



**DEPARTMENT OF THE AIR FORCE
AIR FORCE CIVIL ENGINEER CENTER**

DEC 23 2013

MEMORANDUM FOR SEE DISTRIBUTION

**FROM: AFCEC/CIBW
3411 Olson Street
McClellan CA 95652-1003**

SUBJECT: Restoration Advisory Board Meeting Minutes, 17 September 2013

1. Attached please find the final minutes from the 17 September 2013 McClellan Restoration Advisory Board (RAB) meeting held at the North Highlands Recreation Center as approved by the RAB members at the December 2013 meeting.
2. If you have any questions or comments, please contact Ms. Mary Hall, at (916) 643-1250, extension 232.

A handwritten signature in black ink, appearing to read "Steven K. Mayer", is positioned above the printed name.

**STEVEN K. MAYER, P.E.
BRAC Environmental Coordinator**

**Attachments:
Final Meeting Minutes, 17 September 2013**

McClellan Air Force Base (AFB)
Restoration Advisory Board (RAB) Meeting Minutes, FINAL
September 17, 2013 -- McClellan, California

Time: 6:30 PM
Place: North Highlands Recreation Center
North Highlands, California

RAB Member Attendees

<u>NAME</u>	<u>AFFILIATION</u>
CHARNJIT BHULAR	U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA)
BOB BLANCHARD	ELVERTA COMMUNITY; CO-CHAIR
GARY COLLIER	PARKER HOMES, WEST SIDE OF BASE
CAROLYN GARDNER	MCCLELLAN PARK RESIDENT
PAUL GREEN	EDUCATION COMMUNITY
ALAN HERSH	MCCLELLAN BUSINESS PARK
GLENN JORGENSEN	NORTH HIGHLANDS COMMUNITY
STEVE MAYER	AIR FORCE CIVIL ENGINEER CENTER; CO-CHAIR
TINA SUAREZ-MURIAS	ENVIRONMENTAL COMMUNITY
STEPHEN PAY	CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCE CONTROL
JAMES TAYLOR	CENTRAL VALLEY REGIONAL WATER QUALITY CONTROL BOARD

I. Welcome, Introductions and Agenda

Mr. Bill Davis welcomed everyone to the meeting and introduced himself as the meeting facilitator. Attendees signed the sign-in sheet (Attachment 1), and picked up available handouts. Mr. Davis read a statement of the purpose of the RAB, went over the agenda (Attachment 2), and the general format of the meeting, including how to be recognized as a speaker during the meeting and when to ask questions.

Mr. Davis invited the RAB members to introduce themselves and the stakeholder groups they represent. He invited members of the audience to introduce themselves and state if they had any questions or concerns they would like addressed at the meeting. Members of the audience did not express any specific concerns to be addressed at the meeting.

II. June 2013 Minutes

Mr. Davis invited the RAB to review the June 2013 minutes and the Air Force response to comments during the meeting. Ms Suarez-Murias asked what the abbreviation “bcy” stand for. Mr. Mayer said it is “banked cubic yards.”

There were no changes to the minutes. The minutes are considered approved.

III. News Coverage of Consolidation Unit

Mr. Mayer provided some background on the articles that had appeared in several news outlets on Sept. 17, print, video and radio, about the consolidation unit. He said a group of independent reporters in the Bay Area had been working on the story for several months with many interviews and emails with him and others. He noted that news outlets choose to purchase the story and were not allowed to make any edits to the story. He noted that Channel 10 News ran the story the previous night and felt there were some pieces of information missing. A reporter came to McClellan this afternoon and put together a follow-up piece based on his own reporting.

Mr. Mayer presented an overview (Attachment 3) of the consolidation unit and the Focused Strategic Sites project of which it is a part. He also showed a video of the construction of the consolidation unit. The video is available on YouTube at

<http://www.youtube.com/watch?v=0apL1Uo82W0&feature=youtu.be> or
<http://tinyurl.com/ml9oap9>

RAB Discussion

Mr. Collier asked how the geosynthetic clay barrier worked. Mr. Mayer explained that in the past clay liners were compacted mined clay layers. The current technology is a layer of bentonite clay granules between two layers of synthetic fiber. It is placed and sealed with an impermeable liner on top of it. If any moisture gets through, the bentonite granules would hold the moisture and swell. It has the same protectiveness of 2 feet of clay.

He noted that the consolidation unit has two 60 mil liners, meeting the most stringent liner requirements.

Ms. Suarez-Murias asked about covering the landfill between deposits as required in traditional landfills. Mr. Mayer said in sanitary landfills the daily cover is required for vector control to prevent rodents from getting into the waste. At McClellan, that isn't an issue as the only material going in will be soils. Covers will only be needed in the event of rain to prevent stormwater from coming in contact with the soil.

Ms. Suarez-Murias asked if it would be covered at the end of every day. Mr. Mayer said only if there is a likelihood of a rain event. He mentioned that there are built-in drainage features in the liner system and there was a rain event before any soil was placed into the CU and the drainages worked as expected.

Based on the size of the consolidation unit, an inch of rain amounts to 220,000 gallons of water. The CU was designed to handle that level of stormwater management. The idea is to collect and get it off the site and not let it come in contact with the soil.

Mr. Jorgensen asked specifically about plans for the forecast rains this weekend. Mr. Mayer said the piping and tarps are in place and the crews are ready to act. Currently, the forecast is uncertain about the likelihood and amount of rain, but the Air Force will continue to monitor it and take action as needed.

Mr. Mayer anticipates getting all the soils placed in the CU this field season. If that doesn't happen, the Air Force is prepared to continue to manage what is in the CU and the remaining soils in the CS 22 staging area.

Ms. Gardner asked what is the purpose of the second plastic liners when you have one plastic liner and the clay liner? Mr. Mayer said it is basically an additional layer of insurance. Any leakage that might get through the soil would be channeled to the sump. If anything leaked through, it would be channeled and diverted off the bottom plastic layer and beneath that is the clay liner. There are essentially three layers of protection built into the bottom system. Two 60-mil liners and the geosynthetic clay liner. In between are two drainage layers. And beneath the whole system is a lysimeter to detect any moisture beneath the system.

Mr. Blanchard stated that in view of the broad scope of the national debt and the Air Force downsizing and austerity, he believes the troops are getting the short stick. He said the Air Force has been blindsided and irresponsible in putting this kind of money into property that will be used for fire training and that fire training will create just as much contamination. He suggested that instead there should have been a protection placed over the top and stipulations for the use of the land to make sure it didn't leak into the community and not pick up the huge bill. He feels monitoring the sites in perpetuity is a waste and the money could have better gone for security of our country.

Ms. Gardner asked Mr. Blanchard what the Air Force should do with the land for safety and protectiveness. Mr. Blanchard said that containment and the wells should be enough. He suggested that there could have been some kind of plan to use the land without having to make it sanitary.

A gentleman asked if anything precluded trucking the soil offsite at a later time? Mr. Mayer said nothing precludes that, but onsite disposal is the remedy approved by the regulatory agencies (US EPA and the State of California).

Mr. Mayer also pointed out that the cleanup is regulated by state and federal ARARs – applicable or relevant and appropriate requirements. The liner layers follow ARARs and are state and federal requirements for landfills. While it might appear to be overkill, it is meeting the design requirements that have to be met before the ROD can be signed.

Questions from the public

A gentleman asked what are the long-term, in perpetuity maintenance costs? Mr. Mayer said the Air Force has had the cap at Operable Unit D since the mid-1980s and has good historic data for

cap maintenance. Costs for quarterly monitoring and reporting and maintenance are approximately \$50,000 per year and the sites are similar in size.

The gentleman noted that this cap is more technically advanced and should cost more money. Mr. Mayer said that the liners wouldn't be exposed to any elements and would not experience any decay as they will be two feet below the surface. Monitoring and maintenance looks for erosion and subsidence. Since the OU-D cap was installed in 1985 there have been no issues with its durability. Mr. Mayer said it is not expected that the liner would ever have to be changed as long as it is protected by the surface soils.

The gentleman asked who will maintain all the equipment and systems out there? Mr. Mayer said the Air Force will always be responsible for maintaining and monitoring the cap and its systems.

Mr. Green asked the representatives from each of the regulatory agencies their position on the consolidation unit.

Mr. Taylor: "The Regional Water Board is responsible for implementing and compliance of Title 27, which is the laws that were written governing the operation and construction of this type of facility. So, we pass those requirements on to the Air Force and they have to meet them. It's not an option."

Mr. Bhullar: "From EPA perspective, we agree with this remedy and that this remedy is protective of human health and the environment. The Air Force is not going to go anywhere. They are going to be there forever. They will responsible for taking care of it for forever, basically."

Mr. Pay: "DTSC's position is that the design is protective and safe and it meets our regulatory requirements, so we're satisfied with that selection as a remedy for the contamination that we've found at the base."

