



MEETING MINUTES

**Miracle Mile
Water Quality Assurance Revolving Fund (WQARF) Site
Community Advisory Board (CAB) Meeting**

**Tuesday, June 9, 2015
6 p.m. - 7:30 p.m.
Ellie Towne Flowing Wells Community Center
1660 W. Ruthrauff Rd.
Tucson, Arizona**

MINUTES

CAB Members Present: Gary Abrams, Fred Bass, David Crockett, Allison Jones, Jan Randolph

CAB Members Absent: Robert Brobeck, Henry Madrid, Karen Ramage

ADEQ Staff Present: Scott Green, Remedial Unit Manager; Wendy Flood, Community Involvement Coordinator (CIC); Gretchen Wagenseller, Project Manager

Members of the Public Present: Cathrine Estar

Others in Attendance: Jim Clarke, Ailiang Gu, AMEC Foster Wheeler Environmental & Infrastructure, Inc.

1. Call to Order/Introductions

The meeting began at 6:00 p.m. Co-chair, Mr. Fred Bass, called the meeting to order. Introductions were made by CAB members and audience.

2. Acceptance and/or Changes to December 11, 2013 and August 27, 2014 Minutes

Ms. Jan Randolph stated that in December 11, 2013 meeting minutes there is a run-on sentence in Section 3 Paragraph 1 that does not make sense. It was changed to "Dr. Cox earned her PhD from the University of Arizona, Department of Soil, Water and Environmental Science. She is originally from England and specialized in groundwater modeling." It was also added that the meeting actually concluded at 7:30 pm not 7:45 pm. It was moved by Mr. Gary Abrams and seconded by Ms. Allison Jones; both changes were passed.

Ms. Allison Jones question the meeting of August 27, 2014, since there was not a quorum why are there minutes. Ms. Wendy Flood shared a meeting occurred regardless and quorum is more for business decisions or approval. Ms. Randolph motioned to approve the meeting minutes. Ms. Jones seconded. All were in favor; motion carried.

3. CAB Membership Discussion and Vote

Ms. Flood mentioned that Mr. Robert Brobeck stated a year ago that he wanted to resign and that she has tried to contact him. There also has been no response to contact attempted for Ms. Karen Ramage. She has not been in attendance at the last two CAB meetings.

Mr. David Crockett motioned to accept Mr. Brobeck's desire to resign. Ms. Randolph seconded. All were in favor; motion carried. Mr. Abrams made motion to terminate Ms. Ramage from the CAB. Ms. Jones seconded. All in favor; motion carried.

4. CAB Charter Discussion and Vote

Ms. Jones brought attention to page 2, section 7 (a) of the CAB charter and requested it say at least 5 members instead of 7. Discussion was held on verbiage and legal requirements. It was decided that the verbiage "a minimum of 5" would be used once verified with the Attorney General office.

Ms. Randolph expressed her concerns with the new charter and preferred the original charter from 2000. Ms. Randolph had several objections, and specifically referred to section J, second sentence. Ms. Flood stated that this specific section did not change and was from statute. After further discussion it was decided that section could not be changed.

Ms. Randolph expressed that the board had decided back in June 26, 2013 not to share names, emails, and phone numbers and that it cannot be allowed in the charter. The CAB discussed and agreed to remove "as listed in the minutes".

Ms. Randolph stated that in section IV-A the word "altered" should be changed to "alternated".

Ms. Randolph moved to accept the charter as corrected, Mr. Crockett seconded. All in favor; motion carries. Ms. Flood stated that corrections will be made and signed at the next meeting.

5. Feasibility Study (FS) Progress, Fiscal Year 2016 Plans and Site-Wide Groundwater Monitoring Results Presentation and Discussion - See Attached Presentation

Ms. Gretchen Wagenseller reminded the CAB that Miracle Mile site is now in the feasibility study stage. ADEQ is addressing any remaining data gaps and finding remedies that will achieve remedial objectives. Feasibility progress next steps were reviewed. Ms. Wagenseller covered the activities related to deep and shallow soil gas, chromium investigation, Trichloroethene (TCE) and Nitrate. The budget for fiscal year 2016 is uncertain but the priorities are the Flowing Wells Irrigation District wellhead treatment and the shallow soil gas.

Ms. Randolph inquired about chromium left in place under Spring Joint and the risk. Ms. Wagenseller said due to the deeper depth of the chromium, the concern is with the groundwater.

Mr. Jim Clarke presented the March 2015 Groundwater Monitoring Results including contaminants of concern (COCs), contaminants of potential concern (COPCs), regional and perched ground water elevations and historical water level trends, regional groundwater flow direction and hydraulic gradient. Mr. Clarke continued to cover concentrations of TCE, total chromium and nitrate in groundwater and the current contaminant plume boundaries based on the current data. Ms. Jones questioned the nitrate isotope drop at one of the wells. Dr. Ailiang Gu informed her that they were still awaiting isotope analysis results.

6. Declaration of Environmental Use Restriction Presentation (ADEQ Presentation)

Mr. Scott Green summarized the declaration of environmental use restriction (DEUR) process. He stated that it includes institutional and/or engineering controls to prevent exposure to contaminated soils as well as some financial and reporting obligations. One example of a need for a DEUR is former Spring Joint Specialists property because of the subsurface soil exceeding cleanup standards. Ms. Jones stated that a DEUR makes a property more valuable and financeable.

7. CAB Duties and Call to Action (ADEQ Presentation)

Mr. Green presented the financial position of the WQARF program at this point and how the CAB can help the WQARF program. Mr. Green reviewed a brief history and definition of WQARF. Mr. Green shared that the sites are being prioritized for budget allocation. Only ones that immediately impact human health and the environment will be addressed in FY 2016. Mr. Green requested that CAB members write a letter to legislature requesting full funding so to protect the human health and the environment. Mr. Green stated it is very likely that the Miracle Mile site the feasibility study will not be completed in FY 2016.

Ms. Randolph asked about the possibility of free public service announcements to get the message out. The CAB stated they wanted to send letters individually.

8. Community Involvement Plan Review, Discussion and Possible Vote

Ms. Flood stated that the community involvement plan (CIP) needs to be updated every year by statute. Ms. Flood stated that the updates have been made and provided in advance to the CAB members. Due to meeting time restraints, Ms. Flood requested that questions and comments be sent to her via email and presented at the next CAB meeting.

9. CAB Co-chair Discussion and Vote

Mr. Bass and Ms. Randolph agreed to remain the co chairs. It was moved by Mr. Abrams, and seconded by Ms. Jones. Motion carried.

10. CAB Outreach

Ms. Randolph stated she contacted the City of Tucson and they were responsive to hearing and talking with her. However, Pima County was not as receptive. Ms. Randolph planned to attend meetings with neighborhood groups but the meetings did not come to fruition. Ms. Randolph stated she was confused about the lack of enthusiasm to inform the public from the county as opposed to the city. Ms. Jones suggested the Pima Department of Environmental Quality (PDEQ) might be a good to contact to help inform the public. Ms. Flood offered to get PDEQ more involved in the next meeting and will add updated information to the mailing list.

