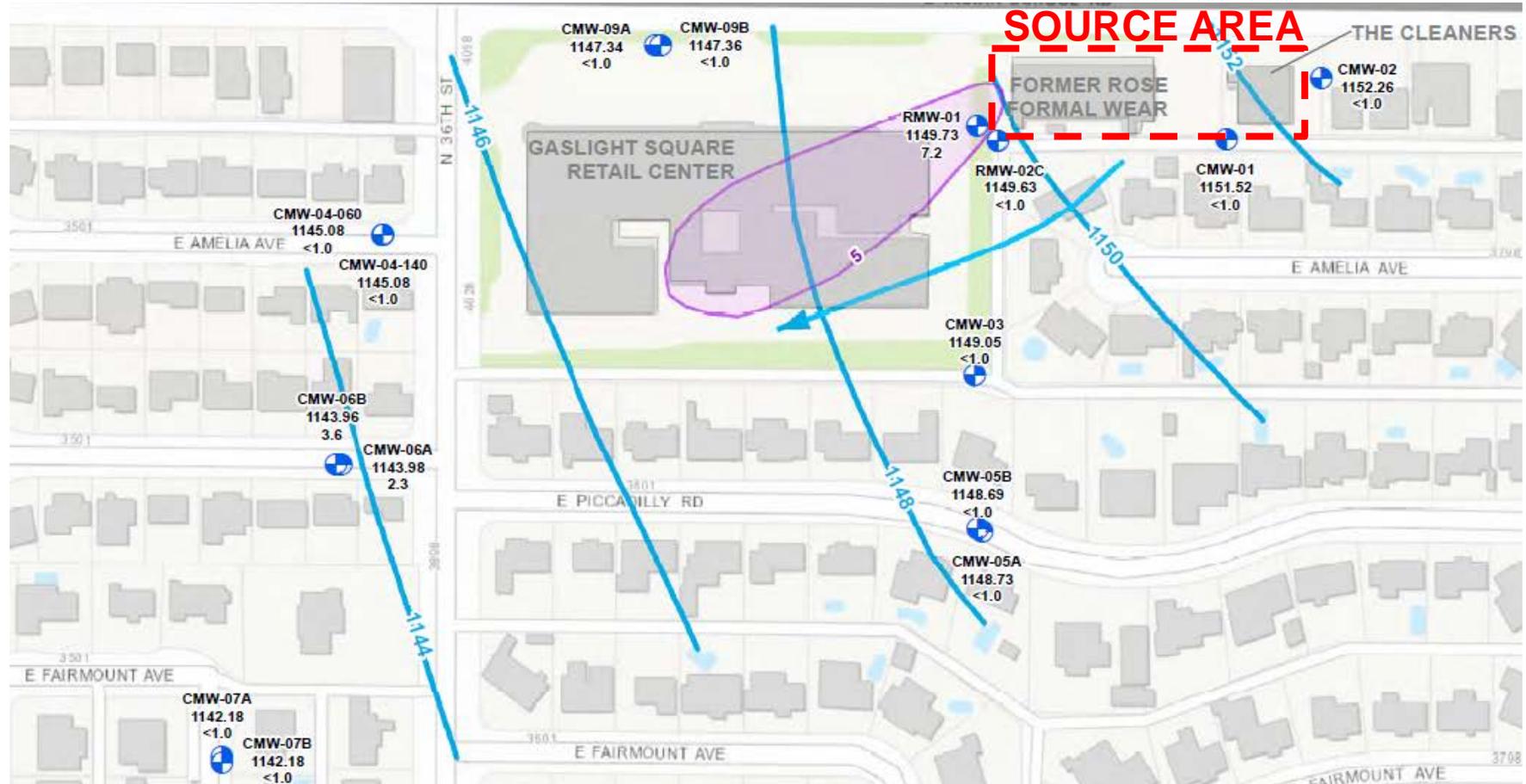
$\mu\text{g}/\text{m}^3$ = microgram per cubic meter