Mr. Green clarified that DTSC and the Regional Water Board are state agencies and EPA is a federal agency. He said it seems like good agreement among the agencies and he doesn't see where the vitriol comes from. He noted that Mr. Mayer and the Air Force did not set the requirements. Those came from the agencies.

Mr. Mayer reiterated that the consolidation unit is a safe and protective remedy by design. It establishes a bottom and top cover system that eliminates all pathways for exposure. The issue is risk management and the only way there is a risk to human health is if there is a there is a pathway for exposure and the remedy breaks that pathway through its design. It is a robust system to ensure there is no future incident

Mr. Green asked if cleanup will be completed when this unit is closed in nine years. Mr. Mayer said the groundwater cleanup will continue for another 35 to 40 years.

Mr. Collier asked if the leachate will be treated or discharged directly into the creeks. He also asked if there were other radiological contaminants besides radium.

Mr. Mayer said the Record of Decision specifies acceptance criteria for the consolidation unit for all the contaminants of concern. All soil placed in the CU is scanned and has to meet all the acceptance criteria. The leachate, if and when it does show up, which is not expected, would be collected and analyzed for all the contaminants of concern and then disposed of appropriately based on what is in it.

Most landfills that are municipal facilities tend to have a lot of moisture from the materials degrading. This facility will only hold soils that are dry when they go in, so the Air Force does not anticipate any leachate.

IV. Community Co-chair Update

There was no community co-chair update.

V. Air Force Cleanup Update

Mr. Mayer invited the RAB members to review the *BRAC Cleanup Team and Stakeholder Meeting Field Review* for September (Attachment 4).

Mr. Mayer next went over the *Key Documents* (Attachment 5). Only information and comments not presented in the attachment are recorded in these minutes. Regarding the Ecological Sites Remedial Action Work Plan, Mr. Mayer said that because the final document has not yet been issued and approved, the field work would be postponed until the 2014 field season.

Mr. Mayer said the Follow-on Strategic Sites Record of Decision will be the last Record of Decision for the Air Force at McClellan. It addresses approximately 80 sites. He said the AF hopes to have it signed by the end of the calendar year.

Mr. Mayer explained that the Focused Strategic Sites Explanation of Significant Difference documented the change from a partial excavation of Site CS 022 to a complete excavation of the site and an increase in capacity at the consolidation unit.

RAB Discussion

Mr. Green asked if there was any impact from delaying the Ecological Sites Field work to 2014 field season and if there would be any extra costs to the Air Force. Mr. Mayer said the contract has already been awarded and the only potential costs might come from additional requirements for getting the work plan approved by the regulatory agencies.

Mr. Green asked what is the approval level for ESDs? Mr. Mayer said it has the same approvals as a Record of Decision, but a more streamlined process.

Mr. Collier asked if the Focused Strategic Sites CS 10 FSSR (Item 4) meant that the site will be released for unrestricted use? He asked how that could be with the consolidation unit still there. Mr. Mayer explained that before the consolidation unit could be built, CS 10 had to be cleared of radiological contamination (and?) a FSSR had to be approved showing that it was clear. The old Site CS 10 had a permit from the radioisotope committee which was closed and the site was then released for unrestricted use, the excavation was expanded and the consolidation unit was constructed. That site has a new permit from the RIC and will always have appropriate land use restrictions on it.

Ms. Gardner asked who the property will be transferred to under the early transfer. Mr. Mayer said the largest share of the property includes approximately 800 acres associated with the runway and that will go to Sacramento County Department of Airports. The West Nature Area will be a nature reserve set aside in perpetuity with an endowment. A portion will go under a public benefit conveyance to the City of Sacramento for fire training. The remaining approximately 200 acres will go through an economic development conveyance to McClellan Business Park for their use and redevelopment.

Ms. Gardner asked if there is any money involved in these transfers. Mr. Mayer said no money changes hands. The transfers were basically specified in the original Disposal Record of Decision.

Ms. Gardner asked if something special had to be done to turn the properties over in support of early transfer. Mr. Mayer said the normal route is to complete the cleanup and then transfer the property. In this case the transfer is being done ahead of the cleanup. Measures are put in place to ensure protectiveness until the cleanup is complete.

Mr. Blanchard asked if the runway and the facilities for aviation will still be used for aviation in the future.

Mr. Hersh first responded to Ms. Gardner's question. He explained that in 2001 McClellan Business Park went through a competitive process and purchased the property and development rights from the County. The Air Force transfers the property to the County at no cost, but McClellan Business Park purchased it from the County and in addition has spent hundreds of millions of dollars in redevelopment.

Regarding the airfield, he said there are no limits on the use of the airfield and its use is growing.

Mr. Blanchard asked if the old Aeroclub space will be redeveloped into an aerospace club. He also asked for an update on the Sacramento City Aeronautical College facility at McClellan. Mr. Hersh said the Aeronautical College has two buildings and the program is going well. He said he didn't know the exact status of the aeroclub building.

Questions from the public

There were no questions from the public.

VI. Regulatory Update

There was no regulatory update.

VII. Public Comment

Mr. Davis reminded the audience that during the public comment period the Air Force and RAB listen to all comments but do not respond during the meeting. The Air Force will consider all comments and provide a written response attached to the minutes at the following RAB meeting.

Frank Miller: *Some questions regarding building 252. Steve Mayer you told Sacramento Bee that the taxpayers spent \$10 million on building 252 of which \$3.6 million was paid to remove/ to demolish the building. Now after spending 6.4 million to clean the building over and over,*

which was blessed over and over, my question is to Steve Pay, has the Department of Toxics ever condemned the building. Yes or No?

Mr. Davis pointed out it is not a time for question and answer. Mr. Miller said it is never a time for questions.

Mr. Miller: *So the question is was building 252 ever condemned and he's non responsive so I assume the answer is the building was never condemned. Now you said you spent at the last meeting 3.6 million after you bundled it into other money. Now when I hear the word bundled that's cryptic to me. That's a code for cryptic. That's covert. And my question now is what company, what company did you hire to demolish 252. Was there competitive bidding? In what publication did you advertise for competitive bidding? Who evaluated and rated the RFPs, that the request for proposals? And what company got the bid? Now if \$3.6 million was the low bid, I can imagine what the other bids were. My next question is at several meetings I've been asking what volume of water is coming from the Suburban Water District that's being shunted, shunted from the Sacramento Suburban Water District. What volume of water? And that question could go to Warren Jung who is a representative of the Water District here tonight. So I guess that will cover it for now.*

Mr Miller additional comment: *A question about the fracking issue. You say that you can speed up the cleanup by 17 years and you say that it's based on a model, well I've had modeling in graduate school and I'd like you to show me this model. At no time have you shown this model. We know that mathematical models are based on assumptions, large assumptions and here a company, a company, made up a model and it's nothing more than an experiment. You know in private conversations with Mr. James Taylor with the Water Board who is here tonight, we both agreed on the telephone that this fracking issue is nothing more than an experiment at best. The question is show me that model.*

Additional questions from the public:

Are there programs in place to research contaminants in the groundwater and is there any mitigation for the groundwater? Mr. Mayer suggested that the upcoming presentation on groundwater would answer many questions.

VIII. Privatized Cleanup Update

Ms. Valerie Walker introduced herself as a member of the TetraTech McClellan team. TetraTech is completing the CERCLA cleanup for the privatized sites at McClellan. The EPA is the lead agency for the cleanup. Ms. Walker gave a presentation on the status of the privatized sites (Attachment 6). Only information and comments not presented in the attachment are recorded in these minutes.

RAB discussion

Ms. Suarez-Murias asked what is the differentiation between action sites, no-action, institutional controls only and if it means the sites are clean?

Mr. Hersh responded that the FOSET #2 sites did not have a Record of Decision from the Air Force at the time of transfer. The EPA and the State reviewed the data about the contaminants at

the sites and assessed the likely future land use and then determined a likely remedy. If there are contaminants in place at industrial use levels or less, and the land use is industrial, the likely remedy is institutional controls restricting the land to industrial use. The no action sites are sites that were evaluated and contaminants were not found above cleanup levels. The action sites are those that require some time of action, a scoop and haul, to get the land to an industrial level.

Mr. Hersh added that the decision making process is a public process led by the EPA. There will be a proposed plan and a public meeting in the next several months and then the EPA will issue a decision.

Mr. Collier asked if IP#3 is the site that was taken off base by rail? Ms. Walker said the rail transportation was for the Group 4 sites. The IP#3 sites are being shipped offsite to a licensed facility, but not by rail.

Questions from the public

A gentleman asked if wells in the Roble and Rio Linda areas are clean enough to be used again. Mr. Taylor said that is an issue for the County. They are considering removing the prohibition zone, but he doesn't know the timeline.

