

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

**Wednesday, July 17, 2013**

**6:00 p.m. to 8:00 p.m.**

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

**FINAL MINUTES**

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

ADEQ Staff in attendance: André Chiaradia, Project Manager, Remedial Projects Unit; Charise McNamara, Project Manager, Danielle Taber, Project Manager; Nichole Osuch, Project Manager and Wendy Flood, Community Involvement Coordinator (CIC)

Members of the public present: Kathy Hunter, Hargis + Associates, Inc; James Mathien; Alla Williamson, Ed Roads, Curtis Fallgren, Jacalyn Askin; Nathan Nelson, Jeff Trembly, Kara Young, and Ed Dubroski.

**Welcome and Introductions** – CIC called meeting to order. Introductions were made by CAB Members and audience.

**Accept and /or changes to the minutes of the October 2, 2012 CAB meeting:** Mr. Dahl moved to accept the minutes as written and Ms. Morris seconded the motion. All were in favor, and the motion was passed.

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

Ms. McNamara introduced herself as the new Project Manager for the site and gave a quarterly update. She covered the abbreviations and definitions used in her presentation; key Site personnel; State/Federal projects within “Central” Phoenix; a brief historic update on the ECP site; and ended with present and future activities at ECP.

**See attached slide presentation**

An audience member asked how property access is defined. ADEQ responded that if wells or testing locations are not in the public right-of-way, the agency is required to acquire access from businesses or private owners.

An audience member asked for clarification regarding the statement “Salt River Project (SRP) released ownership of their soil vapor extraction (SVE) system.” ADEQ responded SRP previously operated their own SVE system and groundwater monitoring wells behind Sandy’s Magic Touch Cleaners.

ADEQ negotiated with SRP last year to take over the SRP groundwater monitoring wells, enclosure and SVE system as it would not be large enough to handle the extraction after ADEQ tied-in the wells currently being constructed. It was reported because it was important to SRP that ADEQ took over the well registry with the Arizona Department of Water Resources (ADWR).

An audience member indicated there had been some activity in his area where someone drilled at least thirty places in the ground. Some of the work may not have been ADEQ. For the work that was, ADEQ explained the process of passive sampling which is another form of sampling for soil gas/soil vapor. ADEQ explained the process in more detail and stated that this process was done in 2008 and is still done at some sites but not at ECP.

An audience member asked why there were increased concentrations above the 5 ppb groundwater standard. ADEQ responded that a possibility could be from the source not being eliminated. The audience member then inquired about where they installed the SVE system based on the direction of the plume flow. ADEQ responded that the role of the SVE system is to remediate soil not groundwater, so it was installed at the source. ADEQ added it is more cost effective to extract soil vapor/gas than groundwater therefore going to the source. ADEQ also noted that downgradient the soil vapor concentrations are decreasing but the extent of the soil vapor hasn't been delineated in that area.

An audience member asked which treatment is being used for the pilot test at the 32<sup>nd</sup> Street site. The pilot treatment is for groundwater and slotted for fiscal year 2015; it is a pilot program because ADEQ has not decided on a final treatment plan. ADEQ further stated that the prior contractor had installed pilot test injection wells along Fairmount Avenue and 31<sup>st</sup> Street where they introduced biological degradation into the groundwater system. The new contractor will have a new perspective on the site and that information will be shared when determined.

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

Ms. Taber introduced herself and informed the public of her change in roles for the site. She gave an update on the upcoming targeted Vapor Intrusion (VI) testing, the process and the remedial actions that may follow. She also announced an upcoming community open house scheduled for Tuesday, August 13<sup>th</sup> starting at 6:00 p.m. which will be held at The Bridge – Aldersgate United Methodist Church to explain the process and timeline for gathering and analyzing data. ADEQ informed the CAB that the same consultant who is doing the sampling at ECP will also be giving a presentation of mitigation systems on Wednesday, July 24<sup>th</sup> at the Motorola 52<sup>nd</sup> Street CIG Meeting.

#### **See attached slide presentation**

A CAB member asked if the Johnson & Ettinger (J&E) model used to predict indoor air concentrations in residences and industrial buildings was also used for Radon testing. ADEQ responded no because the gases behave differently.

A CAB member asked if the mitigation is in place forever. ADEQ responded that in some cases it is, but probably not at this site. The plumes are smaller and narrow, and ADEQ is actively remediating by treating sources with SVE, and groundwater remediation will be implemented at the same time. A timeframe is not available because groundwater treatment pilot testing hasn't been completed and sampling hasn't occurred to identify the potential for contamination in people's homes.

An audience member asked if there is a trend based on the 540 soil vapor samples taken during Phase I. ADEQ responded that it is hard to share that data in this public forum due to privacy concerns. ADEQ indicated that if more information was needed he could call her directly to discuss it or she would be available to review the data with them one-on-one at the community meeting.

A CAB member asked what will happen in they find high concentrations in the indoor air screening. ADEQ responded that residences with 'high' concentrations will be mitigated, by the mini vacuum system, if they receive voluntary approval to do so.

An audience member asked if there was a less intrusive way to test. ADEQ explained the testing methods available. Another question asked was whether residential evacuation would occur with certain health risks. ADEQ responded that current data does not suggest such action or risk. ADEQ also understands that property value is also a concern for residents and wanted to reassure the public that the mitigation system is small, barely noticeable and attaches to the outside of the home. A CAB member pointed out that ADEQ discovered the issue and is addressing it and therefore should be looked at as a positive. ADEQ is removing and eliminating a risk, if there is even one. Information about the installation of the mitigation units will be at the community meeting.

An audience member asked if at the time SRP notified ADEQ of the presence of contaminants did if they were asked to stop pumping. ADEQ responded that SRP owns the water rights to the wells and that they determine pumping activity. SRP has an entire environmental department that deals with these issues and that the ADEQ does get notified and has a working relationship with SRP.

#### **CAB Co-Chair Voting –**

CAB member voted to keep the current co-chairs; Mr. Richard Siegel and Ms. Jolene Morris.

**CAB Roles and Responsibilities** – Wendy Flood, CIC - Ms. Flood reviewed the roles and responsibilities of being a board member, the time commitments involved, and the need for flexibility of new members' schedules allowing for attendance of scheduled meetings and events.

