



FINAL

FORMER MARINE CORPS AIR STATION (MCAS) El Toro

96th Restoration Advisory Board (RAB) Meeting Minutes

Meeting Location: Irvine City Hall, Conference Training Center, Irvine California

Meeting Date/Time: 19 August 2009/7:45 pm – 8:50 pm

Minutes Prepared by: Tony Guiang, CDM

Attachment:

Presentation Slides: "Installation Restoration Program (IRP) Site 24 Remedial Action Status and The Irvine Desalter Project, Site 18 – Principle Aquifer Update."

WELCOME/INTRODUCTIONS/AGENDA REVIEW:

Mr. Jim Callian (Base Realignment and Closure [BRAC] Environmental Coordinator [BEC] and Navy RAB Co-Chair) welcomed everyone and asked Ms. Marcia Rudolph (RAB member, Subcommittee Co-Chair) to lead the Pledge of Allegiance. Self-introductions by all those in attendance followed. A total of 21 attendees were present. Mr. Chris Crompton (RAB member), Mr. Roy Herndon (RAB member), and Ms. Mary Eileen Mathias (RAB member) were given excused absences.

ANNOUNCEMENTS/ REVIEW OF ACTION ITEMS

Mr. Callian began the meeting with the following announcements and discussion:

- Mr. Callian requested attendees to sign the Sign-in sheets and update any information (address, phone number, and email address) for the purpose of keeping the database current.
- Mr. Callian presented a series of slides listing dates and times for the upcoming quarterly RAB meetings. In addition, he presented slides listing key Navy and Regulatory Agency contacts, RAB points of contact, Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Administrative Record (AR) File and Information Repository (IR) locations and hours, and environmental and reuse/redevelopment websites.
- Mr. Callian noted the Navy has been working to populate the Navy environmental website and he encouraged attendees to visit the site to find recent documents available for viewing.
- Mr. Callian reviewed the RAB meeting agenda; no changes to the agenda were suggested by the RAB. He noted the evening's presentation would be somewhat abbreviated because of the Public Meeting on Anomaly Area 3 (AA 3) which took place prior to the RAB meeting.
- Mr. Callian reviewed the action items from the last RAB meeting held on 15 April 2009. In response to an action item from Ms. Rudolph inquiring about the protocol for transfer of a portion of a carve-out area, Mr. Callian explained no specific protocol exists for transfer of

portions of carve-out areas. He added if the Navy determines a property suitable for transfer, regardless of whether it is a carve-out within a carve-out, then the property can be transferred. Mr. Callian mentioned other action items resulting from the previous RAB meeting including Ms. Rudolph's request to start the Sub-committee meetings at 5:30 pm instead of 5 pm, Ms. Rudolph's request for a discussion of the Finding of Suitability to Transfer (FOST) #5, and Mr. Bob Wooding's (Community RAB Co-Chair) request for an update on the Alton Parkway Project.

- Mr. Callian postponed the discussion of IRP Site 8 and 12 owing to the evening's time constraints.
- Mr. Callian announced he had copies of Regulatory Agency letters since the last RAB meeting held on 15 April 2009. He invited the attendees to come up and view them at their leisure.
- Mr. Callian took a poll to determine how many of those in attendance heard of the evening's Public Meeting and RAB Meeting through the public notices posted in either the Los Angeles Times or Orange County Register. One person, Bob Woodings, RAB Community Co-Chair noted he was alerted of the meeting through the papers.

Before moving onto the next agenda item, Mr. Peter Hersch (RAB member) asked if an update on status of land transfer could be presented to the RAB at the next meeting. Mr. Callian responded the Navy would take the request under consideration.

APPROVAL OF 15 APRIL 2009 RAB MEETING MINUTES

Mr. Woodings opened the floor for discussion, questions or corrections to the 15 April 2009 RAB meeting minutes. No comments, corrections or questions were made and the 15 April 2009 meeting minutes were approved.

SUBCOMMITTEE MEETING REPORT

Ms. Rudolph began her subcommittee meeting report by thanking the Regulatory Agencies, in particular, Mr. John Broderick (California Regional Water Quality Control Board, Santa Ana Region [RWQCB]), for attending and noted a good discussion took place in an effort to update Ms. Mary Aycock (United States Environmental Protection Agency [U.S. EPA]) on the environmental topics and issues at Former Marine Corps Air Station (MCAS) El Toro. She provided a summary of the Subcommittee Meeting discussions and the resulting questions for the Navy as follows:

- Ms. Rudolph stated one of the topics discussed at the subcommittee meeting was the issue of perchlorate. She mentioned the Regulatory Agencies stated there were mechanisms being looked into to address the topic of perchlorate at the sites. Ms. Rudolph requested this be a topic for discussion at a future RAB meeting. She expressed interest in learning and comparing how the various Regulatory Agencies (U.S. EPA, Department of Toxic Substance Control [DTSC], RWQCB, and other State agencies) will address the contaminant issue.

- Ms. Rudolph expressed her disappointment that a briefing of the IRP Site 1 tour was not part of the RAB agenda. For those unable to attend the tour, she requested a summation report, in addition to photographs of the sites visited, be given at the next RAB. In retrospect, she noted the IRP Site 1 tour was an excellent opportunity to see the sites. She mentioned besides IRP Site 1, the tour included an opportunity to see the landfills at IRP Sites 2 and 17 where the more mature and beginning stages of re-growth were taking place, respectively. Ms. Rudolph predicted that in time, differentiating between IRP Sites 2 or 17 would be difficult. Although the tour provided her an opportunity to see the effective restoration effort at the sites, Ms. Rudolph expressed her on-going concern with regard to the transfer of the property to the Federal Bureau of Investigation (FBI). In particular, she asked for clarification on the rationale of replacing former Marine activities with potentially identical activities of the new owner (FBI).

In closing, Ms. Rudolph welcomed attendees to the next subcommittee meeting on 09 December 2009 at 5:30 pm.

Mr. Callian thanked Ms. Rudolph for an excellent summation of the IRP Site 1 tour. He noted although he didn't put the tour on the RAB Meeting Agenda, he had pictures available for anyone to view either at the meeting or via email. Before moving to the next agenda item, Mr. Callian asked if there was anyone else present at the IRP Site 1 tour who wanted to share their synopsis of the field visit with the RAB.

Mr. Peter Hersch reiterated Ms. Rudolph's observation on the effective restoration taking place at both landfill sites and was pleased with the Navy's effort to address the perchlorate issue. Both he and Mr. Woodings expressed the same concern as Ms. Rudolph with regard to the future use of IRP Site 1 by the FBI.

