

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

Wednesday, November 13, 2013

5:30 p.m. to 8:30 p.m.

**The Bridge – Aldersgate United Methodist Church
3850 N. 30th Street, Phoenix, AZ 85016**

FINAL MINUTES

CAB members present: Laura M. Ruffalo, Randy Dahl and Richard Siegel

ADEQ Staff in attendance: Charise McNamara, Project Manager, Danielle Taber, Project Manager, and Wendy Flood, Community Involvement Coordinator (CIC)

Members of the public present: Brian Waggle, Hargis + Associates, Inc., Kathy Hunter, Hargis + Associates, Inc., Beverly Brooks, James Mathien, Ed Roads, Karen Kay, Todd Nelson, Bobbie Rogers, Curtis Fallgren, Jacalyn Askin, Jeff Trembly, Ed Yablonsky and Michelle Oakley

Call to Order and Welcome and Introductions – Meeting began at 5:35 p.m. CIC called meeting to order. Introductions were made by CAB Members and audience.

Accept and /or changes to the minutes of the July 17, 2013 CAB meeting: Ms. Ruffalo moved to accept the minutes with edits emailed to the CIC and the inclusion of start and finish times and identifying speakers by name in future minutes; Mr. Dahl seconded the motion. All were in favor, motion passed.

**East Central Phoenix (ECP) WQARF Site: Charise McNamara, ADEQ Project Manager
(see attached presentation)**

Ms. McNamara gave a quarterly site update, discussed future activities and events for ECP and gave a review of the WQARF process.

Ms. Ruffalo asked if the Maroney's dry cleaners were still in operation, if the facility now had state-of-the-art equipment and if the company was cooperative with ADEQ and its efforts. Ms. McNamara and Ms. Taber stated that the facility was still operational, the equipment wasn't state-of-the-art, but that the facility passed an ADEQ inspection in 2012 and that the company was very cooperative.

Ms. Rogers asked how much of an increase was there in the groundwater PCE at the Viking site. Ms. McNamara stated that ADEQ only had preliminary data at this time and they still need to do a verification of the data. Ms. Rogers asked if it were possible to get a range of an increase. Ms. McNamara stated that she didn't have the data but that she didn't think it was a significant increase. Ms. Rogers asked where she could see the information and Ms. McNamara stated that it would be posted on the ADEQ website and concrete (final) results will be discussed at the next CAB meeting. Ms. Rogers asked about the increase. Ms. McNamara responded that ADEQ was

currently in the investigation process to determine the reason for the increase. Mr. Dahl indicated that one of the reasons might be the location of test wells, plume movement, and variations in concentrations within the plume. Mr. Dahl also stated that the plume wasn't getting larger just moving and that the ADEQ can say that no additional contamination occurred. Ms. Flood indicated that there would be verified, quantitative data presented at the next CAB meeting.

Ms. Ruffalo asked where new wells were going to be placed at the 38th Street and Indian School site. Ms. McNamara indicated ADEQ would be collecting groundwater samples at the Gaslight Square retail center. Two wells will be installed at each location. Ms. Ruffalo asked if it was behind the center and Ms. McNamara stated it would be along Indian School Road inside the center.

Ms. Rogers asked about the location of another drill rig east of 40th. Ms. McNamara and Ms. Taber responded that work conducted in that area is related to the 56th Street and Earll Drive site; a separate WQARF site with its own CAB and CAB meetings. Ms. Flood stated that she would provide Ms. Rogers with information about that site later in the evening.

Mr. Roads asked about a large vacuum truck in the 48th and Indian School area three weeks ago and when approached didn't give out many details. He asked if it was part of the sampling process. Ms. McNamara indicated that they were doing what was called "air-knifing" or "potholing" to locate utilities and other underground items for the potential installation of an SVE unit at the site.

Mr. Roads asked where the 32nd Street and 48th Street sites were in the WQARF process at this time, it would be helpful to have it all on one sheet. Ms. McNamara indicated that those sites are currently in the Early Response Action (ERA) process and would make a note to include more information for the next presentation. Ms. Flood stated that this evening's CAB meeting was primarily to address CAB membership issues and there was a lot of detailed data left for that reason. She also stated that ADEQ appreciates and welcomes hearing about what the community is interested in and will include more detailed information at the next CAB meeting.

Vapor Intrusion – Indoor Air Screening: Danielle Taber, ADEQ Project Manager -

Ms. Taber gave an update on Vapor Intrusion (VI) testing that has taken place to date and upcoming items.

Ms. Ruffalo commented that the August Indoor Air Screening open house was poorly timed because of summer vacations. Ms. Taber acknowledged that people may have been on vacation at that time; however Ms. Taber noted that many residents were home for ADEQ's door-to-door meetings. Ms. Flood added that the open house was scheduled for August based on the indoor air sampling schedule. Ms. Taber also noted that ADEQ is open to any feedback or ideas from the CAB or community to increase participation in such meetings and/or open houses.

Mr. Roads commented that he knows of members of the community that missed the August contact and are interested in participating in the February round of indoor air sampling. Mr. Roads asked how best to coordinate. Ms. Taber and Ms. Flood indicated that they would discuss this with Mr. Roads later in the evening.

Ms. Ruffalo wanted to confirm that the number of homes sampled in the August event was 100. Ms. Taber confirmed that ADEQ sampled 100 homes during the August event and that they counted Arcadia High School as 1 even though they took multiple samples.

Ms. Rogers asked about statistics of incidents of cancer in that area. Ms. Taber responded that ADEQ does not have that data but that they are working and cooperating with the Department of Health Services and they would be the ones who could answer that type of question. Mr. Taber continued to say that ADEQ had recently given them the data from the August sampling for their review and use in their own assessment. Ms. Taber continued that she is not aware of any cases for this site. Ms. Flood then mentioned that once the Department of Health Services reviews all the data they could proceed with a Risk Assessment. Ms. Flood also stated that more detailed information about this issue could be an agenda topic at the next meeting if time permitted.

