

OU #10-017

**Phoenix-Goodyear Airport (PGA) Area/Western Avenue Plume
Community Advisory Group (CAG) Meeting**

**Thursday, August 6, 2009 at 6:30 p.m.
Goodyear City Hall, Room 117
190 N. Litchfield Rd., Goodyear, AZ 85338**

FINAL MINUTES

CAG Members in Attendance:

Susan Kagan
Diane Krone
Robert (Bob) Smith
David Foltz

ADEQ Staff in Attendance:

Julie Riemenschneider, Remedial Projects Section
Manager
Harry Hendler, Federal Projects Unit Manager
André Chiaradia, Western Avenue Project Manager
Nicole Coronado, PGA-South Project Manager
Linda Mariner, Outreach Unit Manager

EPA Staff in Attendance:

None

Others in Attendance:

Kirk Craig, AMEC Geomatrix
Jeff Sussman, Goodyear Tire & Rubber Co.
David Iwanski, City of Goodyear
Win Colbert, Goodyear Tire & Rubber Co.
Todd Struttman, Los Alamos Technical Associates,
Inc.
Dennis Maslonkowski, TRC
Gant Wegner
Jenny Conger, Tierra Dynamic Co.
Preston Scott, E2 Consulting
Jeff Raible
Dan Kelly, Tierra Dynamic Co.
Lisa Amos, Maricopa Flood Control District
Mary Moore, Lindon Park Neighborhood Association

1. Call to Order / Introductions – Susan Kagan

Ms. Kagan, CAG Co-chair, facilitated the meeting. CAG members and all meeting attendees introduced themselves. Ms. Mariner announced unofficially that Catherine Brown from EPA would be the new Project Manager for the Federal Superfund Sites, PGA North and South, beginning on August 17, 2009. Ms. Brown will be replacing the current EPA Project Manager, Mary Aycock. The CAG and Mr. Iwanski expressed their appreciation for Ms. Aycock's many dedicated hours of work on the site.

2. Update of PGA North activities – C. Kirk Craig, P.E. Senior Engineer, AMEC Geomatrix

Mr. Craig initiated his presentation to the CAG with a remediation review of the PGA North Site. Mr. Craig continued his presentation with site details that included updates on the groundwater plume and investigation, performance results for existing treatment systems, building demolition activities, and details for future regional treatment of groundwater in the northeast division.

See slide presentation below

Ms. Kagan questioned the beginning date of volatile organic compound (VOC) removals reported in Mr. Craig's presentation. Mr. Craig responded that the beginning date was January 1, 2009.

Mr. Smith discussed with Mr. Craig additional details regarding the demolition activities at the site. Ms. Krone inquired if the in-situ groundwater treatment had already been tested at the site. In response Mr. Craig advised that this treatment has been tested, but not at the site yet. Mr. Smith asked Mr. Craig for the location of the wells that Avondale was using in the northeast area. Mr. Craig used a map from his presentation to show the area where these wells were located. In addition, Mr. Smith and Mr. Craig discussed contaminant levels in various extraction wells.

Mr. Craig discussed several recent accidental releases at the site. In May 2009, Mr. Craig stated a release of approximately 50,000 gallons of contaminated water containing about ten grams of trichloroethene (TCE) had been released from the main treatment system due to a power outage caused by a storm. Mr. Craig described another release that was due to a pipe rupture, which leaked hydraulic fluid during the demolition project on Building #12.

Ms. Krone inquired about the proposed timeline to capture the plume once the installation of extraction wells on the eastern perimeter of the plume is completed. In response Mr. Craig stated that once the pending work plan of the installation of additional extraction wells is finalized containment of the plume on the eastern side can be ensured. In addition, Mr. Craig stated that the installation of additional extraction wells would be necessary on the plume's northern side to ensure plume capture in this area as well. Ms. Krone inquired if there were possibilities of the plume expanding in other areas. Mr. Craig advised that historical groundwater data and newly installed transducers should help anticipate a plume expansion if one occurs.

Ms. Krone expressed her appreciation to Mr. Craig regarding his impressive presentation to the CAG.

3. Update of PGA South activities – Jeff Sussman, Goodyear Tire & Rubber Company

Mr. Sussman greeted the CAG and introduced himself as the new Project Manager, replacing Ron Clark. Other members of the PGA South Goodyear Project Team were introduced by Mr. Sussman. Mr. Sussman reviewed current site activities, cleanup results, and discussed upcoming events.

See slide presentation below

Mr. Smith inquired about the amount of TCE extracted to date. Mr. Struttman responded that the amount was about 6,000 pounds in the upper aquifer and an estimated 180 pounds in the lower aquifer. Mr. Sussman agreed to bring a handout that lists the amount of contaminants extracted to date to be distributed at the next meeting.

4. Update on Western Avenue (WA) WQARF Site activities– André Chiaradia, ADEQ Project Manager

Mr. Chiaradia reported that there has not been any field activity at the site since the last CAG meeting due to the pending finalization of a State budget.

5. City of Goodyear report – David Iwanski, COG Water Department

Mr. Iwanski reported that the City is working on a reclaimed water ordinance to include remediated groundwater from either the Superfund sites or WQARF site. In reference to PGA North and the demolition project taking place, Mr. Iwanski stated that after completion of the demolition, grading and revegetation of the area, there will be preliminary discussions to do a pilot project with “green” overtones. Mr. Iwanski stated that 69 properties have been identified as being Brownfields qualified. Mr. Iwanski advised the CAG that the next Brownfields

Community Advisory Committee will meet on August 27, 2009 to provide their input on the prioritization of up to 24 properties in the Phase 1 environmental assessments.

Ms. Krone and Mr. Iwanski discussed the amount of Brownfields funding that has already been spent just in the identification stages of selecting a site or sites to remediate. Mr. Iwanski also stated that the City is actively seeking various grants to support the Brownfields project.

The CAG took a 10-minute break.

6. Call to the Public

Ms. Moore, a member of the audience, inquired about the details of the new GAC-4 well work plan and the rebound effect at PGA South that is being investigated. Due to the fact that the PGA South technical team had to leave during the break, Mr. Craig responded to the question by discussing his theory regarding the rebound effect and its causes. Ms. Coronado also added that the causes of the rebound effect are not exactly known, which is why an investigation was requested. Ms. Moore also asked about the safety levels of the reinjected water. Mr. Craig responded that the reinjected water is cleaned to non-detect for volatile organic compounds.

Mr. Craig discussed with another member of the audience the purpose of the installation of a new monitoring well to the west of the EA-05 well. Mr. Craig outlined additional contingency plans in case of future spills and discharges at PGA North.

7. Acceptance and/or changes to minutes of May 7, 2009

Ms. Kagan advised Ms. Mariner that under item # 6 it should read Mr. "Smith" under the two references where Mr. "Scott" is mentioned; in addition, a correction was needed under item #10 to change "Mr." Holland to "Ms." Holland. Mr. Foltz made a motion to accept the minutes to include the two corrections Ms. Kagan suggested. It was seconded by Mr. Smith. The minutes were approved unanimously by the CAG.