11. Call to the Public

No questions from the public.

12. Next Meeting date/Agenda Discussion

No meeting determined at this time.

13. Adjournment

The meeting adjourned at 7:50 p.m.

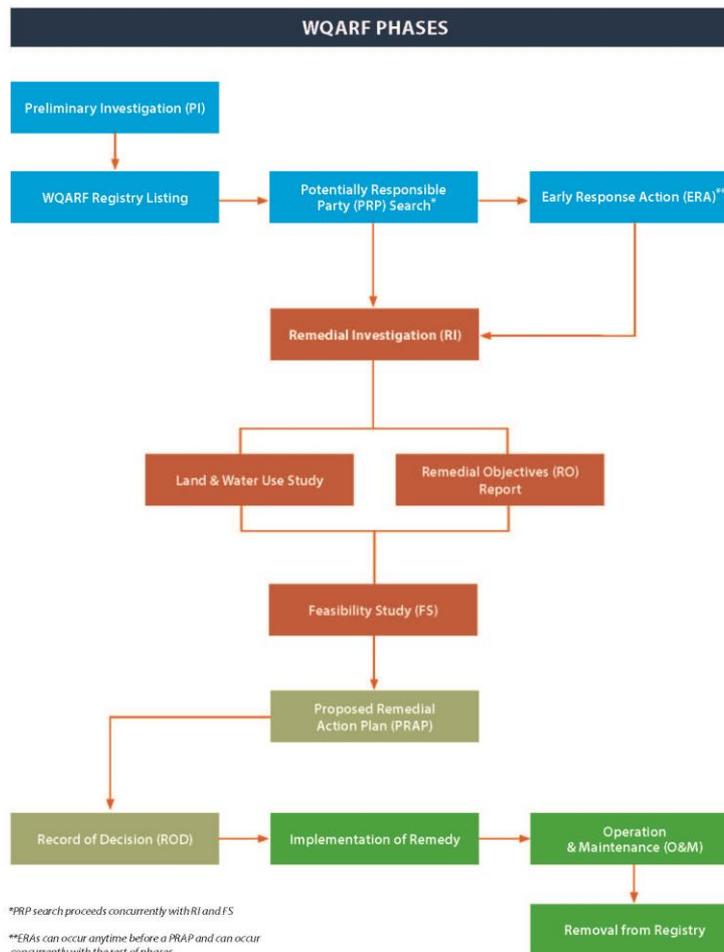
*This meeting was recorded on a digital device as a record of the proceedings. To listen to a recording, or for additional information about the content of this meeting, contact:
ADEQ: Wendy Flood at 602-771-4410.*



Miracle Mile WQARF Site
Community Advisory Board Meeting
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Feasibility Study Progress





- Address any remaining data gaps
- Identify remedies that address the Remedial Objectives
- Remedy evaluation by set comparison criteria
- Select a proposed remedy
- Document the Feasibility Study (FS) process and selection in the FS Report
- Note—FS Results are summarized in a Proposed Remedial Action Plan (PRAP) and issued for public comment

- December 2014, ADEQ hired AMEC Foster Wheeler (AMEC) to work on the FS
- AMEC evaluating and addressing “data gaps” — any missing data that impairs ability to perform/complete the FS.
- AMEC prepared scopes of work (SOWs) to complete investigations of volatile organic compounds (VOCs) in shallow and deep soil gas, chromium in soil and perched groundwater, the lateral extent of trichloroethene (TCE) in regional groundwater, and nitrate in perched and regional groundwater

VOCs in Deep Soil Gas

- Purpose—determine whether remedial action needed for VOCs in deep soil gas
- Field work performed February 2015



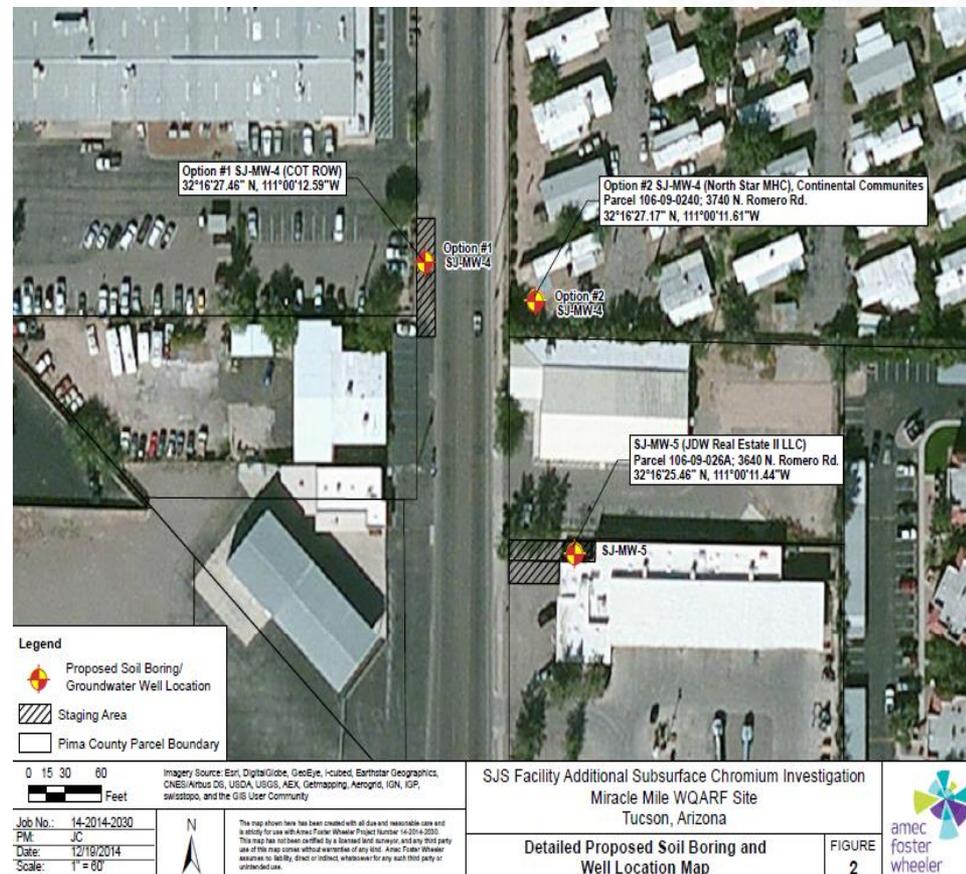
VOCs in Shallow Soil Gas

- Purpose—determine whether remedial action needed for VOCs in shallow soil gas for indoor air pathway
- Access—still in process
- Work planned for FY2016 (dependent on WQARF budget)