**Membership Discussion** – Mr. Siegel asked for a count of who applied and who was present. The board heard from the interested members in attendance and Ms. Flood indicated that there were three other applicants interested in becoming members of the board who were not in attendance. Mr. Siegel stated to those present that there is a bit of commitment and yet some flexibility regarding meetings to make this group work and wanted those present to understand. Wendy Flood let the board know that there could be between 5 and 15 members; current membership is five. Voting of new members was postponed until a future administrative meeting is held where the charter, membership numbers and roles have been established. Voting on the new members was tabled until the next quarterly meeting.

#### **Call to the Public**

An audience member asked if the J&E model had been demonstrated in heavily irrigated communities. ADEQ responded that the current model is simplistic and does not really address transport. ADEQ does not recall if soil moisture is a component in the current model and that soil vapor transports regardless of soil moisture. ADEQ also indicated that this question may be addressed in the upcoming community meeting and will have the answer at next meeting. A public member stated they enjoyed hearing what all the applicants had to offer the group.

Ms. Flood also stated even if you are not voted on the board to please still come to the meeting, these meeting are for the benefit of the community and to share and gather information.

### **Future Meeting / Agenda Discussion**

The next meeting will be an administrative meeting only to address membership and charter changes. No site updates will be given. That meeting is scheduled for Wednesday, September 4th beginning at 5:30 p.m. at The Bridge – Aldersgate United Methodist Church. The Board may decide to go into a executive session to discuss membership.

#### *Agenda items for upcoming CAB meetings:*

1. Review of Administrative meeting to review charter related to executive session, membership numbers and alternate.
2. CAB membership applications and voting in of new members.
3. Discuss groundwater treatment options and the WQARF Process.
4. Check to see if the Johnson & Ettinger model has a soil moisture component to address heavily irrigated communities.
5. Site update.

### **Adjournment**

Ms. Morris motions to adjourn and Ms. Ruffalo seconds the motion. Meeting adjourned.