8. Construction and review of appreciation letter to Cathy O'Connell (formerly at ADEQ)-Diane Krone, Co-chair

After Ms. Krone read her prepared draft letter to the CAG, she made a proposal to the CAG to accept the appreciation letter to Cathy O'Connell, the former ADEQ Project Manager for PGA South. Mr. Foltz made a motion to accept the letter as written, and it was seconded by Mr. Smith. The motion was passed unanimously by the CAG. It was determined that since Ms. O'Connell was no longer employed with ADEQ that one letter would go into her personnel file with the Agency, and one would be sent to Ms. O'Connell's home address. The letter will be addressed to Julie Riemenschneider, the Remedial Projects Section Manager. Ms. Krone advised the CAG that she will get signatures for the letter from all of the CAG members individually.

In other business, Ms. Kagan presented to the CAG a copy of their appreciation letter that was mailed to ARCADIS. In addition, Ms. Kagan read to the CAG the letter she received from ARCADIS in response to their appreciation letter.

9. Future meeting and agenda items discussion

The next meeting was scheduled for Thursday, November 5, 2009 at the Goodyear City Hall, Room 117, 190 N. Litchfield, Goodyear, AZ. Suggested agenda topics for the next CAG meeting included: updates on PGA North, PGA South, and Western Avenue activities; Brownfields update; and CAG membership discussion and voting.

10. Adjournment

Ms. Kagan adjourned the meeting.

Phoenix-Goodyear Airport-North (PGA-North) Superfund Site

Kirk Craig, P.E.

AMEC Geomatrix, Inc., Scottsdale, AZ



Update for PGA-North



- The Groundwater Plume
- Groundwater Investigation
- Existing Treatment Systems and Soil Vapor Extraction System
- Building Demolition
- Plan for Regional Treatment of Groundwater in the Northeast



The Groundwater Plume

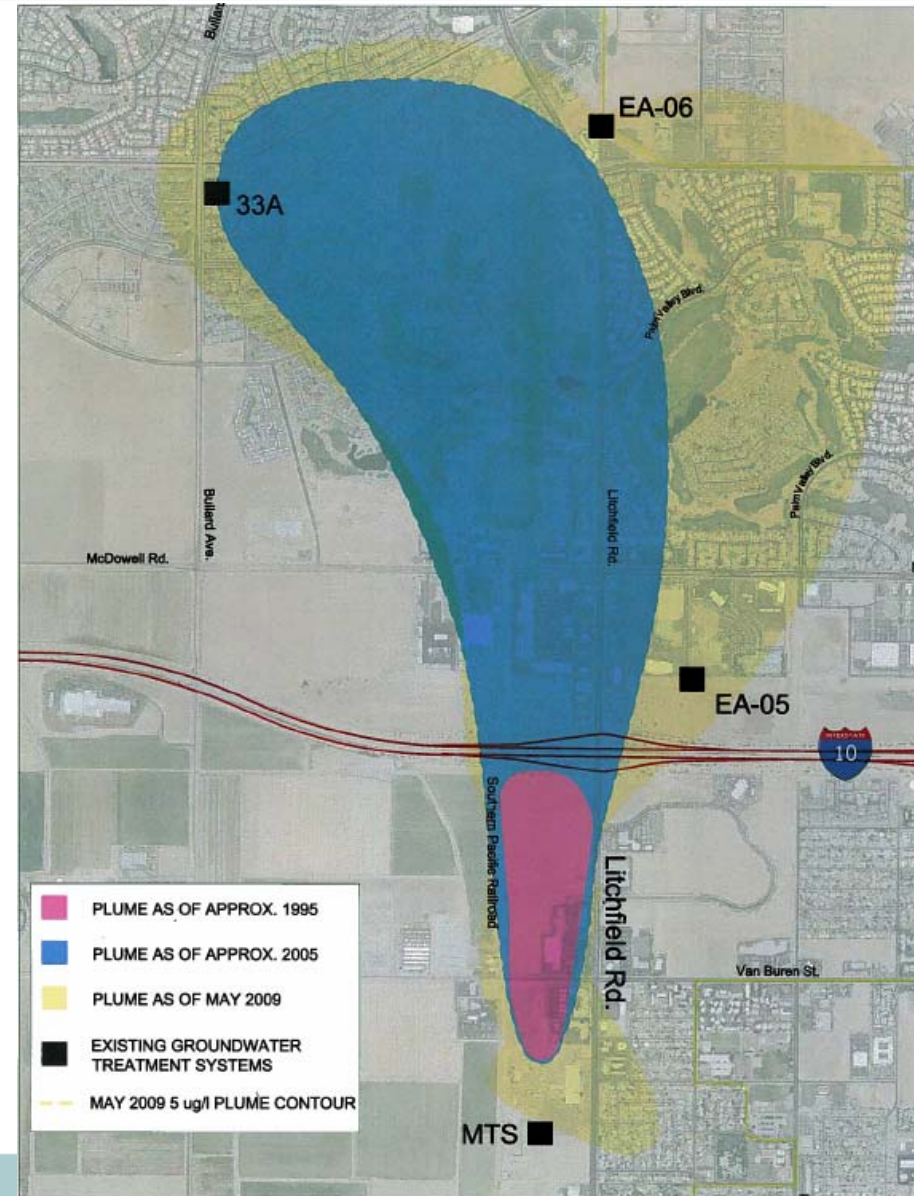


Pink – Approx. Plume in 1995.

Blue – Approx. Plume in 2005.

Yellow – Approx. Plume in May 2009.

What Happened?