Ms. Brooks asked if any of the sampling was done at 31st Street (in the area of her residence). It was determined that Ms. Brooks' residence is located north of Indian School Road. Ms. Taber stated that this area was not sampled because it is located outside of the soil vapor plume area. Ms. Rogers asked about the depth of the groundwater. Ms. Taber said that at 32nd Street and Indian School the groundwater is 55 feet below ground level. Ms. McNamara stated that at 48th Street and Indian School groundwater is 33 feet below ground level.

Mr. Roads asked if the circles on the soil vapor figure were the same as the soil whiskers seen at the site, and whether those were for soil or were put in place for the Indoor Air Assessment. Ms. Taber stated that ADEQ used those whiskers for soil vapor sampling locations. Soil vapor data were gathered first so ADEQ would have a reason to request entry to home to gather the indoor data (i.e. whether a home was located above or near an area where soil vapor concentrations exceeded the screening level). Mr. Dahl suggested that ADEQ present the indoor air data as a mean, standard deviation, etc. for the entire dataset, to avoid releasing any individual information considered confidential.

Ms. Rogers asked if soil and air testing by the ADEQ determined the area that would be Indoor Air tested. Ms. Taber responded that it was collection of vapor samples where the PCE present in gas form in the soil that determined the locations for the necessity of testing

Ms. Rogers asked why individual results could not be shared because it affects all residents in that area. Ms. Taber responded that there was actual case law that protects personal information, such as their name and address therefore, ADEQ considers it confidential. ADEQ will give results to those sampled and then they may do what they like with it. Ms. Taber stated that they can give an overview of the data for the site as suggested by Mr. Dahl. Ms. Taber continued that based on the summer sample data they have not seen a vapor intrusion problem yet; additional indoor sampling will be conducted in the winter.

Mr. Roads asked for clarification of the 313 ug/m³ screening level on the soil vapor data map. Ms. Taber explained that 313 is micrograms per meter cubed. A microgram is a weight in a meter cubed of air. So that screening shows that there are 313 micrograms floating in a meter cubed of air at 5, 10 or 15 feet below the surface. Mr. Roads wanted confirmation that anything above that would be a problem. Ms. Taber responded that it could be a potential problem. Ms. Taber confirmed it was a screening level, not an action level. ADEQ is taking action by asking to sample in someone's home but it doesn't mean there will be a problem in that residence.

Mr. Dahl asked with regard to the EPA standards for soil vapor and its equivalent to 5 parts per billion. Ms. Taber responded that vapor intrusion and indoor air data and studies is an up and coming field and seem to be changing constantly. Ms. Taber indicated she would do some research to respond. She further stated that OSHA standards are higher than EPA standards and

that creates confusion. Ms. Taber indicated she will get an answer as it is a question for ADEQ as well.

Ms. Ruffalo asked if the standard for radon is defined. Ms. Taber stated that it was and that radon compounds are different than vapor intrusion. She continued to say that much of the science for vapor intrusion was taken from radon testing. Ms. Taber continued to discuss information sent to the community including vapor mitigation, etc. in the event vapor intrusion is an issue.

CAB BUSINESS

Executive Session - New Member Voting

Ms. Ruffalo motioned that the board should excuse itself for an executive session to discuss and vote on potential new board members, Mr. Dahl second the motion and the board went to the executive session at 6:40 p.m. CAB members discussed and voted on applications submitted to join the CAB. Upon continuation of the meeting at 6:55 p.m., the following applicants were announced as new members to the board and received membership packages: Karen Kay, Daniel Swartfiguer, Curtis Fallgren, Jacalyn Askin, Jeffrey Fleetham, Janice Forwood, Nathan Nelson and Ed Roads.

Ms. Flood thanked attendees for their patience and encouraged everyone to continue to come and participate. She also indicated that membership for this CAB is evolving so please feel free to reapply for membership. Mr. Siegel indicated that the board has not made a final decision on the maximum number of members and that some applicants were not in attendance and another vote may be necessary.

Ms. Flood asked new members to see her after the meeting to receive a packet of information with regards to their new role. Ms. Flood continued that the approved Community Involvement Plan (CIP) for the site is available in the repository and that any member that didn't receive one this evening would receive a copy at the next meeting.

General Business

Ms. Ruffalo asked if the location for the next meeting was the church. Ms. Flood suggested that Arcadia High School could be a possible alternative. Mr. Siegel stated that it was good to change locations, it encourages participation from different parts of the site. Ms. Flood will contact the High School to see if they could accommodate the meetings and any possible charges associated with the use of their facilities.

Future Meeting / Agenda Discussion

The next meeting is scheduled for Wednesday, March 12th at 5:30 p.m. at The Bridge – Aldersgate United Methodist Church.

Agenda items for upcoming CAB meetings:

1. CAB roles and responsibilities presentation and discussion with new members.
2. Charter Update.
3. Possible Additional membership Voting
4. Site Update and Winter Results of Soil Vapor testing.
5. Change of Venue possibilities.

Adjournment

Ms. Ruffalo motions to adjourn and Mr. Dahl seconds the motion. Meeting adjourned at 7:02 p.m.