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

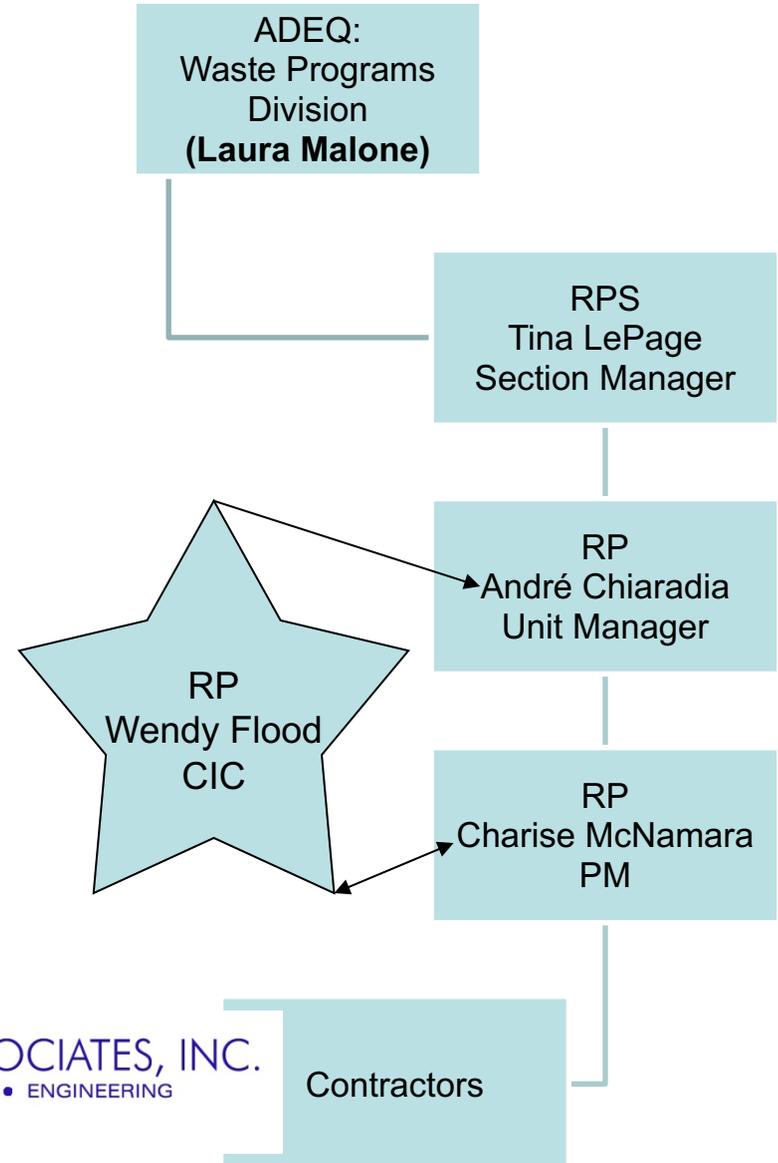
**Community Advisory Board  
Meeting**

**July 17, 2013**

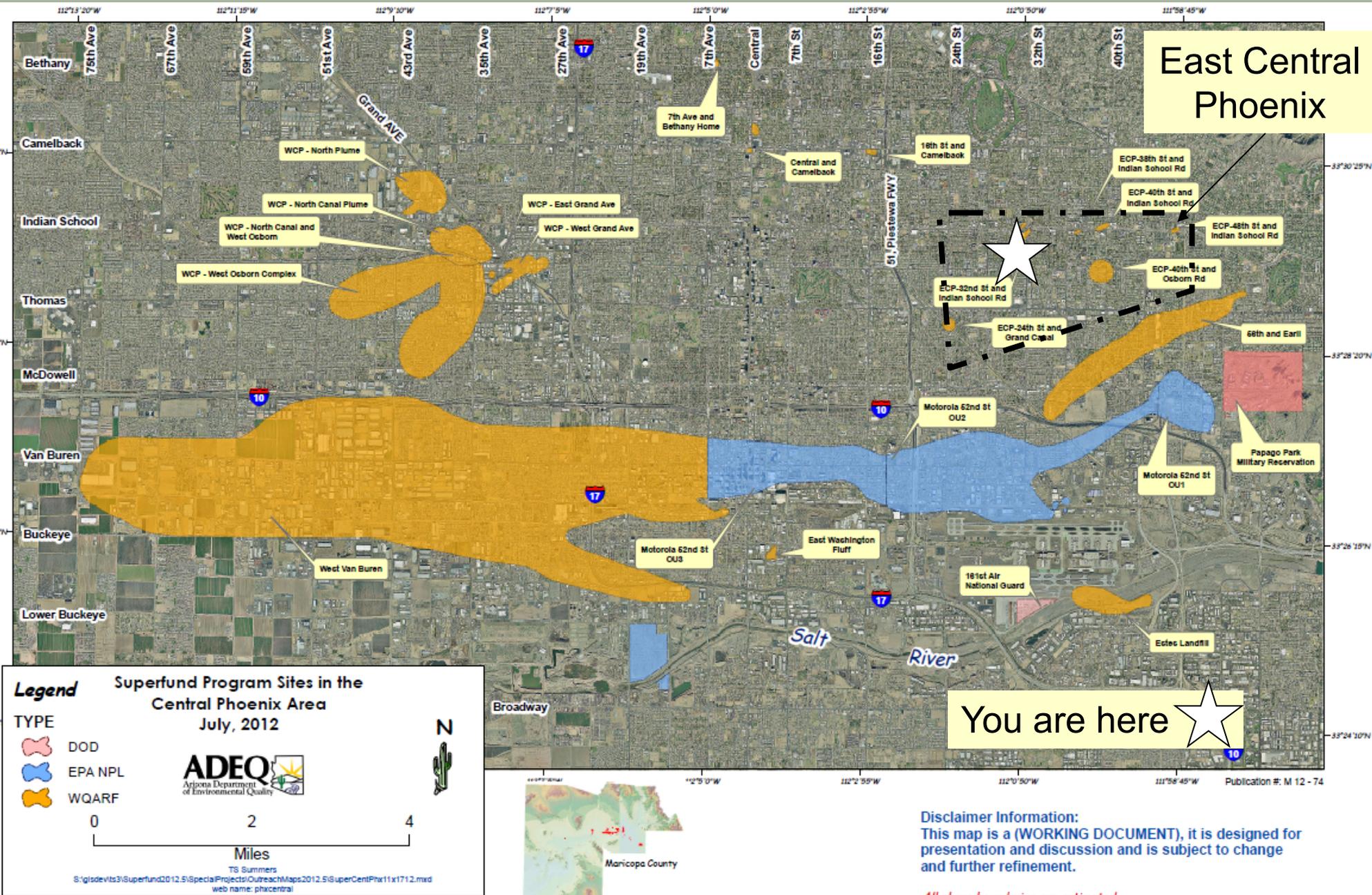
- Abbreviations/Definitions – See Handout
- Introductions
- WQARF Site Update
  - State/Federal Projects within “Central” Phoenix
  - East Central Phoenix
    - Refresher
    - Recent Activities
    - Upcoming Activities
- Take Away
- Questions

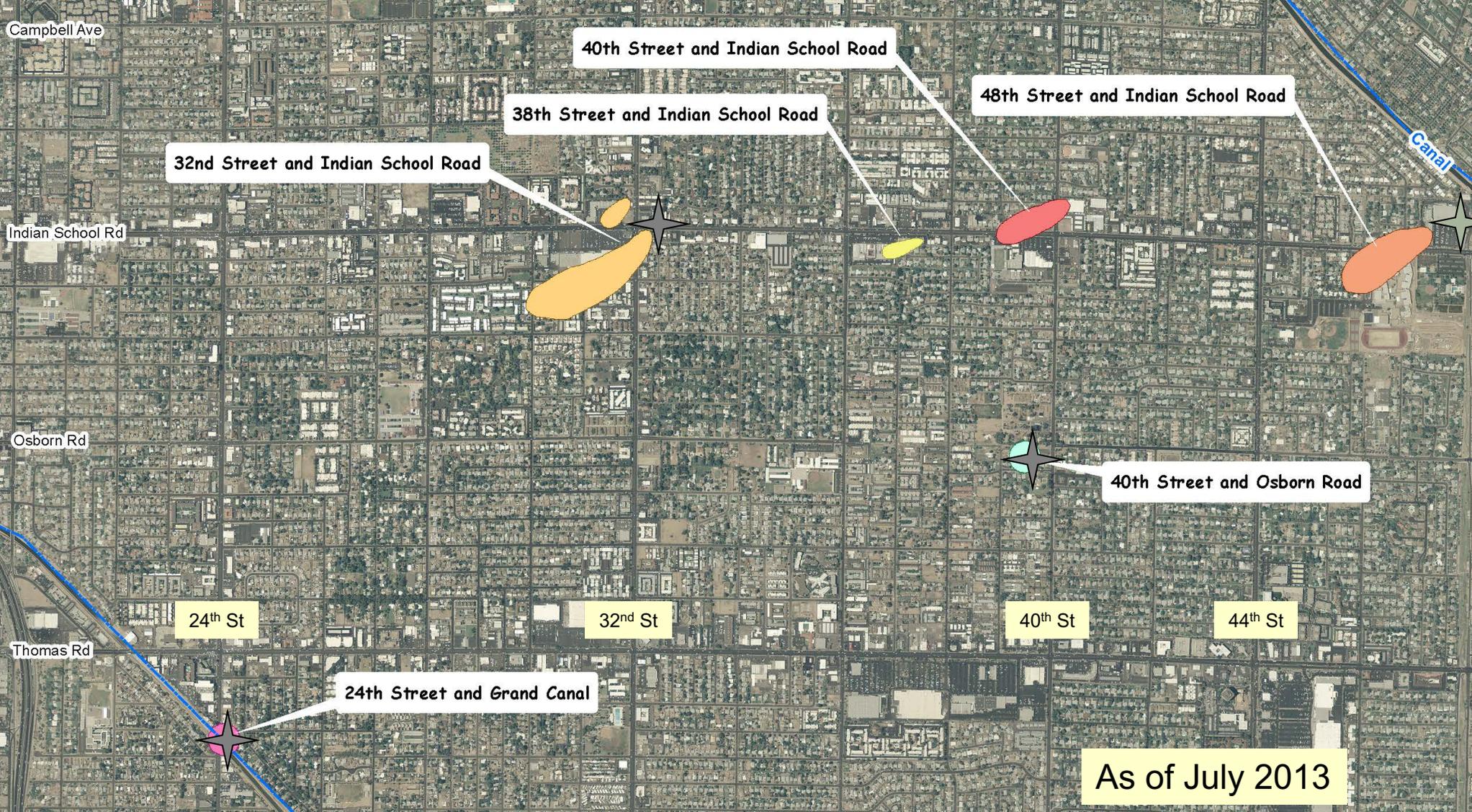


- **ADEQ Personnel**
  - Remedial Projects Section
    - Charise McNamara, PM
    - Wendy Flood, CIC
    - André Chiaradia, Unit Manager
    - Tina LePage, Section Manager
  