PCE = Tetrachloroethene

< = less than

38TH STREET AND INDIAN SCHOOL HISTORICAL SOIL VAPOR MONITORING AND TREATMENT AT SITE

38th St/Indian School Rd



EXPLANATION

- Groundwater Monitor Well Locations
- Water Level Contour
- Direction of Groundwater Flow
- PCE Groundwater Plume

1142.18 – Groundwater elevation (ft above mean sea level) - May 2014
 <1.0 – Recent PCE groundwater concentration (µg/L) (May 2014)

**WATER LEVEL ELEVATION AND
TETRACHLOROETHENE IN GROUNDWATER
38TH STREET AND INDIAN SCHOOL ROAD SITE**

38th St/Indian School Rd RI Summary

- 1989 SV samples 16,000,000 and 400,000 $\mu\text{g}/\text{m}^3$ PCE
- 1994 groundwater sample 34,000 $\mu\text{g}/\text{L}$ PCE
- Former “The Cleaners” - SVE system ran 1994-1995 removed 7.7 pounds PCE, SVE system removed from site in 2003
- No remediation conducted at Former “Rose Formal Wear”
- In April/May 2014, PCE detected in groundwater:
 - CMW-06A at max concentration of 2.5 $\mu\text{g}/\text{L}$
 - CMW-06B at max concentration of 3.6 $\mu\text{g}/\text{L}$
 - RMW-01 at max concentration of 7.2 $\mu\text{g}/\text{L}$ (*only one above AWQS of 5 $\mu\text{g}/\text{L}$*)
- *All other groundwater samples detected below the detection limit of 1.0 $\mu\text{g}/\text{L}$*
- Declining groundwater and SV concentration trends and plume stability likely the result of attenuation mechanisms.
- Minimal amount of PCE remaining, *no further remedial action is recommended at this time* but, the following activities are recommended:
 - *Site groundwater and soil vapor will be periodically monitored to verify the continued attenuation of PCE and TCE in the subsurface.*



38th St/Indian School Rd RI Comments

- When you are called upon, please state the following for the record:

Name

Organization/Company

Address

Phone and/or e-mail

Summarize your Comment

Please remember, all comments must be received by 5:00 pm on February 16, 2015.

40th St/Indian School Rd

-  Groundwater Monitor Well Locations
-  Soil Vapor Monitoring Point Locations
-  Direct Push Sampling Locations
-  Soil Boring Locations
-  Former Soil Vapor Extraction System

Note: Soil Vapor Extraction (SVE) system operated from 1994 to 1995. System decommissioned in 2003.