REGULATORY AGENCY UPDATE

Mr. John Broderick (RWQCB)

Mr. Broderick introduced himself to the RAB before reading a list of concurrence items and documents reviewed by the RWQCB since the last meeting. The list is as follows:

- 10 April 2009, RWQCB issued concurrence on decommissioning of six monitoring wells in the JP-5 "Truck Fume" plume area. Although most of the site surface area has been closed, Mr. Broderick noted there was on-going groundwater monitoring of the plume as part of the monitored natural attenuation (MNA).
- 27 April 2009, RWQCB reviewed the Long Term Monitoring Report for the Underground Storage Tank (UST) 398 groundwater plume.
- 27 April 2009, RWQCB approved the selection of MNA as the remedial action strategy for Tank Farm 555 plume and concurred with the selection of seven groundwater monitoring wells as the point of compliance for the site.
- 26 June 2009, RWQCB issued concurrence on the Proposed Plan for AA 3.

- 01 July 2009, RWQCB issued concurrence on the pilot study Work Plan for IRP Site 1.
- 01 July 2009, RWQCB issued concurrence on the recommendation for a No Further Action (NFA) determination for the petroleum release at Temporary Accumulation Area (TAA) 155B.
- 08 July 2009, RWQCB issued comments on the Draft Final Remedial Design/Remedial Action (RD/RA) Work Plan for IRP Sites 3 and 5 (landfills).
- 23 July 2009, RWQCB issued concurrence on a NFA determination for Building 127 (petroleum release site).
- 23 July 2009, RWQCB issued concurrence on a NFA determination for the petroleum releases at TAA 297 Central and TAA 297 North.
- 23 July 2009, RWQCB issued concurrence on a NFA determination for Building 388 (petroleum release site).
- 04 August 2009, RWQCB issued concurrence on a NFA determination for former UST 367.
- 05 August 2009, RWQCB issued concurrence on a NFA determination for the CERCLA soil at Building 363 which he noted was the last source area for the contamination at the Tank Farm.

Mr. Broderick opened the floor for questions or comments. No questions or comments were made.

Mr. Quang Than (DTSC)

Mr. Than discussed the current Alton Parkway Extension Project. He noted the U.S. EPA and RWQCB concurred with the environmental review of the proposed project; however, the DTSC is working with the Navy to address and resolve issues on the plan. Mr. Than noted there is a provision for the project to obtain permits from the Department of Fish and Game (DFG) and the United States Army Corps of Engineers (USACE) before the project can move forward, and there are a few environmental issues that need to be addressed. He noted these issues involve decommissioning and replacement of wells (near the buffer zone at IRP Site 2) and the protocol for addressing unexpected contaminants that may be encountered.

Ms. Mary Aycock (U.S. EPA)

Ms. Aycock introduced herself to the RAB as the replacement for Mr. Rich Muza. Ms. Aycock noted the U.S. EPA was currently tracking the following two milestones:

- Final Explanation of Significant Difference (ESD) for IRP Sites 2 and 17. U.S. EPA approved the ESD on 27 July 2009.

- Five-Year Review Report for MCAS El Toro. U.S. EPA provided comments to the Navy on the draft version of the Report which are currently being resolved. The Final Five-Year Review Report will be completed by 30 September 2009.

Ms. Aycock opened the floor to any questions or comments. No questions or comments were made.

Before moving to the RAB presentation, Mr. Callian called for a 5-minute recess at 8:14 pm owing to technical problems with the projector. The meeting resumed at 8:20 pm.

IRP Site 24 - REMEDIAL ACTION STATUS

Mr. Smits provided a presentation titled "IRP Site 24, Remedial Action Status" (Attachment). He noted the RAB was given an IRP Site 18 and 24 update in December 2008 and therefore the evening's presentation provides an approximate 6-month update of the remedial action progress. He explained the presentation would be given in two parts with Mr. Hills from the Irvine Region Water District (IRWD) presenting the off-station portion or IRP Site 18 Remedial Action Status.

Mr. Smits' presentation included an update of the system operations over the last 6 months, the rationale for the additional extraction wells to be installed, groundwater monitoring results, and project documents to be submitted for IRP Site 24. He began his presentation by providing the site conceptual model which showed a three-dimensional representation of the contaminants (specifically trichloroethylene [TCE]) migrating from the two hangars to the shallow aquifer (or Shallow Groundwater Unit) and then eventually to the deep aquifer (or Principal Aquifer) at IRP Site 18. He noted volatile organic compound (VOC) contamination in site soils has been addressed and cleaned up (and have received NFA) and that the presentation will focus on cleanup of groundwater.

Mr. Smits presented a System Component Map, showing the 39 extraction wells in operation since October 2006 located along the centerline of plume and along the Station boundary. He added the purpose of the extraction wells is to capture the plume and clean it up over time.

Mr. Smits provided a summary of system operational data including information on average flow rates, gallons of water pumped to the treatment systems, mass of contaminants removed, and contaminant concentrations measured throughout system operation.

Mr. Smits provided a summary of a recent document issued for IRP Site 24, the Final Annual Remedy Status Report completed in May 2009. He explained the Annual Remedy Status Report included a Capture Zone Evaluation and a Technical Memorandum which evaluated the hydraulic capture of extraction wells at IRP Site 24. Based on this evaluation and additional groundwater modeling conducted for IRP Site 24, a minor area of incomplete capture was identified at the Station boundary. To address this area, the Navy is proposing to install four new extraction wells to optimize the system operation. Mr. Smits presented a figure showing the locations of the proposed and existing extraction wells and a cross section showing the placement of the well screens relative to the TCE plume.

Mr. Smits concluded his presentation and invited Mr. Hills to present the IRP Site 18 Remedial Action Status.

IRP SITE 18 - REMEDIAL ACTION STATUS

Mr. Hills provided a presentation titled "The Irvine Desalter Project, Site 18 - Principal Aquifer Update" (Attachment). Mr. Hills began his presentation by showing a map of IRP Site 18. He provided a status summary for each extraction well (ET-1, ET-2, and Well 78) including average flow rates and volume extracted over the 6-month period from January 2009 to June 2009. He pointed out that the Outflow Charts (see Attachment 2) also show this information. Mr. Hills stated pumping at all three extraction wells was stopped in February and March 2009 because the reservoirs reached maximum capacity and there was no available storage for the groundwater. This was due to the decrease in demand for irrigation water during the rainy season. Mr. Hills explained the IRWD's agreement with the Navy is to pump for 10 months of the year. He added that IRWD and the Navy will be looking into options to maximize production of their system.