- **ADEQ Contractor(s)**
  - Hargis + Associates



# State and Federal Superfund Sites





**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

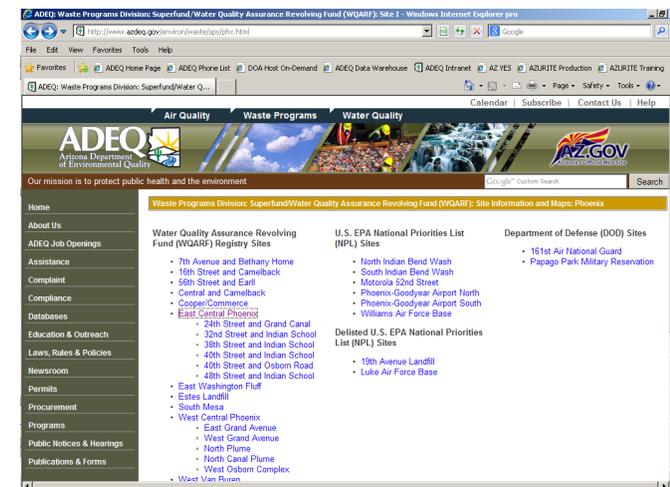
  
 Location of SRP wells



# A Little History

- ECP was placed on the WQARF Registry list in 1987
  - SRP reported groundwater contamination in three wells ✦
  - **PCE** is the main contaminant of concern
  - **TCE and BTEX** is also present at the former Viking Cleaners
    - (32<sup>nd</sup> Street and Indian School Road)
- The **ECP CAB** was formed in November 2007
- Additional historic information, previous agendas, and meeting minutes can be found here:

- <http://www.azdeq.gov/environ/waste/sps/reg.html>
- AND
- <http://www.azdeq.gov/environ/waste/sps/phx.html>



## Activities from February 21, 2012 to March 6, 2013

- 32nd Street and Indian School Road
  - Overall
    - Groundwater sampling
    - Cone Penetrometer Testing (CPT)
    - Soil gas/vapor sampling
  - Maroney's Study Area
    - SVE well install
    - SVE system construction
  - Former Viking Study Area
    - SVE well install
  - Fairmont Avenue Study Area
    - SVE well install
    - Groundwater monitor well install
    - Groundwater remediation well install
  - Property Access
- 48th Street and Indian School Road
  - Overall
    - Groundwater sampling
    - CPT
    - Soil gas/vapor sampling
  - Groundwater Monitor Well Install
  - SVE System
    - SVE well install
    - SVE pilot test
    - Ownership transfer
  - Property Access

## Activities Since Last CAB Meeting on March 6, 2013

- 32nd Street and Indian School Road
  - Updated HASP
  - Property Access: 3 more (7 more in progress)
  - Soil Vapor Extraction Systems (SVEs):
    - Maroney's SVE System Startup
    - Former Viking
- 48th Street and Indian School Road
  - Property Access: 2 more (5 more in progress)
  - SVE design



# 24th Street and Grand Canal

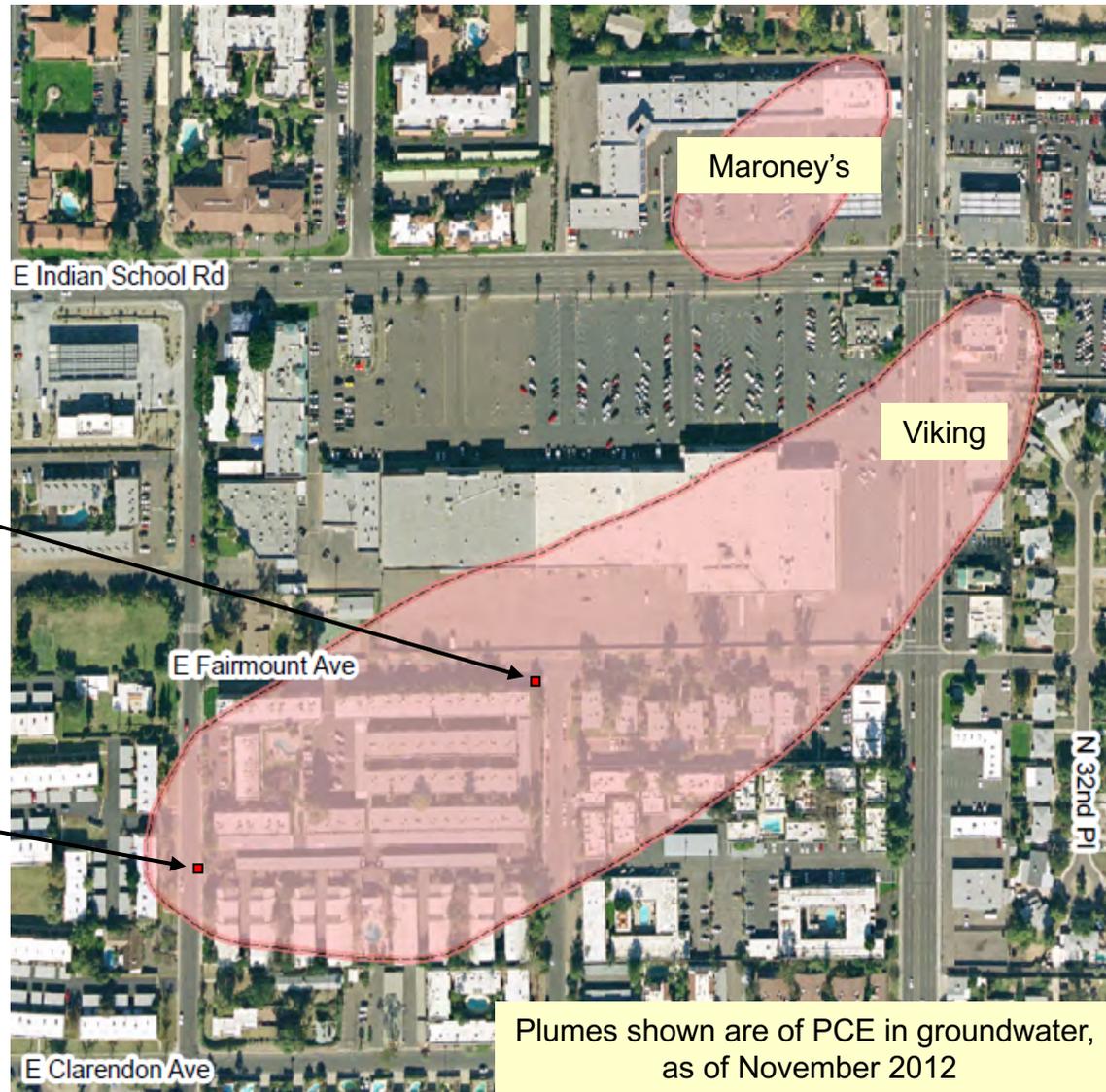
- CVS location was historically a cleaner and print shop
- Groundwater Characteristics:
  - ~85 feet below grade
  - Flow is to the south/southwest
  - AS-1
    - 170 ppb PCE (2008)
  - SRP well
    - 3.2 ppb PCE (1985)
    - 12 ppb PCE (2008)
  - PCE plumes are still undefined