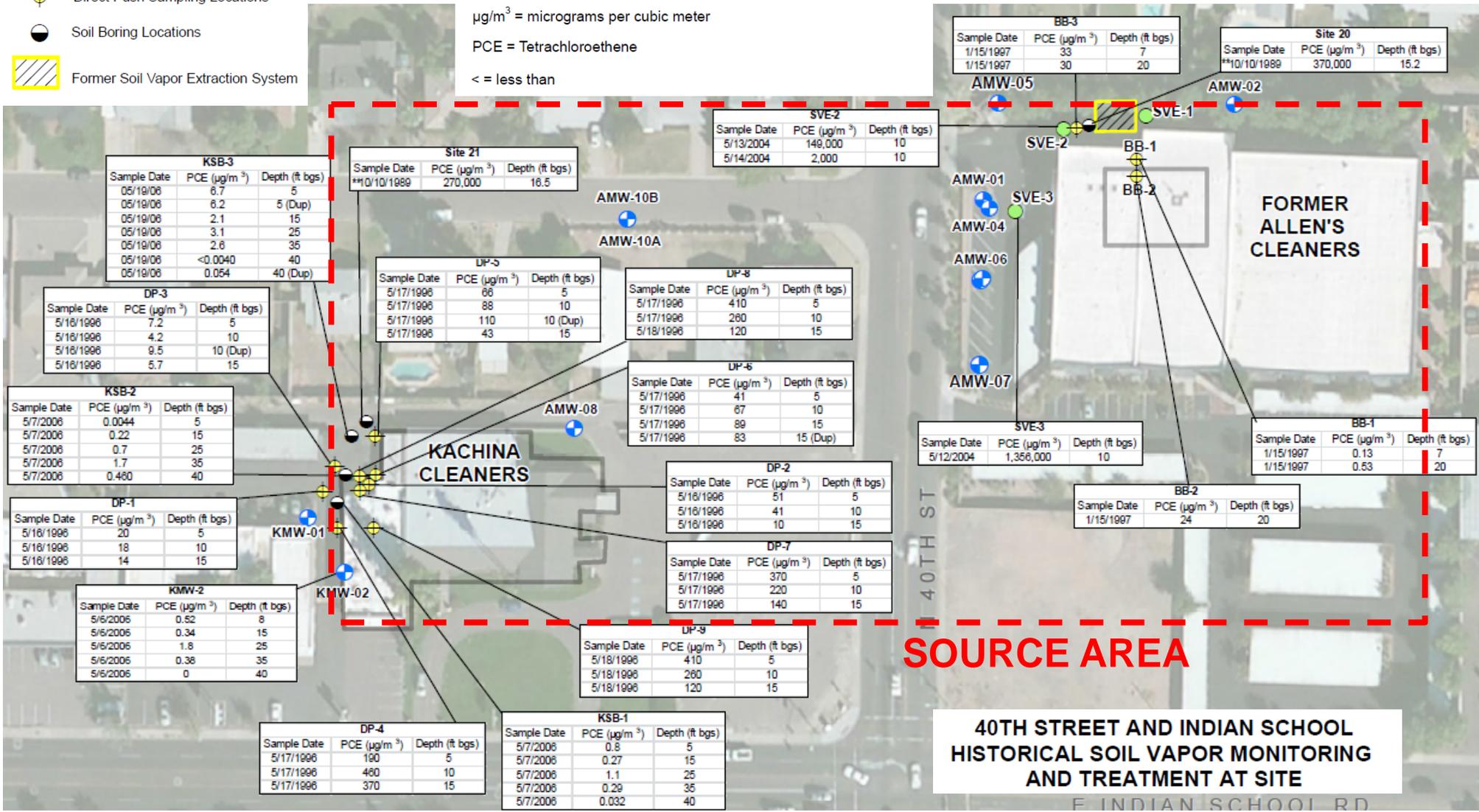
** Soil vapor sample collected prior to SVE treatment.