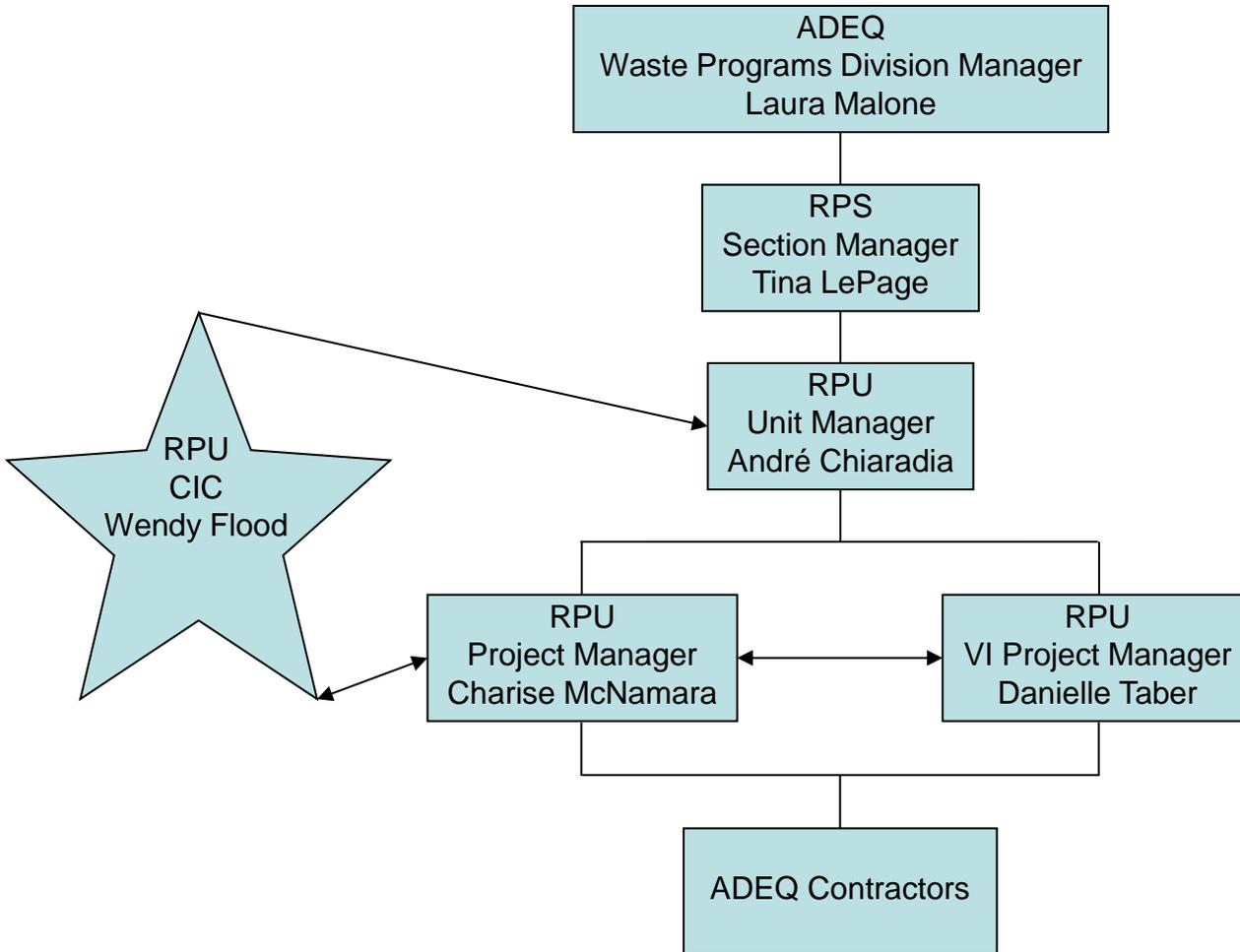
**East Central Phoenix
Water Quality Assurance Revolving
Fund (WQARF) Site**