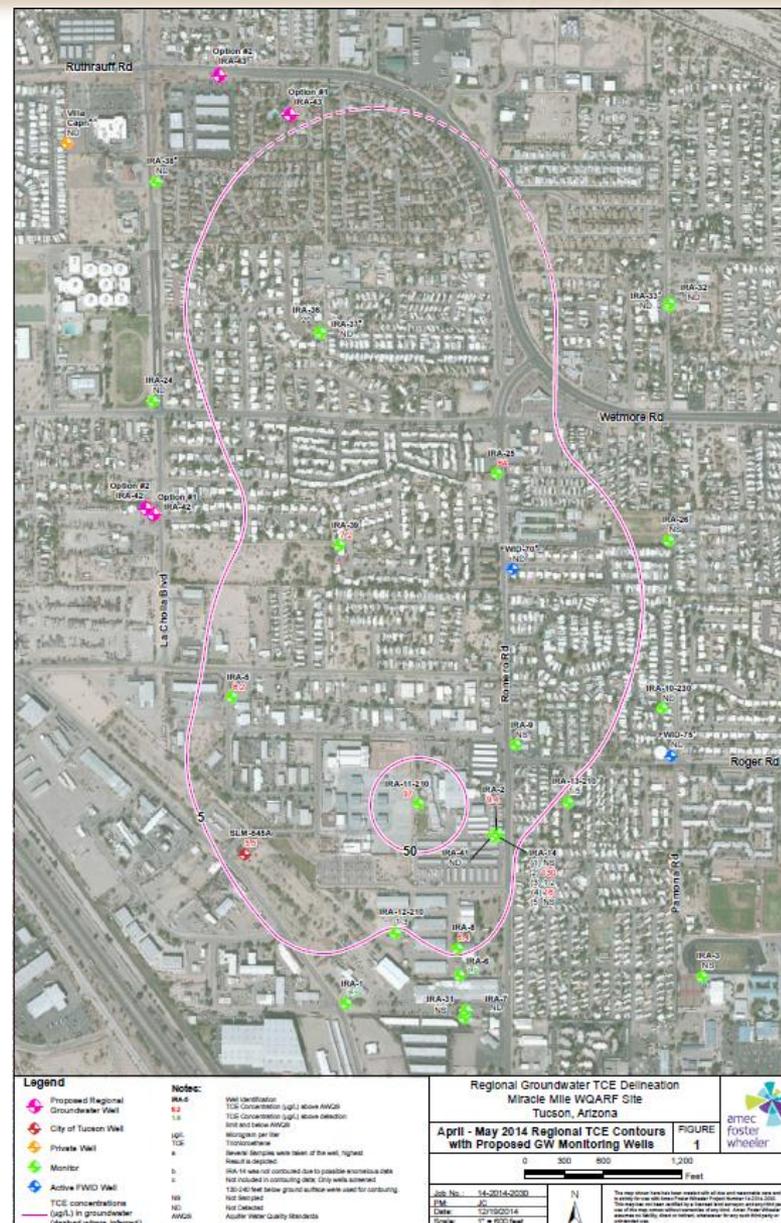
Chromium Investigation

- Purpose—complete previous investigation of chromium contamination at and near the Former Spring Joint Specialists facility
- Access—still in process
- Work planned for FY2016 (dependent on WQARF budget)



Trichloroethene Plume Delineation

- Purpose—complete delineation of lateral extent of trichloroethene (TCE) plume
- Access—in process
- Work planned for FY2016 (dependent on WQARF budget)



Nitrate in Groundwater Evaluation

- Purpose—determine whether nitrate should be designated as site contaminant of concern (and be addressed in FS)
- Field work completed
- AMEC report recommendations to be submitted by June 30

- Site-wide groundwater sampling performed in March
- Started construction of groundwater model for use in the FS to evaluate groundwater remedial alternatives in FY2016 (already begun)
- In FY2016—Dependent on budget (and access), address all data gaps and develop/evaluate remedial alternatives



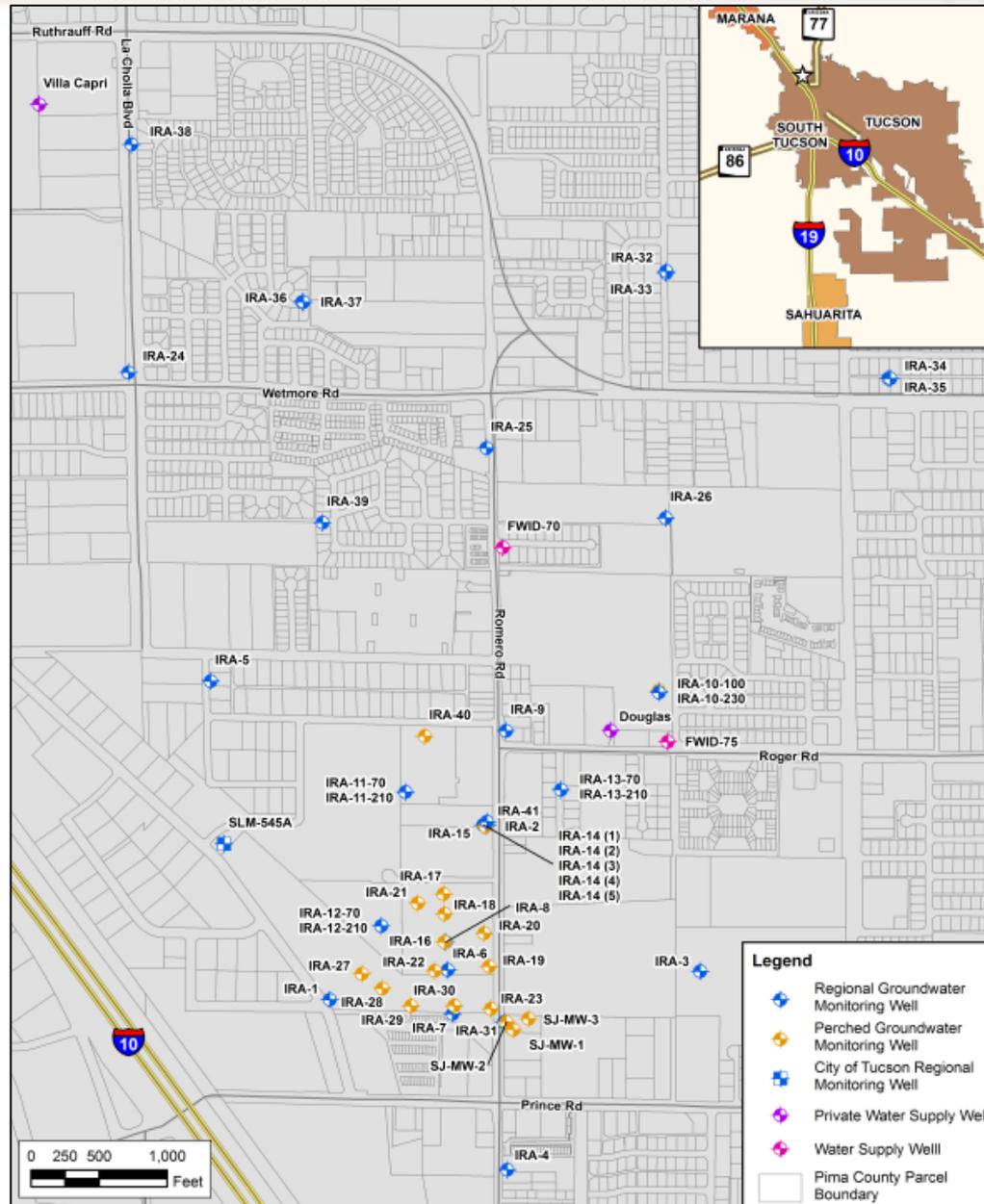
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2015 Groundwater Monitoring Result Update