IX. McClellan Groundwater Cleanup Status

Mr. Mayer said this presentation is in response to a number of questions about the groundwater cleanup program at the last meeting. He gave a presentation on the history and current status of the groundwater cleanup (Attachment 7). Only information and comments not presented in the attachment are recorded in these minutes.

Mr. Taylor noted that the County can grant variances for wells within the prohibition zone. In areas where the well is within the consultation zone, the County consults with the Regional Water Quality Control Board before issuing a variance.

Mr. Mayer noted that all the groundwater cleanup is taking place in the very shallow zones of the groundwater, less than 300 feet below ground surface. Production wells for drinking water extract from much deeper zones 500 feet below ground surface or more.

RAB discussion

Mr. Collier asked what the fracturing wells are constructed from? Mr. Mayer said the casing is steel. The fracturing wings are aluminum.

Ms. Suarez-Murias asked if the groundwater cleanup program is working in unconsolidated materials. Mr. Mayer said yes it is. She asked then if the contaminants are not migrating down. He said yes, the silts and clays tend to slow the migration.

She asked if there is any post treatment. Mr. Mayer said the water goes through a scrubber tower and the contaminants are vaporized and released according to an air emissions permit. The water goes through further treatment and then is released to Magpie Creek.

She asked how the Air Force knows it isn't pulling in contamination from offsite? He said there are monitoring wells along the perimeter. Something would show up there first.

Ms. Gardner asked for clarification on the location of the prohibition zone. She asked if the Air Force would be removing that. Mr. Mayer said it is a county prohibition that was put in place as a conservative protective measure, but there has never been any contamination out there. It would be a county decision. Mr. Mayer said the AF has monitoring wells and if anything were to start moving out there, it would show up in the wells before getting out there.

Questions from the public

A gentleman asked for a list of the contaminants that will be injected in the fracturing process. Mr. Mayer said it is a food grade material called guar.

Mr. Mayer explained that the process calls for a thickening agent, guar, to be added to a mixture of sand and water, and then it is injected into the ground. An enzyme is added to the guar that causes it to break down after about 20 minutes so that water can flow through the newly formed crack in the ground. Mr. Mayer stated it is not toxic.

X. RAB Community Co-chair Elections

This item was tabled to the December meeting. Mr. Green nominated Mr. Collier for community co-chair. Ms. Suarez-Murias nominated Ms. Gardner for community co-chair. Elections will be held at the December meeting.

XI. RAB Members' Questions, Advice, Comments, and Announcements

The meeting adjourned at 9:05 p.m.

Ms. Gardner stated that it has been wonderful to be able to be with the RAB tonight. She has had a family situation that has prevented her participation over much of the past year, but she is very pleased to be with the group tonight.

Next McClellan RAB meeting: Tuesday, December 10, 6:30 p.m. at North Highlands Recreation Center. The Holiday Social will begin at 5:30 p.m.

Addendum 1

Addendum to McClellan Air Force Base (AFB) Restoration Advisory Board (RAB) Meeting Minutes, FINAL September 17, 2013 -- McClellan, California

Responses to Public Comments during the 17 September 2013 McClellan Restoration Advisory Board Meeting Public Comment Period

At the start of the public comment period, Mr. Davis reminded the audience that during the public comment period the Air Force and RAB listen to all comments but do not respond during the meeting. The Air Force will consider all comments and provide a written response attached to the minutes at the following RAB meeting.

Frank Miller: *Some questions regarding building 252. Steve Mayer you told Sacramento Bee that the taxpayers spent \$10 million on building 252 of which \$3.6 million was paid to remove/ to demolish the building. Now after spending 6.4 million to clean the building over and over, which was blessed over and over, my question is to Steve Pay, has the Department of Toxics ever condemned the building. Yes or No?*

Department of Toxic Substances Control response: No, DTSC did not condemn Building 252. Building condemnation (red tagging a building), unless it is State-owned property, is done by a city or county building inspector or a public health officer for the most part in the State of California.

Air Force Response: Building 252 was demolished due to CERCLA cleanup activities. The soil beneath the building contained radium and other contaminants and had to be removed and disposed of in a licensed facility. The only way to remove the contaminated soil was to demolish the building first.

Mr. Miller: *So the question is was building 252 ever condemned and he's non responsive so I assume the answer is the building was never condemned. Now you said you spent at the last meeting \$3.6 million after you bundled it into other money. Now when I hear the word bundled that's cryptic to me. That's a code for cryptic. That's covert. And my question now is what company, what company did you hire to demolish 252? Was there competitive bidding? In what publication did you advertise for competitive bidding? Who evaluated and rated the RFPs, that the request for proposals? And what company got the bid? Now if \$3.6 million was the low bid, I can imagine what the other bids were.*

Air Force Responses to specific questions reprinted in italics:

What company did you hire to demolish 252?

Air Force: CH2M Hill was contracted for the Building 252 CERCLA removal action, including building demolition necessary to access contaminated soils under the building footprint.

Was there competitive bidding?

Air Force: Yes, the contract was awarded through a competitive bid process.

In what publication did you advertise for competitive bidding?

Air Force: The request for proposal was advertised on the Air Force Center for Engineering and the Environmental (AFCEE) website, for competition between contractors on the Design, Build, Restore, and Remediate (DBR2) contract. The DBR2 contract is an Indefinite Delivery Indefinite Quantity (IDIQ) contract with a pre-approved slate of contractors with qualifications necessary to complete this type of remediation work.

Who evaluated and rated the RFPs, that the request for proposals?

Air Force: The responses to the request for proposals were evaluated by both a Technical Evaluation Team and a Price Evaluation Team made up of staff from the Air Force Real Property Agency (AFRPA) and Air Force Center for Engineering and the Environment (AFCEE), under the oversight and direction from the 772ESS/PKJ contracting office out of Lackland Air Force Base, TX.

And what company got the bid?

Air Force: The fixed price contract was awarded to CH2M Hill.

Mr. Miller: *My next question is at several meetings I've been asking what volume of water is coming from the Suburban Water District that's being shunted, shunted from the Sacramento Suburban Water District. What volume of water? And that question could go to Warren Jung who is a representative of the Water District here tonight. So I guess that will cover it for now.*

Sacramento Suburban Water District: There is no potable water that is being shunted by the Air Force. Since privatization in 2000, Sacramento Suburban Water District (SSWD) has installed water meters on all facilities at McClellan Park. As part of the agreement between the Air Force/County of Sacramento/Sacramento Suburban Water District, the installation of water meters was one of the items per a list of improvements that were required to be completed on all water services to each building and irrigation service. To date the remaining handful yet to be metered are on open ended hangers and some irrigation services. Additionally all services that have been determined are no longer required have also been abandoned. All water supplied through the water meters are read monthly and billing for water use is calculated based on those readings. Billing for the water use is billed directly to the tenants including buildings and/or facilities being use by the Air Force or McClellan Business Park each month.

The non-potable water that is being extracted by the extraction wells, process and air strip of contaminants and then delivered into Magpie Creek has no bearing on SSWD's operation of the potable water system. That operation is solely Air Force. The water below ground does not belong to anyone. The water extracted is contaminated and cannot be used by SSWD nor can it be used by the Air Force. Actually the Air Force cleanup is a benefit to SSWD.

The Air Force has offered the cleanup water to SSWD for use. SSWD has looked into using the water for irrigation purposes and is currently performing a studying looking at potential uses. The study is evaluating potential places of use, infrastructure, and ownership of the water, environmental issues, permits and cost.

Mr. Miller: *A question about the fracking issue. You say that you can speed up the cleanup by 17 years and you say that it's based on a model, well I've had modeling in graduate school and I'd like you to show me this model. At no time have you shown this model. We know that mathematical models are based on assumptions, large assumptions and here a company, a company, made up a model and it's nothing more than an experiment. You know in private conversations with Mr. James Taylor with the Water Board who is here tonight, we both agreed on the telephone that this fracking issue is nothing more than an experiment at best. The question is show me that model.*

Air Force: The groundwater model output is attached (Addendum 1, Attachment 1).