ft bgs = feet below ground surface

$\mu\text{g}/\text{m}^3$ = micrograms per cubic meter

PCE = Tetrachloroethene

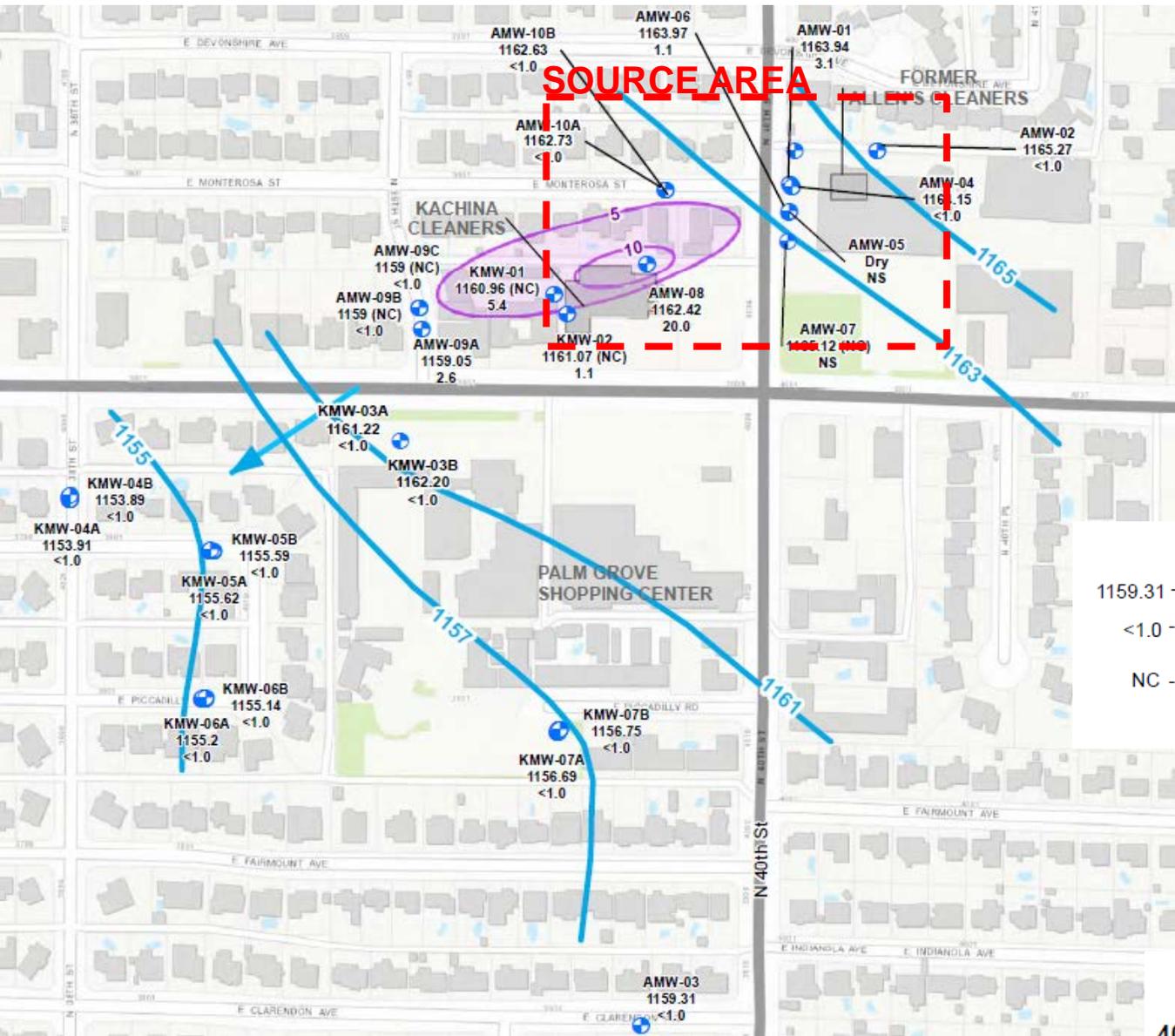
< = less than



SOURCE AREA

**40TH STREET AND INDIAN SCHOOL
HISTORICAL SOIL VAPOR MONITORING
AND TREATMENT AT SITE**

40th St/Indian School Rd



EXPLANATION

- Groundwater Monitor Well Locations
- Water Level Contour
- Direction of Groundwater Flow
- Estimated PCE Plume in Groundwater
- NS -- Not Sampled

1159.31 -- Groundwater elevation (ft above mean sea level) - May 2014
 <1.0 -- Recent PCE groundwater concentration (µg/L) (May 2014)
 NC -- Data not used in contouring and interpretation of groundwater flow direction; casing elevation measurement is considered suspect.

WATER LEVEL ELEVATION AND TETRACHLOROETHENE IN GROUNDWATER 40TH STREET AND INDIAN SCHOOL ROAD SITE

40th St/Indian School Rd RI Summary

- 1989 SV samples 370 $\mu\text{g/L}$ and 270 $\mu\text{g/L}$ PCE
- 1994 groundwater sample 130 $\mu\text{g/L}$ PCE
- Allen's Cleaners - SVE system installed 2004 removed 33 pounds PCE, SVE system removed from site in 2005
- No remediation conducted at Kachina Cleaners
- 2013 & 2014 - PCE detected in 6 of 23 monitoring wells with concentrations ranging from 1.0 $\mu\text{g/L}$ to 20 $\mu\text{g/L}$, only 2 samples above AWQS of 5 $\mu\text{g/L}$
- Declining groundwater and SV concentrations, plume stability are likely the result of attenuation mechanisms.
- Minimal amount of PCE remaining in the subsurface, no further remedial action is recommended at this time but, the following activities are recommended:
 - Site groundwater and soil vapor will be periodically monitored to verify the continued attenuation of PCE and TCE in the subsurface.

