

OU #12-043

**PHOENIX-GOODYEAR AIRPORT (PGA) AREA/WESTERN AVENUE (WA) PLUME  
COMMUNITY ADVISORY GROUP (CAG) MEETING**

**Thursday, May 3, 2012, from 6:00 p.m. - 8:30 p.m.  
Goodyear City Hall, Room 117  
190 N. Litchfield Rd., Goodyear, AZ 85338**

**DRAFT MINUTES**

**CAG Members in Attendance:**

Frank Scott  
Diane Krone  
David Ellis  
Michael Barbetta  
Earl Smith  
Jeff Raible

**ADEQ Facilitator:**

Marty Rozelle

**ADEQ Staff in Attendance:**

Tina LePage, Remedial Projects Section Manager  
Harry R. Hendler, Federal Projects Unit Manager  
Delfina Olivarez, Western Avenue Project Manager  
Joellen Meitl, Hydrologist  
Travis Barnum, Project Manager  
Felicia Calderon, Community Involvement Coordinator (CIC)

**EPA Staff in Attendance:**

Viola Cooper, CIC

**Others in Attendance:**

Ivy Green, ECO Intern; Perla Islas; Jerry Postema, City of Goodyear Public Works; Harry Brenton, Matrix New World Engineering; Stephanie Lyn Koehne, AMEC Geomatrix Inc; Jeff Little, Brown & Caldwell; Dennis Maslonkowski, TRC; Jeff Sussman, Goodyear Tire & Rubber Company; Jim Creedon, Crane Company for City of Litchfield Park; Tom Suriano, Clear Creek Association; Nancy Nesky, ITSI EPA Consultant; Sandra Rode, City of Goodyear; Randy McElroy, ECO/TA; Karl Havlicek, CAG alternate; Jose Canales; Zulema Miranda; Brian Waggle, Hargis + Associates; David Ramirez; Mary Moore; Gary Genlzer, City of Goodyear; Maria Coruna, Armando Islas, City of Avondale; Ron Clark, Goodyear Tire & Rubber Company; Mario Saldamando, City of Goodyear; Dennis Maslonkowski, TRC; A.D. Pantaleoni, Crane Co.; Giovanna Garcia; Sandra Rode, City of Goodyear; Mike Long Hargis + Associates; Pamela Bir; Laurie Pretzman and Maria Corona.

## **1. Call to Order / Introductions – Frank Scott, CAG Co-chair**

Mr. Scott called the meeting to order and introduced Ms. Rozelle as the facilitator for the meeting. Ms. Calderon introduced Ms. Rozelle to the process and explained that the ADEQ and other board members thought that it was imperative to bring on a facilitator due to the activities of the February CAG meeting. Ms. Calderon added that the goal is to ensure that future meetings are beneficial and productive for all CAG members. Ms. Calderon added that the facilitator could help us as a group to navigate through areas of misunderstandings and stress. Ms. Calderon stated that facilitators on advisory boards are not uncommon and that ADEQ is currently working with Ms. Rozelle at the Motorola 52<sup>nd</sup> St. Superfund Site. Ms. Rozelle gave her review of the themes and items learned from talking with most of the CAG members. Ms. Rozelle discussed the mechanics of the meetings and asked microphones be used by all during the meeting in order to ensure a complete and accurate recording of the meeting. Ms. Rozelle reviewed the following items which were agreed upon at the meeting: 1) there should only be one speaker at a time 2) be courteous and respectful, no side conversations 3) focus your points and try to keep them brief and to the point 4) come prepared 5) be conscious of the time 6) for speakers, when speaking, introduce themselves and their affiliation prior to doing so 7) when using acronyms say it out the first time and then use the acronym for the balance of the meeting and lastly 8) announce and speak loud and clear, not only for the recording but for those who are hard of hearing. Ms. Rozelle stated that these items applied to the public and audience as well.

Mr. Scott asked for questions or comments from the CAG. Ms. Krone stated that she totally agreed with what was said by Ms. Rozelle but corrected the number of meetings to two rather than three that were slightly contentious. Ms. Krone acknowledged and apologized for her role in those situations due to disagreements prior to the second to the last meeting that was still not rectified by the next one. Ms. Krone stated that there were some legitimate reasons to address the issue but that her reaction at the meeting was not appropriate, and added that she did not regret stopping the meeting as she did not feel she had initiated the discussion that prompted that.

Mr. Scott stated that after his communications with Ms. Krone, Mr. Raible, Ms. Calderon and Ms. Rozelle he felt that he should give the facilitator a try. Mr. Ellis agreed with Mr. Scott and he expressed concerns that the facilitator might eventually usurp the roles and the authority and the responsibilities that goes with being either chairman or co-chairman but, like Mr. Scott, he would be open minded. Ms. Krone indicated that she didn't feel that the facilitator was imperative, as Ms. Calderon had indicated. Ms. Krone stated that she felt that the board had done a pretty good job over the years of handling of the CAG and the business. Ms. Krone went on to state that she wasn't on board with having the facilitator but would wait to see what happens as she felt very strongly like Mr. Raible in his statement that the CAG is a community action group and it should be handled by the committee. Ms. Krone went on to say that she felt that before this action was initiated the board should have voted and had a voice rather than after the fact. Ms. Calderon said that she was sorry that Ms. Krone felt that way and that she understood her concerns and hoped that the board would give Ms. Rozelle a try. Ms. Krone responded that sometimes good things come from situations as this and that maybe this is what was needed, though maybe it isn't and time would tell.

### **3. Acceptance and/or changes to minutes of February 9, 2012 -Frank Scott, CAG Co-chair**

Mr. Raible stated that he had a couple of corrections on the February minutes. Mr. Raible stated that on page three, which it reads “Mr. Raible suggested that it might be beneficial to have technical meetings and tours quarterly, annual or semi-annually.” Mr. Raible stated that he believed the intent of his conversation was to integrate tours with their quarterly meetings, so that they have tours as frequently as quarterly. Mr. Raible requested another change on page seven, middle paragraph, starting with “Mr. Raible asked about the Source Area Focused Feasibility Study,” and at the end comment of “Mr. Raible stated the he realized it would take some time, but there is no commitment on those timelines.” Mr. Raible wanted to amend the meeting minutes to indicate a more defined timeline for the completion for the Feasibility Study and that his intent was to get a better sense of the overall timeline on the study. Ms. Calderon reviewed a few corrections that Ms. Krone has brought to her attention; first a correction on page seven, the third paragraph, beginning “Mr. Raible stated his concern.” Ms. Calderon stated that she spoke with Mr. Brenton and he identified the well as MW-10C. Ms. Calderon continued to the second correction beginning, “Mr. Brenton replied that this is related to samples that were put in.” Ms. Calderon indicated that clarification was needed and that Mr. Brenton changed it to read “that they put in more monitoring wells throughout the plume area.” Ms. Calderon went on to say that Mr. Brenton also added a clarification in the next sentence beginning “the contamination has more likely been there for a while. We just found it. With the continued installation of the ground water monitoring wells we were able to further define extent of contamination.” Ms. Calderon moved to the third requested clarification asked by Ms. Krone on page eight, with regard to sample concentration. Ms. Koehne confirmed her statement of “with any sample concentrations there can be up to 30% variability.” Mr. Ellis indicated that on page eight, that Ms. Brown was shown as Mr. and Mr. Raible indicated that Ms. Amos was also listed as Mr. Mr. Ellis also indicated he wanted a change made on his comments from the August meeting, on page two, from in spirit to in totality.

Mr. Scott moved for a motion to accept the minutes of the February meeting. Mr. Raible moved to accept the minutes as corrected per member comments. Mr. Ellis seconded the motion and the motion carried unanimously.

### **4. CAG business to include: Co-chair voting, and discussion of Community Involvement activities –Frank Scott, CAG Co-chair**

Mr. Scott moved to the next action item of annual elections for Co-chairs. Mr. Ellis nominated Mr. Raible. Mr. Scott made the second and asked for a vote and the motion was carried unanimously. Ms. Krone nominated Mr. Scott. Mr. Smith seconded the nomination and the motion was carried unanimously.

Ms. Viola Cooper stated that the Community Involvement Plan is currently in draft format and it is in EPA and ADEQ management review. Ms. Cooper indicated they hoped to have something for the Group to review by the next CAG meeting in August. Ms. Cooper confirmed that the PGA South tour was scheduled for Saturday, June 9th at 9:00 am and 11:00 am.

Mr. Barnum updated the committee on the presentation at the Pebble Creek HOA meeting indicating he thought it went well. Mr. Raible asked Mr. Barnum about the number of attendees at the Pebble Creek HOA meeting. Ms Cooper responded that there were about 35 attendees. Mr. Raible asked if the EPA was invited or whether they interjected themselves into the meeting. Mr. Barnum indicated that the HOA reached out to the EPA and asked them to be present and give an update on what was going on and how their specific area was being impacted. Mr. Raible asked if they took advantage of the TAG presentation and Ms. Cooper responded, no that they used information the EPA had. Mr. Barnum went on to say that the proposed CAG technical meeting discussed last quarter was still in place but that he wanted to confirm that the Group still wanted to have it occur. Mr. Barnum indicated that since it wasn't on the agenda as an action item to vote he would work with Ms. Calderon to get member feedback via email after the meeting. Mr. Barnum added that ADEQ had drafted an outline for the technical meeting based off of previous CAG member feedback from February.

Mr. Postema thanked the CAG, Tina LePage and her staff for their prompt response in getting the latest sampling results on the City of Goodyear well number 1 (COG 1). Mr. Postema thanked the staff of PGA North and PGA South for providing the tours for the mayor and council. Ms. Krone thanked Mr. Postema for giving CAG members an update on the sampling results of the Goodyear well.

#### **5. Technical Assistance Grant (TAG) Report- Randy McElroy, Environmental Community Outreach Association (ECO)**

Mr. McElroy indicated that flyers for PGA North and PGA South were produced. Mr. McElroy stated that the TAG has enlisted local companies that put out for quarterly magazines. Mr. McElroy stated that they have written small introductory articles on site activities for magazines primarily focused on Palm Valley, Estrella Mountain, Litchfield and Pebble Creek communities with approximately 52,000 people and mailings should be going out within a month. Mr. McElroy indicated that after the PGA South site tour pictures and information that was received from Mr. Sussman were incorporated into a longer PowerPoint document that will also be made available to the CAG. Mr. Raible asked about the presentation being in PDF format and if that was the only format it comes in. Mr. McElroy responded that the presentation was prepared in PowerPoint and he thought that it was uploaded as such. However, Mr. McElroy stated the meetings they were planning on attending would most likely be a read only PowerPoint and posted as such on the ECO site. Mr. McElroy indicated that the TAG is still waiting to acquire pictures from as far back as 1980. Mr. Raible commented that PDFs are not typically editable and that the PowerPoint was a locked document but he understood that the document was created as a comprehensive document from which members could pull sections if needed. Mr. McElroy responded that was correct and that the locked versions would be more for quick information guides at a HOA meeting for example. Mr. McElroy added that the TAG had been invited to Agency technical meetings for the north and south sites.

Mr. Scott turned the meeting over to Ms. Rozelle and asked Mr. Raible to finish as Co-chair. Ms. Calderon ask the committee members to review their personal information on the CAG contact list as there was some difficulty in reaching one of the members. Ms. Calderon asked that any changes to be sent to her via email or to call her with updates.

## **6. ADEQ report on Western Avenue (WA) WQARF site: Delfina Olivarez, ADEQ Project Manager**

Ms. Olivarez updated the CAG on site activities that included: water level trends and ground water quality samples for WA wells, and concluded with an update on COG 1.