Performance Model Demonstrates the Impact of Our Accelerated Site Closure Strategy

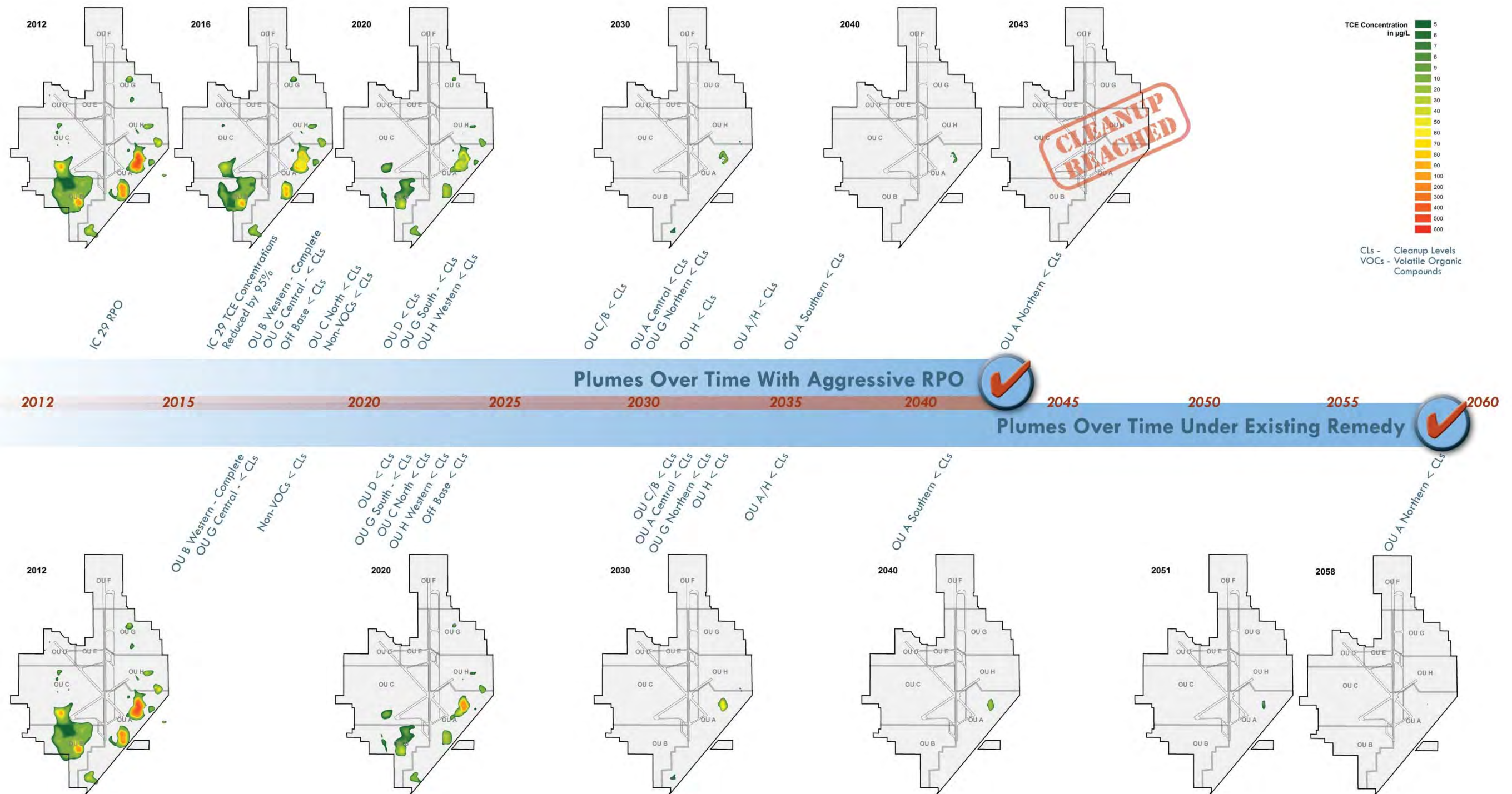


Exhibit 1.1-9. URS' RPO program results in a 17-year improvement on estimated time to site closure.

Please Sign In

Attachment 1

Air Force and
EPA mailing list

McClellan RAB Sept 17, 2013

Name	Address	email
CHARNJI BHAULANI		BHAULANI.CHARNJI11@BPA.GOV
Radhika Majhail		radhika.majhail@dtsc.ca.gov
Rich BOYAK		
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PAUL GREEN		
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Steve Mayer	AFCEC	
DAVE JONES		
DALE ANDERSON		
Paul Bernheisel	AFCEC	
DEANNA OSBORN		
ALAN CHICKS		

**McClellan Restoration Advisory Board (RAB) Meeting
North Highlands Recreation Center
Tuesday, September 17, 2013, 6:30 – 8:30 pm**

AGENDA

<u>TIME</u>	<u>TOPIC</u>	<u>LEAD</u>
6:30 – 6:35	Welcome & Introductions	Bill Davis, Facilitator
6:35 – 6:45	Agenda & Comments on June 2012 Minutes	Bill Davis, Facilitator
6:45 – 7:00	News Coverage of Consolidation Unit	Air Force Steve Mayer
7:00 – 7:05	Community Co-chair Update <i>Goal: Provide an update of current field activities and key documents.</i> <i>Process: Presentation and Q&A</i>	Community Co-chair Bob Blanchard
7:05 – 7:20	Air Force Cleanup Update <i>Goal: Provide an update of current field activities and key documents.</i> <i>Process: Presentation and Q&A</i>	Air Force Steve Mayer
7:20 – 7:25	Regulatory Update	Regulatory Agencies
7:25 – 7:35	Privatized Cleanup Status <i>Goal: Update the RAB and community about the privatized cleanup projects, and discuss issues as necessary.</i> <i>Process: Presentation and Q&A</i>	TetraTech Valerie Walker
7:35 – 8:00	McClellan Groundwater Cleanup Status <i>Goal: Provide an overview of schedule and work plan for the Focused Strategic Sites remedial action</i> <i>Process: Presentation and Q&A</i>	Air Force Steve Mayer
8:00 – 8:15	Public Comment <i>Goal: Provide opportunity for members of the public to comment.</i> <i>Process: Public members fill out a comment card indicating their desire to speak. The facilitator will call each person to the microphone. Speakers are asked to limit their comments to 3 minutes, however, more time may be allowed as necessary and available.</i>	Bill Davis, Facilitator
8:15 – 8:25	RAB Community Co-chair Elections <i>Goal: To elect a community co-chair for the coming year.</i> <i>Process: Nominations from RAB members at the meeting and vote by show of hands.</i>	RAB
8:25 – 8:30	RAB Members Advice, Comments, & Announcements <i>Goal: Solicit advice from each RAB member for upcoming agendas, and provide an opportunity for RAB members to express brief comments and/or make announcements.</i> <i>Process: Around the table for each member to offer agenda suggestions, comments, and announcements; comments will be recorded and will form future agendas.</i>	RAB

**Next McClellan RAB Meeting: Tuesday, December 10, 6:30 p.m.
Holiday Social – 5:30 p.m.**

MEETING GUIDELINES

Ground Rules

- *Be progress oriented*
- *Participate*
- *Speak one at a time*
- *Be concise*
- *Use “I” statements when expressing opinions*
- *Express concerns and interests (not positions)*
- *Be respectful*
- *Focus on issues not personalities*
- *Focus on what CAN be changed (not on what can not be changed)*
- *Listen to understand (not to formulate your response for the win!)*
- *Draw on each others’ experiences*
- *Discuss history only as it contributes to progress*

Facilitator Assumptions

- *We are dealing with complex issues and no one person has all the answers*
- *Open discussions ensure informed decision making*
- *Managed conflict is good and stimulates creativity and innovation*
- *All the members of the group can contribute something to the process*
- *Everyone is doing the best they can with the knowledge they have now*
- *Blame is unproductive and dis-empowering*



Consolidation Unit

- Consolidation Unit is Part of the Focused Strategic Sites Record of Decision
 - Signed in early 2012 by the Air Force, US Environmental Protection Agency and State of California represented by the Department of Toxic Substances Control
- Remedy is fully protective of human health and the environment
- The Air Force is responsible for monitoring and maintenance of the remedy in perpetuity
- Property transfer is several years away and the Air Force cannot and will not act unilaterally

Consolidation Unit



- Fully protective of human health and the environment
 - Complies with all requirements of the Comprehensive Environmental Response, Compensation and Liability Act and all state and federal applicable or relevant and appropriate requirements (ARARs)
- EPA R9 Administrator Jared Blumenfeld in news video: “We believe it is an appropriate remedy, a safe remedy and a remedy that will stand the test of time.”

Consolidation Unit



- Air Force always responsible for monitoring and maintenance
 - Regardless of who owns the property, the Air Force is responsible
 - Ongoing monitoring and maintenance during operation and post closure to ensure the continued protectiveness of the remedy.
 - CERCLA also requires 5- year Reviews



Consolidation Unit

- Future property transfer
 - Property transfer only possible after the remedy is in place and shown “operating properly and successfully.”
 - Several years in the future (approximately 7)
 - At that time, the AF will work with the State and prospective transferee on property transfer. The State and transferee will both need to be willing and cooperative parties to make the transfer happen.
 - AF can’t act unilaterally.
 - Air Force is prepared to retain property if a willing recipient cannot be identified.