- When you are called upon, please state the following for the record:

Name

Organization/Company

Address

Phone and/or e-mail

Summarize your Comment

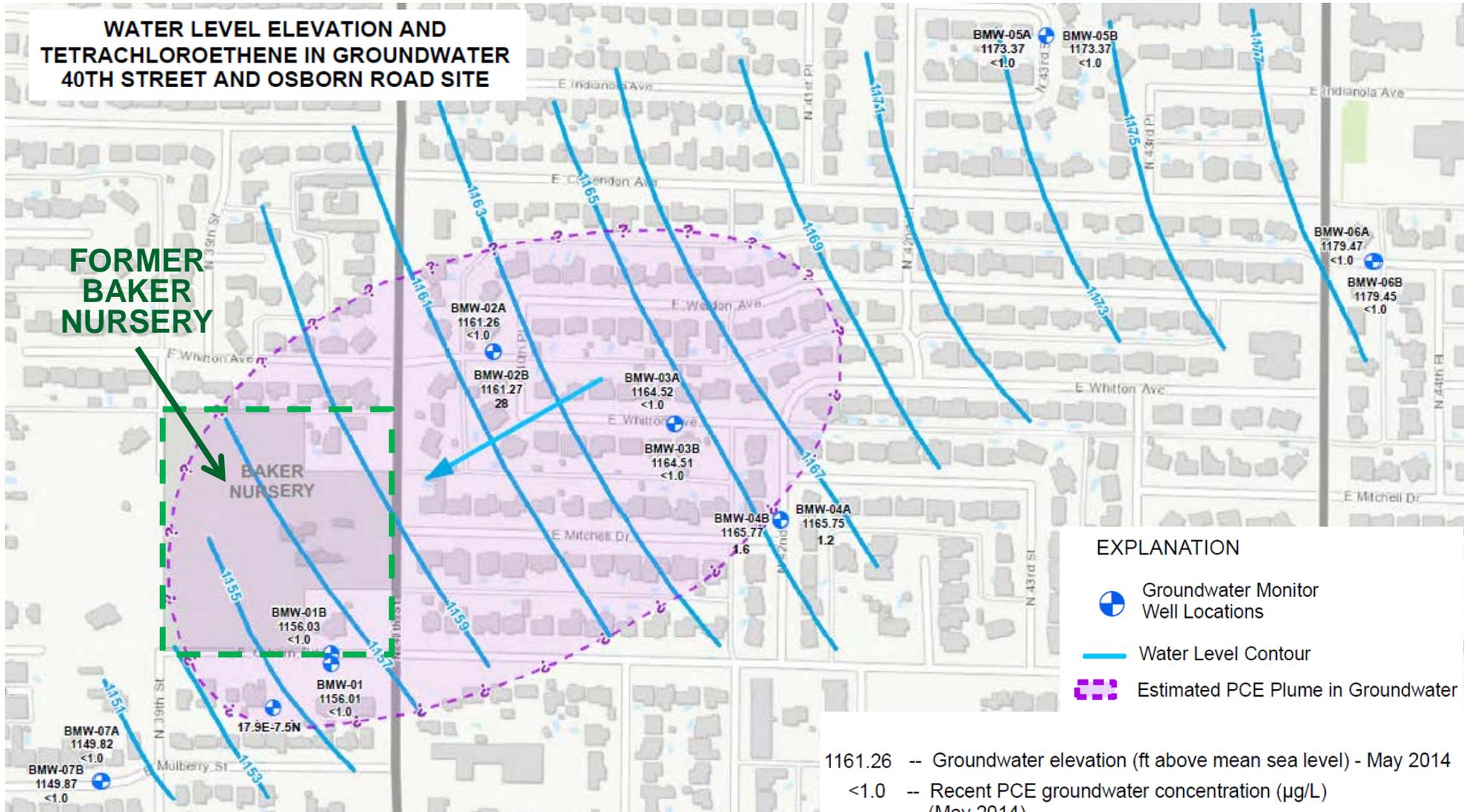
Please remember, all comments must be received by 5:00 pm on February 16, 2015.