**See slide presentation below**

Mr. Ellis inquired which aquifer the monitoring wells were in. Ms. Olivarez responded that they were in “A” and that COG 1 was in “C.” Ms. Krone then asked Ms. Olivarez to explain the Feasibility Study (FS). Ms. Olivarez explained that the FS is performed to identify and evaluate cleanup strategies, technologies, and alternatives that meet remedial objectives to address the contamination at the site. Ms. Krone asked if ADEQ was planning a contingency plan for COG 1, if there would be a detect that was above the maximum contaminant level (MCL). Ms. Olivarez stated that if there were any exceedances at any of the wells ADEQ would alert all stakeholders. Ms. Olivarez also stated that the State of Arizona does have an Interim Remediation Project available for these kinds of registry sites, but the State asks that a written proposal or request please be submitted. Ms. Krone asked if there was any work toward that and Ms. Olivarez stated that if Ms. Krone was asking about COG 1, the City of Goodyear would have to submit the proposal and the request. Ms. Krone then asked Mr. Postema if the City was working on such a proposal and request. Mr. Postema stated that yes, the City has been working on that and that they had met with Ms. Stone and Ms. LePage and were going to move forward with their legal counsel to look at entering into an Agreement.

## **7. Update of PGA-South activities- Jeff Sussman, Consultant for Goodyear Tire & Rubber Company**

Mr. Sussman discussed plume locations, status of ongoing cleanup and reviewed current and upcoming activities.

**See slide presentation below**

Mr. Ellis asked why it was taking so long to discover that GAC-04 is actually a conduit well. Mr. Sussman added that the bottom line is that there is no specific scientific point that can tell you with a 100% certainty that the well is leaking. Mr. Sussman further explained that every time the well is shut off for a period of time the trichloroethylene (TCE) concentrations have gone back up, but as soon as the well is turned back on those concentrations fall virtually to nothing. Mr. Sussman went on to say that they know from surrounding monitoring wells that there is very limited aerial extent of TCE in that area, which confirms there isn't an unknown source. Mr. Sussman explained that if there was something they could see they could clean it quickly; however, without irrefutable proof of where it is coming from they are to the point of declaring it a risk and abandon it. Mr. Sussman explained that there really was no good answer as to why it took so long and even though they rely on good scientific methods, processes and studies, it didn't get them there so Goodyear thinks it's time to abandon the well due to leakage. Mr. Ellis asked about timeline on the abandonment and Mr. Sussman stated that they hoped to have confirmation of the well abandonment by the August CAG meeting. Mr. Barbetta asked how the TCE was being calculated as a measurement. Mr. Sussman confirmed that it is a calculation based on the number of gallons pumped and how many pounds that represents as you move water through.

Ms. Krone asked about the importance of chromium in the northern plume since it is never discussed. Mr. Sussman stated that although they monitor for it there is no Record of Decision (ROD) or Consent Decree that Goodyear Tire has to do anything to clean up chromium in subunit C. Mr. Sussman continued by saying that there isn't a lack of interest or intent to handle this issue. Mr. Sussman added that he was advised by the EPA that they intend to remedy that through a regulatory process to compel Goodyear to address it by amendment or issue a Explanation of Significant Differences (ESD) that would direct them on how to proceed. Mr. Sussman indicated that they will proceed without that to determine where the chromium is located and that the only well with levels of chromium above the drinking water standard at this time is near the back of the Jehovah Witness Church, identified as GMW-13, and was the only well in subunit C that has shown it. Mr. Sussman stated that some additional investigation work is needed to verify that and that he would be able to more clearly answer Ms. Krone's questions after work was done this year. Mr. Ellis asked what would be the source for the chromium. Mr. Sussman said it likely was Goodyear's Aircrafts during their aerospace days, during chrome plating operations.

Ms. Moore asked Mr. Sussman if there were any sampling results from the new monitoring well and did those results, if any, matched what the GAC-04 results were after pumping for 24 hours and if the concentrations had dropped. Mr. Sussman responded that even though the well was close to GAC-04 there were not any TCE findings which indicated that the readings were a well bore phenomena and not an aquifer phenomena.

Ms. Krone asked Ms. Nesky for any comments from EPA. Ms. Nesky indicated she could only take direction from the EPA and Ms. Krone asked her to acquire authorization to respond to questions for future CAG meetings that Ms. Brown would not attend.

#### **8. Update of PGA-North activities –Stephanie Lyn Koehne and Harry Brenton AMEC Geomatrix, Inc., Project Manager**

Mr. Brenton and Ms. Koehne initiated their presentation with an update on PGA-North activities.

#### **See slide presentation below**

Mr. Ellis asked about injection in the northwest areas, similar to the northeast and what the timeframes were. Mr. Brenton responded that they just started extracting from EA-06 and that it has been in operation for about three months or so. Mr. Brenton stated that they wanted to see how that developed and that they also needed to move the water down to 33-A. Mr. Brenton explained that they would know more about how the behavior of the plume in the northwest area is after that. Ms. Koehne stated that they had to finish the installation of the well located in the Pebble Creek community to enable them to determine if those injection wells need to be to the east of that well a little further out. Mr. Ellis and Mr. Smith asked for an estimated time frame. Mr. Brenton stated that first 51-A needed to be installed and Ms. Koehne stated that 51-A was the well in the Pebble Creek community. Ms. Koehne stated that as soon as they get the approval, the Agreement will be sent out to acquire Dr. Pantaleoni's signature and then they could install in July or August since that is the time when most of the community is gone for less community impact. Mr. Smith asked council member Gary Genzler to respond to the issue. Mr. Genzler stated that he lives in Pebble Creek and that he was unaware that the HOA representative was not responding in a timely manner.

Mr. Genzler indicated that a phone call could be made to impress that a more timely response time was required. Mr. Brenton stated that this well was an important one and that they wanted to make sure that they have the plume defined in the northwest area before we start thinking about injection. Mr. Ellis restated the question on injection, if the well in Pebble Creek is completed this summer, then injection will be looking at how many years to complete. Mr. Brenton said that there was difficulty in giving the answer due to the installation of well EA-08. Mr. Brenton said that they need more study time on how the capture zone develops and how large it really is because you don't want to inject in a well within the capture zone as you would be pulling in clean water.

Ms. Krone and Mr. Ellis thanked Crane for the grid map they produced. Ms. Krone indicated that in reflection she didn't understand why specific wells were being drilled and tonight it was clarified. Ms. Krone stated she appreciated the effort in clarification and requested that if a new well is introduced this clarification trend continues.

Mr. Raible asked about the status of the Feasibility Study. Mr. Brenton replied that they are looking to see what the effects of the pilot test are and since sampling just occurred the Monday prior to the CAG meeting they expected the results back in the next month or so. Mr. Brenton continued that a meeting with EPA and ADEQ would be needed to discuss the results of the samples that were collected this past week to prepare a path forward. Ms. Koehne stated a general plan is put together on how they are going to move forward over the next five years and that they are looking at putting in a Work Plan the first or second quarter of 2013. Ms. Koehne confirmed Mr. Brenton's statement that the capture zone report from EA-08 and updating that will enable them to determine where those injection wells need to go. Ms. Koehne indicated that once that has been achieved, they have to move to the next process with EPA and ADEQ and at this time she is unable to say when that will take place. Ms. Koehne stated that the next step is a Work Plan and that is scheduled to go in the first or second quarter of 2013. Mr. Barbetta asked historically how much time the processes take for implementation. Mr. Brenton responded that the Work Plan will go in the first or second quarter of 2013. Mr. Brenton added that then they would expect to have injection perhaps a year or so later.

Mr. Raible asked if the technology related to the source area clean up is part of the Feasibility Study. Ms. Koehne responded yes. Mr. Raible asked that given that it is in process, if there was a decision yet on the technology. Mr. Brenton responded that there are nine or ten technologies that they are looking at as part of the Feasibility Study. Mr. Ellis stated that he was trying to get a sense whether they were a year, or two or ten years away to injecting up there. Ms. Koehne responded it would be two years. Mr. Ellis stated that he thought that was good if the plume is not expanding.

Ms. Krone asked about the amount of water pumping from each extraction area and wanted to confirm that if the extraction area in the main treatment center is less than all the other ones. Ms. Krone stated that since that's a source area wouldn't there be more pumping in that area. Mr. Brenton replied that the reason why it is less is due to the aquifer properties. Mr. Brenton added that there is a property called hydraulic conductivity and the hydraulic conductivity is lower in the main treatment system area so there really can not be as much water pumped from an aquifer that has a low hydraulic conductivity. Mr. Brenton went on to say that hydraulic conductivity is measured by how easily water moves through soil and that for example, something like clay would have extremely low hydraulic conductivity.

Ms. Krone then asked if that was what Mr. Brenton was saying about an area he previously discussed and Mr. Brenton responded in the affirmative. Ms. Koehne added that that is why there were multiple extraction wells in that area. Mr. Brenton stated that since there is a low hydraulic conductivity in this area, they need those additional extraction wells to have a larger capture zone.

Mr. Barnum asked Mr. Brenton to respond to the CAG with regard to the relationship with the EA-09 timelines and the source area Feasibility Study to get an idea of that timeline. Mr. Barnum thought that Mr. Brenton had stated June 12 for the Work Plan and wanted Mr. Brenton to help the members understand the relationship of the two since Mr. Barnum thought that EA-09 was related to the focused feasibility study. Mr. Brenton responded that it was separate. Mr. Brenton went on to say that with the Focus Feasibility Study, the treatment that we decide will be in conjunction with the pumping, with the hydraulic barrier. Mr. Brenton went on to explain that the existing extraction wells will work in conjunction with whatever amendment or treatment technology that we decide for the source area and that EA-09 is separate. Mr. Brenton stated that EA-09 was intentionally moved north of the source area to primarily protect COG-03 and to put it in a location where there are high concentrations of TCE, but also close enough to COG-03 where we switch the flow field away from COG-3. Mr. Barnum clarified for the CAG that the reason a capture zone still exists in the northwest plume area and why we can not say that it is captured is that we still have to run that analysis and that statement can't be made until monitoring well 51-A is in place and capture zone analysis is obtained to understand what is happening up there.

Ms. Krone wanted the EPA and ADEQ to respond about agreement on the statement that there was capture at the main treatment area. Mr. Long the contractor for ADEQ replied that yes, he agreed that there is capture in subunit A and the reason for the study in the MW-29 area and the main treatment system area is to see if capture can be obtained in subunit C. Mr. Long stated that he agreed that A is captured, but was not sure about subunit C. Ms. Rozelle asked if Ms. Krone's question was answered and Ms. Krone stated not really.

Ms. Krone also asked if the EPA and ADEQ agreed with the analysis of those two little isolated subunit C plumes with the analysis that they were given. Ms. Meitl responded that the wells that we have in place, yes we agree with that. Ms. Meitl added that there is some on-going investigations that Mr. Brenton talked about that will come up in the next year that will help answer any remaining questions. Ms. Krone restated the question as to if the EPA and ADEQ were in agreement and Ms. Meitl responded with yes with where they are now, but that she didn't know what they will find in the future, and she doesn't anticipate any negative data, but that more data at this point would be better.

Mr. Ellis inquired about the CAG site tours at PGA North or PGA South and if a date had been set yet. Ms. Calderon responded that the EPA was organizing the North and South tours and asked Ms. Cooper to respond. Ms. Cooper indicated that they were possibly looking at the fall timeframe. Mr. Ellis stated the he would prefer to have the tours before the fall. Ms. Rozelle added this question to action items and asked Ms. Cooper to verify with Ms. Brown and inform Ms. Calderon of the status. Mr. Raible asked to reconfirm that the proper parties to oversee the tours was the EPA and if that is the case and there is a delay would it be appropriate if one of the other involved parties could expedite the tours.

Dr. Pantaleoni asked the CAG if the following Monday, Tuesday, Wednesday, Thursday or Friday would work for a tour date. Dr. Pantaleoni stated to just let him know when the CAG was available that next week, but would like at least a 24 hours notice before the tour to confirm there would be no activities to interfere with or safety hazards to the tour party. Dr. Pantaleoni stated that all the remediation sites, EA-05, EA-06, EA-07, and EA-08 could be toured. Mr. Raible indicated that Ms. Calderon would poll the remaining members to get dates for tours and get back with Dr. Pantaleoni. Ms. Rozelle confirmed that Ms. Cooper was going to get with Ms. Brown with regard to the request that if she is absent at future meetings that she could coordinate and direct the consultant to respond on her behalf. Ms. Cooper confirmed.