Consolidation Unit Construction



- Construction video on You Tube at:
<http://www.youtube.com/watch?v=0apL1Uo82W0&feature=youtu.be>
- On Facebook: McClellan Environmental Cleanup

Consolidation Unit and Combined Cap Update



- Consolidation Unit construction completed
- Began moving contaminated soils in Sept 9



- Combined Cap to be complete by late October

**BRAC Cleanup Team and Stakeholders Meeting
17 September 2013**

FIELD REVIEW:

Groundwater Program Activities

a) McClellan Ground Water Treatment System (GWTS)

- 1) The GWTS is operating at approximately 1400 gpm; with the following extraction wells (EW) shut down for rebound monitoring because VOC concentrations are less than the MCLs:
 - OU A: EW-336 (A/B groundwater monitoring zone), EW-456 (A/B), EW-435 (A/B)
 - OU B: EW-443 (A), EW-140 (B), EW-366 (B), EW-307 (C)
 - OU C: EW-144 (A/B), EW-137 (B), EW-343 (A/B), EW-446 (A)
 - OU D: EW-86 (A/B)
 - OU G & H: EW-451 (B)
- 2) Flow to Beaver Pond from GWTP effluent (50-75 gpm) resumed 1 July 2013 to maintain water level at 2.0 ft. The CERCLA treatment system is operational. The ion exchange system is operating normally.
- 3) Shut down IC 29 EWs late July for fracturing/subsurface enhancement work.
- 4) Shut down some OU C Northern extraction wells to accommodate FSS construction.

b) Ground Water Monitoring Program (GWMP). The 3Q13 groundwater sampling event was completed in early August.

c) Davis GWTS. Davis GWTS is shut down. The fall groundwater monitoring will be performed in September/October.

d) IC 29 Groundwater RPO (subsurface enhancement). Fracture well drilling completed in July. Fracturing/injection began 12 August, expected to last until about 4 October.

Soil Vapor Extraction (SVE) Program Activities

e) Soil Vapor Extraction (SVE) Systems

All shutdown for rebound 29 June 2012 except IC 37 oxidizer, OU C1 oxidizer, and IC 19 oxidizer (now VGAC). Sampled for rebound in 1Q13, confirmation in 2Q13, 3Q13 *and* 4Q13.

(4 of 12 SVE systems **operating**, removing vapors from 4 of 10 SVE sites).

- 1) IC 1 SVE shutdown 29 June 2012. Initially little rebound in 1Q13, but increased in 2Q13 and 3Q13 (i.e., not stable). STOP evaluation on hold pending 4Q13 samples to assess whether rebound is still occurring.
- 2) IC 7 SVE shutdown 29 June 2012. Little rebound, proceeding with STOP evaluation.
- 3) IC 19 Flameless Thermal Oxidizer (FTO) not operating; replaced by IC 19 VGAC on 2 October 2012. New SVE well EW-498 sampled 9/5/12 began operating 10/2/12.
- 4) **IC 19 VGAC operating normally.** Restarted 2 October 2012 to replace IC 19 FTO because it allows more airflow (needed for new well). Unit shut down on 1 March 2013 so it could be relocated off of proposed cap; restarted 16 April 2013.
- 5) IC 31 SVE shutdown 29 June 2012. Initially little rebound in 1Q13, but increased in 2Q13 and 3Q13 (i.e., not stable). STOP evaluation on hold pending 4Q13 samples to assess whether rebound is still occurring.
- 6) **IC 34/35/37 FTO system operating normally**, extracting from IC 37 wells only.
- 7) IC 34/35/37 SVE shutdown 29 June 2012. Little rebound, proceeding with STOP evaluations at IC 34 and IC 35.
- 8) **OU C1 FTO system operating normally.** EW-494 shutdown 10/31/12 to allow CH2MHill to excavate area; well back online 15 March 2013.
- 9) OU C1 VGAC is not operating.
- 10) OU D VGAC shutdown for rebound 29 June 2012.

NOTE: Italicized text represent update changes

BCT & RPM Field Activities Update 17 September 2013

Margin or Underlined text represent corrective changes

- 11) **OU D Thermal Oxidizer is operating normally.** Limited rebound in two areas after 29 June 2012 shutdown. System restarted 8 April 2013 to address these areas; *two SVM wells were also plumbed for extraction.*
- 12) B243 (PRL S-008 only) SVE shutdown for rebound 29 June 2012. Little rebound, proceeding with STOP evaluation.

Petroleum, Oil, and Lubricants (POL) Cleanup Activities

f) POL Program:

- a) **PRL S-40 Biovent System** – Shutdown for rebound 1 June 2012. Rebound soil gas sampling conducted 5 December 2012. Relatively little rebound. 4Q12 monitoring report recommended site closure; closure report being prepared.
- b) **Basewide Fuels Investigation** – The Bldg. 4 and Bldg. 1036 biovent systems were shutdown for rebound 1 June 2012. Rebound soil gas sampling conducted 5 December 2012. Relatively little rebound. 4Q12 monitoring report recommended site closure; closure reports being prepared.

Soils Remediation Program Activities

g) Radiation Program.

- 1) **SVS and B252 NTCRA** –Excavations and final status surveys are complete at all sites. In the process of restoring gas service at CS B-005.
- 2) **FSS** – Monitoring of BMPs at CS 22, CU area, and all stockpile locations is ongoing. CU excavation was started on 22 April and completed on 16 July. Excavated approximately 280,000 cubic yards from the CU. CU liner material installation was completed on 23 August. *Completed installation of gravel layer in CU. Held ribbon cutting ceremony on 9 September to open CU for accepting waste material. Started accepting waste on 9 September. Waste hauling from CS 22 site is ongoing. Culvert construction is completed. Fine earthwork and asphalt restoration will start on 16 Sept. Combined cap liner material installation is approximately 75% completed. Started install of biotic rock layer on 12 September.*
- 3) **AOC 314 and PRL S030A** - FSSRs for PRLS030A and AOC 314 were submitted and are out for review. Removal Action Reports for both sites are out for review to the AF.

Other Management Activities

- h) **Biological Resources FSS** - *Biological resources monitoring was discontinued by URS on 31 August, corresponding with the end of the nesting season. The detour is still being maintained and Air Force is conducting weekly checks of the nest site and surroundings.*
- i) **Wetlands/Habitats Management Maintenance and Miscellaneous Activities** – Mowing and other landscape maintenance activities are ongoing.
- j) **Ecological Sites Proposed Plan/ROD** – *The Draft Final RAWP was distributed on 11 September and the Air Force requested comments by 25 Sept. DTSC indicated a full 30-day review would be needed, resulting in a comment due date of 14 October. Based on the current schedule, the RAWP will be finalized in November 2013 and field work will be initiated in spring 2014.*
- k) **Wetland Delineation Update** – Field work for the 2013 wetland delineation update of Air Force retained properties has been completed and preparation of the report is in progress.
- l) **PRL 041 Test Pit Investigation** – *Seven test pits were completed, scanned and sampled. Elevated levels of radium-226 were reported at one test pit. The results of the investigation have been incorporated into the draft final Follow-on Strategic Sites ROD.*
- m) **OU D Cap O&M.** 3Q13 inspections conducted in August, no findings except to ensure mowing before the 4Q inspection, which will likely occur in November 2013.

Current Key Documents and Events of Interest to the RAB September 17, 2013 RAB Meeting

	Document	Document Description	Status	FOSET
1	Ecological Sites Remedial Action Work Plan	Details the work plan and schedule for the cleanup action at the Ecological Sites	Draft final issued this month.	FOSET #3
2	Group 2 Radiological Non-time-critical Removal Action Final Status Survey Reports (FSSR).	Documents the results of the final scan and survey to confirm removal of radiological contaminants at the 9 sites. Report is reviewed by Air Force Radioisotope Committee (RIC) and by California Department of Public Health.	Draft final to be issued for agency review this week.	FOSET # 3
3	Follow-on Strategic Sites Record of Decision (ROD)	Details the Air Force's cleanup decision for the Follow-on Strategic Sites	Draft final issued for agency review last week.	FOSET #3
4	Focused Strategic Sites CS 10 FSSR	Documents the results of the final scan and survey to confirm removal of radiological contaminants at the site. Report is reviewed by Air Force Radioisotope Committee (RIC) and by California Department of Public Health.	Final issued in August.	FOSET #3
5	Focused Strategic Sites Consolidation Unit Operating permit and radiological holding license	License for the Air Force RIC to hold radiological materials	Issued September 9.	
6	Focused Strategic Sites Explanation of Significant Difference (ESD)	Describes the differences in the remedy specified in the ROD for CS 022, and the actual remedy that will be implemented and the rationale for the different remedy.	Signed by Air Force and regulatory agencies	FOSET #3
7	Groundwater Remedial Process Optimization ESD	Describes the differences and rationale from the remedy specified in the Basewide VOC Groundwater ROD and the proposed remedy to allow fracturing of the groundwater aquifer in IC 29.	Signed by Air Force and regulatory agencies	
8	McClellan 5-year Review Work Plan	Documents the requirements and process for the 5-year review of CERCLA remedies at McClellan and at the Davis site.	Final issued early this month	
9	Finding of Suitability for Early Transfer #3	Documents the environmental restrictions in support of an early transfer of property. Includes ____ sites, primarily from the Follow-on Strategic Sites	Draft Final #2 to be issued for agency review in October.	FOSET #3