Photographs of each well were shown during the presentation. In addition, Mr. Hills reviewed influent and effluent TCE concentrations, indicating the amount of contaminant mass removed by each of the extraction wells during the 6-month period. He also provided a summary of gallons of water pumped since the system startup in 2006.

Both Mr. Hills and Mr. Smits opened the floor to questions and comments. There were no questions or comments from the RAB.

OPEN QUESTION AND ANSWER

Mr. Callian thanked Msrs. Smits and Hills for the presentation and opened the floor for discussion on other environmental topics the RAB would like discussed at the next RAB. No additional topics, other than those raised earlier in the meeting, were brought up.

MEETING SUMMARY AND CLOSING

Mr. Callian thanked everyone for attending and the 19 August 2009 meeting adjourned at 8:50 pm.

LIST OF HANDOUTS PROVIDED AT THE MEETING

- 19 August 2009 Former MCAS El Toro RAB Meeting Agenda and Upcoming RAB Meeting Schedule
- Where to Get More Information & Environmental Websites
- Presentation Slides: "Installation Restoration Program (IRP) Site 24, Remedial Action Status and The Irvine Desalter Project, Site 18 - Principle Aquifer Update"
- Former MCAS El Toro IRP Site Location Map

- Former MCAS El Toro RAB Mission Statement and Operating Procedures
- Former MCAS El Toro RAB Fact Sheet/Membership Application
- Former MCAS El Toro Mailing List Coupon

Copies of the meeting minutes and handouts provided at the 19 August 2009 RAB meeting are available at the IR for former MCAS El Toro located in the Government Publication Section of the Heritage Park Regional Library, Irvine, California. Library hours are 10 am to 9 pm Monday through Thursday; 10 am to 5 pm Friday and Saturday; and 12 pm to 5 pm on Sunday. The library may be reached at (949) 936-4040. In addition, copies of the meeting minutes and handouts are also available at the CERCLA AR File maintained at Building 307 at former MCAS El Toro by Ms. Sue Rawal. Documents can be viewed by appointment; call Ms. Rawal at (949) 726-5398 between 9 am and 1 pm Monday through Thursday.

Final minutes from previous RAB meetings can be found on the internet at the Navy BRAC PMO website: www.bracpmo.navy.mil

INTERNET SITES

Navy and Marine Corps Internet Access

BRAC PMO Web Site (includes RAB meeting minutes): <http://www.bracpmo.navy.mil/>

Department of Defense - Environmental Cleanup Home Page Web Site:

<http://www.dtic.mil/envirodod/>

U.S. EPA:

Homepage: www.epa.gov

Superfund information: www.epa.gov/superfund

National Center for Environmental Assessment: www.epa.gov/ncea

Federal Register Environmental Documents: www.epa.gov/federalregister

Cal/EPA:

Homepage: www.calepa.ca.gov

Department of Toxic Substances Control: www.dtsc.ca.gov

Department of Health Services, reorganized into the Department of Health Care Services and the Department of Public Health: www.dhs.ca.gov

Santa Ana Regional Water Quality Control Board: www.waterboards.ca.gov/santaana

Additional Websites: Reuse and Redevelopment

Orange County Great Park: www.ocgp.org

Great Park Conservancy: www.orangecountygreatpark.org

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INSTALLATION RESTORATION PROGRAM (IRP)

SITE 24

REMEDIAL ACTION STATUS

Presented By

Marc P. Smits, P.E.