Groundwater Investigation



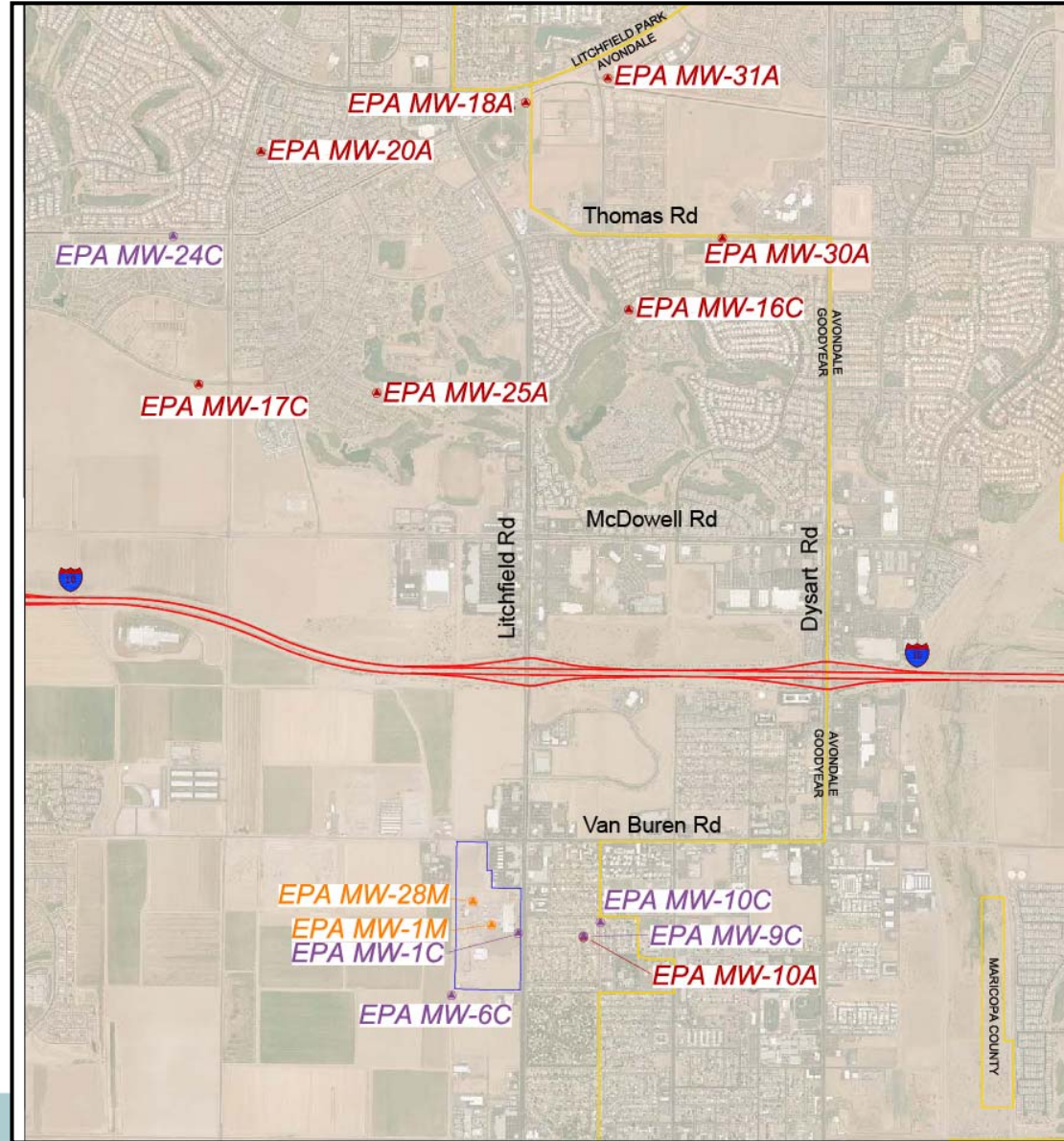
- Total Number of Groundwater Monitoring Locations to Date
 - 64 monitoring wells
 - 14 production wells
 - 10 remediation extraction wells
 - 1 golf course lake and waterfall



Year One Wells



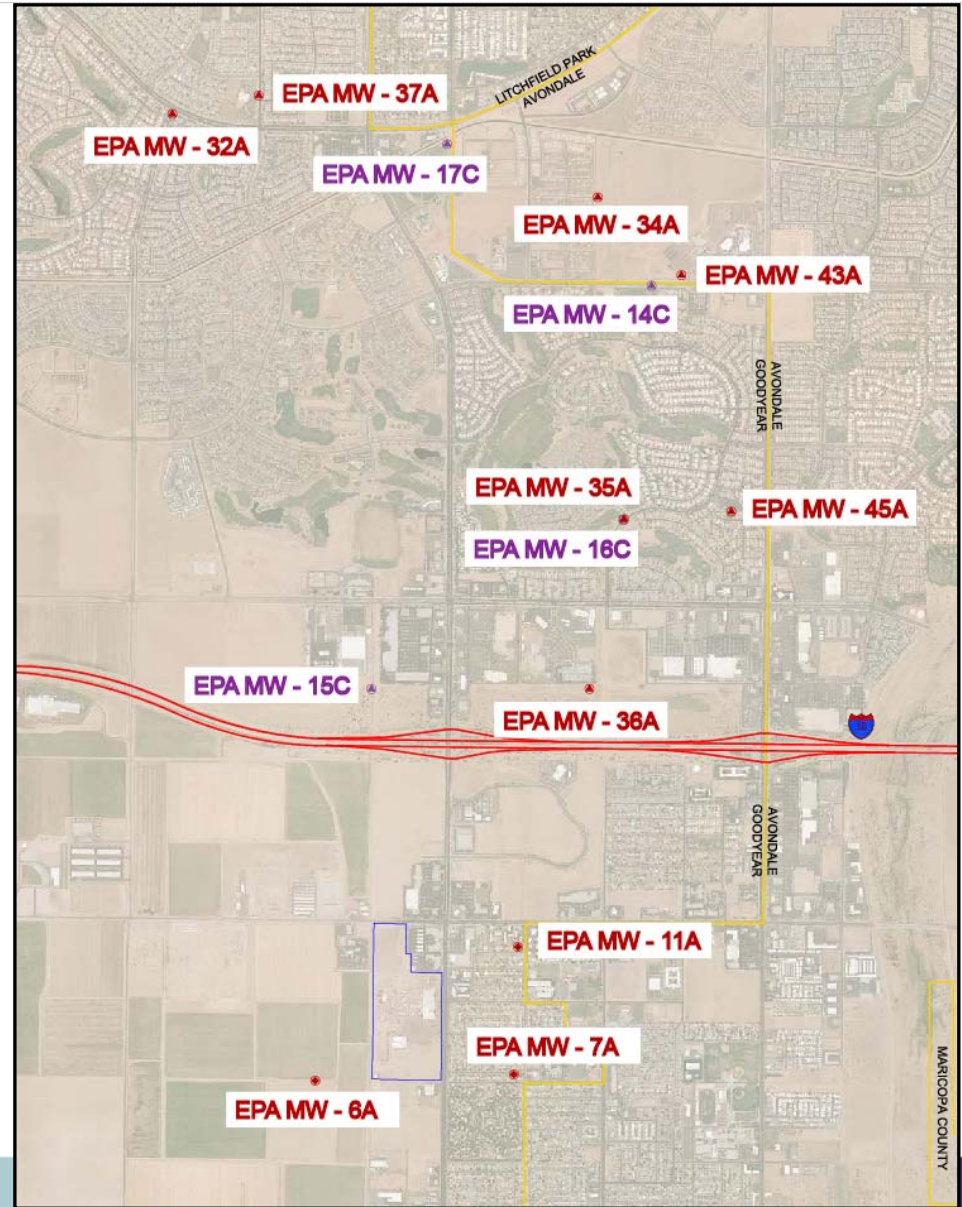
Year One of the Groundwater Investigation (Feb. 06 – Oct. 07)
15 Monitor Wells installed in