McClellan RAB Presentation

Former McClellan AFB, California
17 SEP 2013

McCLELLAN PARK



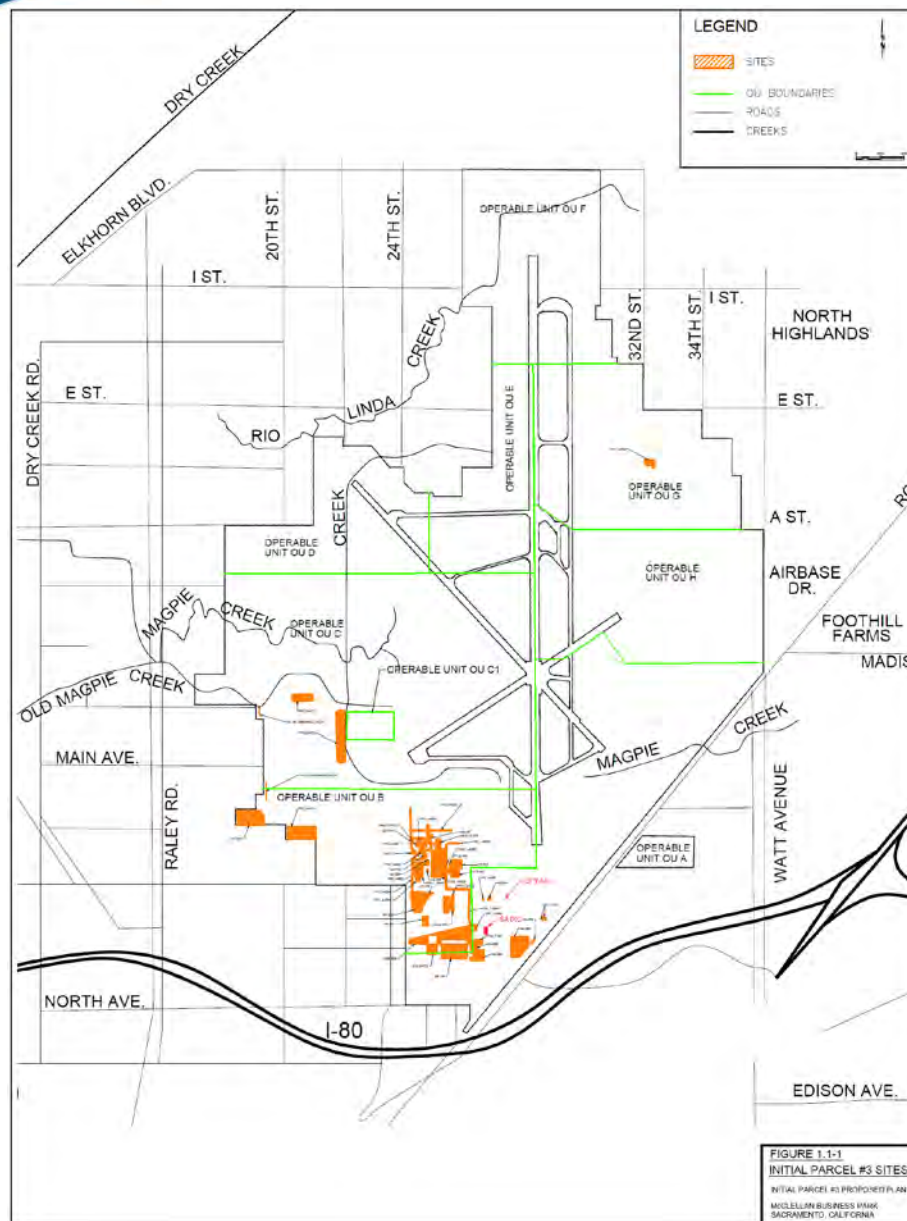
FOSET I

IP#2

Completed;
Development Area I
RACR: Approval
received 11 January 2013

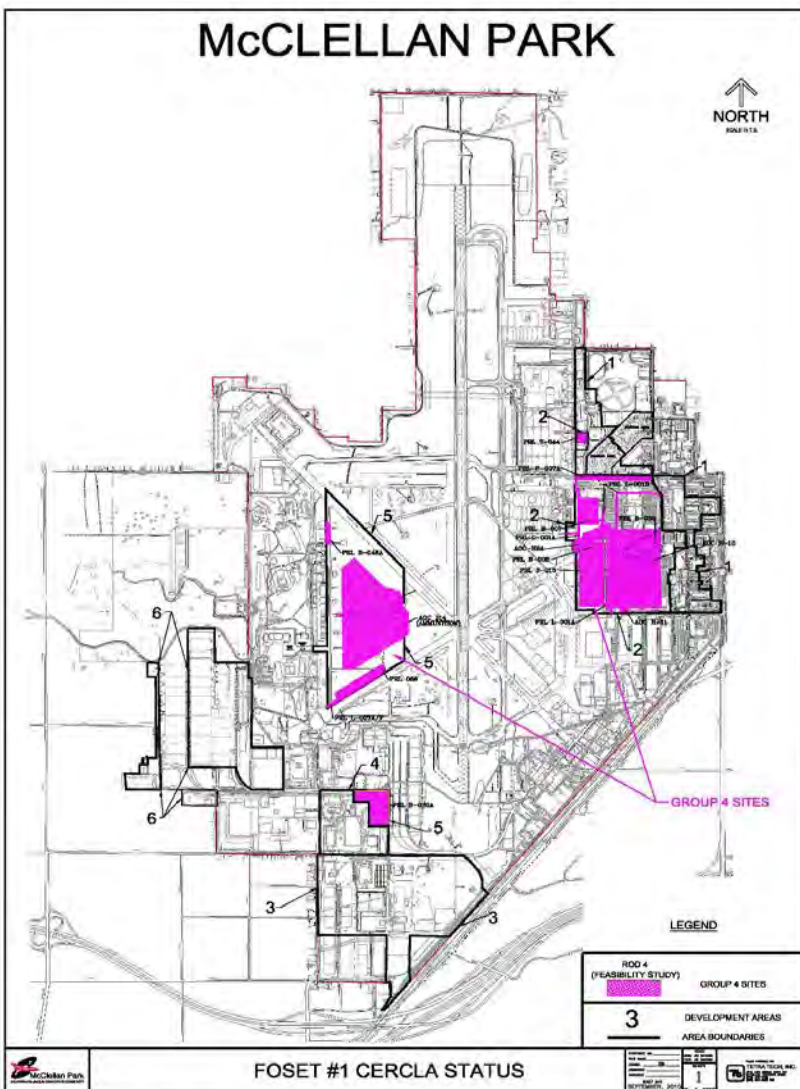
FOSET I

IP#3



- ROD signed.
- Final RD/RA Work Plan approved.
- Excavation, field sampling, and site restoration has been completed at CS-T-061, and Wastepile.
- Excavation and field sampling has begun at CS 047, OU BI Drainage Ditch, PRL L-0005C, PRL S-012, PRL S-013, PRL T-060 / SA 005, SA 011, and SA 092.
- Soil removed during field work is being disposed of off-site.
- Field work on 14 action sites to be completed during summer of 2013, with the exception of SA 014, summer 2014.