- Site-wide groundwater monitoring event conducted in March 2015
- Groundwater monitoring activities included:
 - Groundwater elevation gauging
 - Groundwater sampling
- Purposes of groundwater monitoring:
 - Obtain updated groundwater contour maps for flow directions and gradient
 - Obtain updated groundwater plume maps and contaminant concentration trends
 - Use the data for the feasibility study (FS)

Site and Well Location Map



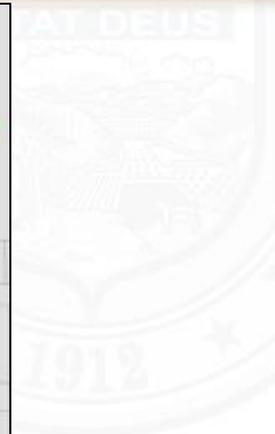
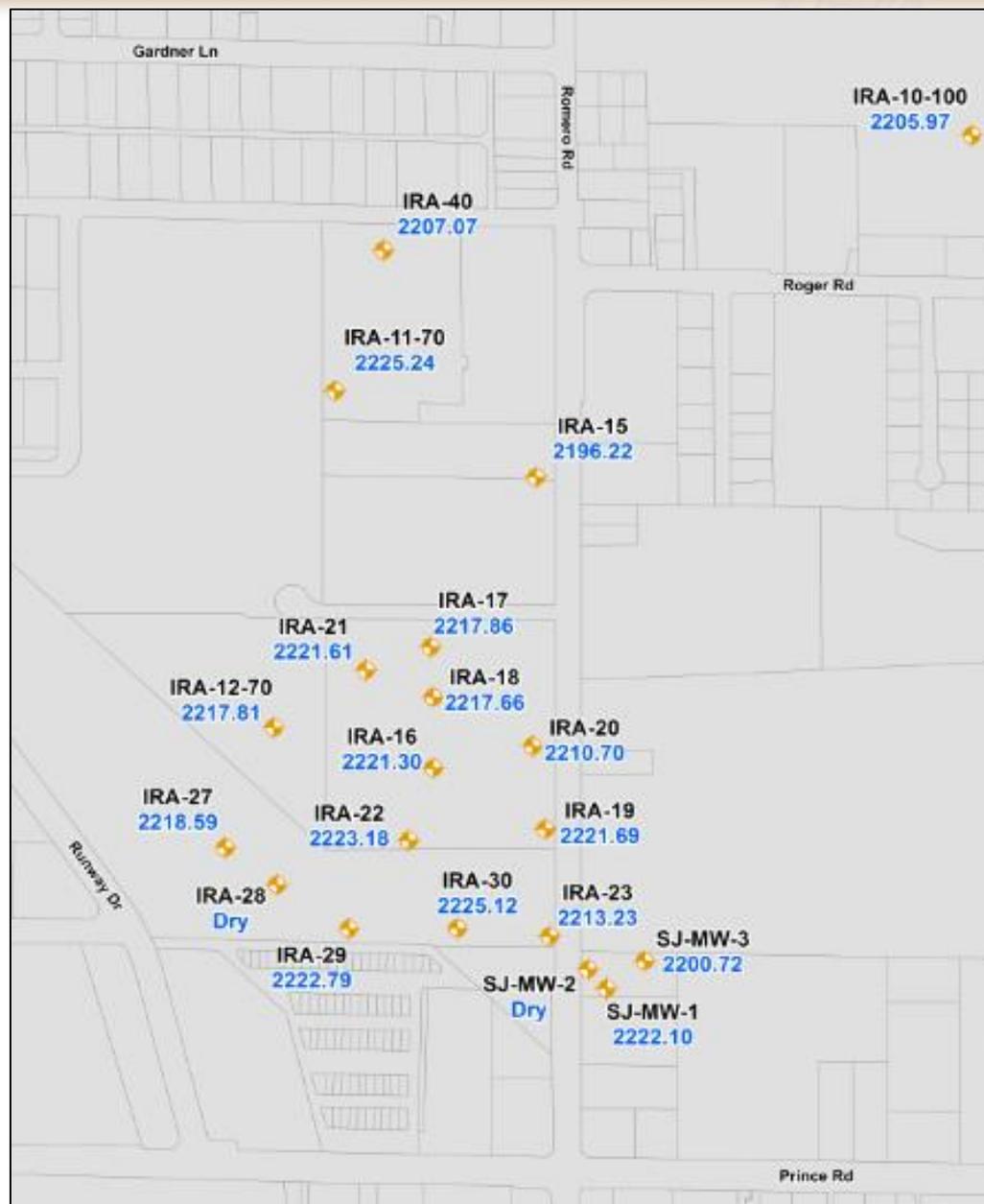
- March 2015 water level gauging
 - 46 wells
 - 20 perched monitoring wells
 - 26 regional monitoring wells

- March 2015 water quality sampling
 - 32 wells
 - 8 perched monitoring wells
 - 23 regional monitoring wells
 - 1 private water supply well (Villa Capri)



- Groundwater samples were analyzed for contaminants of concern (COCs) and contaminants of potential concern (COPCs)
- Groundwater COCs:
 - Trichloroethene (TCE), and
 - Total chromium (Cr)
- Groundwater COPCs:
 - Tetrachloroethene (PCE)
 - 1,1-dichloroethene (1,1-DCE)
 - Cis-1,2-dichloroethene (cis-1,2-DCE), and
 - Nitrate