Year Two Wells



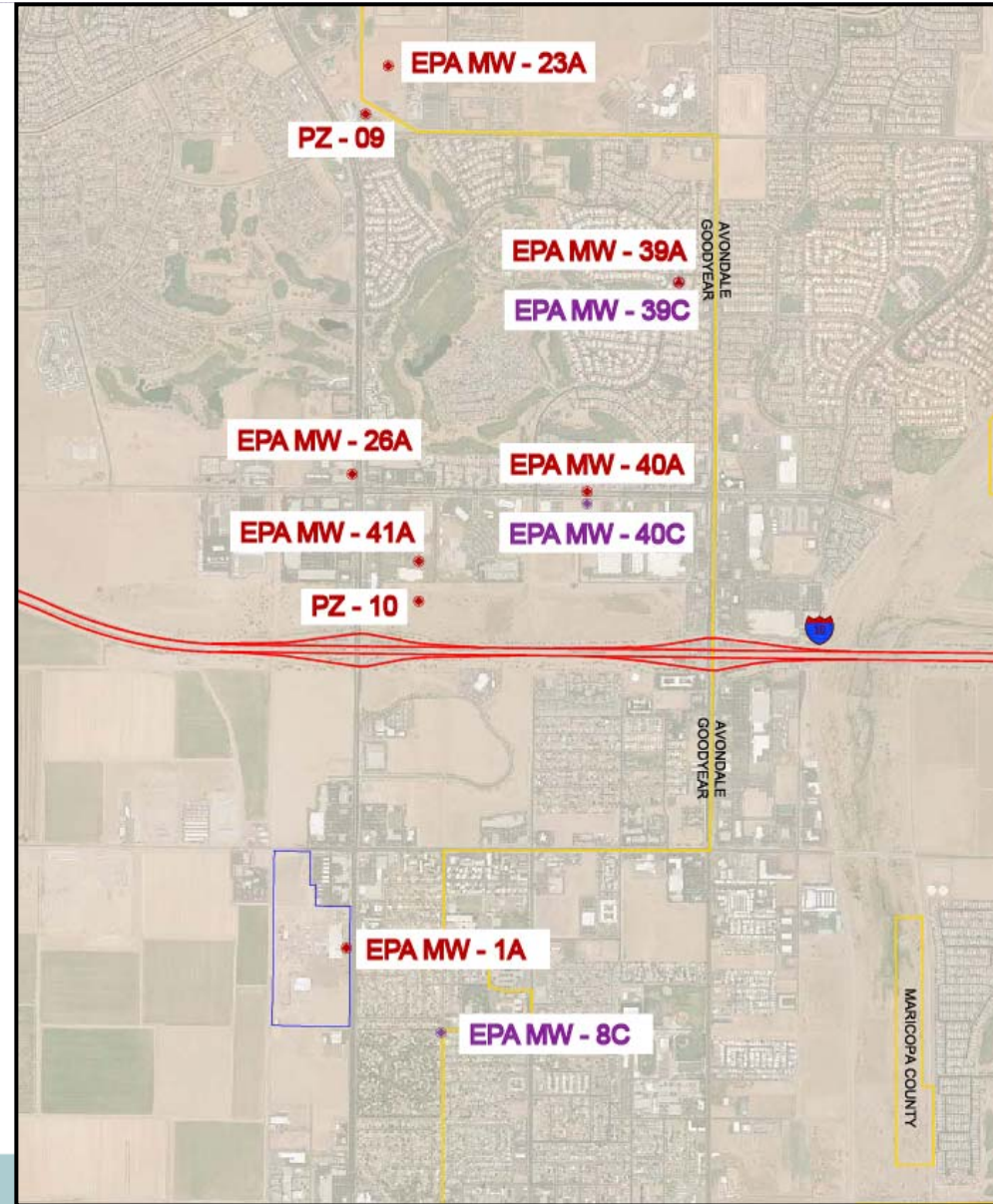
Year Two of the Groundwater Investigation (Oct. 07 - April 09)
11 Monitor Wells installed



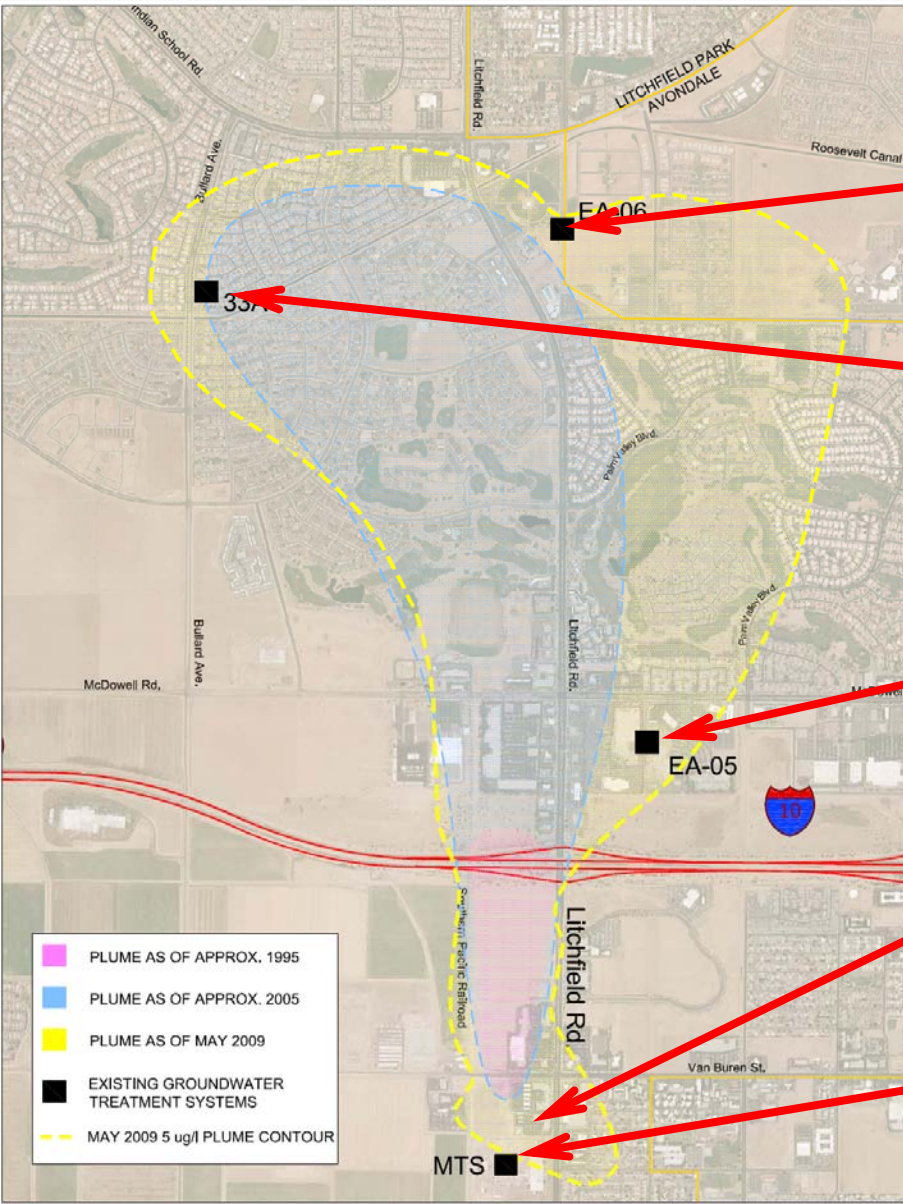
Year Three Wells



Year Three of the Groundwater
11 Monitor Wells Anticipated



Existing Treatment Systems



EA-06 Groundwater Treatment System

33A Groundwater Treatment System

EA-05 Groundwater Treatment System

Soil Vapor Extraction System

Main Groundwater Treatment System



Main Treatment System

- Built in 1994
- 7 Ext. Wells, 6 Inj. Wells
- 600 GPM
- Volume of Water Treated
 - > 6.25 billion gallons
- Mass Contaminant removed
 - ~ 28,582 pounds