FOSET I



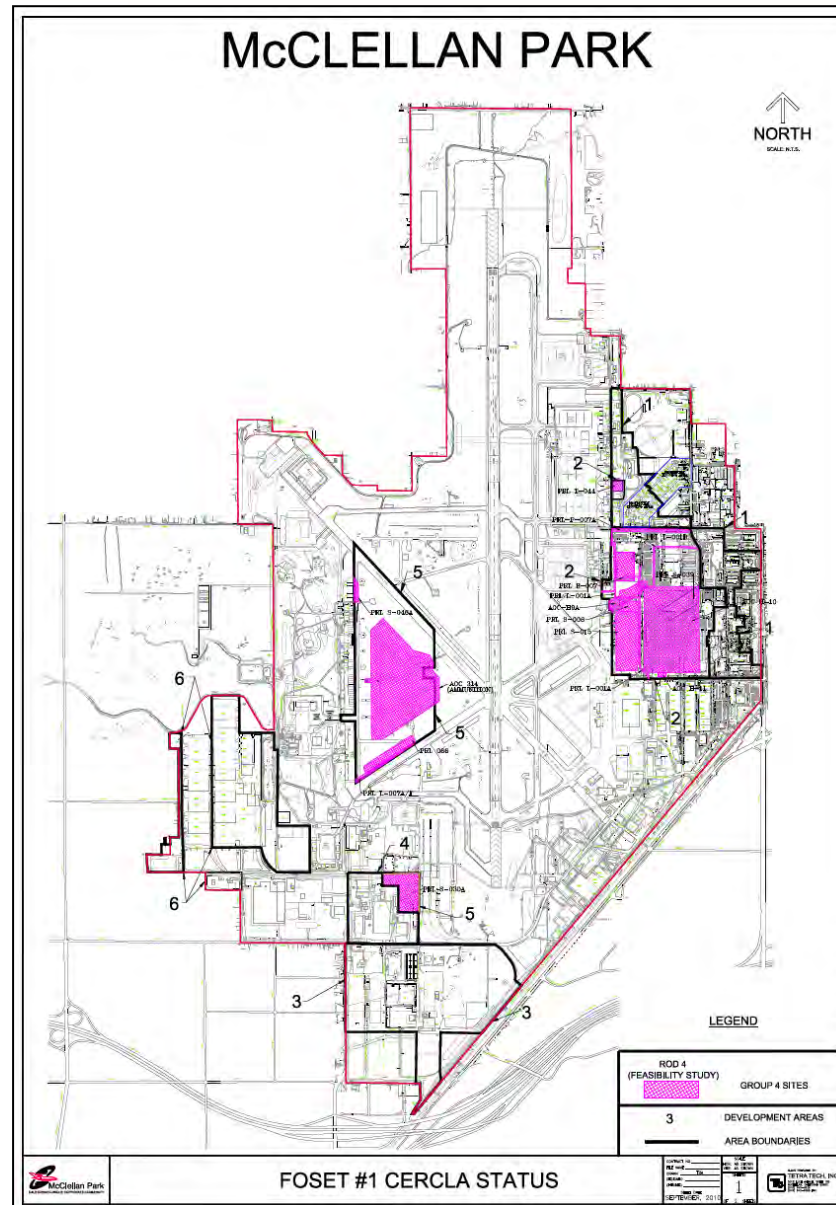
Group 4

- Regulators have commented on the Draft Final RI/FS and are awaiting the Draft Final II, expected at the end of October 2013.
- Proposed Plan and ROD to follow in mid / late 2014.
 - Includes Proposed Plan public meeting and comment period.
- Field work anticipated in summer of 2015 and 2016.

FOSET I

Non-Time Critical Removal Action Sites

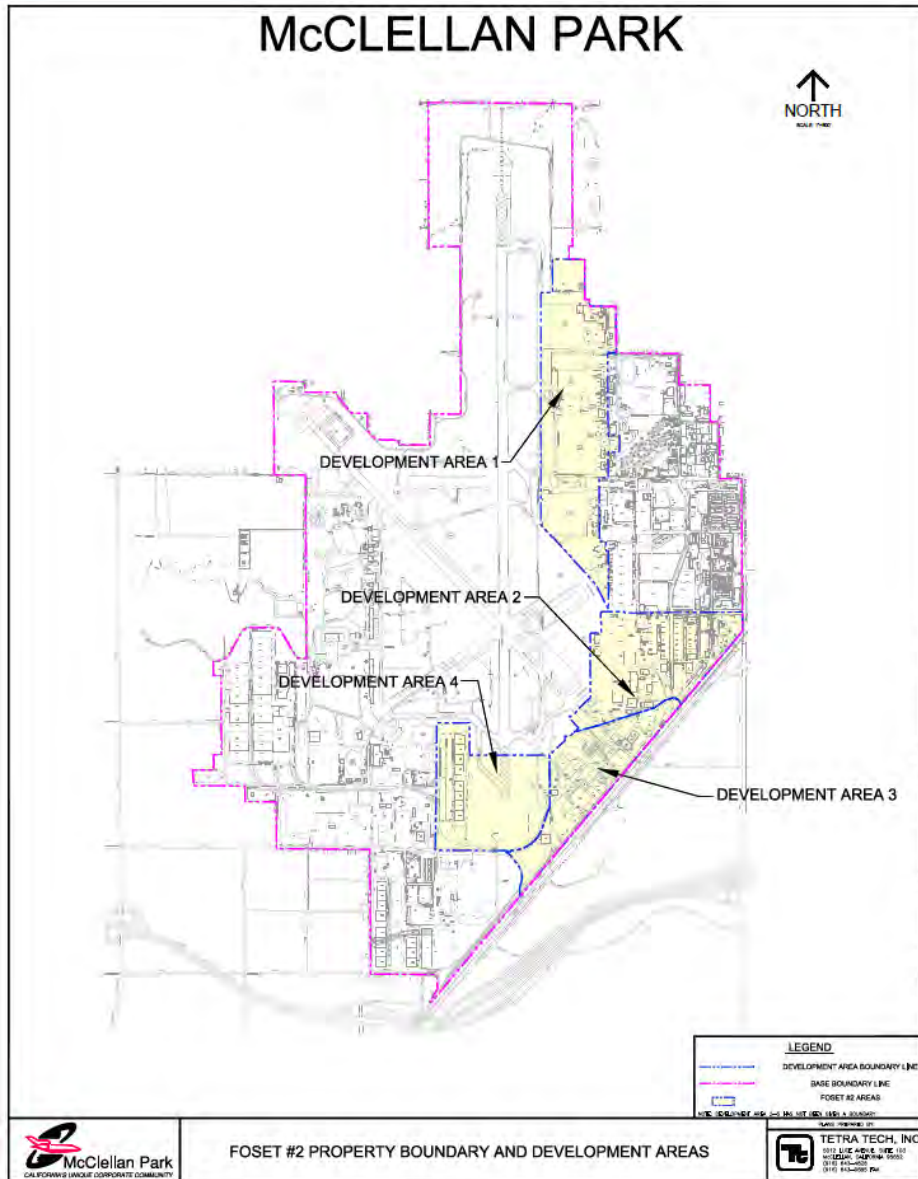
AOC 314
PRL S-030A



AOC 314 / PRL S-030A Delayed Transfer Project

- Approaching Completion
 - Excavation completed
 - Radiological surveys completed
 - Soils from AOC 314 and PRL S-030A have been shipped off-site via rail
 - Shipping the soil off site using the rail method reduced emissions, and the carbon footprint while increasing public safety.
 - Draft of the Final Status Survey Reports (FSSR) have been submitted to the Air Force and California Department of Public Health (CDPH) for review
 - Removal Action Completion (RAC) report has been submitted to the Air Force for review
 - Site restoration pending