**Community Advisory Board
Meeting**

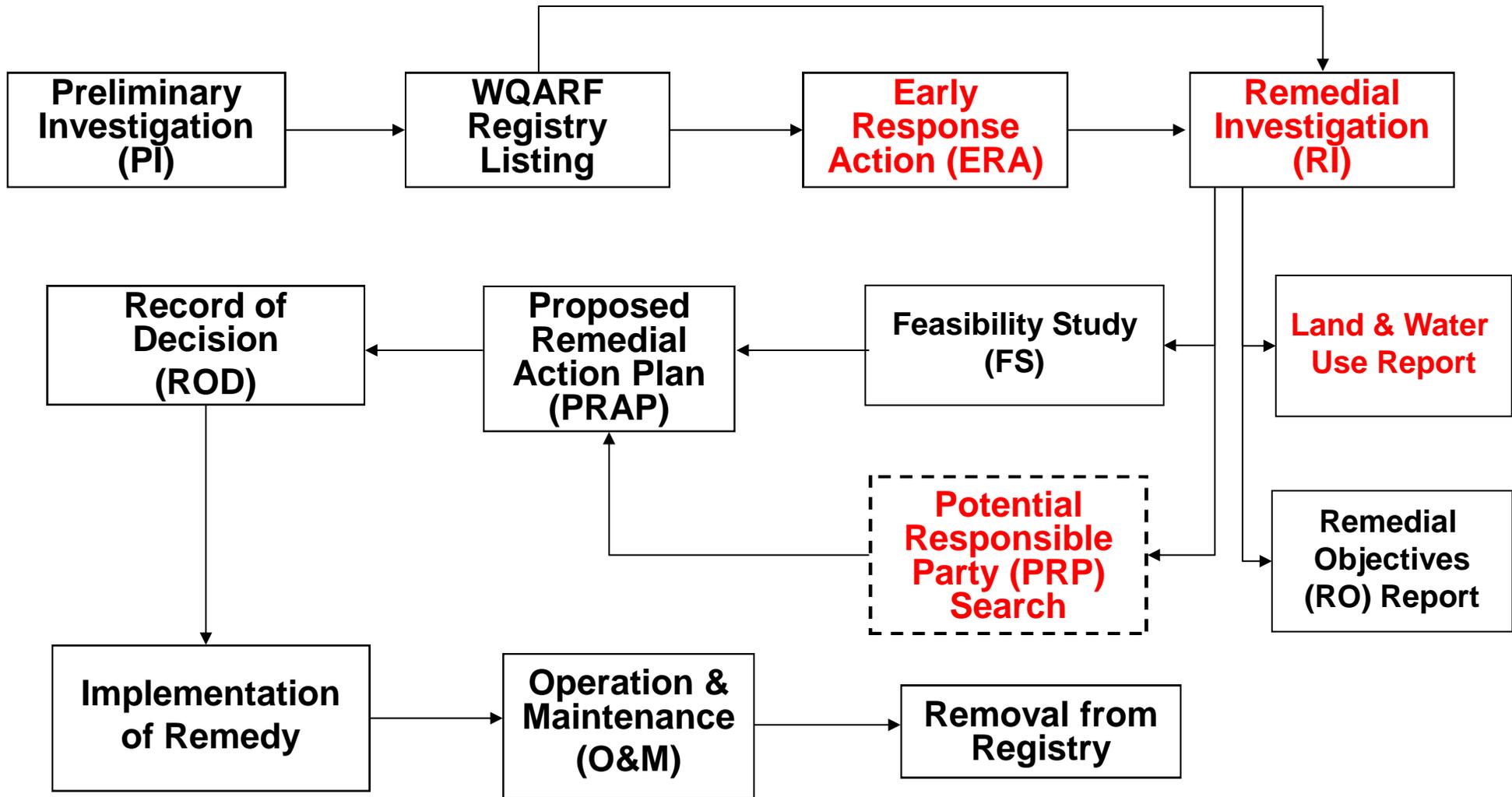
November 13, 2013

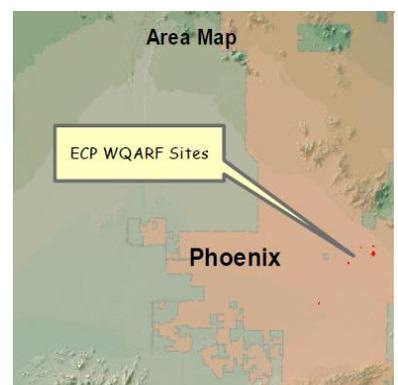
- Abbreviations/Definitions – See Handout
- Introductions
- WQARF Process
- WQARF Site Update
 - East Central Phoenix
 - Recent Activities
 - Upcoming Activities
- Take Away
- Questions





WQARF Process





NAME	
	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
	Canals




Location of SRP wells

32nd Street and Indian School Road

- Maroney's study area has decreased in groundwater PCE concentration since 2012
 - MMW-01 is above Arizona Water Quality Standard
 - Maroney's SVE System
 - Removed 25 pounds of PCE (June – September 2013)

- Former Viking study area has increased in groundwater PCE concentration since 2012
 - VMW-01, VMW-04A, VMW-05, and VMW-06 is above Arizona Water Quality Standard
 - Former Viking SVE System coming April 2014



Upcoming Activities

- 24th Street and Grand Canal
 - Define groundwater plume (FY2014)
 - Groundwater monitoring well installation (10 Wells)
 - Draft Remedial Investigation Report (FY2014)
- 38th Street and Indian School Road
 - Define groundwater plume (FY2014)
 - Groundwater monitoring well installation (10 Wells)
 - Draft Remedial Investigation Report (FY2014)
- 40th Street and Indian School Road
 - Define groundwater plume (FY2014)
 - Groundwater monitoring well installation (10 Wells)
 - Draft Remedial Investigation Report (FY2014)
- 40th Street and Osborn Road
 - Define groundwater plume (FY2014)
 - Groundwater monitoring well installation (8 Wells)
 - Draft Remedial Investigation Report (FY2014)

Upcoming Activities

- 32nd Street and Indian School Road
 - Indoor Air Sampling (February 2014)
 - Soil Vapor Extraction Systems (SVEs)
 - Maroney's (FY2014)
 - Operation and Maintenance
 - Former Viking (FY2014)
 - Construction, Install and Startup
- 48th Street and Indian School Road
 - Indoor Air Sampling (February 2014)
 - Evaluating Soil Vapor Extraction Systems (SVEs) Option



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 Charise, with questions or suggestions
 - What do you want to know or learn?
- Keep attending CAB meetings!





East Central Phoenix

Questions?