Mr. Havlicek asked what was being done about the soil contamination beneath the plumes. Mr. Brenton confirmed that the groundwater moves through soil drains so contamination is in the saturated zone that is 90 to 120 feet below the surface. Mr. Brenton explained that the pump and treat currently going on is effectively containing the spread of the plume. Mr. Brenton said that the soil contamination at that depth in a saturated zone can not be remediated and that there is no health risk associated with it and that the groundwater and water supply wells that are nearby for Goodyear, Litchfield Park are all safe. Mr. Havlicek then asked about the environmental or financial impact the plumes have on homeowners and questioned disclosure. Dr. Pantaleoni answered that you may have to disclose it and everyone knows it, but in terms of the value it has no value associated with the property, it is not part of the Superfund site. Mr. Raible added that disclosure has to take place and that the plume exists and it should be disclosed.

## **9. Future meeting and agenda items discussion**

Ms. Rozelle asked for agenda items aside from the continuing site updates. Ms. Krone asked for updates on the area between the sites. Mr. Ellis indicated an interest in what is going to be proposed for the work plans on the PGA North site. Mr. Ellis elaborated that he wanted to know how they are going to be approached and how they are going to shrink the plumes and what things would look like in five years. Ms. Krone added to Mr. Ellis' request that she would like to see content that indicates where the work will be done and where and the number of new wells slated to be installed and the expectations of them once in and the impacts to the site. Ms. Rozelle confirmed that more time would be spent for PGA North over the work plan, the outlook of what you've just described and then Ms. Brown's presentation of the area between the sites with the balance of the meeting consisting of short updates on the other two sites for the next CAG.

Mr. Ellis stated that if nothing changed on any particular site he would be interested in seeing only an executive summary that addresses just what is different from the last quarterly meeting and what is going on presently.

## **10. Adjournment**

Mr. Raible adjourned the meeting.

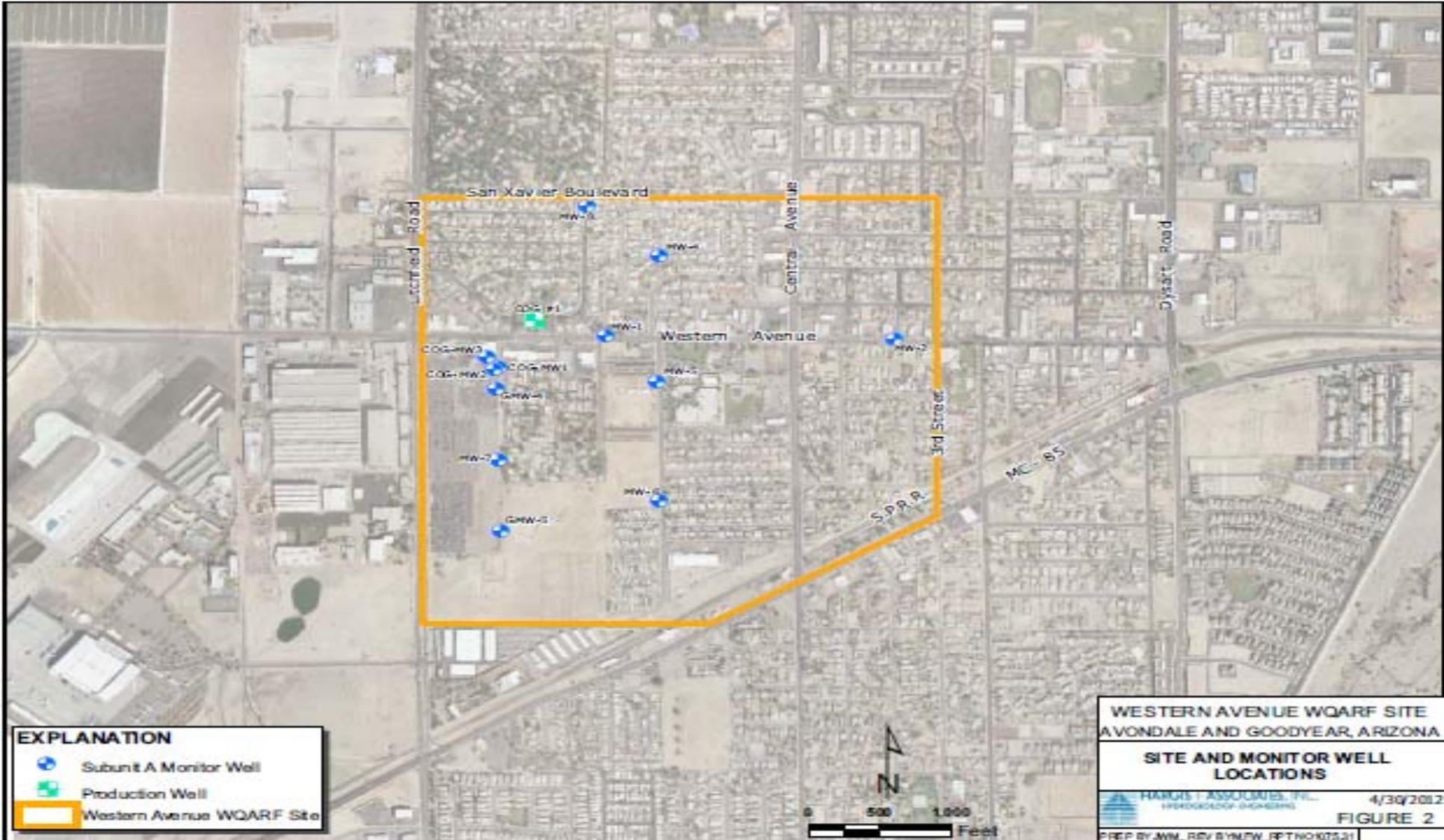
# Western Avenue WQARF Site



## Update on Site Activities

- **Water Level trends in Western Avenue Monitoring Wells**
- **Groundwater Quality results from samples collected from the Western Avenue Monitoring Wells**
- **Groundwater Quality results from samples collected from COG #1**
- **Upcoming Activities**

# Western Avenue WQARF Site



**EXPLANATION**

-  Subunit A Monitor Well
-  Production Well
-  Western Avenue WQARF Site

**WESTERN AVENUE WQARF SITE**  
 AVONDALE AND GOODYEAR, ARIZONA

**SITE AND MONITOR WELL LOCATIONS**

HANCOCK ASSOCIATES, INC.  
 4/30/2012

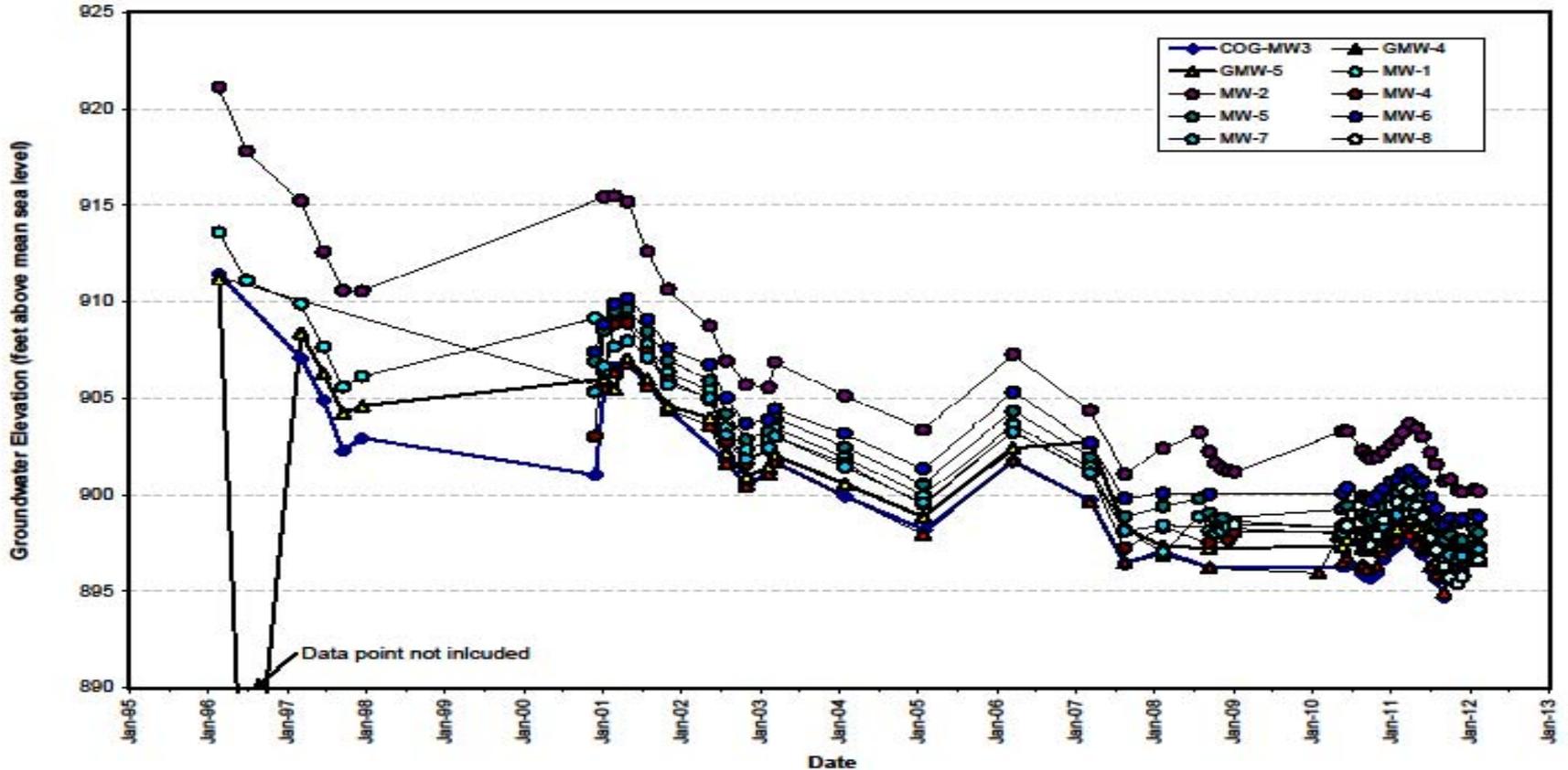
PREP BY: WJM, REV BY: WJM, RPT NO: 102531