**Base Realignment and Closure (BRAC) Program
Management Office West**

August 19, 2009



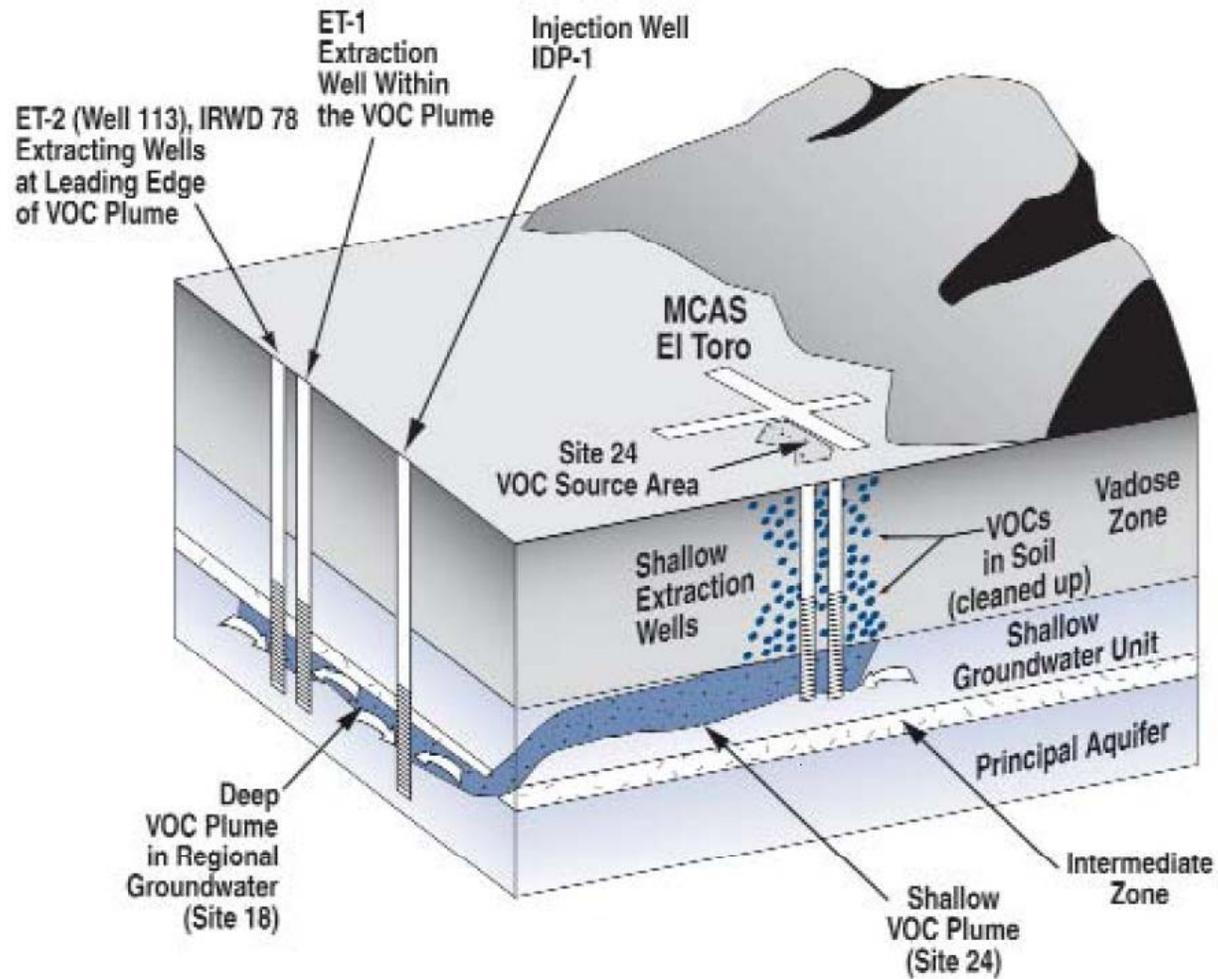
OVERVIEW



- SYSTEM OPERATIONS UPDATE
- ADDITIONAL EXTRACTION WELLS
- GROUNDWATER MONITORING
- PROJECT DOCUMENTS

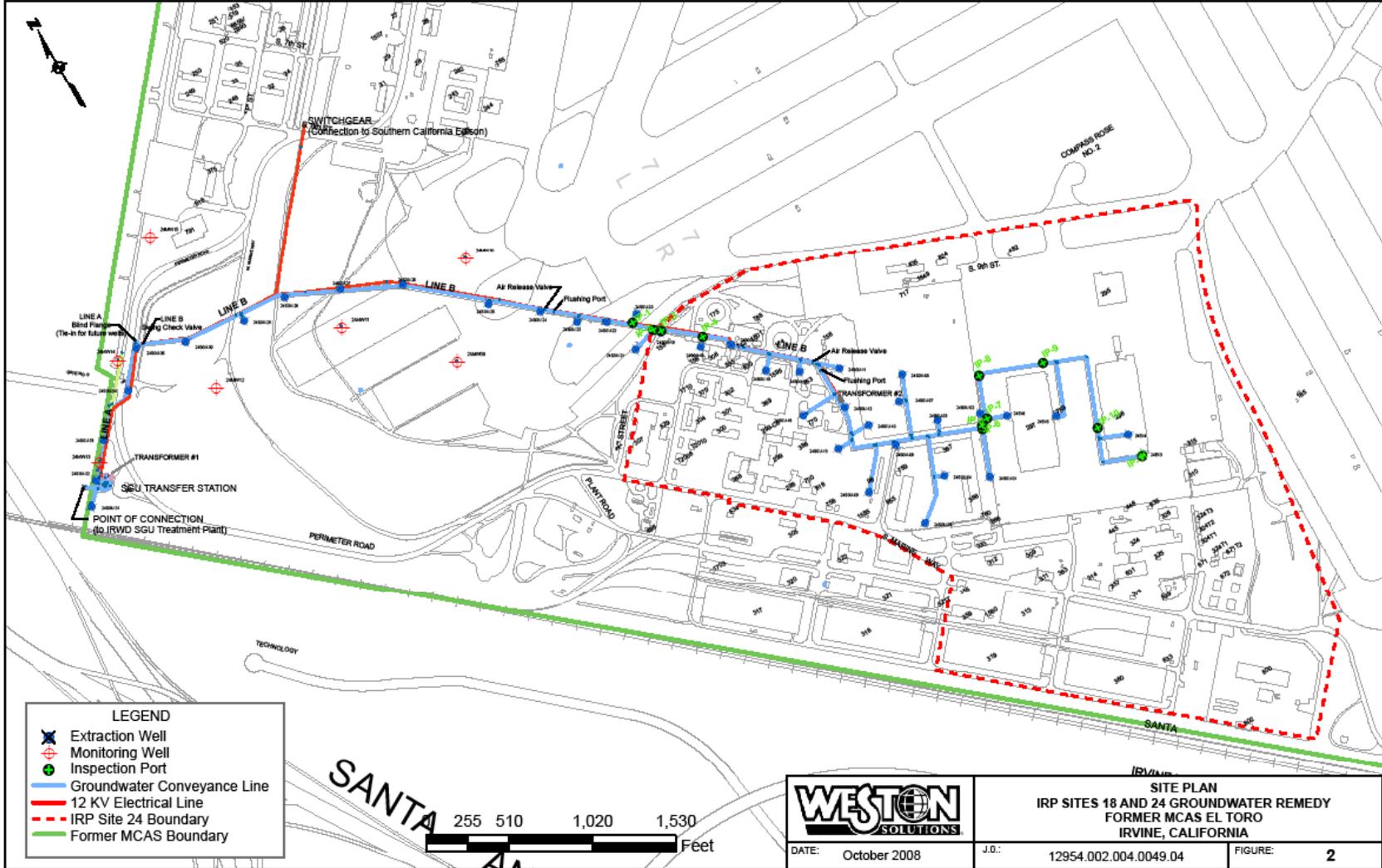


SITE CONCEPTUAL MODEL





SYSTEM COMPONENT MAP





SYSTEM OPERATION UPDATE



- System has been operating at a system uptime efficiency of more than 95% from January 2009 to August 2009
- Flow rates from the combined wells averaged 391 gallons per minute between January 2009 and August 2009
- Total groundwater pumped to IRWD treatment plant as of 14 August 2009 is approximately 532 million gallons
- Approximately 870 pounds of volatile organic compounds (VOCs), mainly trichloroethylene (TCE), removed from the groundwater since startup
- Maximum concentrations of TCE in groundwater in December 2008 was 430 micrograms per liter (maximum concentration of TCE in groundwater at beginning of cleanup activities was 810 micrograms per liter)