Groundwater Treatment Systems



33A

- Operating Since 1997
- 1 Ext Well, clean water to RID Canal
- 750 GPM
- Volume of Water Treated
 - >4.3 Billion Gallons
- Mass Contaminant removed
 - ~ 7,783 pounds





EA-05

- Operating Since March 2008
- 1 Ext. Well, 1 Inj. Well
- 500 GPM
- Volume of Water Treated
 - 200 million gallons
- Mass Contaminant removed
 - ~ 131 pounds

EA-06

- Operating Since Jan. 2008
- 1 Ext Well, clean water to RID Canal
- 550 GPM
- Volume of Water Treated
 - ~ 220 Million Gallons
- Mass Contaminant removed
 - ~ 298 pounds



2009 Treatment System Accomplishments



2009 Groundwater Volume Treated

- 536,000,000 gallons

2009 Mass Removal

- 610 Pounds TCE

2009 Treatment Aggregate System Uptime

- 90.3% (15,820 total system hours)

2009 Treatment System Accomplishments



How much is
536,000,000
gallons of
water ?

Enough to Fill
Over 12
Super
Tankers



2009 Treatment System Accomplishments



How much was
610 pounds of
TCE when
released ?

Over 50
gallons



Beneficial Reuse/Recycling

MTS Water Used for Dust Control On-site

- 984,000 gallons

33A Water Used for Irrigation

- 2,158,460 gallons

Drum Reuse – 55 gallon poly drums for anti-scalant

- 32 drums used for demo project waste disposal
- 20 reused by local vendor

SVE Accomplishments



2009 VOC Removal ~ 45 Pounds

2009 TCE Removal ~ 39 Pounds

2009 System Uptime ~ 93% (over 4,300 hours)



2004 – 2009 VOC Removal ~ 2,500 pounds

2004 – 2009 TCE Removal ~ 1,600 pounds

SVE Accomplishments

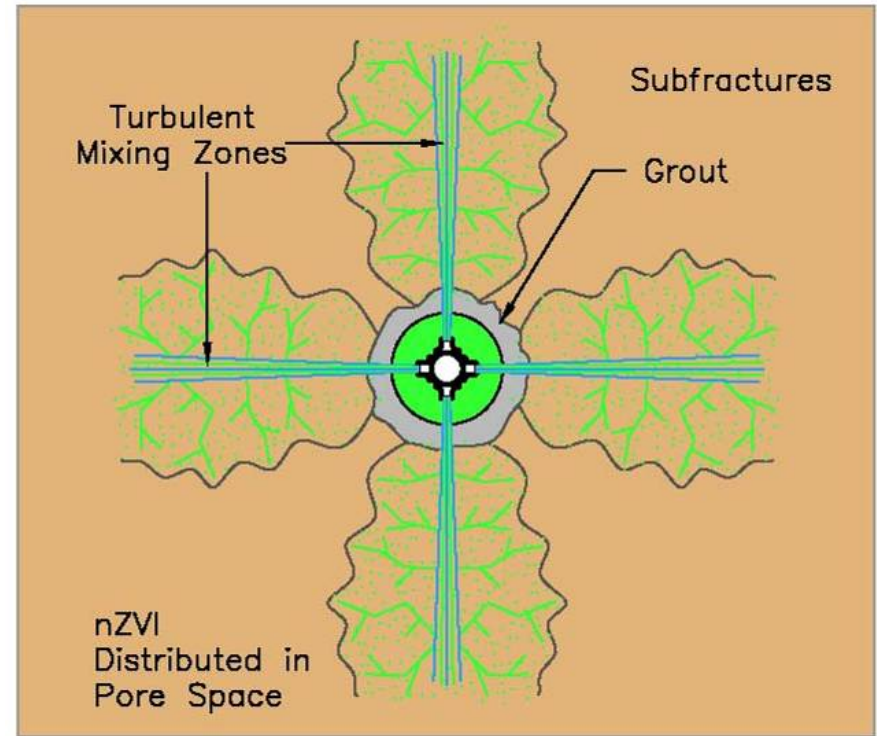
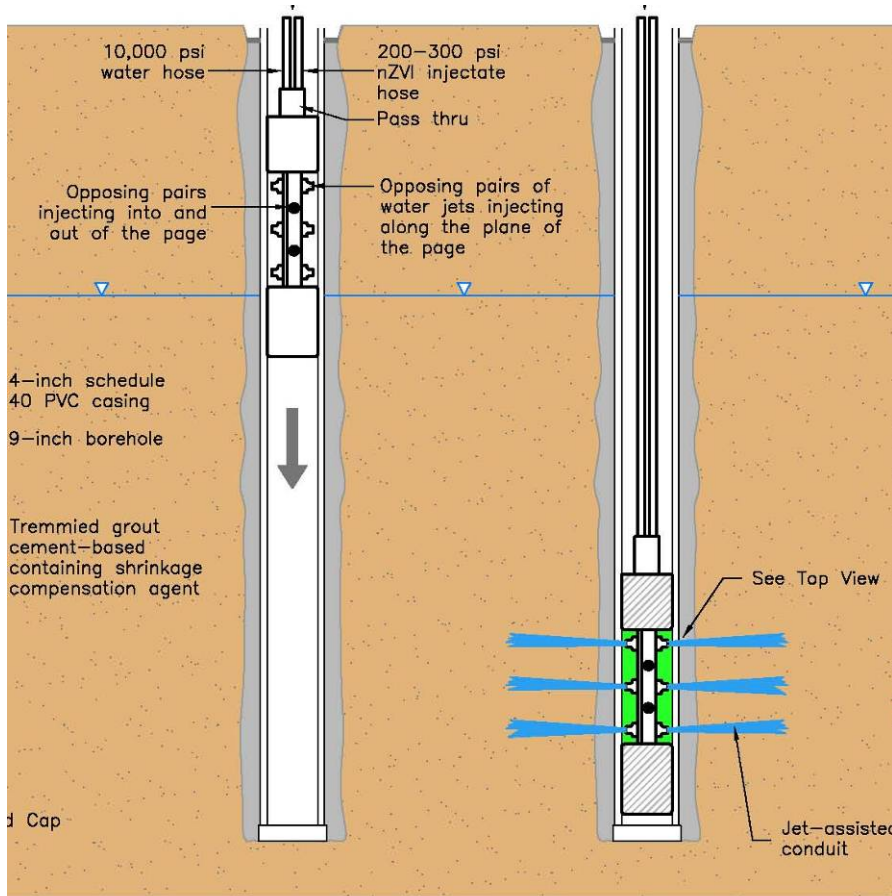


How much was
2,500 pounds
of VOCs when
released ?