Charise McNamara

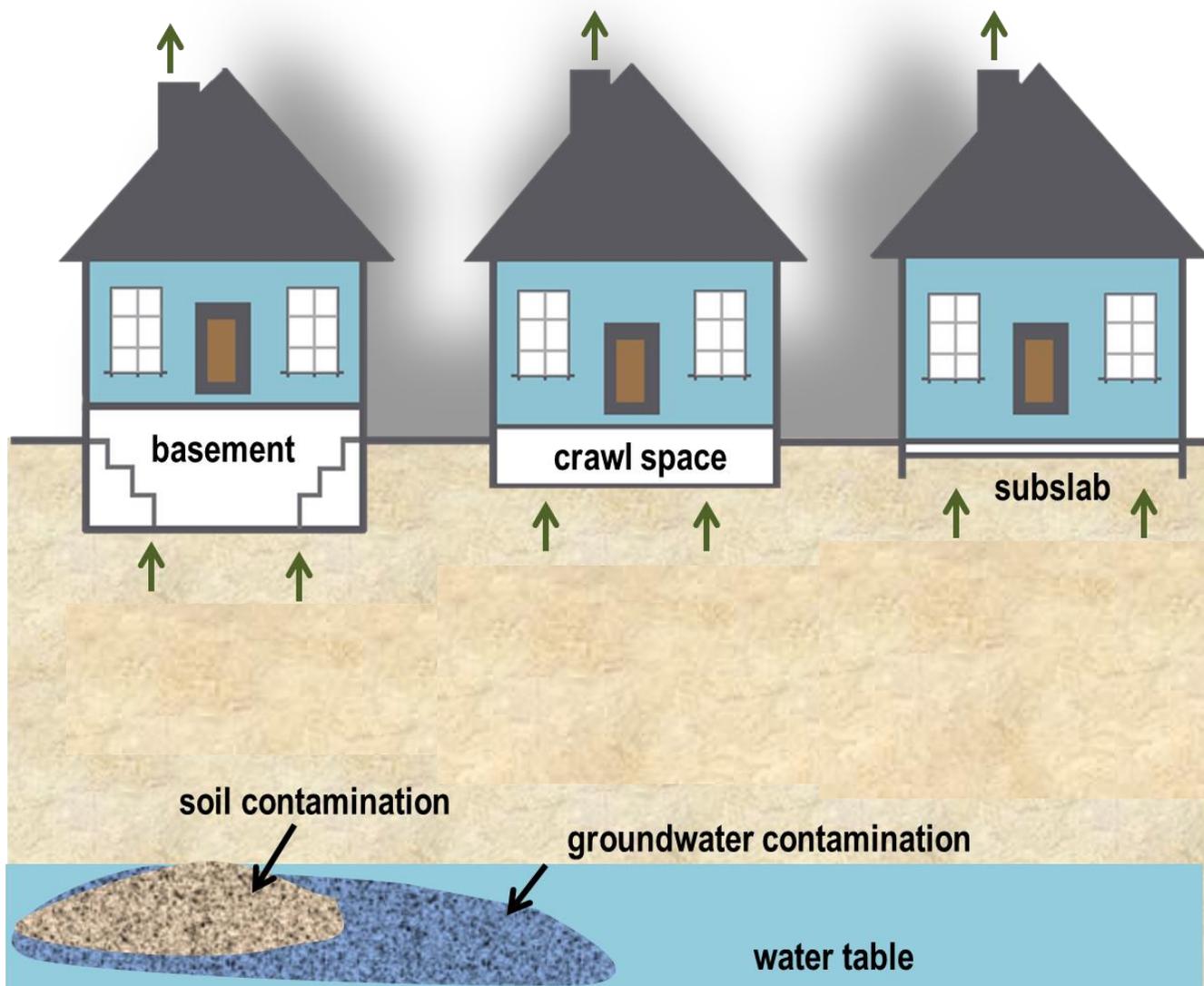
Project Manager

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cm12@azdeq.gov

Indoor Air Assessment Update

1. Timeline & Community Outreach
2. Vapor Intrusion
3. Soil Vapor Data
4. Indoor Air Assessment Take Away





Timeline & Community Outreach

- 2012: completed Phase 1 soil vapor sampling; Requested Governor approval to implement IAA
- February 2013: site-wide fact sheet (>27,000)
- July 2013: CAB meeting and targeted mailer (~350), developed IAA website
- August 2013: IAA Open House, Door-to-Door contact, Contacted HOAs, completed Phase 2 soil vapor sampling, completed Summer sampling event
- October 2013: Resident letters (325), follow-up IAA
- November 2013: Distribute results (100), kick-off Winter sampling event prep
- February 2014: Winter sampling event

Introduction

[Site-Wide Groundwater Plumes Map](#)

Site History and Background

- 32nd Street and Indian School Road
- 48th Street and Indian School Road

[Project Documents](#)

[Vapor Intrusion Information](#)

[List of Indoor Sources](#)

[Handouts / Brochures](#)

[Process Flow Chart](#)

[Indoor Air Sampling Process](#)

Community Meeting Information

- [ADEQ Event Calendar](#)
- [Meeting Agendas and Minutes](#)

[Frequently Asked Questions](#)

[Acronyms / Glossary](#)

[Contact Information](#)

East Central Phoenix WQARF Site Indoor Air Assessment

The Arizona Department of Environmental Quality (ADEQ) is conducting an indoor air assessment/vapor intrusion study of the ECP Water Quality Assurance Revolving Fund (WQARF) site. Vapor intrusion is the movement of volatile organic compounds (VOCs) from subsurface soil and groundwater into the indoor air of buildings.

East Central Phoenix WQARF Program

The WQARF program, which is also known as the state's superfund program, funds and manages the investigation and cleanup of contaminated sites across Arizona. The ECP WQARF Site includes six areas of groundwater contamination. Two of those areas are the subject of our current indoor air assessment study area. These are 32nd Street and Indian School Road and 48th Street and Indian School. The groundwater under the two study areas is located between 32 feet and 55 feet below ground surface and is not a source of drinking water for residents of this area.

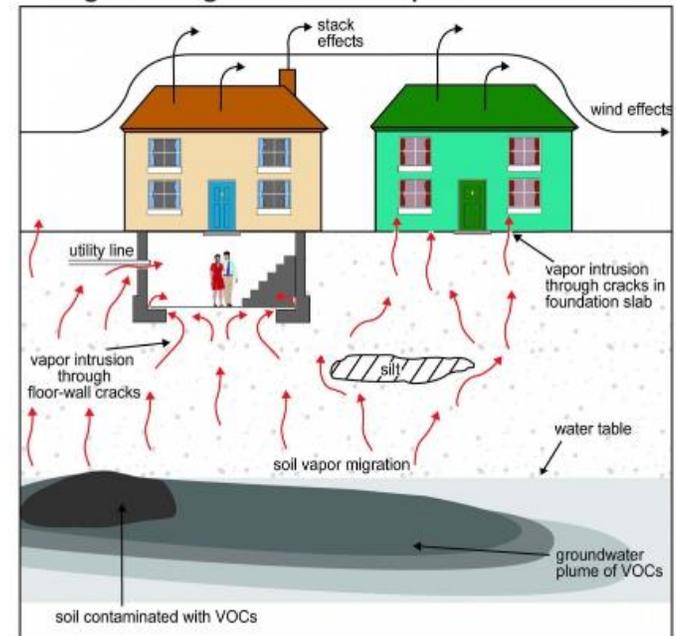
What are the Contaminants at the Site?