**FIGURE 2**

## Water Level Trends at Western Avenue

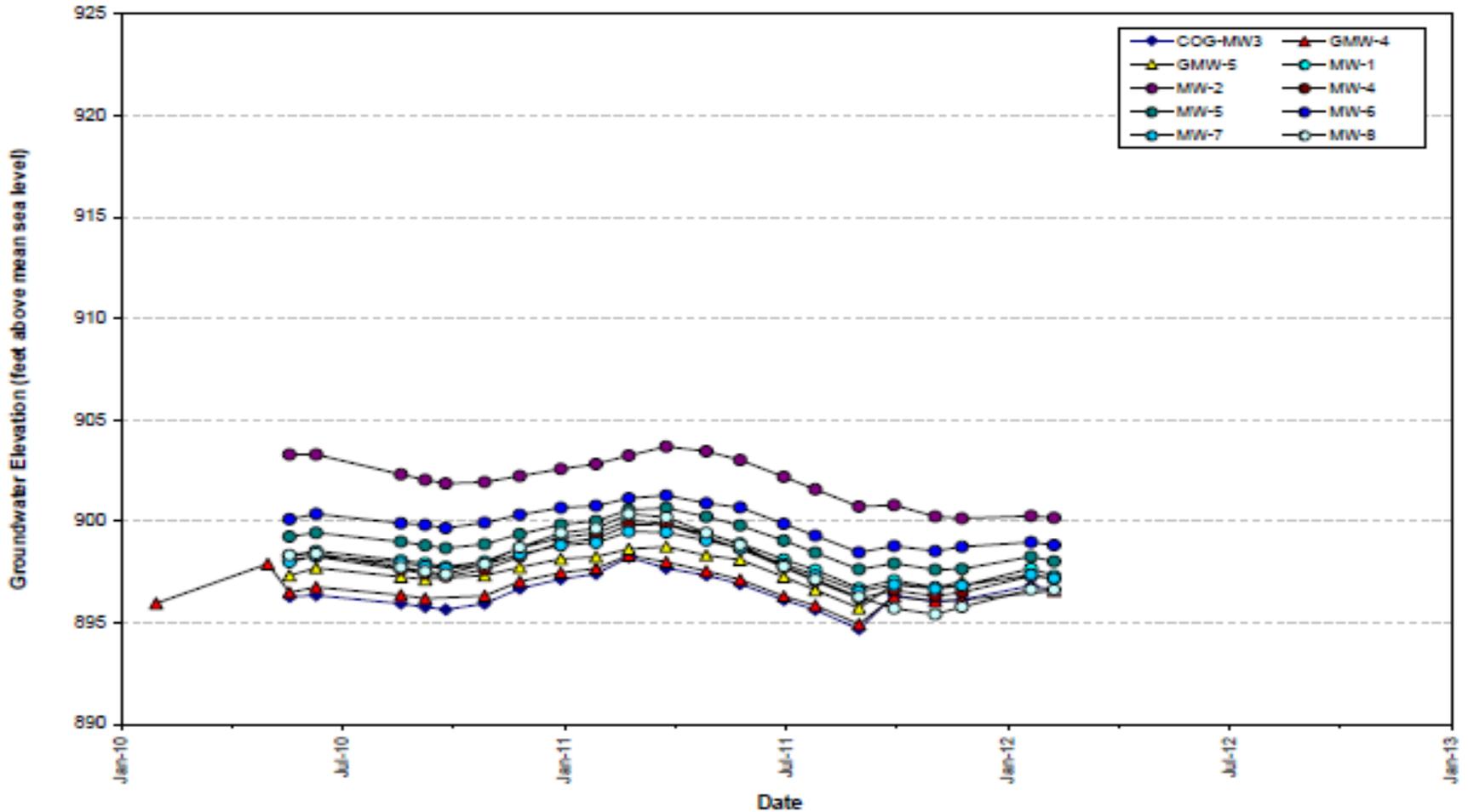
- **Water Levels have been declining in the Western Avenue WQARF Site since the mid-1990s.**
- **Water levels in the Western Avenue monitoring wells have declined by as much as 10 to 20 feet since 1996**
- **The groundwater gradient in the Western Avenue Site is very low (@ 0.002 to 0.0025 feet per foot) and the direction of flow is generally to the west/northwest.**

# Western Avenue WQARF Site



**WESTERN AVENUE WQARF SITE GROUNDWATER ELEVATION**  
**MONITOR WELLS COG-MW3, GMW-4, GMW-5, MW-1, MW-2,**  
**MW-4, MW-5, MW-6, MW-7, and MW-8**

# Western Avenue WQARF Site



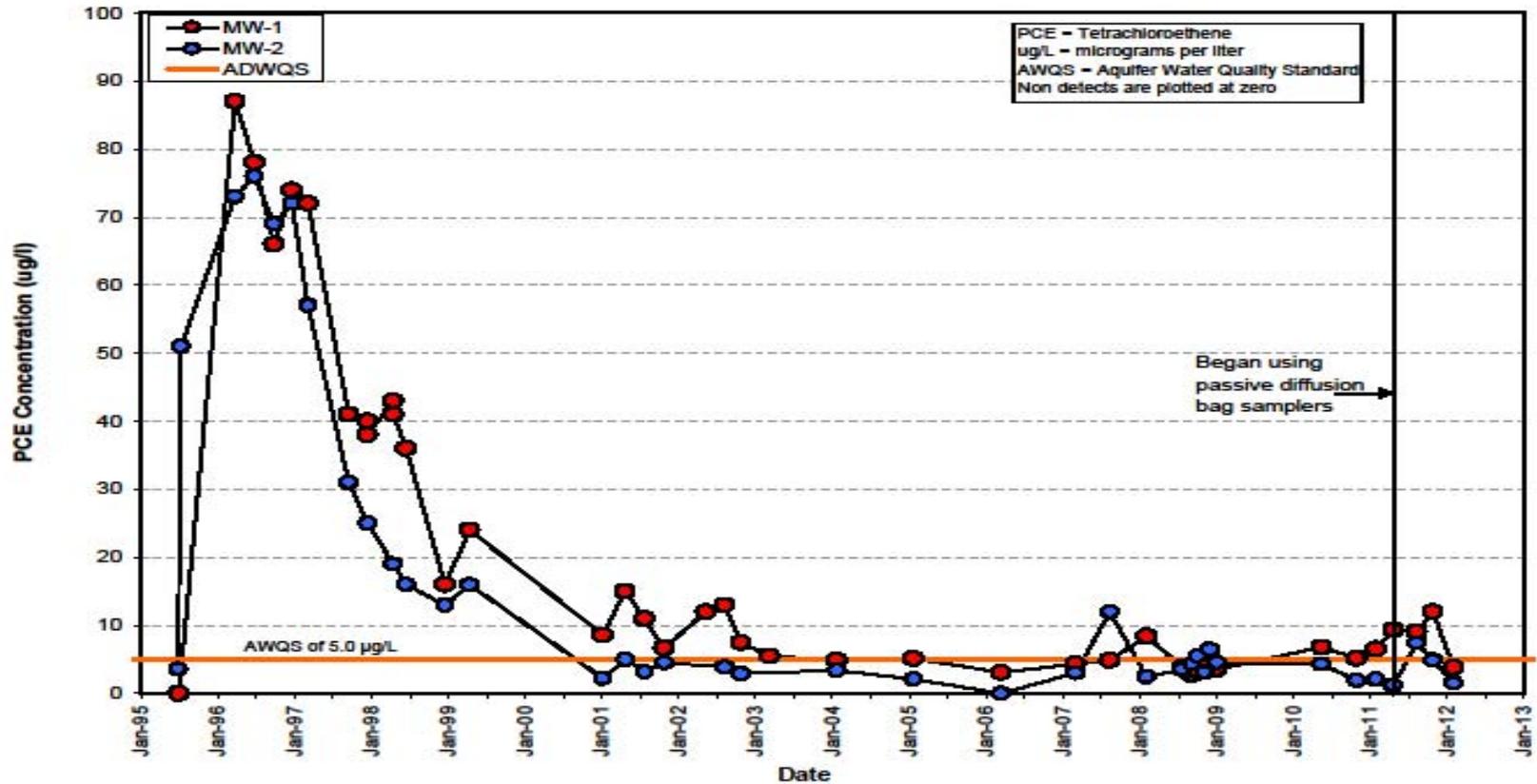
WESTERN AVENUE WQARF SITE GROUNDWATER ELEVATION  
MONITOR WELLS COG-MW3, GMW-4, GMW-5, MW-1, MW-2,  
MW-4, MW-5, MW-6, MW-7, and MW-8  
2010 - Present

## **PCE Concentrations in Western Avenue Monitoring wells in groundwater samples collected February 15, 2012**

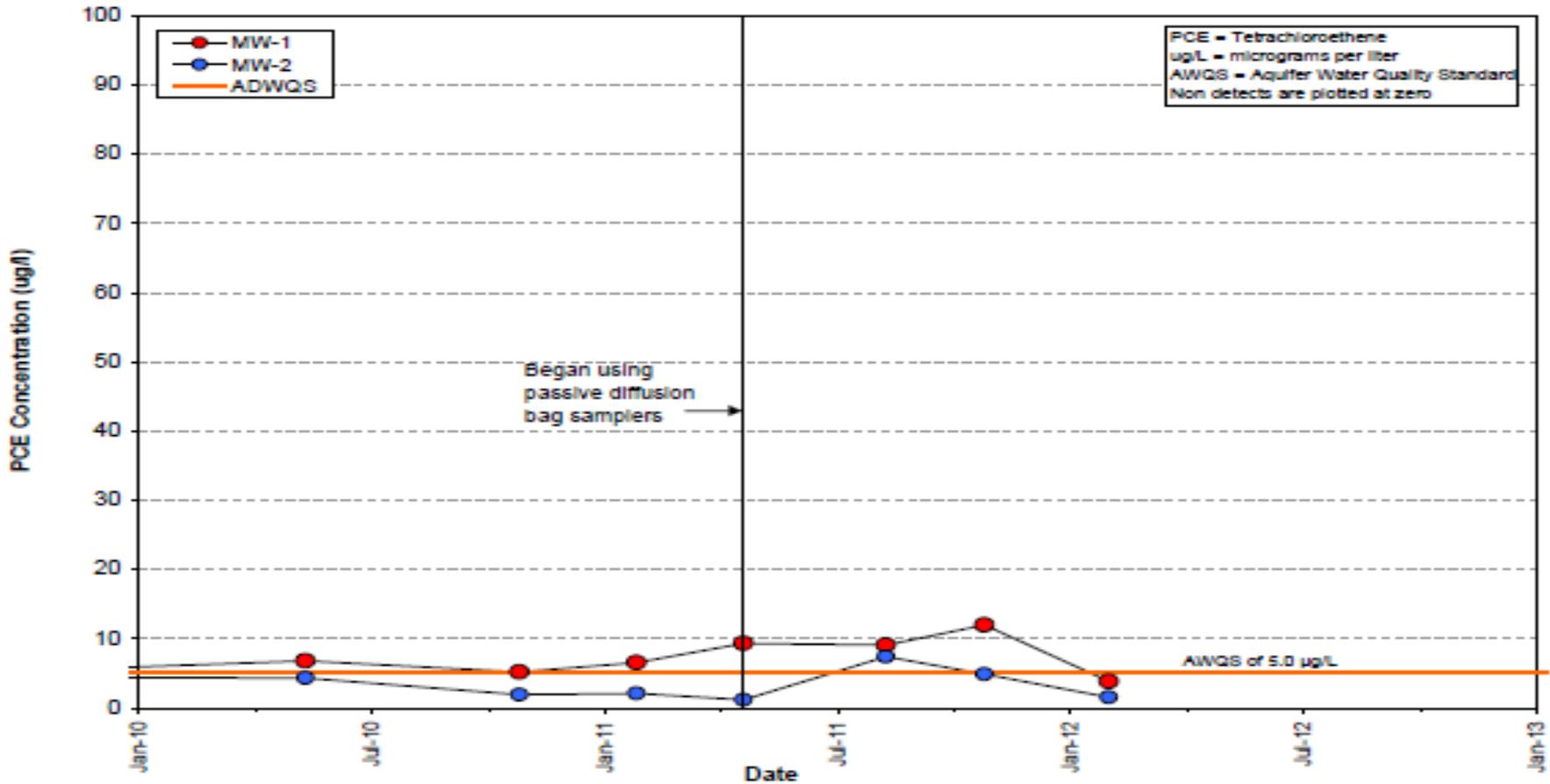
- **Groundwater samples are collected at 8 monitoring wells and City of Goodyear Well COG-1**
- **Monitoring Well results**

<b>COG-MW3: 0.74 ug/l</b>	<b>MW-5: 0.59 ug/l</b>
<b>MW-1: 3.81 ug/l</b>	<b>MW-6: 0.50 ug/l</b>
<b>MW-2: 1.53 ug/l</b>	<b>MW-7: 0.89 ug/l</b>
<b>MW-4: 1.42 ug/l</b>	<b>MW-8: 1.75 ug/l</b>
- **PCE detections obtained during February 2012 were detected at concentrations below the AWQS of 5 ug/l.**