Over 200 Gallons



Innovative In-Situ Groundwater Treatment



Top View

Nano-scale zero valent iron chemically reduces contaminants to non-harmful compounds

Proposed Jet Assisted Injection Mixing and Fracture Formation

Progress to Date:

- Total Building/Structure Area – 241,000 Square Feet
- Buildings/Structures Demolished – All buildings now removed with only debris in some areas still requiring clean up.
- Building Slabs mostly gone; slab for Building 1 remains to be demolished in the next 1-2 weeks.
- Project Completion – Estimated mid- to late-August

Demolition



On-going Demolition with Dust Control Measures In Place

Demolition – Before



Building 22 - Before

Demolition – After



Building 22 - After

Demolition – Before



Building 3 & 14 – Before

Demolition - After



Buildings 3 & 14 – After

Phased Regional Approach to Northeast Subunit A Plume

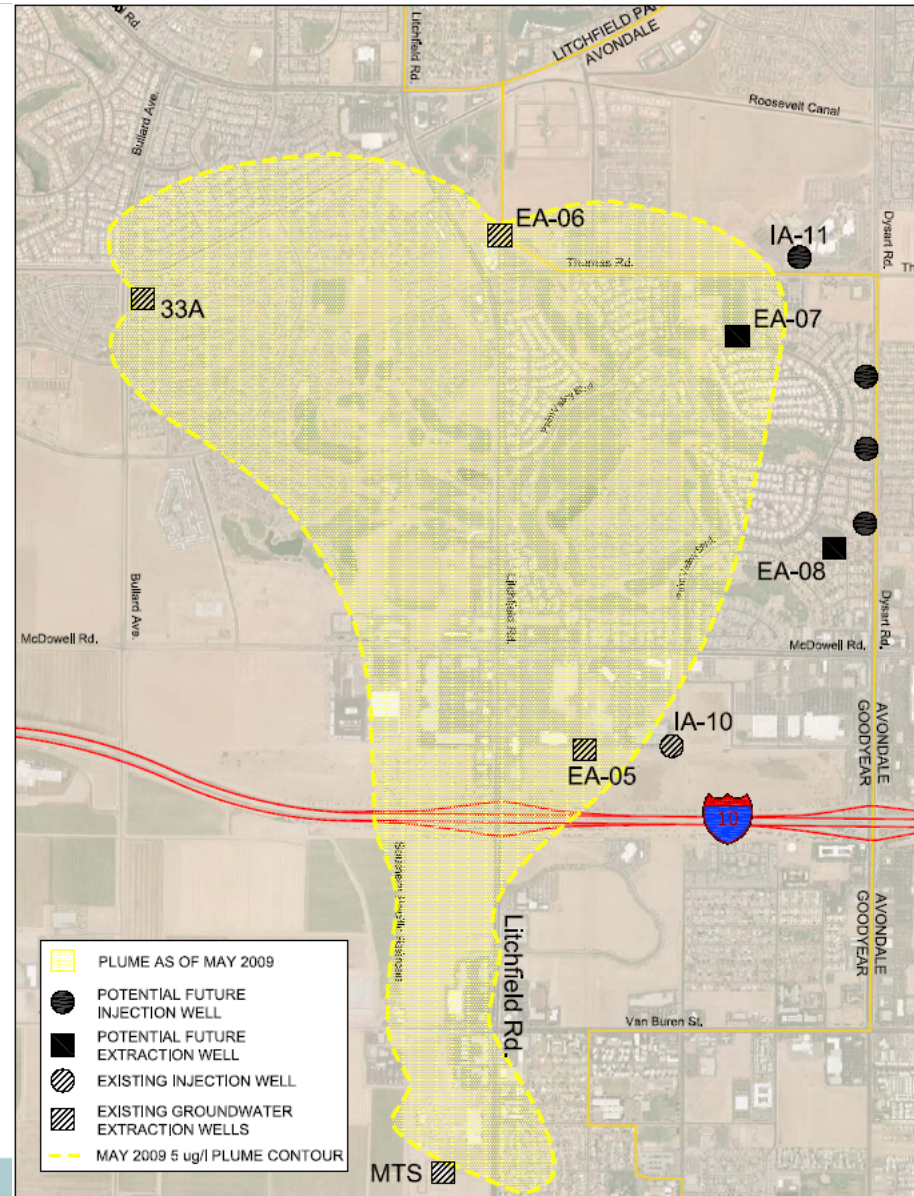


Current NE Groundwater Extraction and Injection

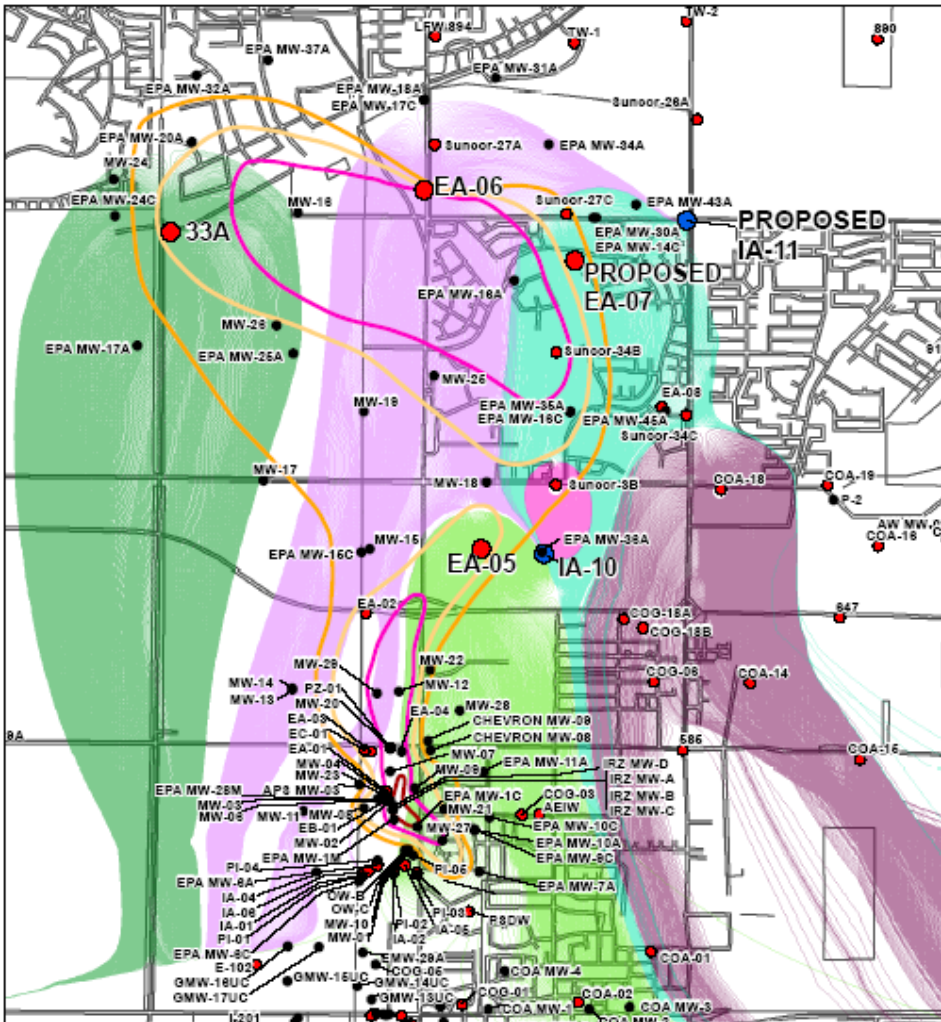
- Two Extraction Wells
 - EA-05 and EA-06
- One Injection Well
 - IA-10