Currently the main contaminant of concern within the ECP WQARF Site is tetrachloroethene (also known as PCE). PCE is a solvent widely used for dry cleaning and metal degreasing. Contaminants of concern (COCs) at the site may change as new sampling information becomes available.

Soil Vapor Sampling and Vapor Intrusion/Indoor Air Assessment

Vapor intrusion can occur when vapors from contaminated soil and/or groundwater travel through soil and enters a home through small cracks in the foundation or areas where pipes enter the home for utilities. Atmospheric conditions and building ventilation are some factors that can influence vapor intrusion. This process is illustrated in Figure 1 to the right.

Figure 1. Migration of Soil Vapors to Indoor Air



This figure depicts the migration of volatile chemicals from contaminated soil and groundwater plumes into buildings. Volatile chemicals are shown to enter buildings through cracks in the foundation and openings for utility lines. Atmospheric conditions and building ventilation are shown to influence vapor intrusion.

Vapor Intrusion

Indoor and Ambient Sources

How do we test for VI?

Stainless Steel Summa® Canisters
Some Residences



Gas Tight Glass Syringe
Every Residence



Soil Vapor Data

● October 2013 Soil Vapor Sample Locations

● August 2013 Soil Vapor Sample Locations

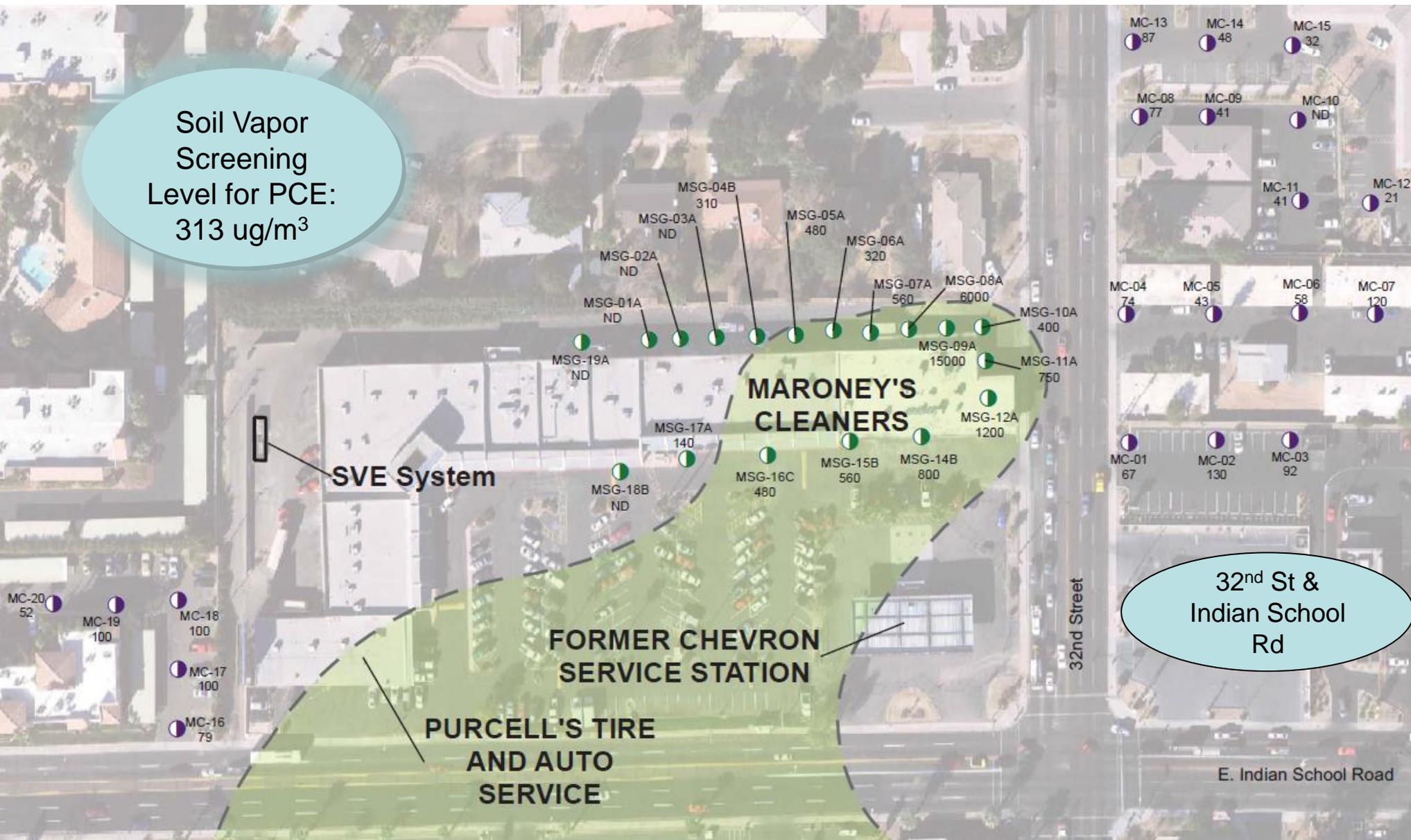
● Soil Vapor Sample Locations

MSG-16C — Sample location ID

480 — Maximum soil vapor PCE concentration (in $\mu\text{g}/\text{m}^3$)

■ Residential Soil Vapor Screening Level for PCE (Approximately $313 \mu\text{g}/\text{m}^3$)