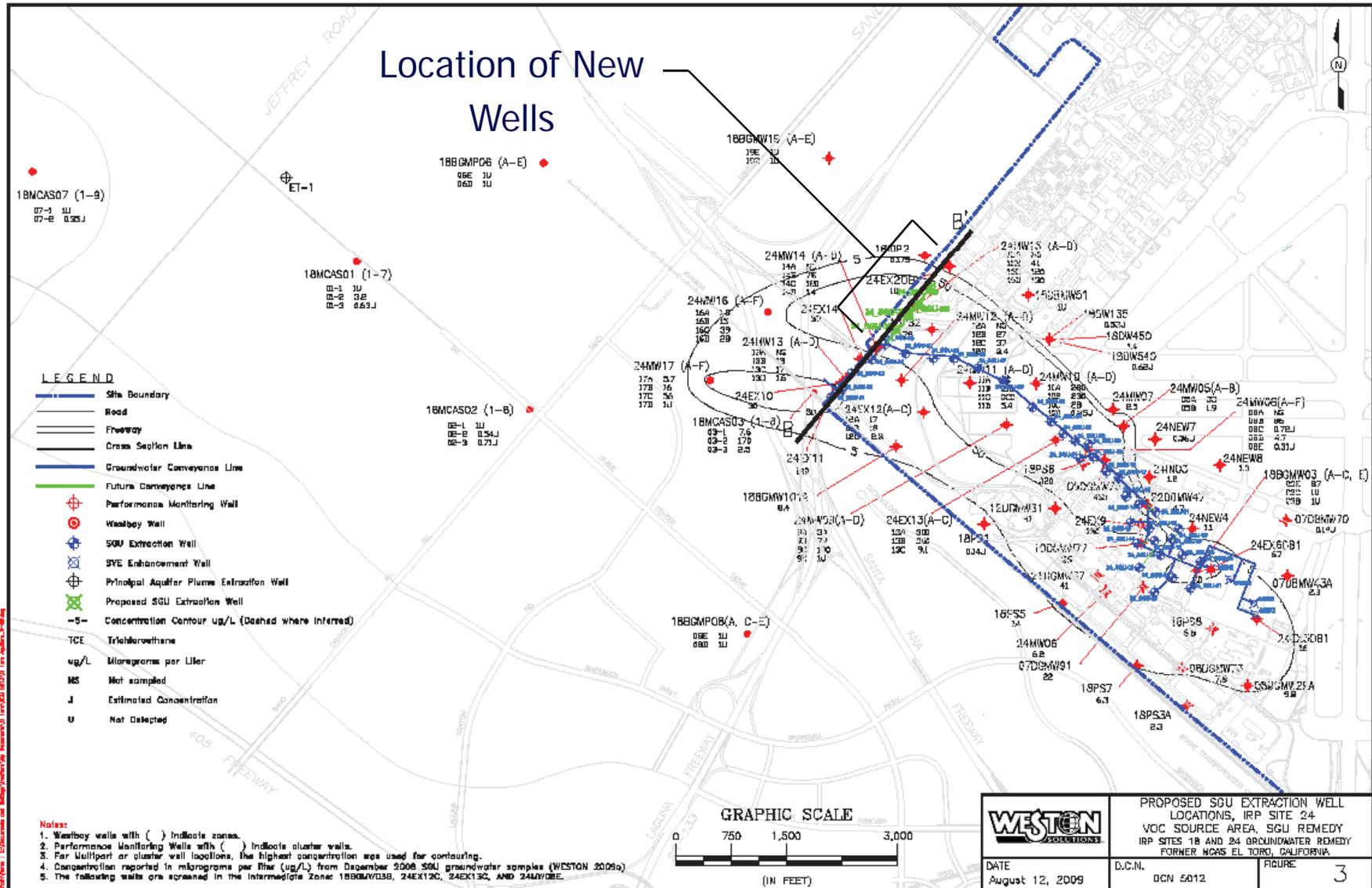
ADDITIONAL EXTRACTION WELLS



- Final Annual Remedy Status Report (September 2007-August 2008) included a Capture Zone Evaluation Technical Memorandum
- Technical Memorandum intended to evaluate the hydraulic capture of the extraction wells installed at IRP Site 24
- Modeling and data evaluation indicates that the majority of the on-station plume will be captured by the extraction well system
- Minor area of incomplete capture was identified at the Station Boundary
- Four additional extraction wells are planned to be installed to optimize the system operation
- Extraction wells were included as part of Final 100% Remedial Design but were not installed with the original 39 extraction wells



NEW WELL LOCATIONS





GROUNDWATER MONITORING



- Continue to collect groundwater samples in order to evaluate the effectiveness of the groundwater remedy
- Monitoring well sampling frequency for a majority of the wells has decreased based on established trends over time
- All wells continue to be sampled annually to provide a comprehensive evaluation of changes in the groundwater plume
- Extraction wells sampling frequencies are either quarterly or monthly and are based on VOC trends
- Influent to the transfer station is sampled quarterly to evaluate the concentrations prior to pumping to the IRWD treatment system



PROJECT DOCUMENTS



- Draft Extraction Well Implementation Plan August 2009
- Final Data Summary Report, March 2009 August 2009
- Final Extraction Well Implementation Plan September 2009
- Final Five-Year Review (includes Site 24) September 2009
- Final Data Summary Report, June 2009 October 2009
- Draft Annual Remedy Status Report (Sep 08 – Sep 09) January 2010
- Draft Final Operating Properly and Successfully Report January 2010
- Final Operating Properly and Successfully Report April 2010