Proposed Future NE Groundwater Extraction and Injection

- Work Plan Submitted July 24, 2009
- Up to Three Extraction Wells
 - EA-07, EA-08 and EA-09
- Up to Five Injection Wells



Phased Regional Approach to Northeast Model Simulated Capture



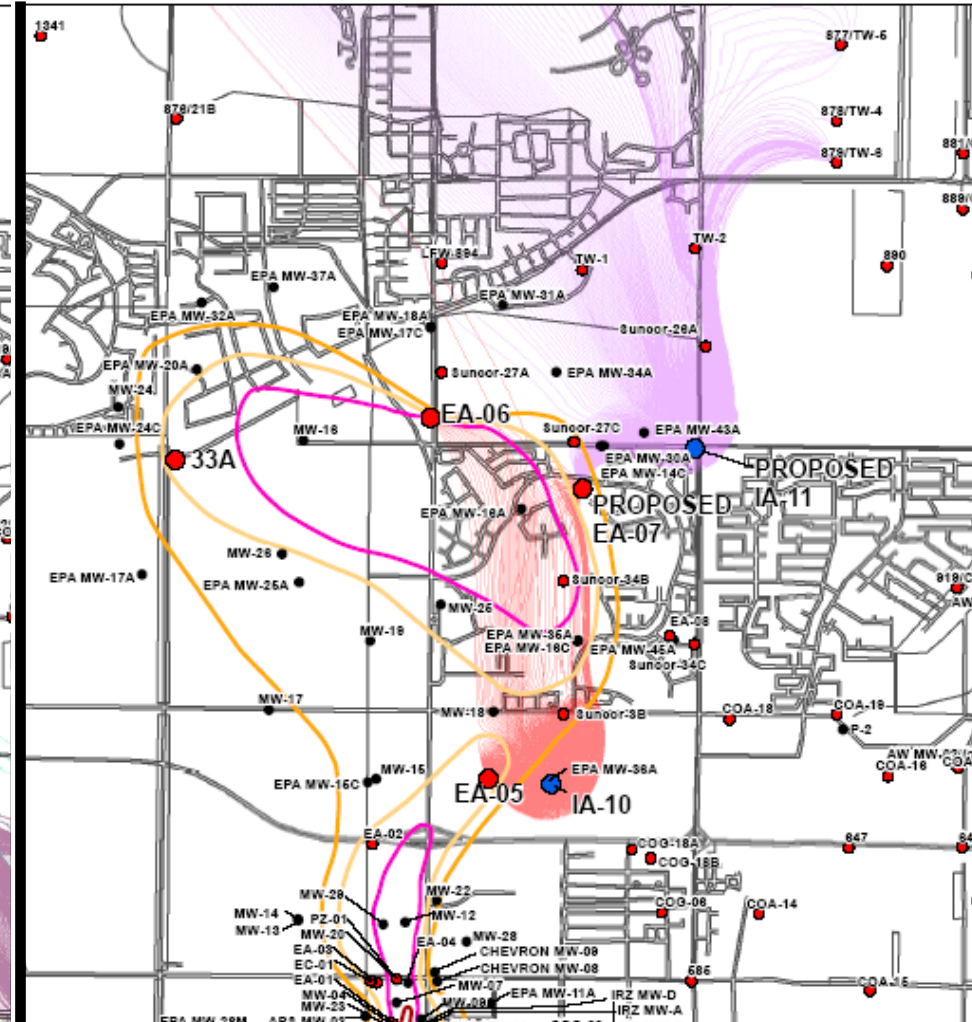
**PRELIMINARY DRAFT
SUBJECT TO REVISION**

0 2,000 4,000 Feet

Explanation

- Pumping well
- EA-05, EA-06, Proposed EA-07, 33A
- IA-10, Proposed IA-11 injection well
- Monitoring well

SIMULATED CAPTURE ZONE FOR



**PRELIMINARY DRAFT
SUBJECT TO REVISION**

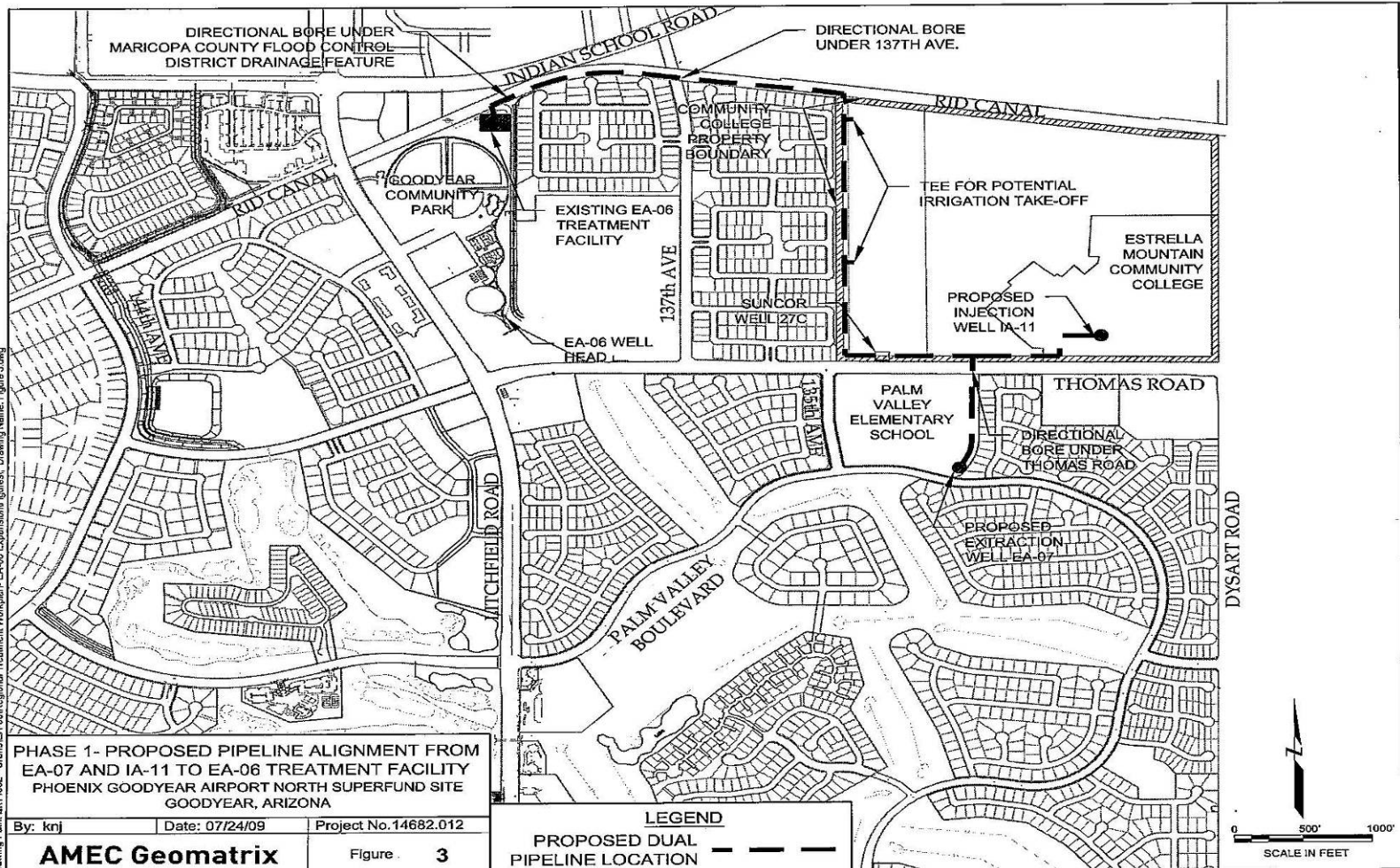
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Explanation