Plumes shown are of PCE in groundwater,  
as of 2008

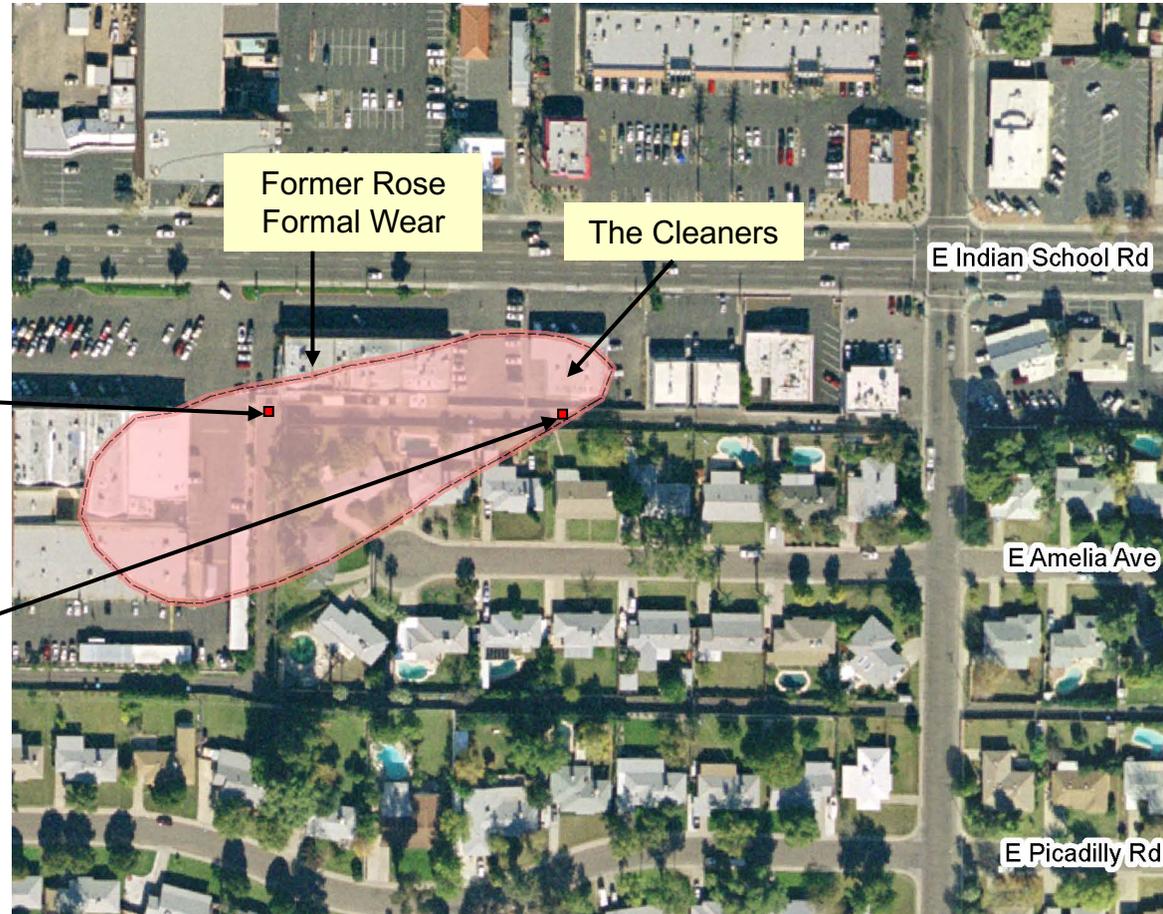
# 32nd Street and Indian School Road

- Groundwater Characteristics:
  - ~55 feet below grade
  - Flow is to the south/southwest
  - <1.0 to 890 ppb PCE
    - (VCMW-4A, 4/2012)
  - Two separate groundwater contaminant plumes
  - New well:
    - VCMW-6-61: 140 ppb
    - VCMW-6-68: 140 ppb
    - VCMW-6-78: 196 ppb
  - PCE plumes are still undefined downgradient