The Irvine Desalter Project

Site 18 – Principal Aquifer
Update

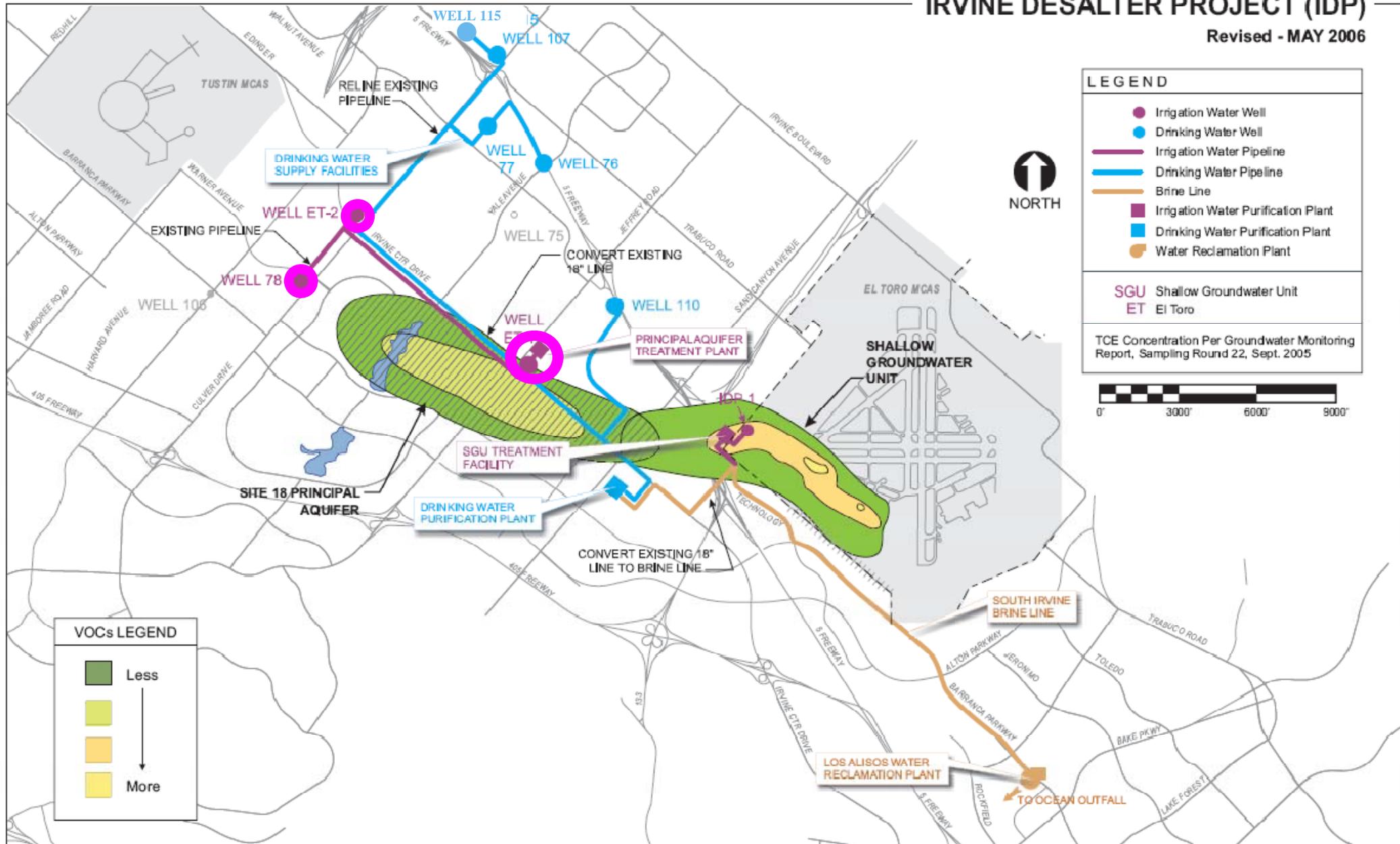
El Toro RAB
August 19, 2009



Irvine Desalter Project Facilities

IRVINE DESALTER PROJECT (IDP)

Revised - MAY 2006



LEGEND

- Irrigation Water Well
- Drinking Water Well
- Irrigation Water Pipeline
- Drinking Water Pipeline
- Brine Line
- Irrigation Water Purification Plant
- Drinking Water Purification Plant
- Water Reclamation Plant

SGU Shallow Groundwater Unit
ET El Toro

TCE Concentration Per Groundwater Monitoring Report, Sampling Round 22, Sept. 2005



VOCs LEGEND

- Less
- More



Principal Aquifer Components

- **Well 78**
- **Well ET-1 & Principal Aquifer Treatment Plant**
- **Well ET-2**



Well 78

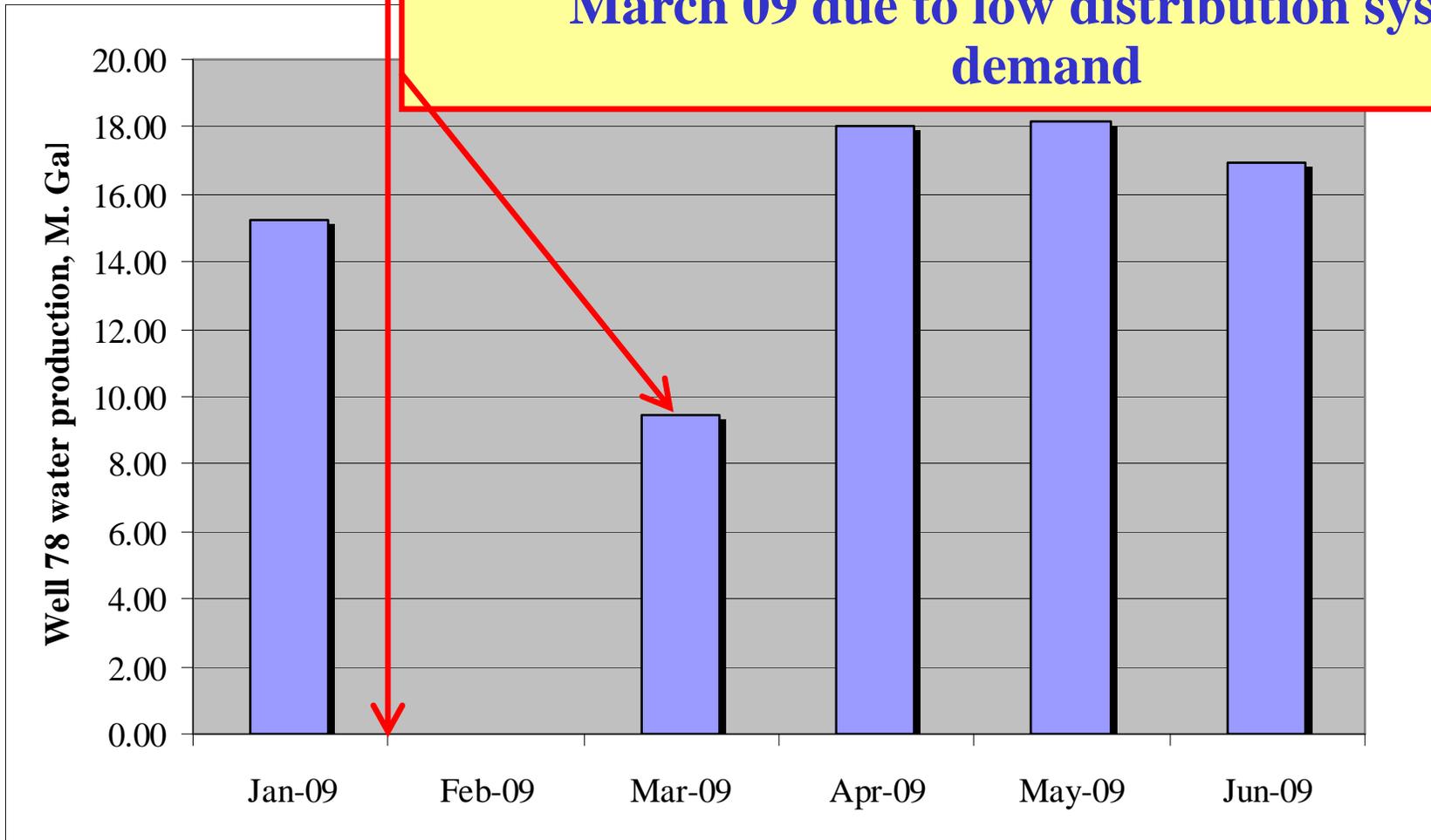
- At Culver and Warner in Irvine
- From 1/1 to 6/30 of 2009 pumped 78 million gallons to IRWD non-potable system
- Average flow rate
~ 300 gallons per
minute
- Influent TCE ~1 ppb