March 2015 Perched Groundwater Elevation Map

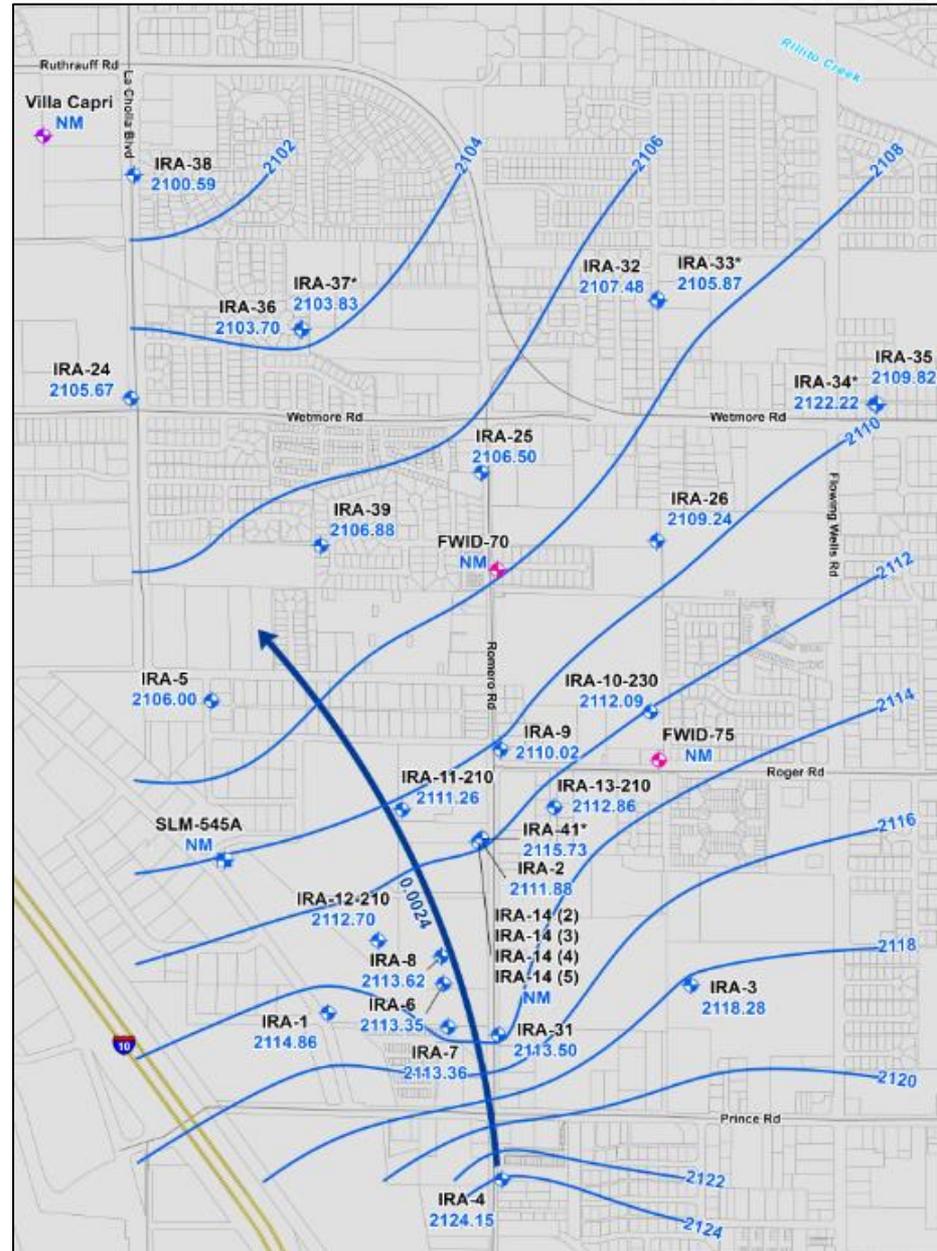


Groundwater flows northwest, consistent with historical flow directions for past several years.

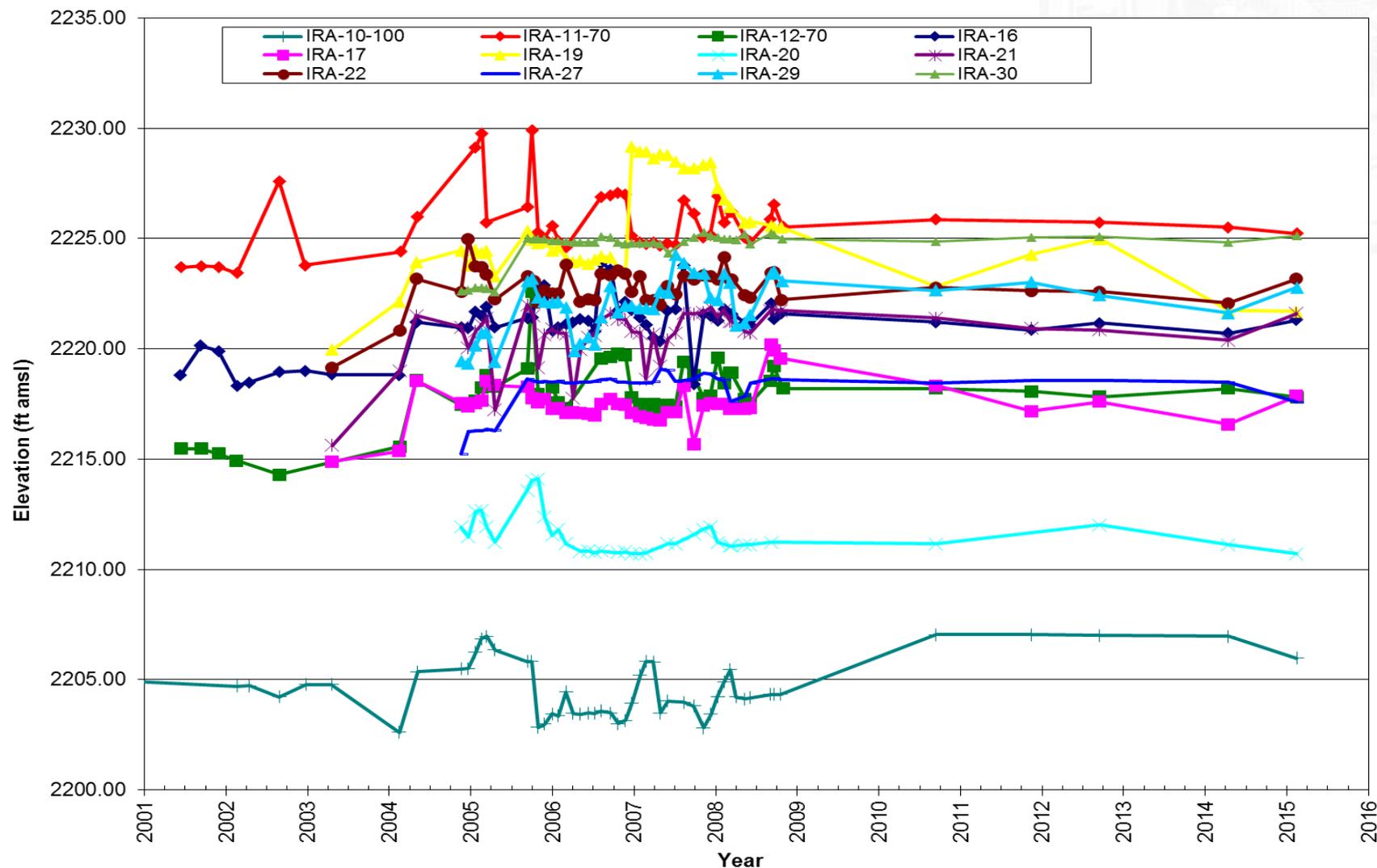
Map Notes:

* = Elevation value excluded from contouring

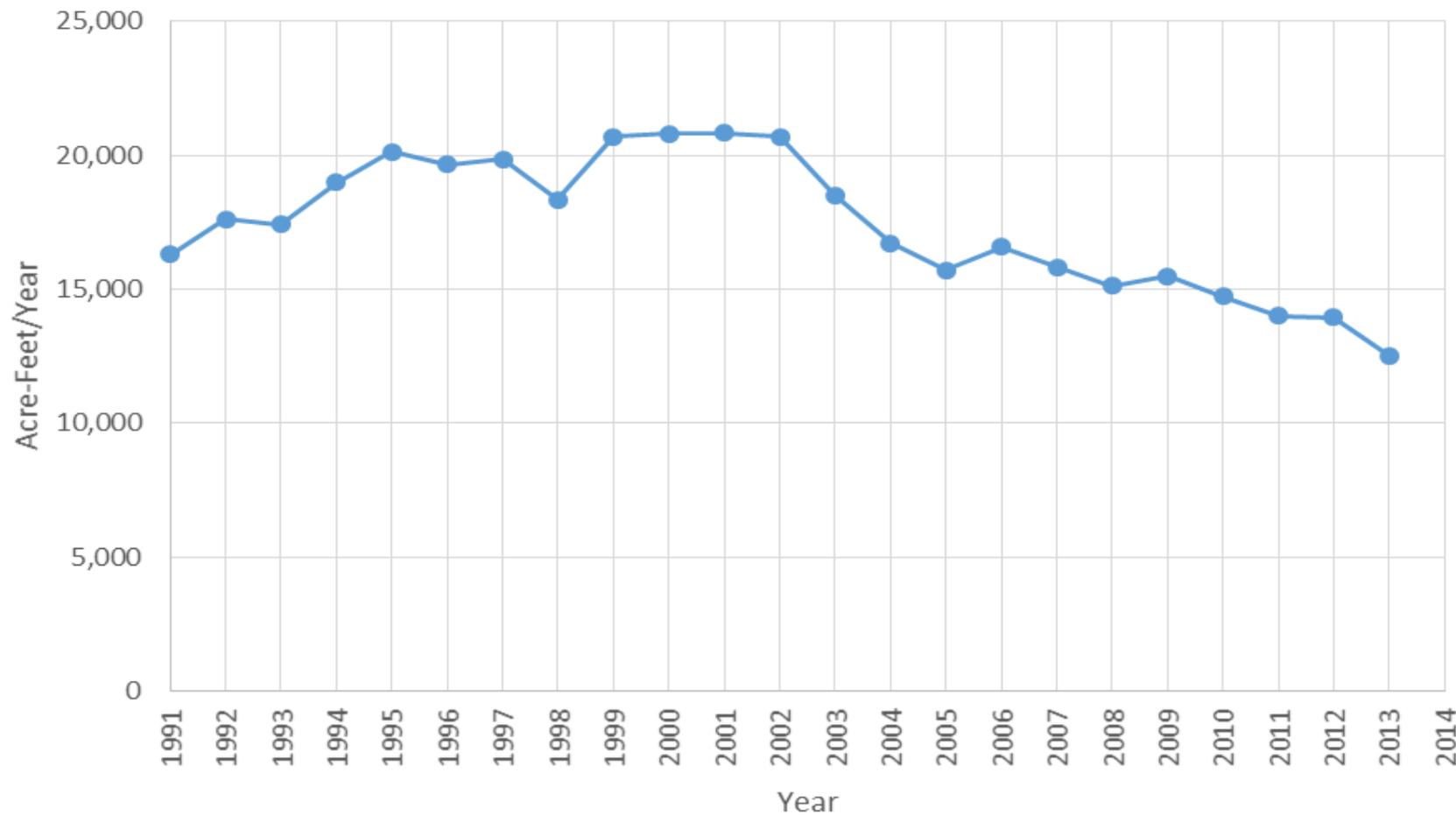
NM = Not Measured



Water Level Elevation in Perched Groundwater Monitor Wells

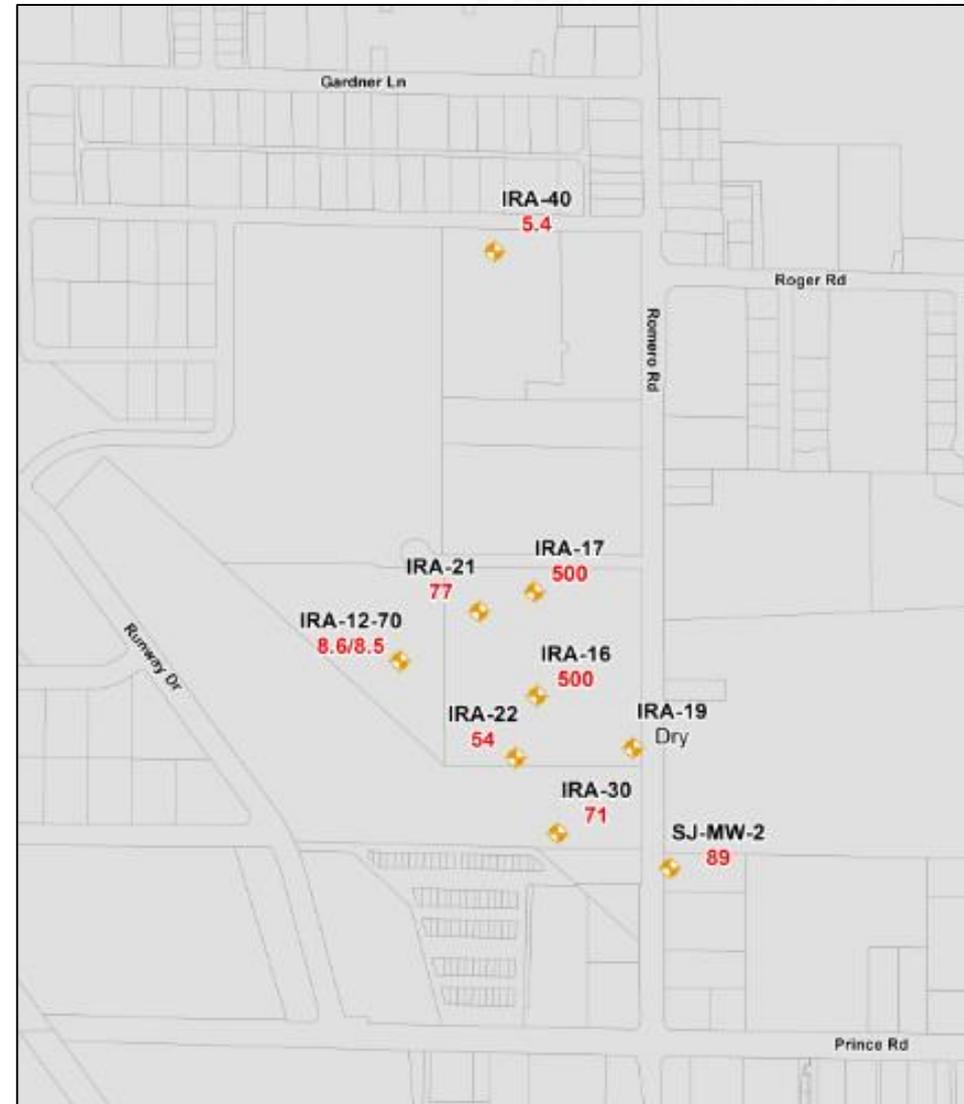


Nearby Well Pumping



Perched Groundwater TCE

- Eight (8) wells exceed Arizona aquifer water quality standard (AWQS) of 5 micrograms per liter ($\mu\text{g}/\text{L}$), **Red** = exceedance
- Highest TCE concentration: 500 $\mu\text{g}/\text{L}$ in two wells (IRA-16 and IRA-17)
- Historically, highest TCE concentrations were detected at IRA-19. IRA-19 was dry in 2014 and 2015.