# 38th Street and Indian School Road

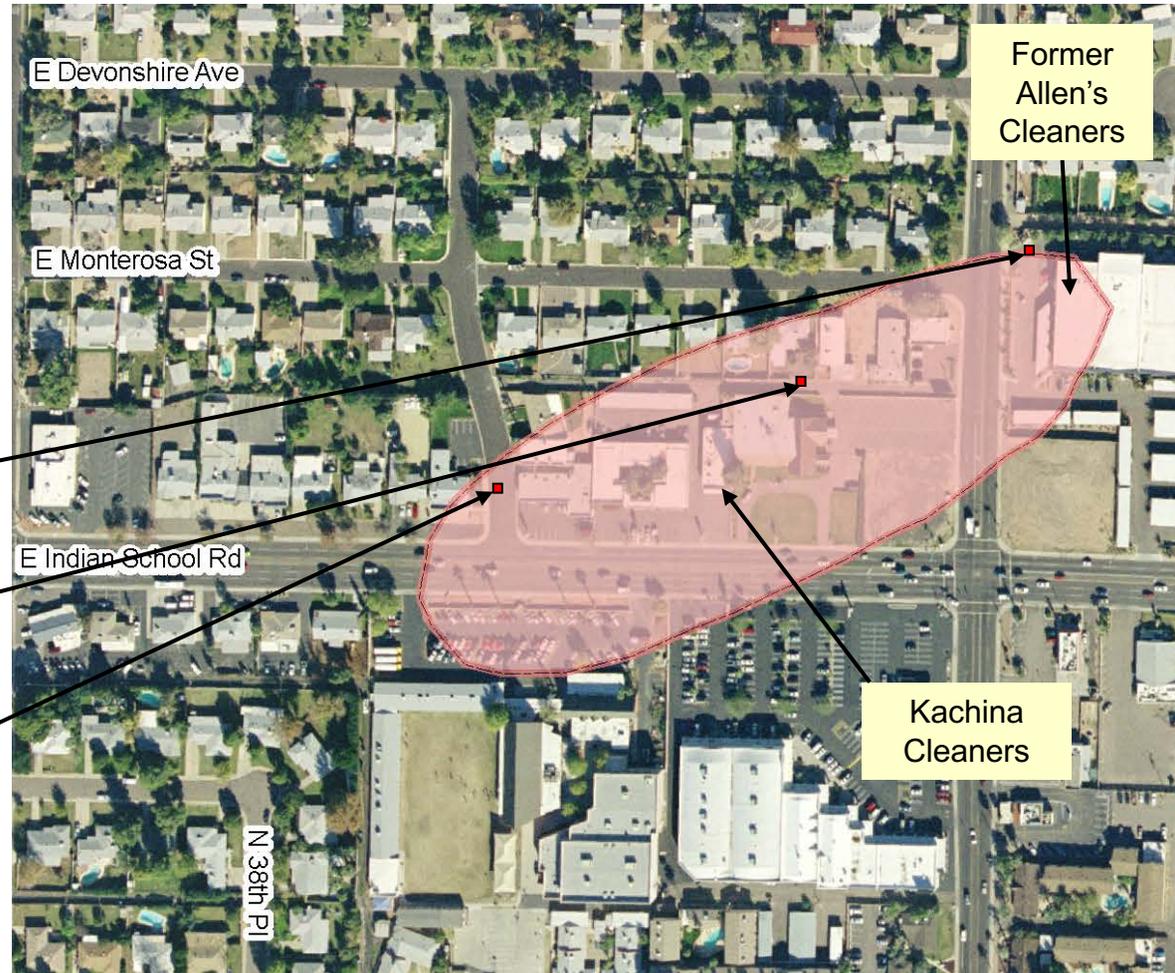
- Groundwater Characteristics:
  - ~45 feet below grade
  - Flow is to the south/southwest
  - RMW-1
    - 350 ppb PCE (1992)
    - 2,500 ppb PCE (1998)
    - 37 ppb PCE (2008)
  - CMW-1
    - 34,000 ppb PCE (1994)
    - <1.0 ppb PCE (2008)
  - PCE plumes are still undefined downgradient



Plumes shown are of PCE in groundwater, as of 2008

# 40th Street and Indian School Road

- Groundwater Characteristics:
  - ~41 feet below grade
  - Flow is to the south/southwest
  - AMW5
    - 54 ppb PCE (2007)
  - AMW8
    - 78 ppb PCE (2007)
  - AMW-9A
    - 30-62 ppb PCE (2008)
  - PCE plumes are still undefined downgradient



Plumes shown are of PCE in groundwater,  
as of 2008

# 40th Street and Osborn Road

- Groundwater Characteristics:
  - ~32 feet below grade
  - Flow is to the south/southwest
  - BMW-1B
    - <1.0-2.4 ppb PCE (2008)
  - SRP Well
    - 15 ppb PCE
  - PCE plumes are still undefined



Plumes shown are of PCE in groundwater,  
as of 2008

# 48th Street and Indian School Road

- Groundwater Characteristics:
  - ~33 feet below grade
  - Flow is to the southwest
  - <1.0 ppb to 1,100 ppb
    - (SMW-3-60, 4/2012)
  - New well:
    - SMW-6-32: 4.6 ppb
    - SMW-6-60: 2.8 ppb
  - One groundwater contaminant plume
  - PCE plume is still undefined downgradient
  - Appears to be very narrow



Plume shown is of PCE in groundwater,  
as of November 2012

# Upcoming Activities

- 32nd Street and Indian School Road

- Property Access: 7 more in progress
- Groundwater
  - Define Plume (FY2014)
  - Treatment Pilot (~FY2015)
- Soil Vapor
  - Extraction Systems (SVEs)
    - Maroney's (FY2014)
      - » Operation and Maintenance
    - Former Viking (FY2014)
      - » Construction, Install and Startup
  - Continue soil vapor characterization

- 48th Street and Indian School Road

- Property Access: 5 more in progress
- Groundwater
  - Define Plume (FY2014)
- Soil Vapor
  - SVE
    - Design, Construction, Install (FY2014)
  - Continue soil vapor characterization

# Upcoming Activities

- 24th Street and Grand Canal
  - Re-start remedial investigations (FY2014)
  - Groundwater
    - Define Plume (FY2014)
- 40th Street and Indian School Road
  - Re-start remedial investigations (FY2014)
  - Groundwater
    - Define Plume (FY2014)
- 38th Street and Indian School Road
  - Re-start remedial investigations (FY2014)
  - Groundwater
    - Define Plume (FY2014)
- 40th Street and Osborn Road
  - Re-start remedial investigations (FY2014)
  - Groundwater
    - Define Plume (FY2014)