- Pumping well
- EA-05, EA-06, Proposed EA-07, 33A
- IA-10, Proposed IA-11 injection well
- Monitoring well

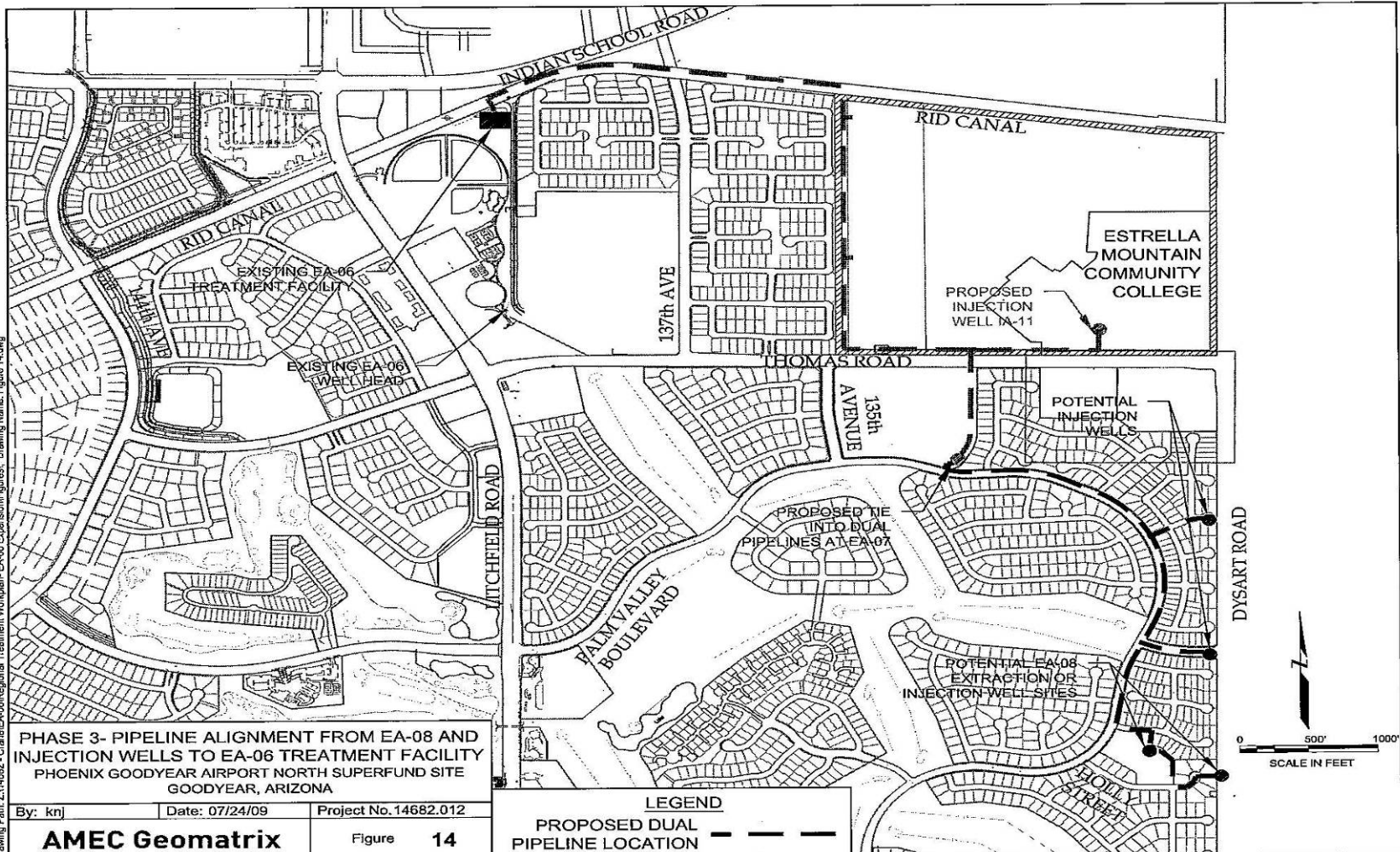
SIMULATED INJECTION ZONE FOR

Approximate Locations for Proposed EA-07 and IA-11



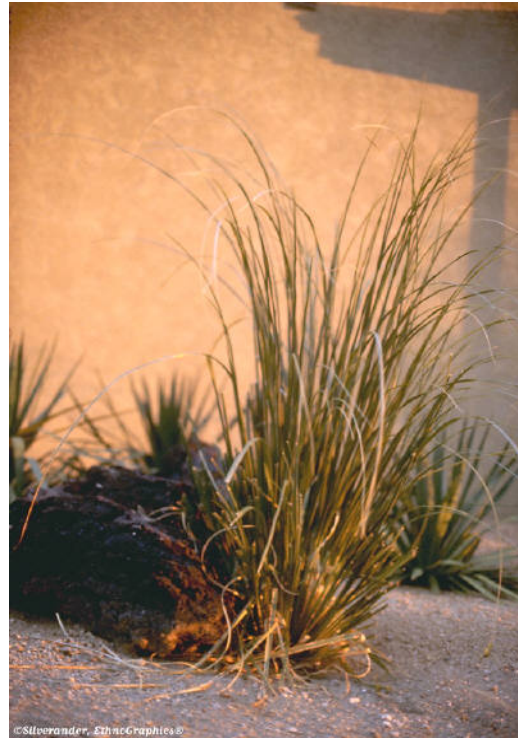
Plot Date: 07/24/09 - 12:59pm. Plotted by: kevin.jennings
 Drawing Path: Z:\1652 - Central-ES-Regional Treatment Workplan- EA-06 Expansion\Figures - Drawing Name: Figure 3.dwg

Proposed Approximate Locations for EA-08 and/or Injection(s) (as needed)



Plot Date: 07/24/09 - 11:21am. Project by: kevin.jennings
 Drawing Path: Z:\14682 - Camel EA-08 Regional Treatment Workplan - EA-06 Excavation\Figures\ Drawing Name: Figure 14.dwg

Anticipated Site Restoration



- Proposed test plots to determine appropriate vegetation for restoration
- Work toward plans for long-term restoration and revegetation

Questions?