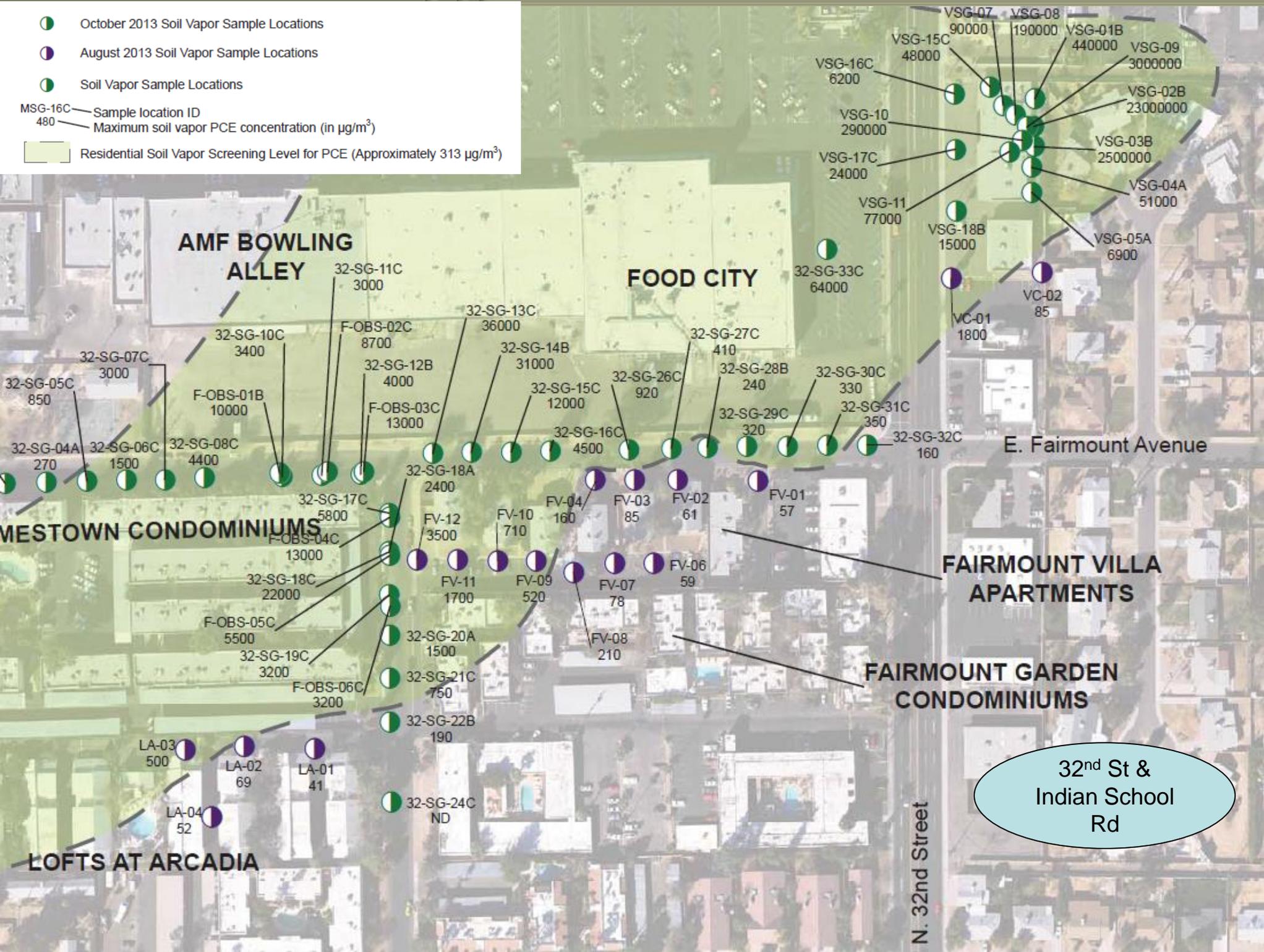
Soil Vapor Screening Level for PCE: $313 \mu\text{g}/\text{m}^3$



-  October 2013 Soil Vapor Sample Locations
-  August 2013 Soil Vapor Sample Locations
-  Soil Vapor Sample Locations