## 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?
  - What do you want to visit?
- Keep attending CAB meetings!





# East Central Phoenix

## Questions?

Charise McNamara

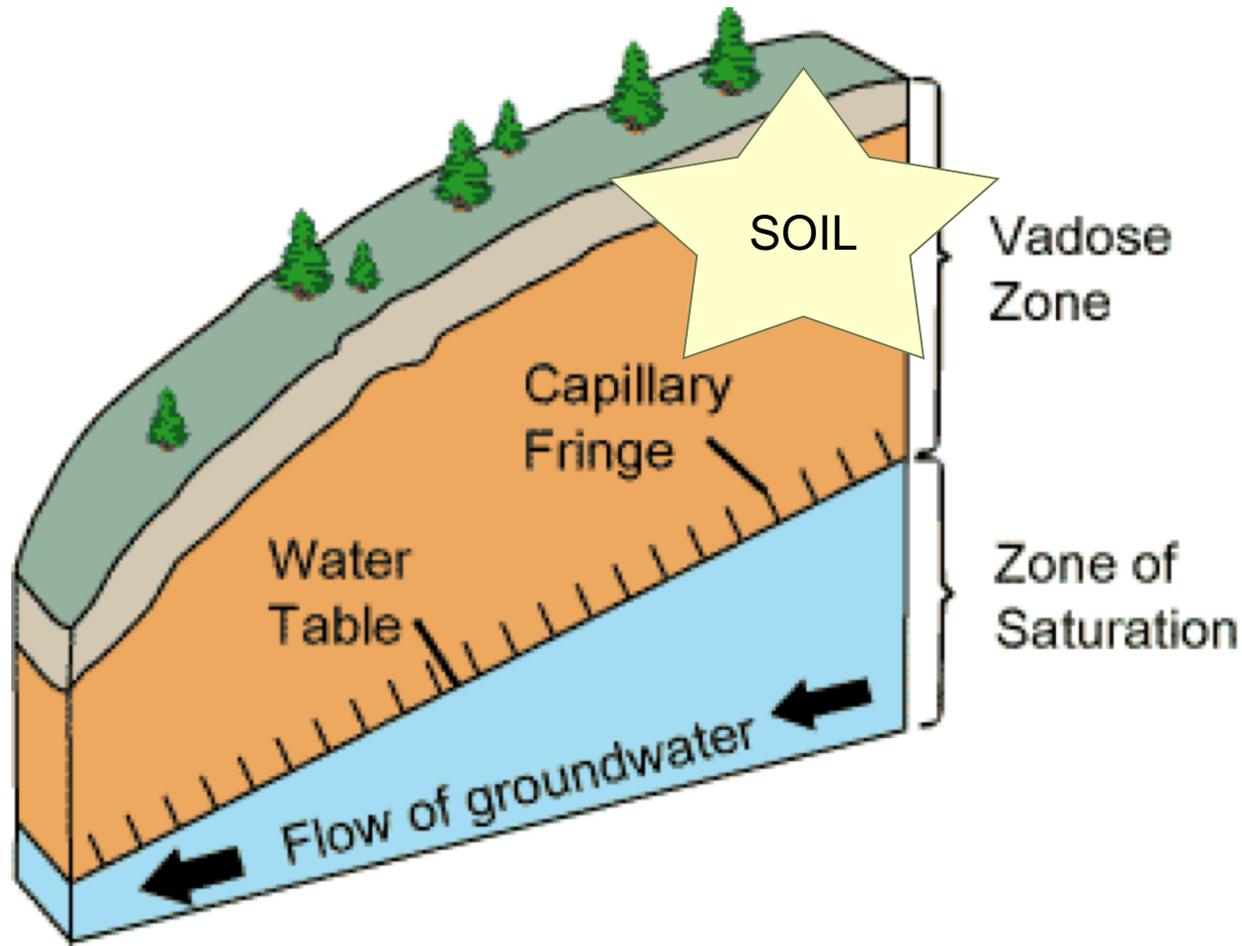
Project Manager

(602) 771-6890

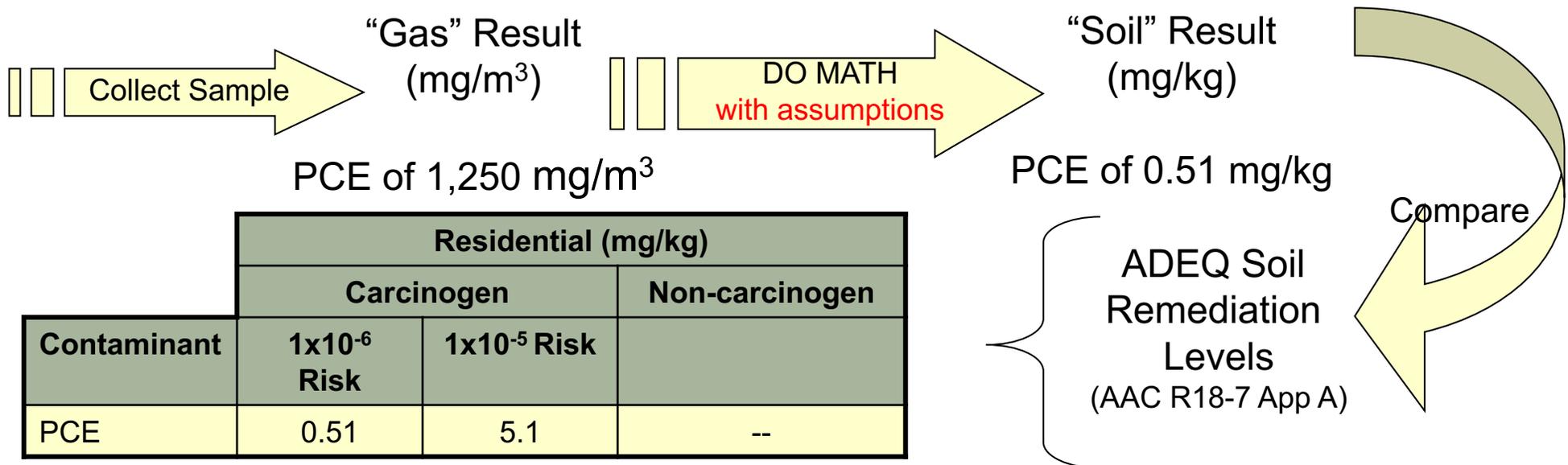
[cm12@azdeq.gov](mailto:cm12@azdeq.gov)

# Refresher - Soil Vapor

- What's Soil?
  - ADEQ says “all earthen materials, including moisture and pore space contained within earthen material, located between the land surface and groundwater including sediments and unconsolidated accumulations produced by the physical and chemical disintegration of rocks.” (ARS R18-7-201 #41)



- Now, What's Soil Vapor?
  - “Gaseous elements and compounds that occur in the small spaces between soil particles...”
- How does ADEQ use these definitions?
  - “Soil vapor concentration may be used to estimate the total contaminant concentration in soil...”