# Western Avenue WQARF Site



**WESTERN AVENUE WQARF SITE  
PCE CONCENTRATIONS  
MONITOR WELLS MW-1 AND MW-2**

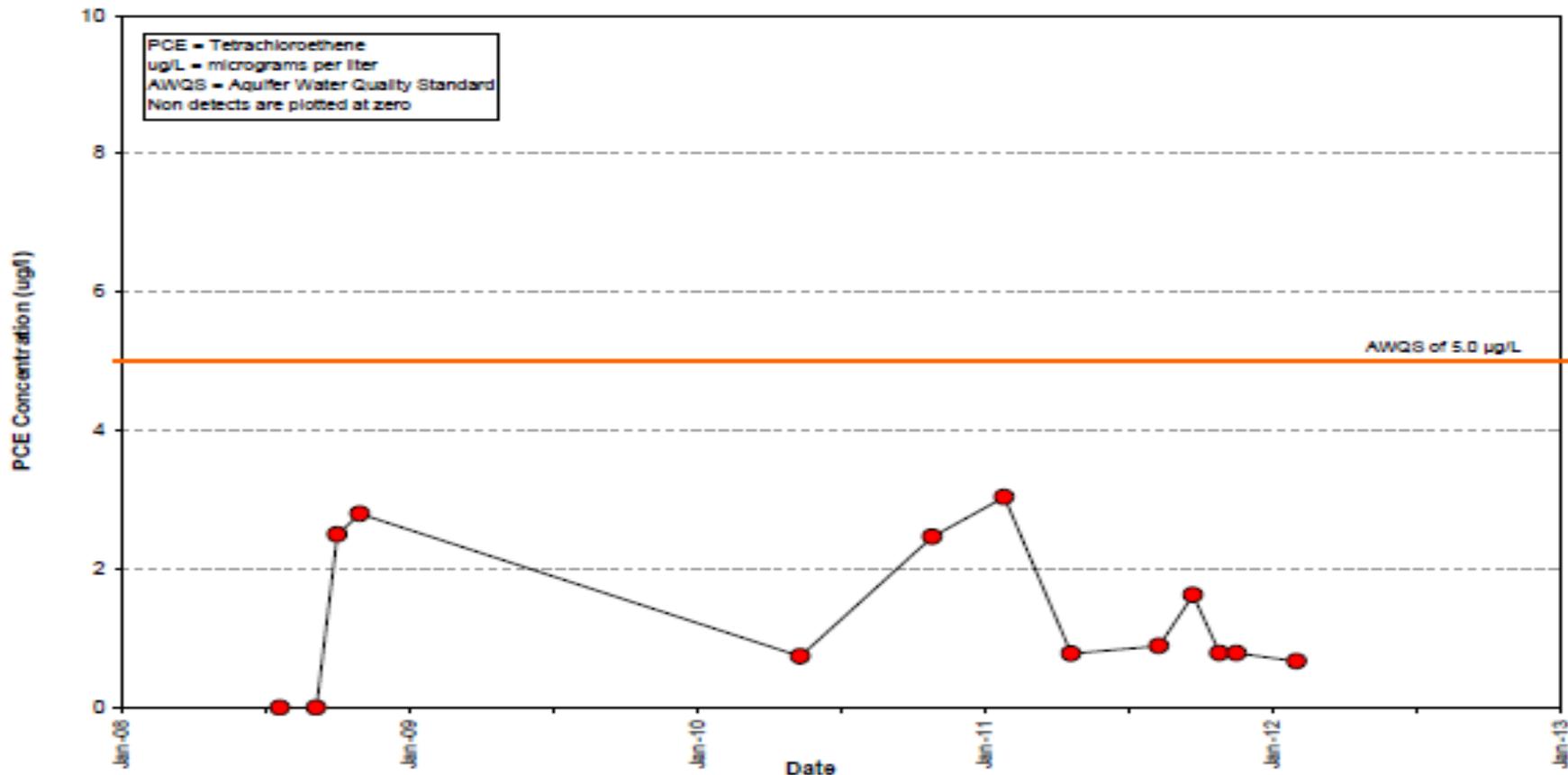


**WESTERN AVENUE WQARF SITE  
 PCE CONCENTRATIONS  
 MONITOR WELLS MW-1 AND MW-2  
 2010 - PRESENT**

**PCE Concentration in the Feb 2012 Sample from COG-1 was 0.67 ug/l.**

- This is a slight decrease from the Dec 2011 measurement of 0.79 ug/l.**
- All detected concentrations of PCE in groundwater samples from COG-1 have been less than the AWQS of 5 ug/l.**

# Western Avenue WQARF Site



**WESTERN AVENUE WQARF SITE  
 PCE CONCENTRATIONS  
 PRODUCTION WELL COG-1  
 2008 - PRESENT**



# Western Avenue WQARF Sites

## Upcoming Activities at Western Avenue

- **Next quarterly monitoring event, including water quality sampling and water level gauging of the 8 Western Avenue Wells and COG-1 will be May 10, 2012.**
- **Draft Feasibility Study Work Plan is under review by ADEQ Management.**



# **Western Avenue WQARF Site**

**Questions**

**Thank You,**

**Delfina Olivarez**

**Western Avenue Project Manager 602-771-4710, [dco@azdeq.gov](mailto:dco@azdeq.gov);**

**Felicia Calderon Western Avenue Community Involvement Coordinator 602-771-4167, [fmc@azdeq.gov](mailto:fmc@azdeq.gov)**

# Phoenix Goodyear Airport-South Project Site Status Report

Community Advisory Group Meeting  
May 3, 2012

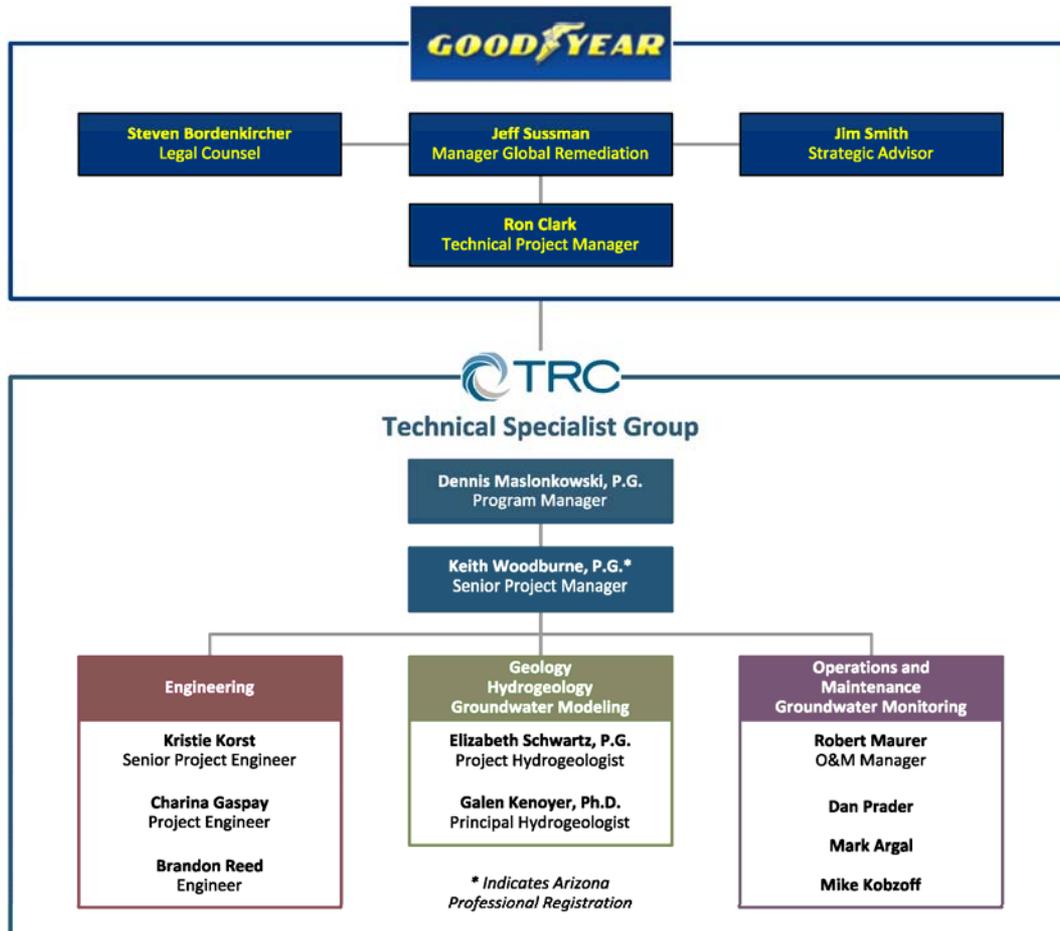
Jeffery Sussman  
Remediation Manager  
The Goodyear Tire & Rubber Company

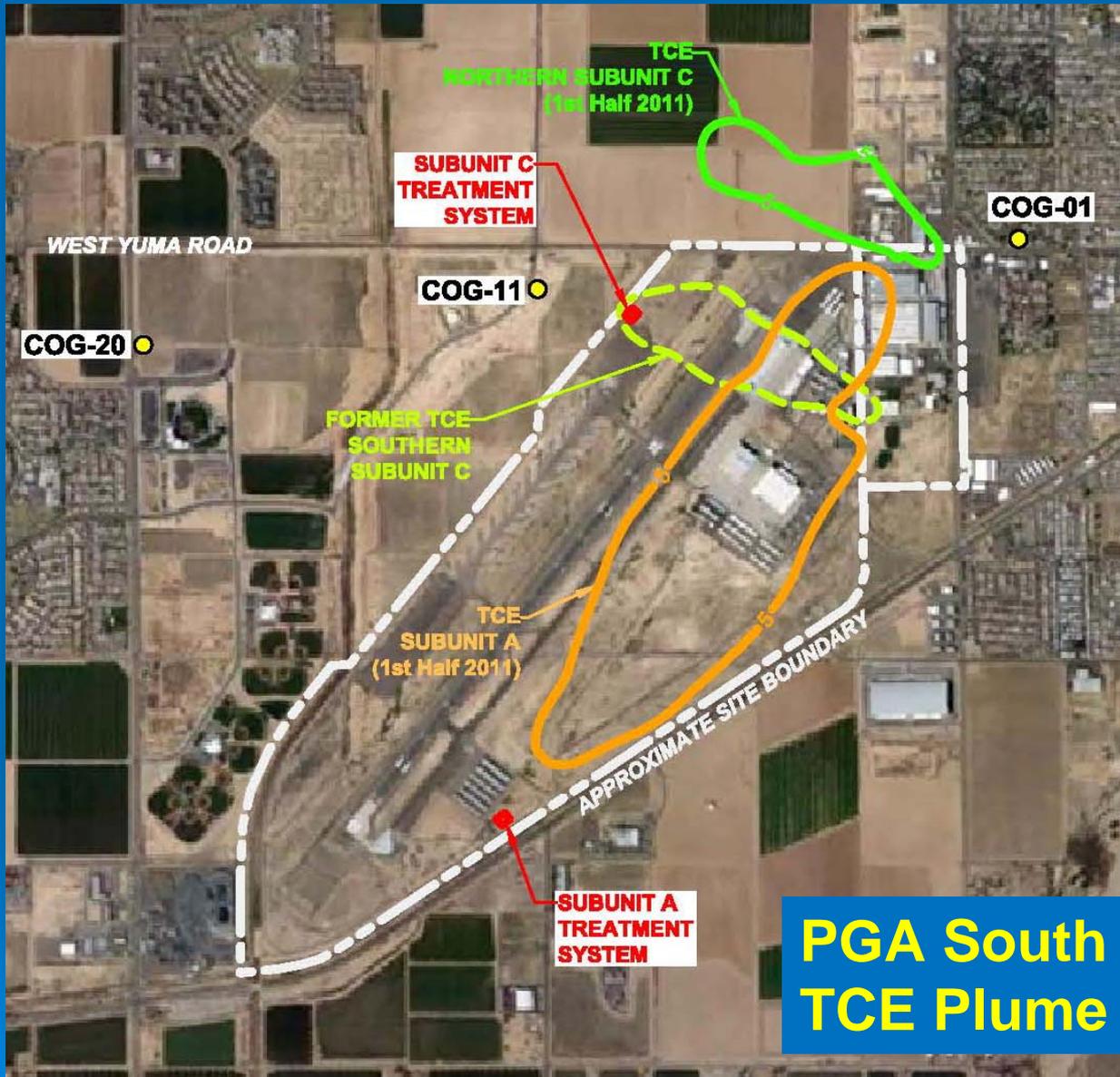


# Agenda

- **PGA South Team Organization**
- **PGA South Site – Plume Locations**
- **Update Status of Ongoing Cleanup**
- **Review Current Activities**
- **Upcoming Activities**