Well 78 Outflow Chart (1/1 to 6/30/09)

Well was turned off in February and part of March 09 due to low distribution system demand





Well ET-1 & PA Treatment Plant

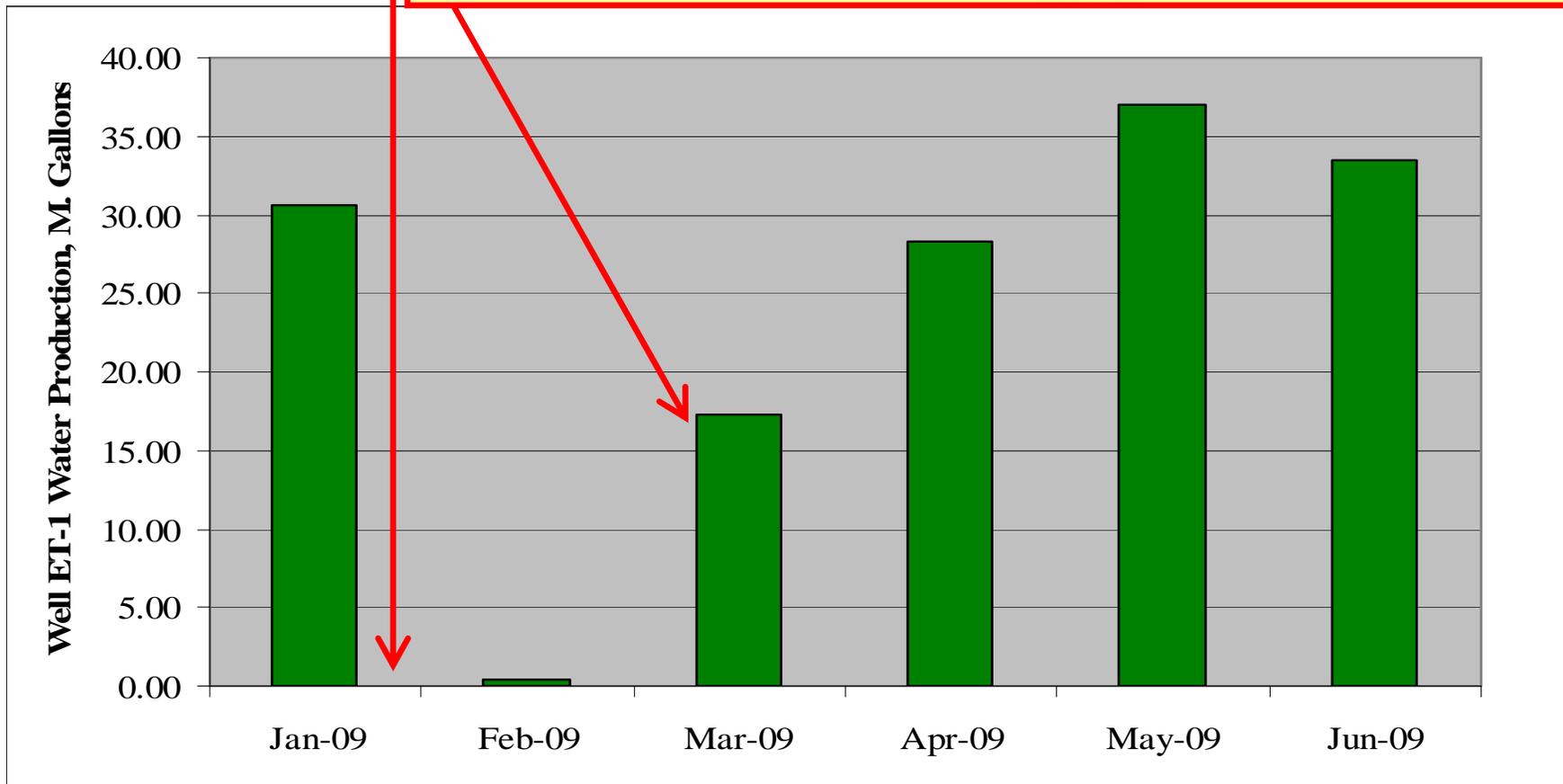
- At Jeffrey and Irvine Center Drive in Irvine
- From 1/1 to 6/30 of 2009 treated 147 million gallons of principal aquifer groundwater
- Pumping to IRWD non-potable system
- Average flow rate ~ 564 gallons per minute
- Influent TCE ~ 6 ppb
- Effluent TCE < 0.5 ppb (non-detect)





Well ET-1 Outflow Chart (1/1 to 6/30/09)

Well was turned off in most of February and part of March 09 due to low distribution system demand