# Refresher - Soil Vapor

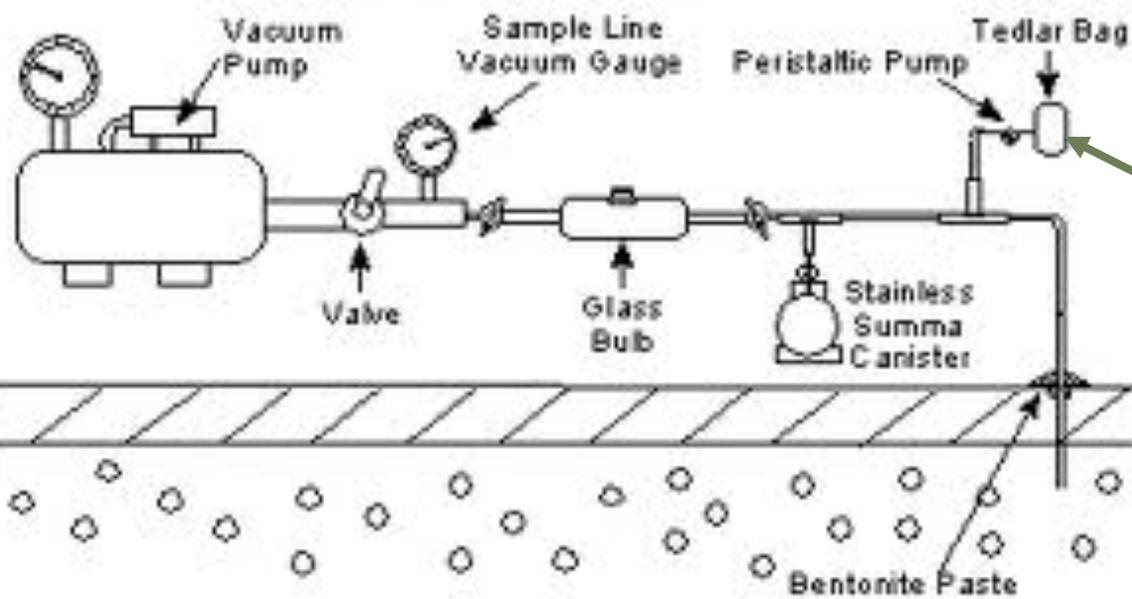


Gas Tight Glass Syringe

Stainless Steel Summa® Canisters



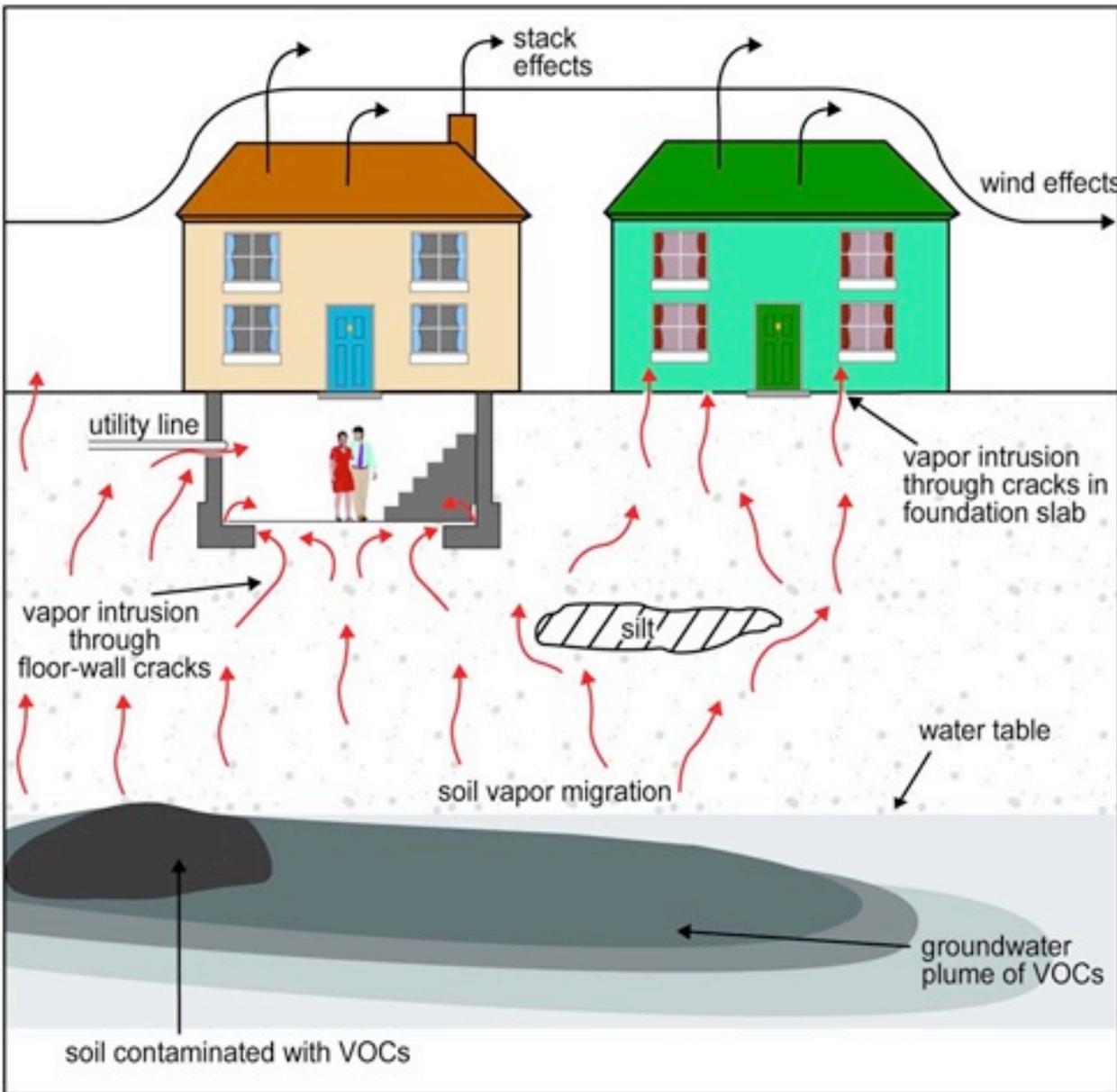
## Soil Gas Purging & Sampling Techniques



Tedlar® Bags



# Vapor Intrusion



EPA definition:

**Vapor intrusion** is defined as vapor-phase migration of volatile organic compounds or volatile inorganic compounds into occupied buildings from underlying contaminated groundwater or soil.

- Is the VI Pathway Complete?
  - Multiple Lines of Evidence
    - Groundwater
    - Soil Vapor Sampling – Phase 1
    - EPA’s [Johnson & Ettinger](#) ‘model’
  - Get Governor Approval – check!
  - Next Steps:
    - Targeted Mailer
    - Finalize work plan
    - Go door to door for education and access
    - Targeted Community Open House on 8/13
    - Phase I “Summer” Indoor Air Assessment begins 8/19
      - 32nd Street and Indian School Road
      - 48th Street and Indian School Road
    - Phase I “Winter” Indoor Air Assessment
      - Schedule to be determined