# PGA South Project Team Organization





## PGA South Site TCE Plume Locations

# Current Plume Details

## Subunit A Plume

- 12 Extraction Wells
- 39 Wells Monitored Currently
- 210 Gallon Per Minute (GPM) Extraction Rate

## Southern Subunit C Plume

- 3 Extraction Wells (no current groundwater extraction)
- 16 Wells Monitored Currently
- 0 GPM Extraction Rate

## Northern Subunit C Plume

- 1 Extraction Well
- 14 Wells Monitored Currently
- 230 GPM Extraction Rate

# PGA South

## Review of Current Activities

- Status of PGAS Clean-Up
- Monitoring of Southern Subunit C TCE Plume
- Monitoring of Northern Subunit C TCE Plume
- GAC-04 Evaluation and Well Abandonment

# Status of Ongoing Cleanup

## Subunit A Aquifer

- Peak TCE concentrations in monitoring wells have declined from 2,600 µg/L in 1990 to 100 µg/L in February 2012
- Treatment System Uptime during 1st Quarter of 2012 was 98.9%

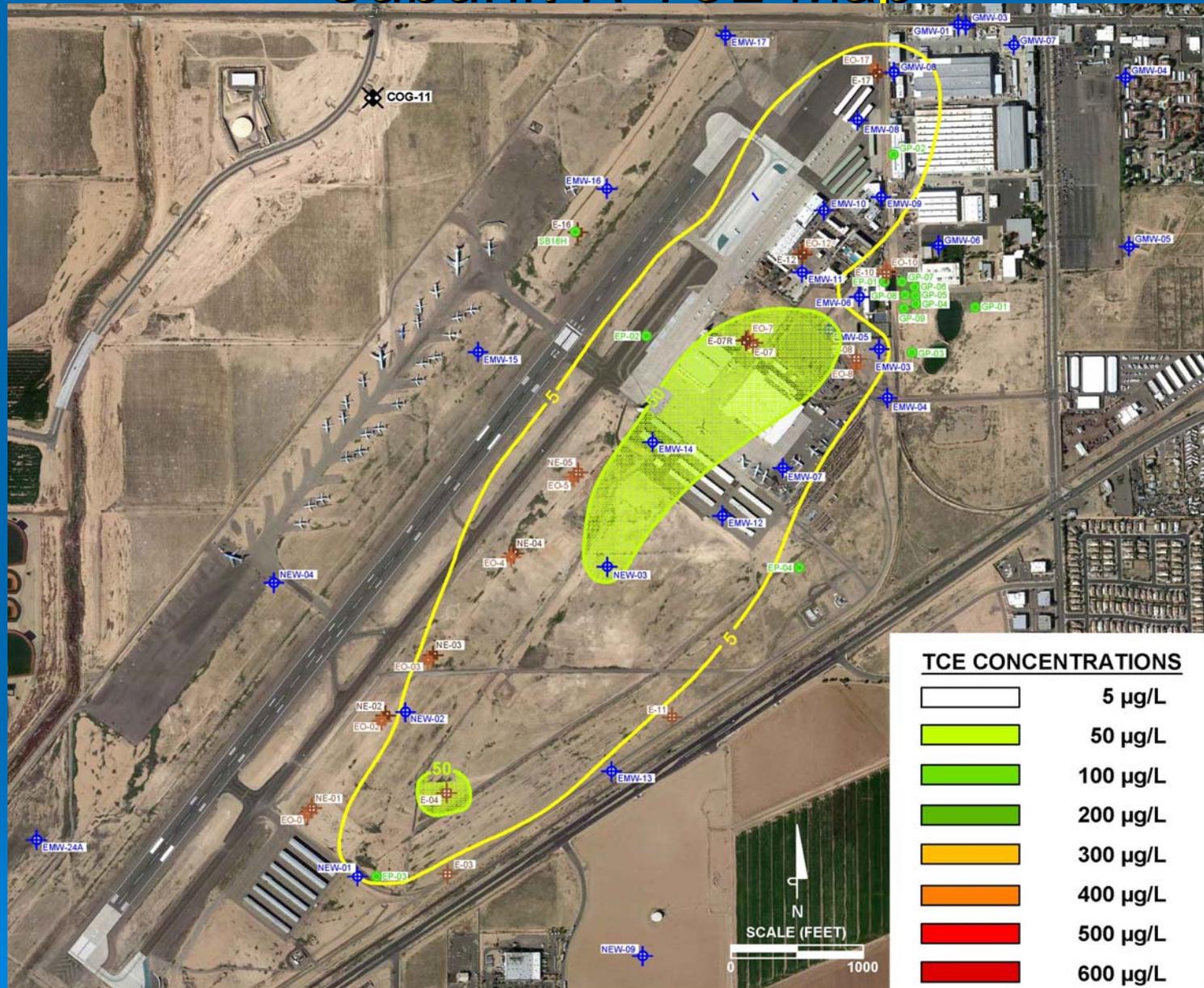
## Subunit C Aquifer

- Peak TCE concentrations in Northern Subunit C monitoring wells have declined from 180 µg/L in 1990 to 97 µg/L in February 2012
- Treatment System Uptime during 1<sup>st</sup> Quarter of 2012 was 98.9 %

# Groundwater TCE Cleanup Progress

Subunit	Max TCE (µg/L) 1990	Max TCE (µg/L) February 2012	Cumulative Volume Pumped (Mgal)	Cumulative TCE Removed (Lbs)
Subunit A	2,600	100 (E-12)	5,636	5,551
Southern Subunit C	150	8.4 (SB-11LC)	1,826	172
Northern Subunit C	180	97 (GMW-13UC)	2,348	65
		TOTAL	9,810	5,788

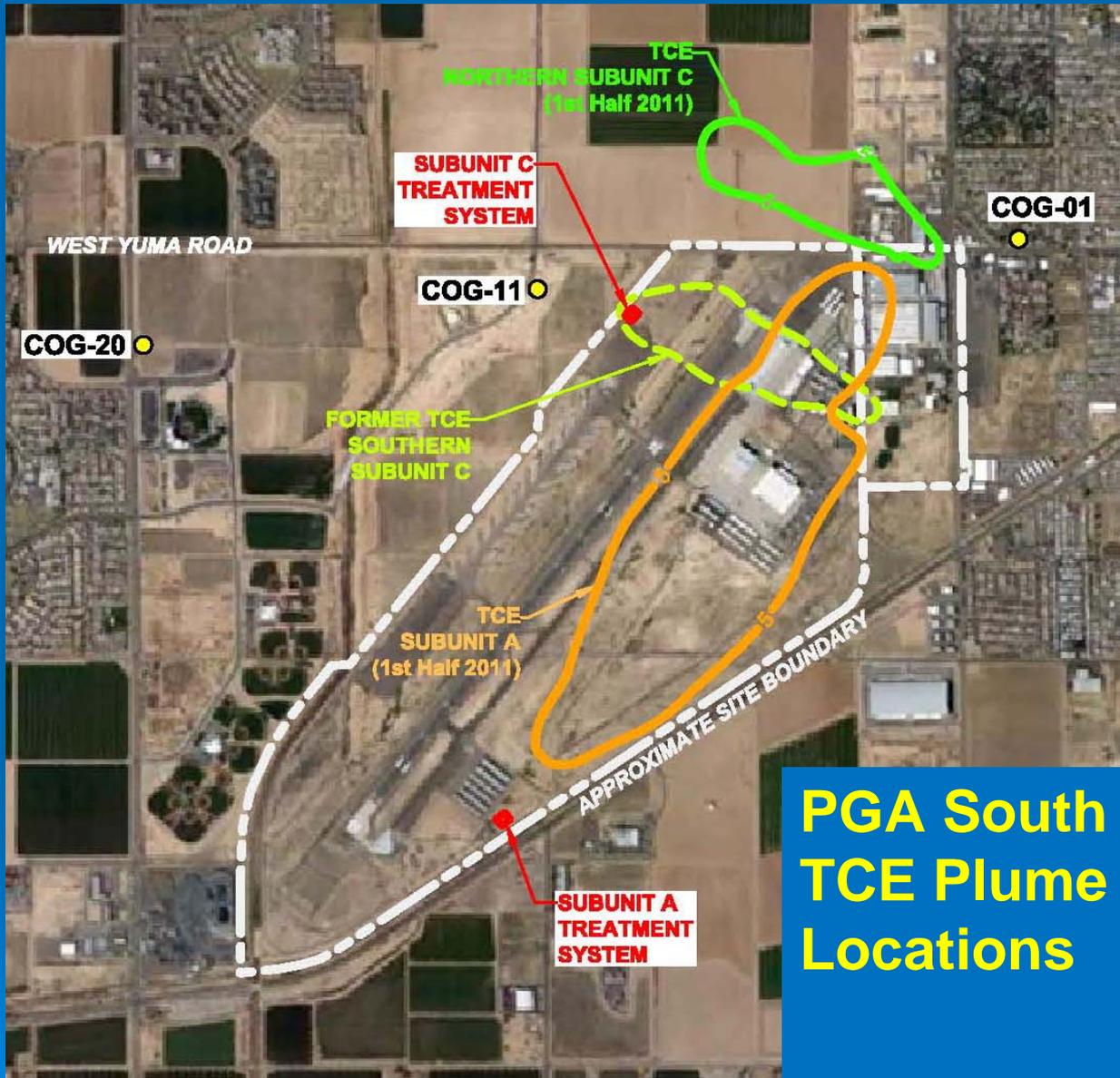
# Subunit A TCE Map



# Southern Subunit C Monitoring Update

- Extraction well E-201 shut off in September 2009 and quarterly monitoring began to evaluate potential rebound in TCE concentrations
- Southern Subunit C well TCE concentrations remain below 5 µg/l with a few exceptions
  - GMW-10LC
  - INJSB-05
  - SB-06UC
  - SB-11LC
- Expanded Southern Subunit C monitoring plan approved and initiated during the November 2011 monitoring event