Well ET-2

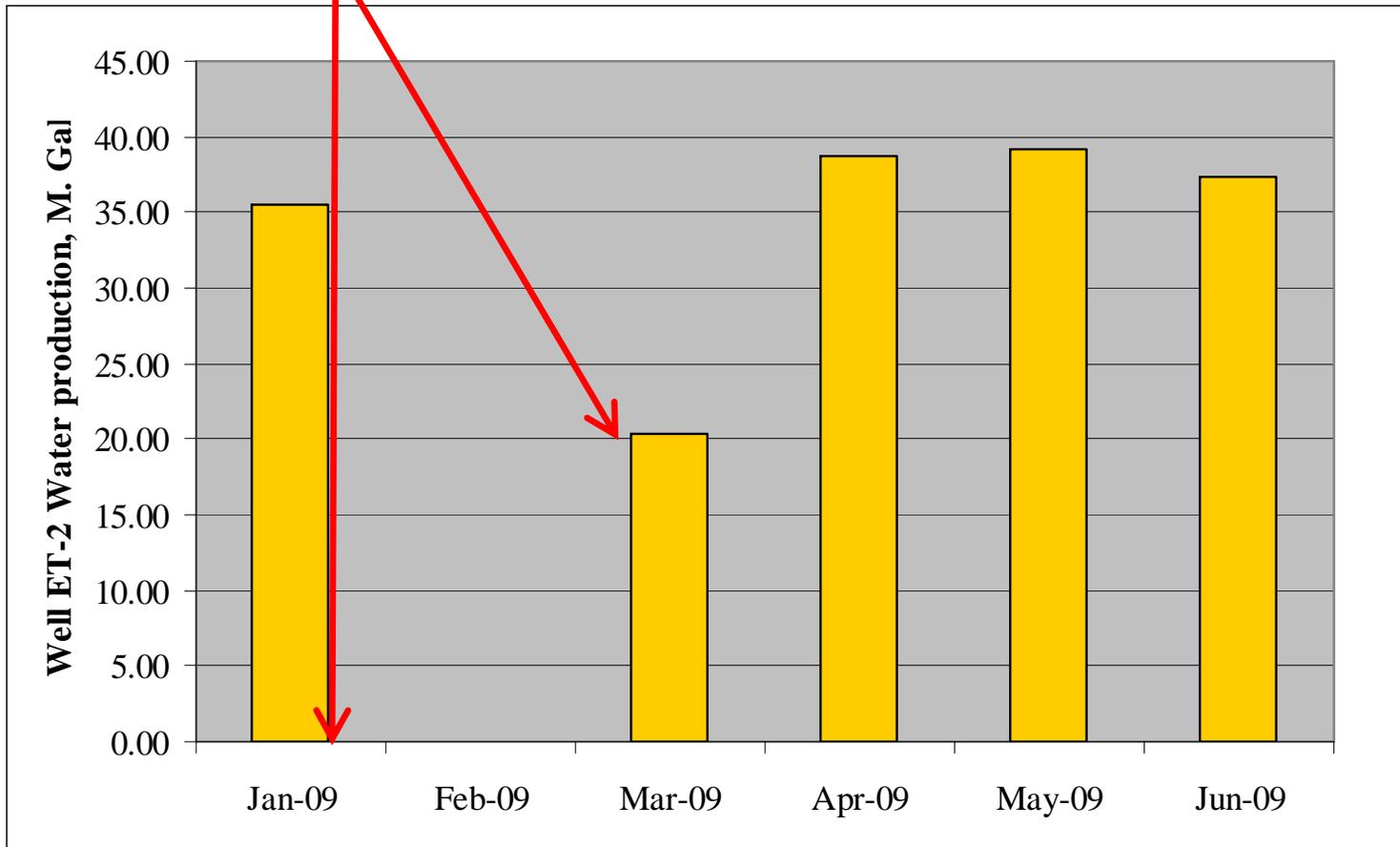
- At Culver and Irvine Center Drive in Irvine
- From 1/1 to 6/30 of 2009 pumped 131 million gallons to IRWD non-potable system
- Average flow rate ~ 656 gallons per minute
- Influent TCE
~ 1 ppb





Well ET-2 Outflow Chart (1/1 to 6/30/09)

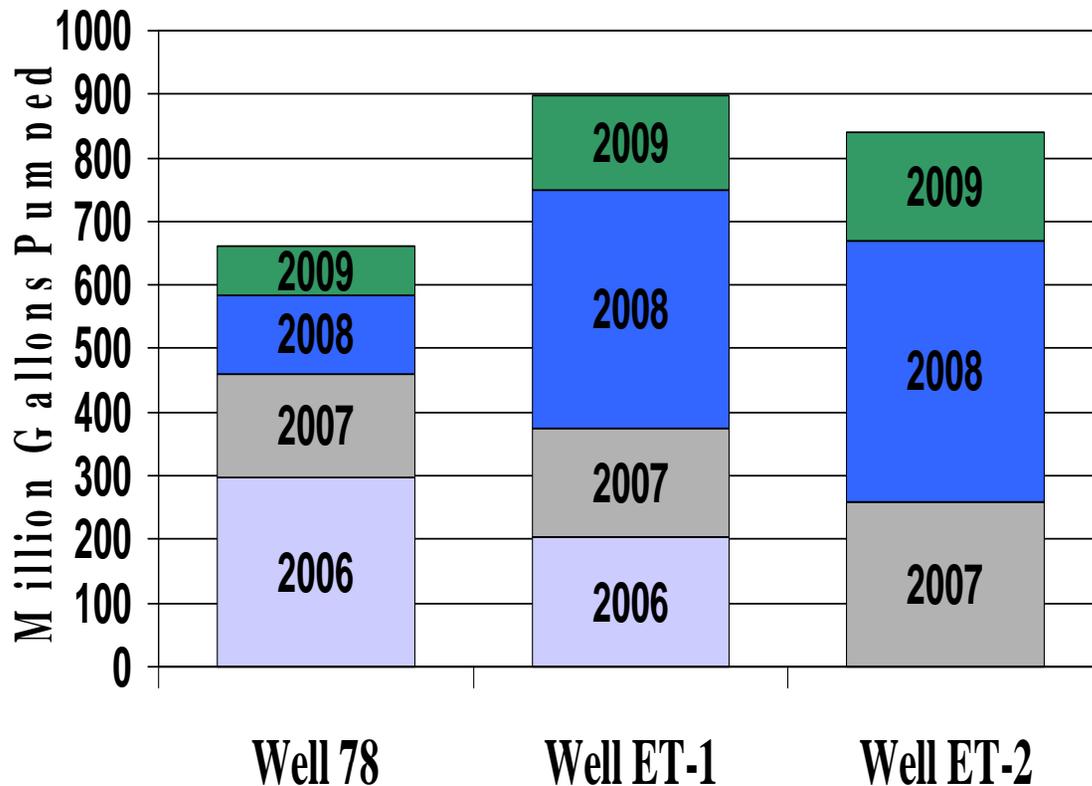
Well was turned off in February and part of March 09 due to low distribution system demand





Groundwater Pumping and TCE Removal

PRINCIPAL AQUIFER PUMPING



- Pumped 2.41 billion gallons of water from 2006 (startup) to 2009 (to date)
- Total mass of TCE removed: 29.3 kilograms or 64.6 pounds