40th St/Osborn Rd



40th St/Osborn Rd

WATER LEVEL ELEVATION AND TETRACHLOROETHENE IN GROUNDWATER 40TH STREET AND OSBORN ROAD SITE



**FORMER
BAKER
NURSERY**

**BAKER
NURSERY**

- EXPLANATION**
- Groundwater Monitor Well Locations
 - Water Level Contour
 - Estimated PCE Plume in Groundwater

1161.26 -- Groundwater elevation (ft above mean sea level) - May 2014
 <1.0 -- Recent PCE groundwater concentration (µg/L) (May 2014)

Note:
 Dashed where inferred, queried where uncertain.



40th St/Osborn Rd RI Summary

- Source: None Identified
- PCE detected in SRP 17.9E-7.5N since 1983, as high as 210 µg/L in 1998, 3 µg/L in 2013
- 2008 max PCE concentration of 67 µg/L in BMW-02B
- May 2014 – Max concentrations in groundwater:
 - 28 µg/L PCE in BMW-02B
 - 1.2/1.6 µg/L PCE in BMW-04A/B
 - TCE at 1.8 µg/L in BMW-02B
- PCE concentrations generally increase with depth in groundwater, with the upper portions of the aquifer at <1.0 µg/L
- *No remedial action is recommended at this time.*
- Suggested activities to address data gaps:
 - Periodic groundwater monitoring of existing wells
 - Installation of a deeper well screen near BMW-02B to determine the vertical extent of the plume – currently undergoing permitting with City of Phoenix and planned for drilling in February 2015



40th St/Osborn Rd RI Comments

- When you are called upon, please state the following for the record:

Name

Organization/Company

Address

Phone and/or e-mail

Summarize your Comment

Please remember, all comments must be received by 5:00 pm on February 16, 2015.

What Are ROs?

Remedial Objectives (ROs) under R18-16-406(I)(4) are established for the current and reasonably foreseeable uses of land and beneficial uses of waters of the state.

ROs are the clean-up goals determined for a specific site.

ROs will be framed as uses of a resource to be protected, when the use needs to be available and how long a specific use might be needed by the affected public.

ROs must be determined with input and discussion with land owners, local governments, water providers, and the public including the CAB members for the site.

Example ROs

To restore soil conditions to the remediation standards for residential and non-residential use specified in A.A.C. R18-7-203 (specifically background remediation standards prescribed in R18-7-204, predetermined remediation standards prescribed in R18-7-205, or site specific remediation standards prescribed in R18-7-206) that are applicable to the hazardous substances identified. This action is needed for the present time and for as long as the level of contamination in the soil threatens its use as a residential or non-residential property.

The remedial objective for regional groundwater at the site is to protect for the use of the groundwater supply by the City of Phoenix, and SRP. This action is currently needed and will be needed if/when groundwater use changes to municipal/drinking water uses. This action will be needed for as long as the level of contamination in the groundwater threatens the use of the regional groundwater for municipal/drinking water uses.

Solicitation of ROs

- If you want to provide an RO verbally or in writing, please state/include the following:

Name

Organization/Company

Address

Phone and/or e-mail

Summarize your Comment

Please remember, all comments must be received by 5:00 pm on March 5, 2015.

- Develop ROs for 38th St/Indian School Rd, 40th St/Indian School Rd, & 40th St/Osborn Rd Sites
- Finalize RIs: 38th St/Indian School Rd, 40th St/Indian School Rd, & 40th St/Osborn Rd Sites
- Additional investigation at 24th St/Grand Canal, 32nd St/Indian School Rd, 40th/Osborn Rd, & 48th St/Indian School Rd Sites
- Continue SVE treatment and operation at 32nd St/Indian School Rd (Maroney and Former Viking)
- Ongoing SVE Planning and Design at 48th St/Indian School Rd Site
- Begin drafting FSs for 38th St/Indian School Rd, 40th St/Indian School Rd, & 40th St/Osborn Rd Sites

Take Away

As a CAB member, what can you do to help?

- Share information with neighbors, groups, family, and friends about the Site
- Communicate questions or concerns with ADEQ
- Call Wendy or Mel with questions or suggestions
 - What do you want to know or learn?
- Keep attending CAB meetings!





East Central Phoenix

Questions?

Mel Bunkers

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