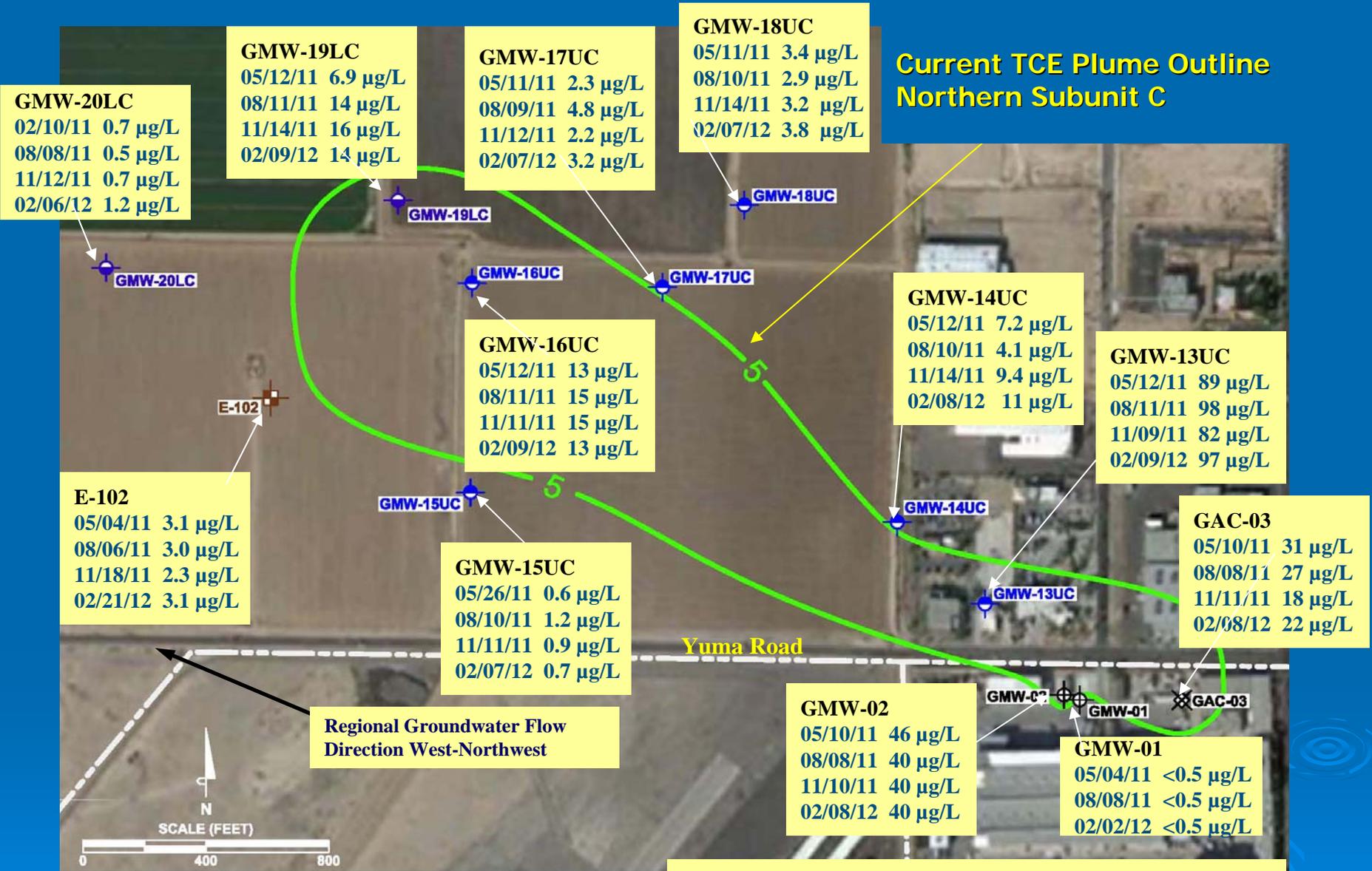




# PGA South Site TCE Plume Locations



## Current TCE Plume Outline Northern Subunit C



**Northern Subunit C TCE Concentrations  
(Last 4 quarters)**



# GAC-04 Investigation Update



# GAC-04 Investigation Update

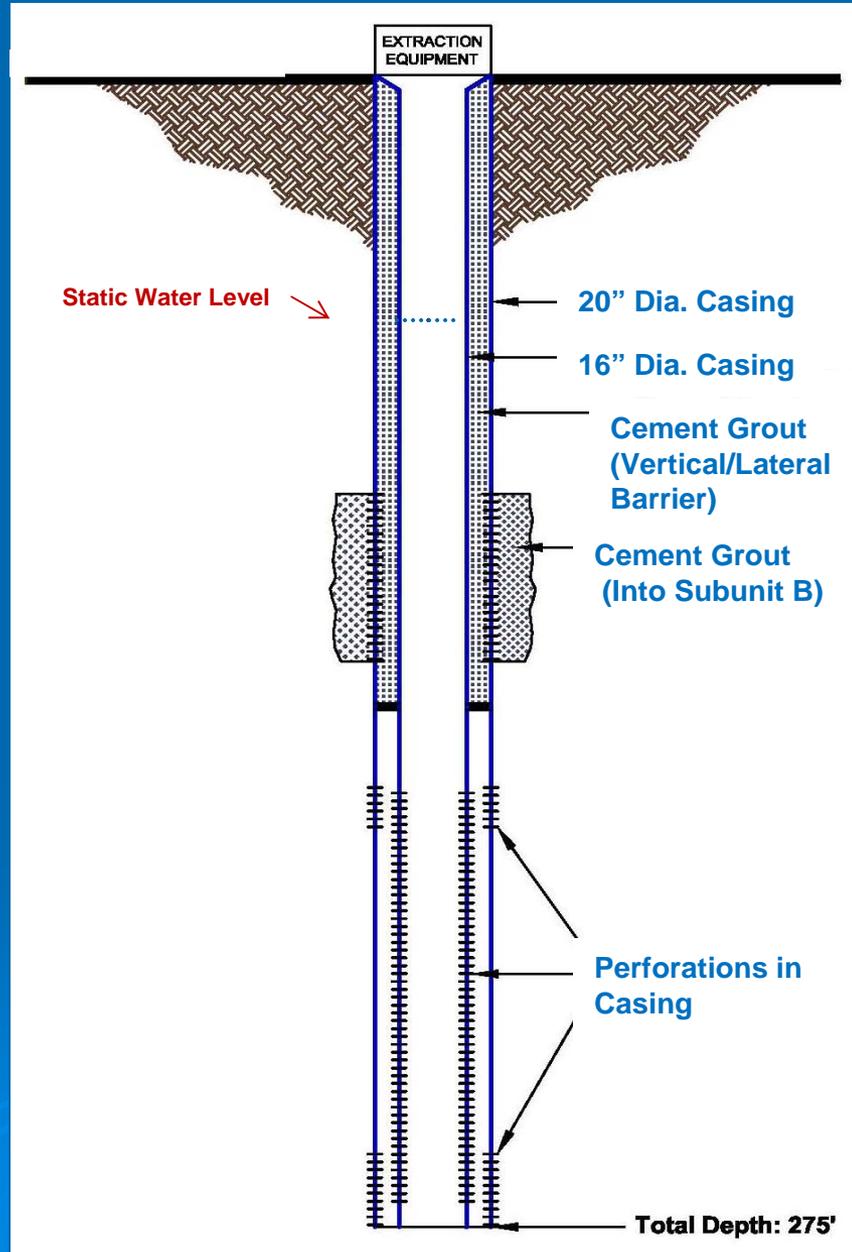
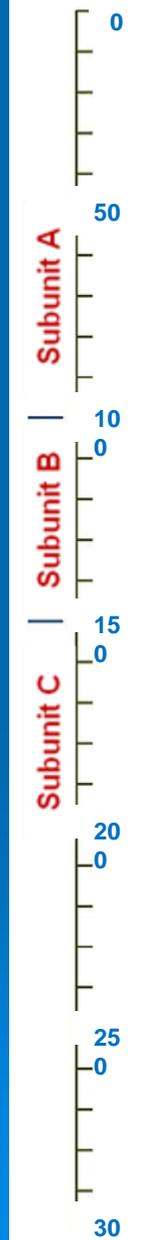
- GTRC believes GAC-04 is a conduit well
- GTRC has restored the monitoring capability in the vicinity of GAC-04 with the installation GMW-23UC in January 2012
- GTRC plans to abandon GAC-04; the landowner agrees with this proposed plan
- Abandonment planned by end of 3<sup>rd</sup> quarter

# GAC-04 Pump House



# GAC-04 Well Construction Diagram

feet below  
grade



# Upcoming Activities

- Second Quarter 2012 Groundwater Sampling Event
  - Sampling scheduled for May 1-8, 2012
- Abandonment of GAC-04
- Continued Monthly Technical Conference Calls with USEPA / ADEQ
- Working with USEPA / ADEQ on Open Five Year Review Items

# CAG Meeting

Quarterly Technical Meeting  
PGA-North Superfund Site  
May 3, 2012



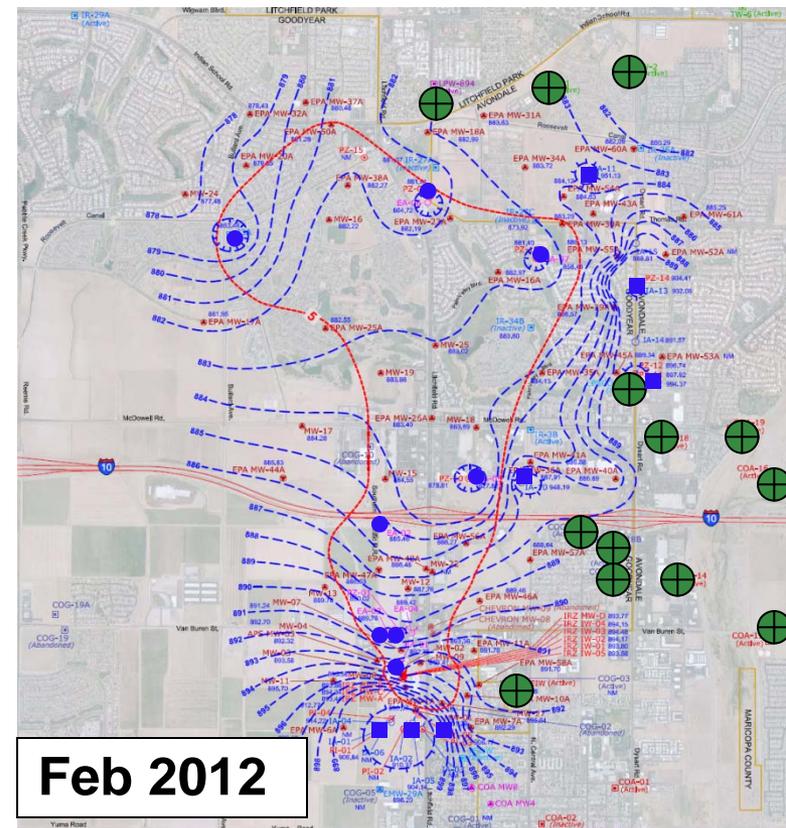
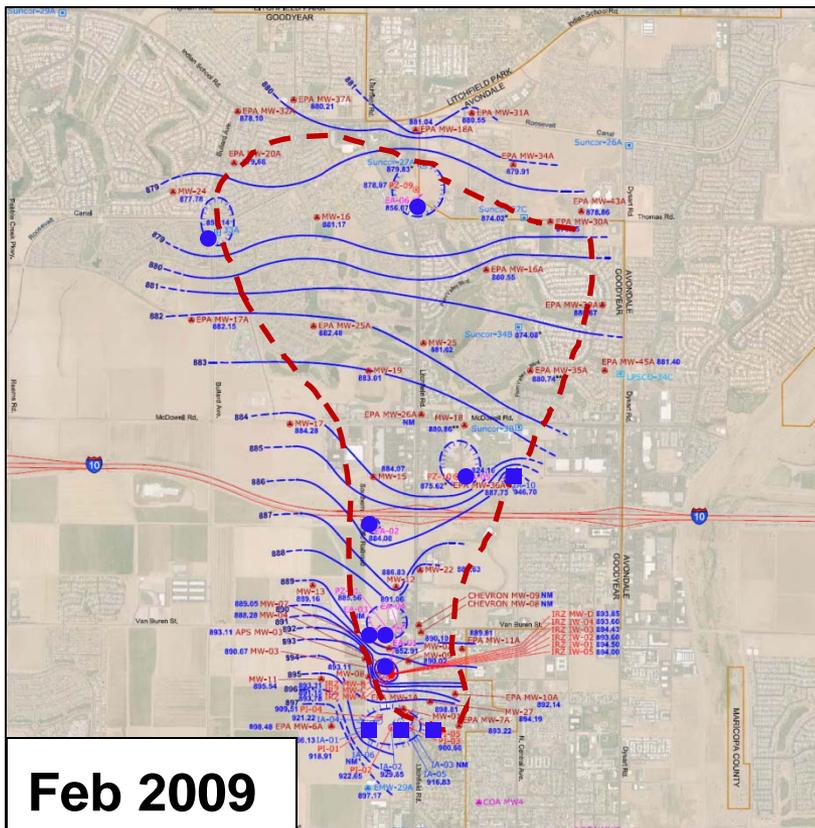
**Stephanie Koehne**, MBA, Project Manager  
AMEC Geomatrix