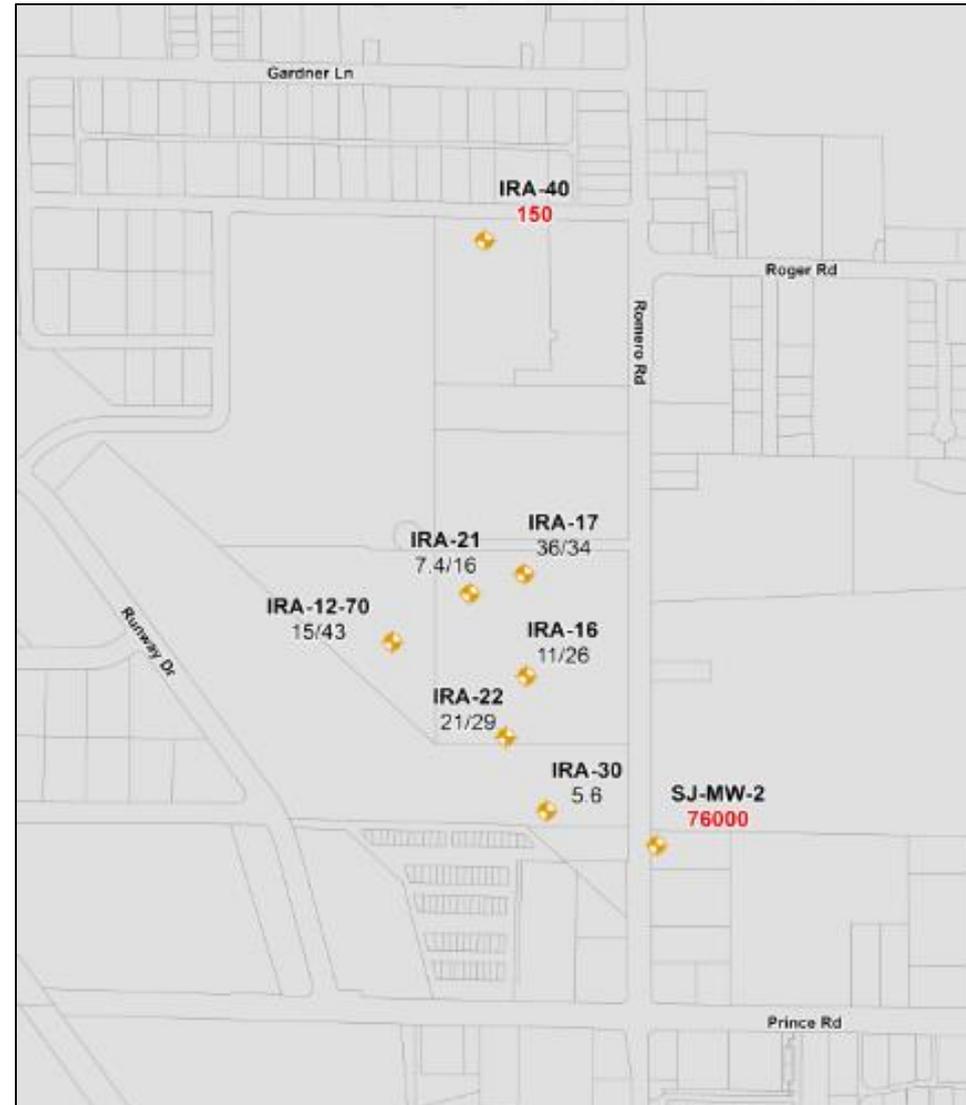


Perched Groundwater Total Chromium

- Two (2) wells exceed Arizona AWQS of 100 $\mu\text{g/L}$; **Red** = exceedance
- Cr concentrations are similar to 2014 results
- Highest concentration: 76,000 $\mu\text{g/L}$ (Well SJ-MW-2); it was 78,000 $\mu\text{g/L}$ in 2014

Map Note:

Unit: $\mu\text{g/L}$

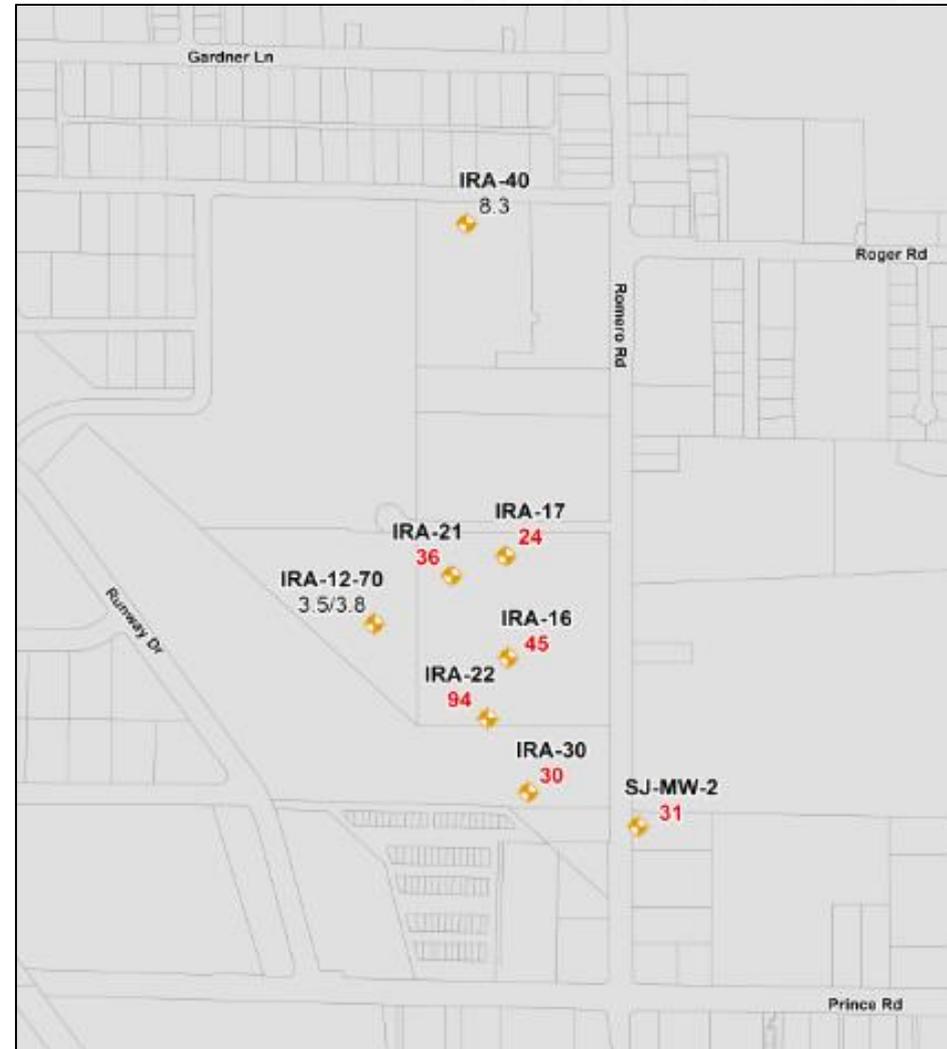


Perched Groundwater Nitrate

- Six (6) wells exceed Arizona AWQS of 10 milligrams per liter (mg/L); **Red** = exceedance
- Nitrate concentrations are similar to the 2014 results
- Highest concentration: 94 mg/L in well IRA-22 (was 86 mg/L in 2014)