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AMF BOWLING ALLEY

FOOD CITY

MESTOWN CONDOMINIUMS

FAIRMOUNT VILLA APARTMENTS

FAIRMOUNT GARDEN CONDOMINIUMS

LOFTS AT ARCADIA

32nd St & Indian School Rd

N. 32nd Street

E. Fairmount Avenue

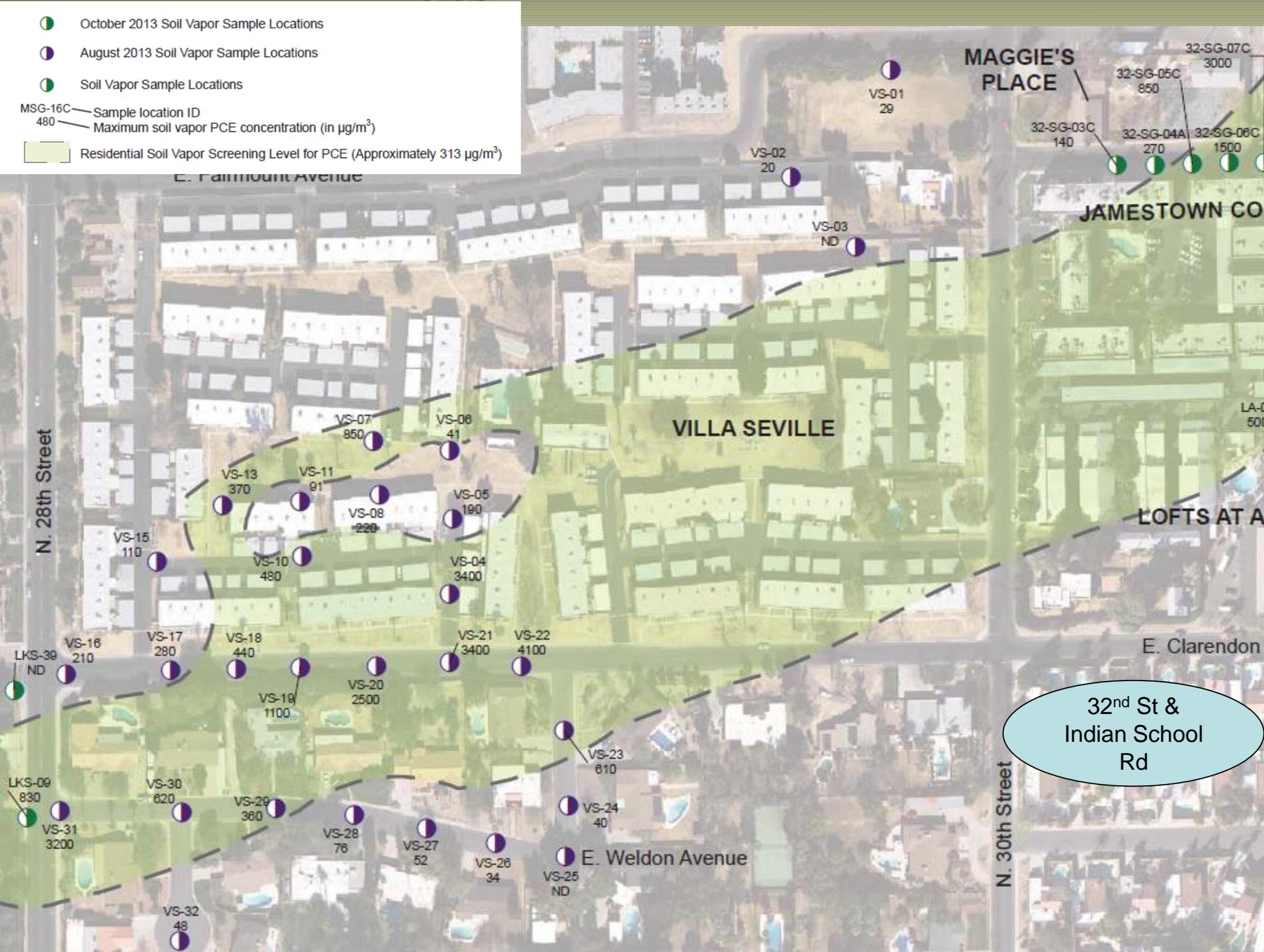
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- VSG-08 190000
- VSG-01B 440000
- VSG-09 3000000
- VSG-02B 23000000
- VSG-03B 2500000
- VSG-04A 51000
- VSG-05A 6900
- VSG-16C 6200
- VSG-10 290000
- VSG-17C 24000
- VSG-11 77000
- VSG-18B 15000
- VC-01 1800
- VC-02 85

- 32-SG-33C 64000
- 32-SG-11C 3000
- 32-SG-10C 3400
- 32-SG-07C 3000
- 32-SG-05C 850
- 32-SG-04A 270
- 32-SG-06C 1500
- 32-SG-08C 4400
- F-OBS-01B 10000
- F-OBS-02C 8700
- 32-SG-12B 4000
- F-OBS-03C 13000
- 32-SG-13C 36000
- 32-SG-14B 31000
- 32-SG-15C 12000
- 32-SG-16C 4500
- 32-SG-26C 920
- 32-SG-27C 410
- 32-SG-28B 240
- 32-SG-29C 320
- 32-SG-30C 330
- 32-SG-31C 350
- 32-SG-32C 160
- 32-SG-18A 2400
- 32-SG-17C 5800
- F-OBS-04C 13000
- 32-SG-18C 22000
- F-OBS-05C 5500
- 32-SG-19C 3200
- F-OBS-06C 3200
- 32-SG-20A 1500
- 32-SG-21C 750
- 32-SG-22B 190
- 32-SG-24C ND
- FV-12 3500
- FV-10 710
- FV-04 160
- FV-03 85
- FV-02 61
- FV-01 57
- FV-06 59
- FV-07 78
- FV-08 210
- FV-09 520
- FV-11 1700
- LA-03 500
- LA-02 69
- LA-01 41
- LA-04 52

- October 2013 Soil Vapor Sample Locations
- August 2013 Soil Vapor Sample Locations
- Soil Vapor Sample Locations

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Residential Soil Vapor Screening Level for PCE (Approximately $313 \mu\text{g}/\text{m}^3$)



Soil Vapor Data

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48th St & Indian School Rd

- ADEQ is actively removing contamination at source locations
- Sampled 100 residences out of ~325
 - Results held confidential – to be shared on an individual basis
- Summer Data Set – low vapor intrusion potential
- Winter Sampling Event – February 2014
 - Can we get 100% participation?
- How Can You Help??



East Central Phoenix VI Team

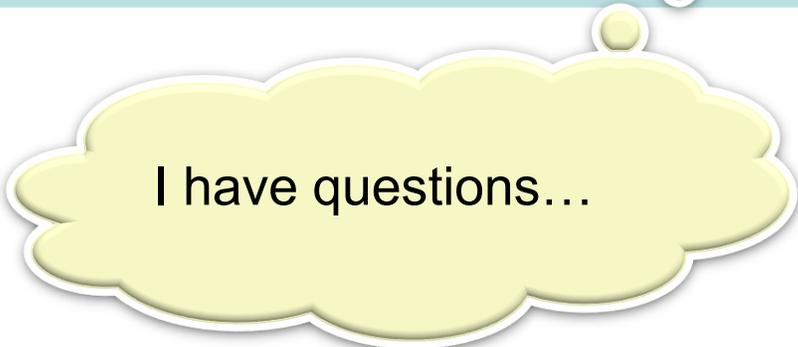
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I have questions...