**Harry Brenton**, RG, Principal Geologist  
Matrix New World Engineering

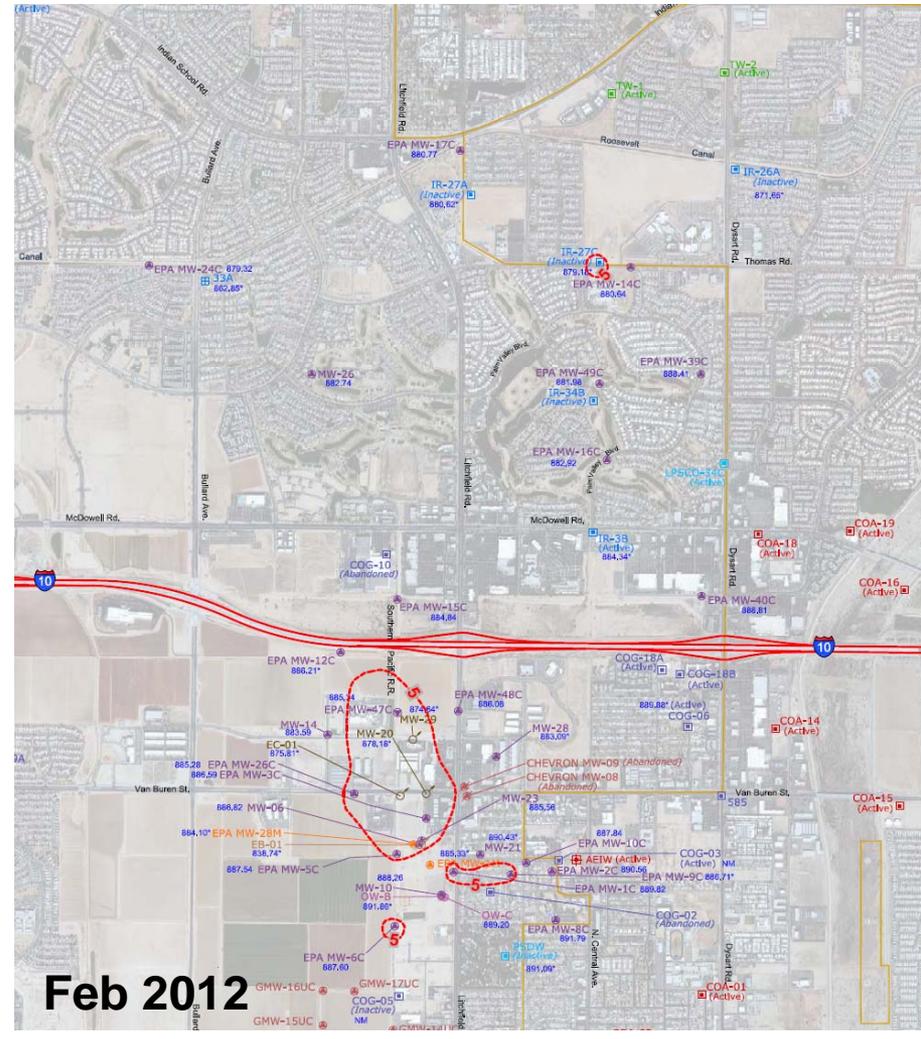
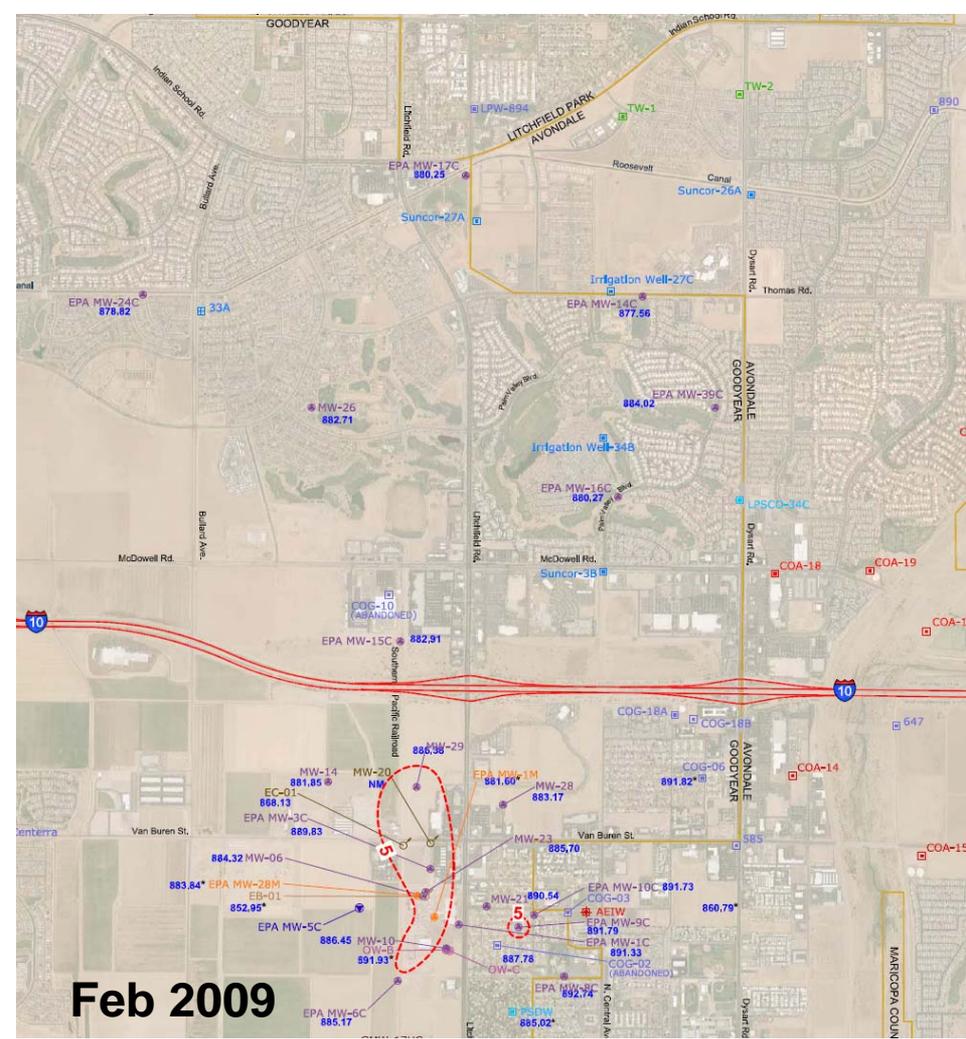
# Groundwater Monitoring – Subunit A



- Since 2009, the Subunit A TCE plume has remained relatively stable
- TCE concentrations have been reduced in key sentinel wells
- Extraction and Injection have reduced the size of the plume in the Northeast Area



# Groundwater Monitoring – Subunit C





# Remedial System Performance



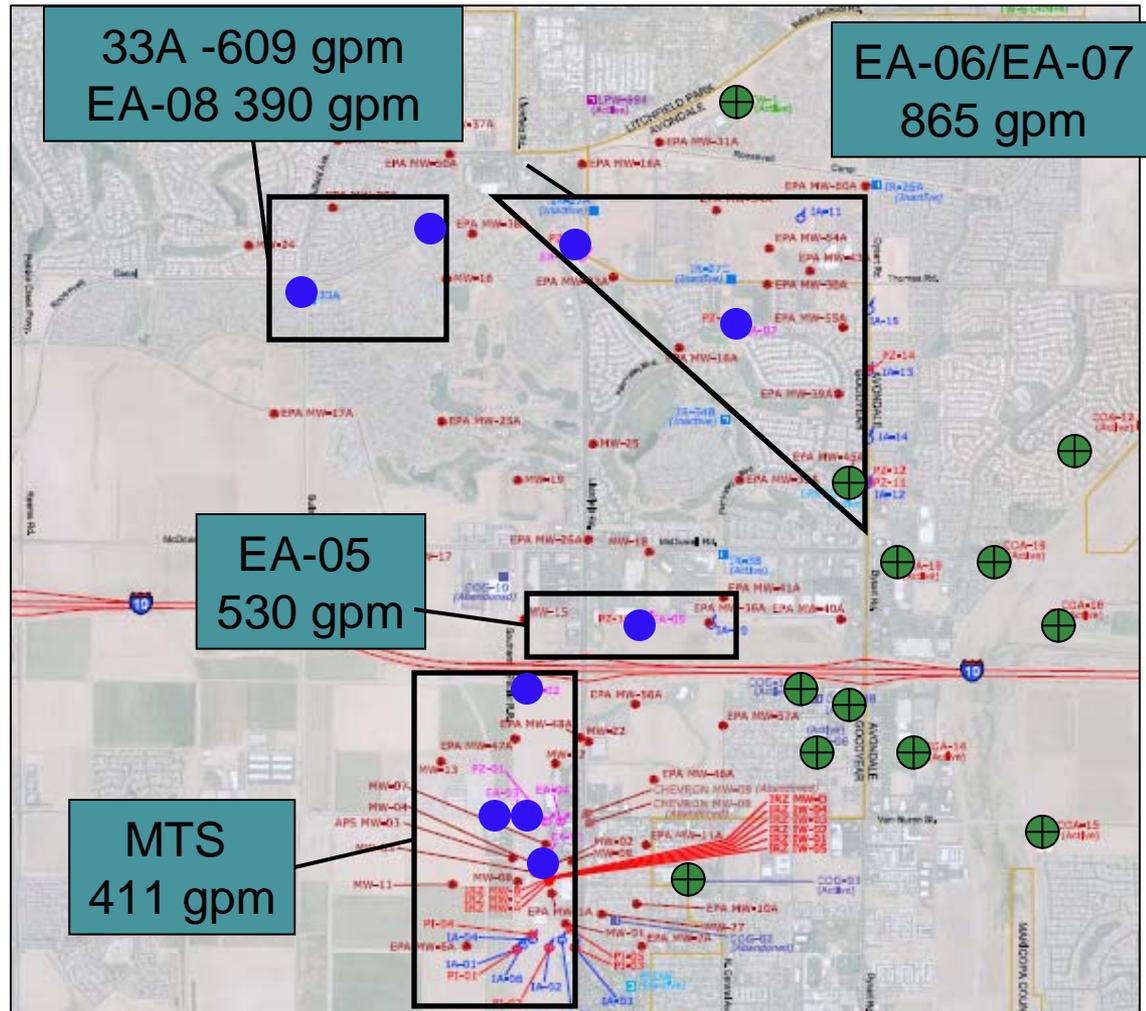
## Groundwater Treatment Systems

- MTS – On-Site
- 33A/EA-08 – Northwest Area
- EA-06/EA-07 – Northeast Area
- EA-05 – Central Area-S of I-10

## System Totals

- Combined Flow – ~2,805 GPM
- Total TCE Mass Removed – 54,500 lbs

● =Extraction Well  
●+ =Drinking Water Supply Well



# Planned Enhancements to Remedial Systems for 2012



- EA-02/MW-29 Pipeline Project
  - Separate flows from EA-02 and MW-29
  - Increase extraction rates.
  - Enhanced TCE mass removal and plume containment.
  - Work to start May 2012
  
- EA-08/33A Pipeline Project
  - EA-08 water will be conveyed to the 33A GTS
  - Flexibility to allow for more water delivery for potential NW area injection
  - Work Plan will be submitted to EPA May 2012

# Planned Enhancements to Remedial Systems for 2012



- New Extraction Well-EA-09
  - Located S of I-10; Near MW-12
  - Estimated extraction rates 150 to 300 gpm
  - Enhance TCE mass removal between I-10 and Van Buren
  - Enhanced protection of COG-03 and plume containment north of Van Buren.
  - Work Plan will be submitted in June 2012

# QUESTIONS?