Map Note:

Unit: mg/L



■ 2015 Regional Groundwater Quality Results

□ TCE

- Six (6) wells exceed Arizona AWQS of 5 µg/L
- Highest concentration: 53 µg/L (well IRA-11-210)

□ Cr

- One well (IRA-8, 120 µg/L) exceeds Arizona AWQS of 100 µg/L

□ Nitrate

- Seven (7) wells exceed Arizona AWQS of 10 mg/L
- Highest concentration: 15 mg/L (IRA-4)

■ 2015 Regional Groundwater Quality Results (Continued)

□ All other COPCs

- 1,1-DCE: no exceedance of Arizona AWQS of 7 µg/L
- Cis-1,2-DCE: no exceedance of Arizona AWQS of 70 µg/L
- PCE: one well exceeds Arizona AWQS of 5 µg/L (IRA-1, 34 µg/L)

□ Comparison with 2014 data

- Overall, TCE concentrations has decreased in the upgradient source area, but has slightly increased in downgradient wells (IRA-5 and IRA-38).
- Cr concentrations has decreased. In 2014, three (3) wells exceeded the AWQS of 100 µg/L (IRA-8, IRA-11-210, and IRA-12-210); in 2015, only one well (IRA-8) exceeded AWQS of 100 µg/L.

TCE in Regional Groundwater (March, 2015)

Map Notes:

* = SLM-545A
was sampled in
April 2015 by
COT

Unit: $\mu\text{g/L}$

Red = Exceeding
the AWQS of
 $5\mu\text{g/L}$

NS = Not Sampled



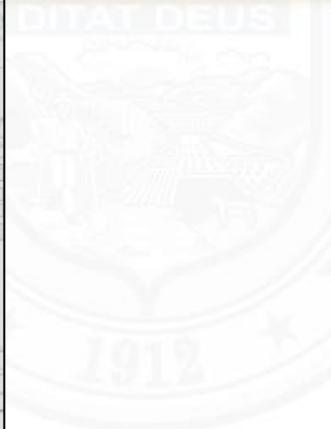
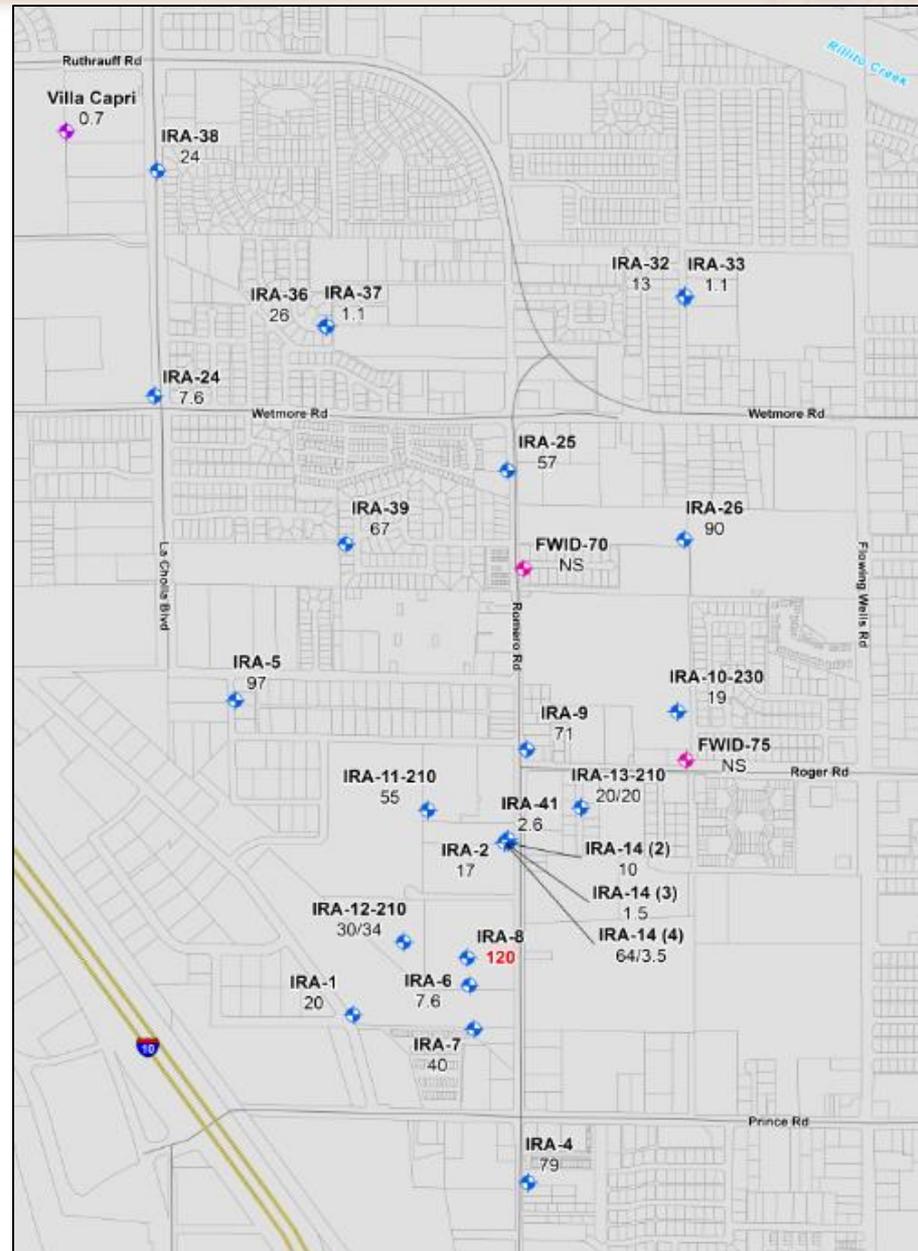
Cr in Regional Groundwater (March 2015)

Map Notes:

Unit: $\mu\text{g}/\text{L}$

Red = Exceeding
AWQS of 100
 $\mu\text{g}/\text{L}$

NS = Not Sampled



Nitrate in Regional Groundwater (March 2015)

Map Notes:

Unit = mg/L

Red = exceeding
AWQS of 10
mg/L

NS = Not sampled