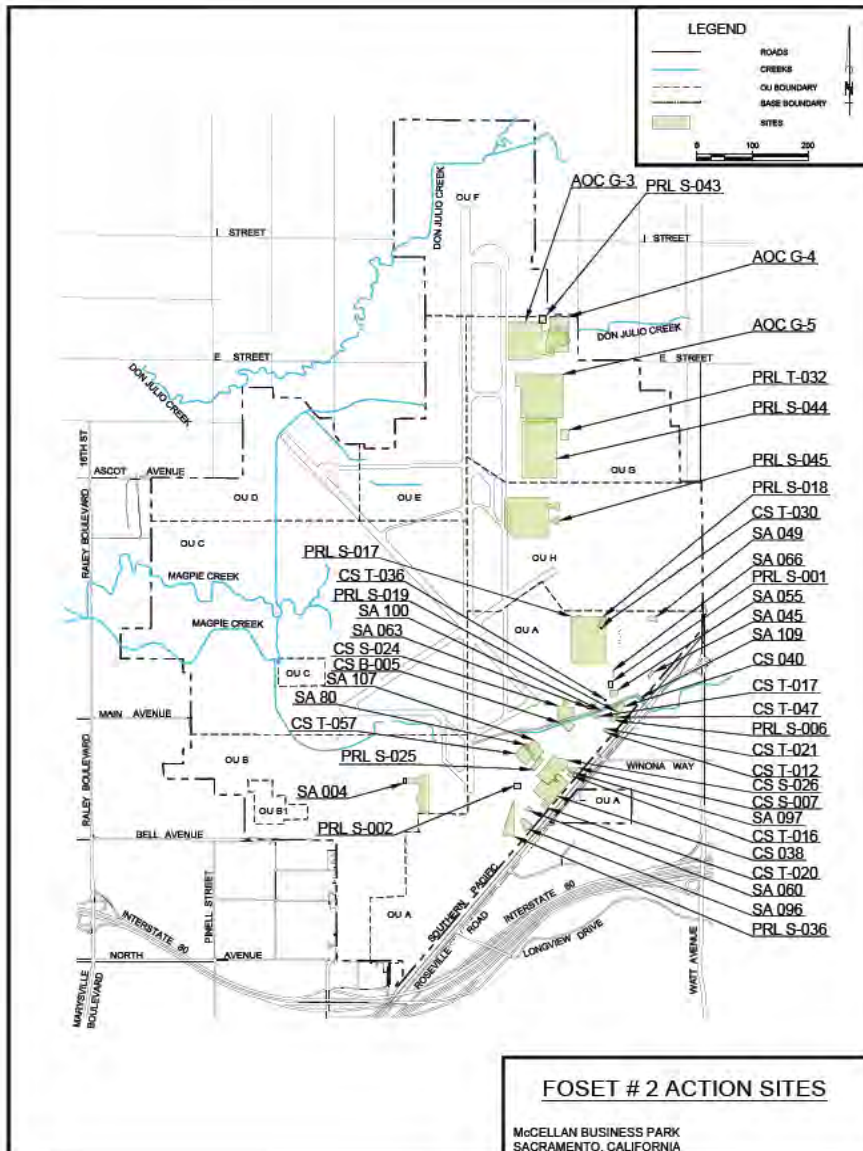
FOSET 2

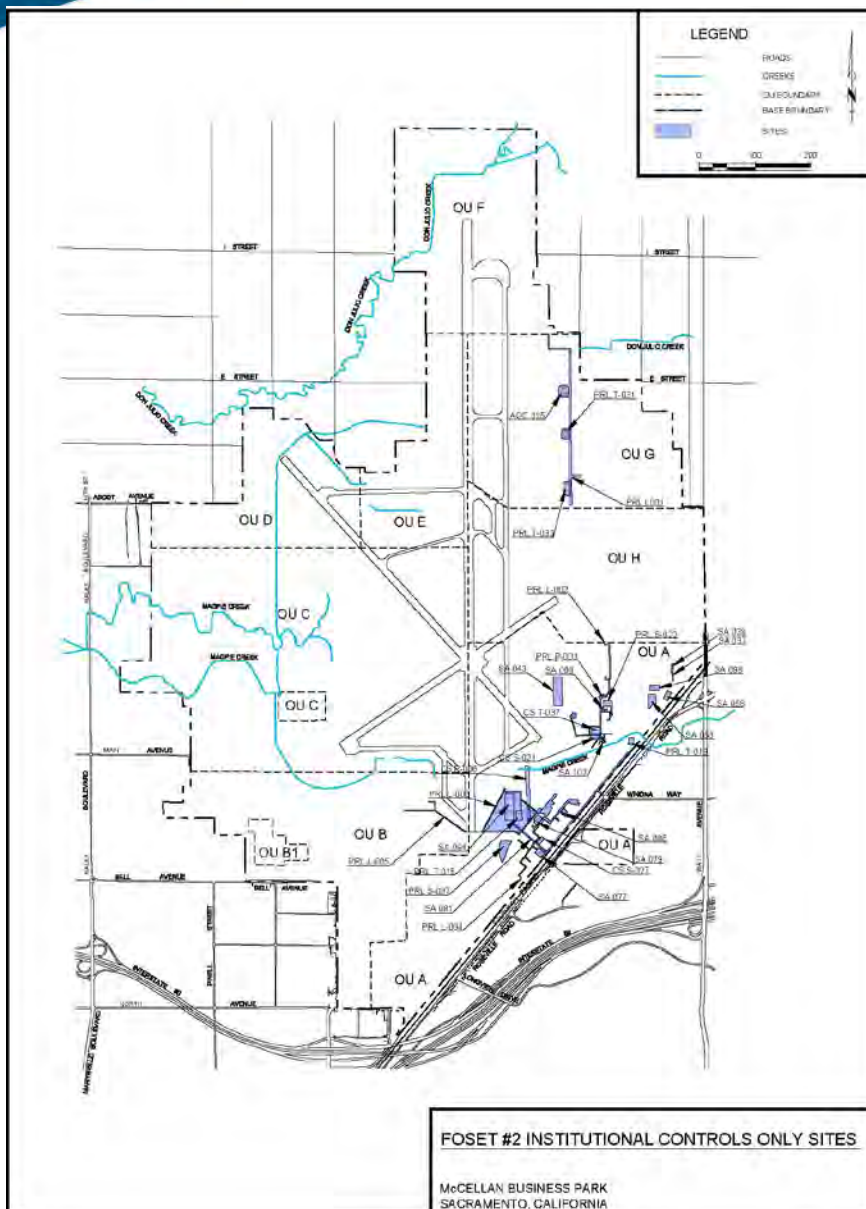


- FOSET 2 transferred 528 acres of former McClellan AFB and includes 131 Installation Restoration Program (IRP) sites.
- FOSET 2 IRP sites comprise two groups:
 - Action Sites (43 proposed sites)
 - Institutional Controls Only and No Further Action Sites (80 proposed sites)
- Updates are being made to the *Supplemental Community Involvement Plan for Privatized Parcels Cleanup* to include FOSET 2. Final document anticipated this Fall (2013).

FOSET 2 (cont.)

- FOSET 2 Action Sites Proposed Plan consisting of 43 sites is expected to be finalized this Fall (2013).
- Proposed Plan Fact Sheet and public meeting are planned for Fall 2013.
- FOSET 2 Action Sites Record of Decision will follow in 2014.



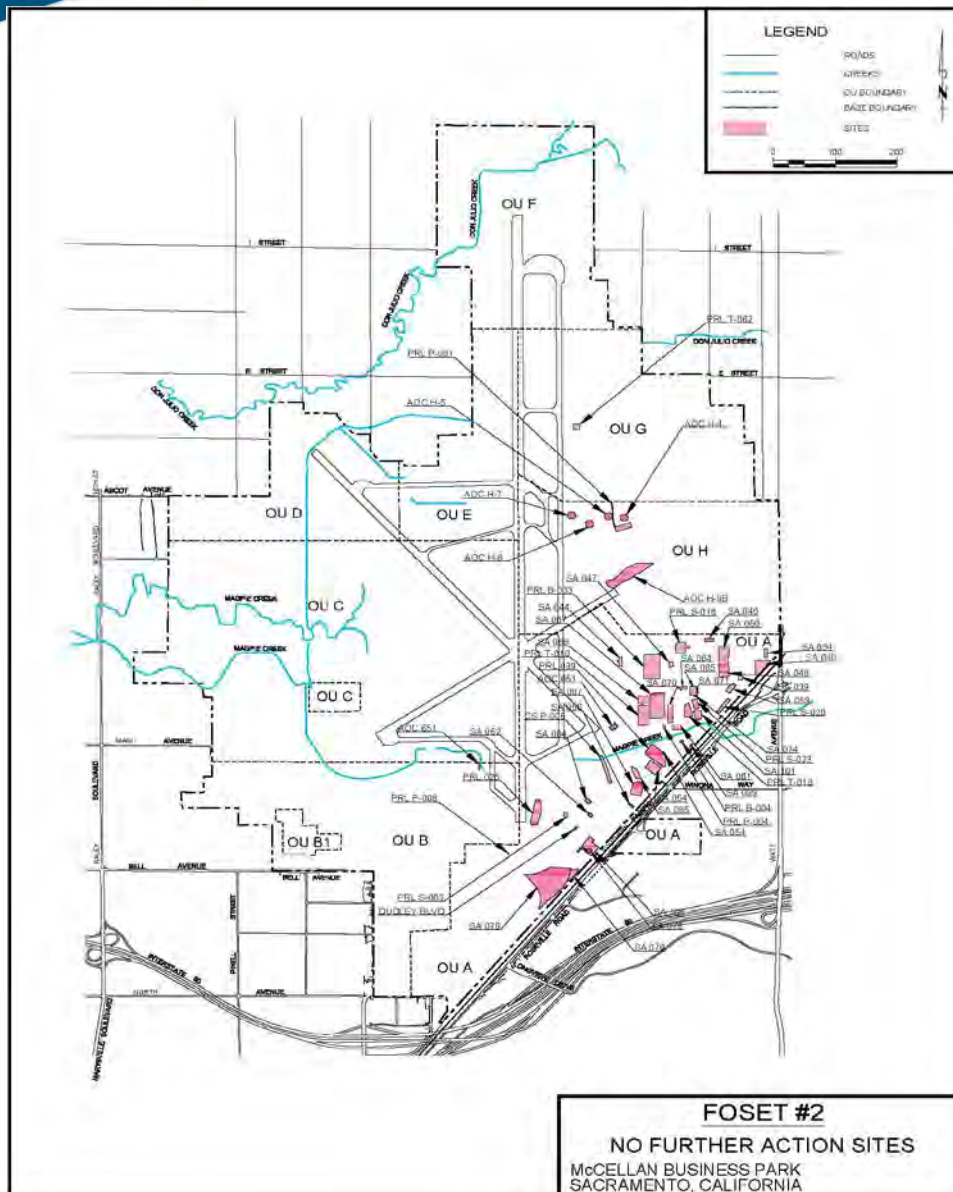


FOSET 2 (cont.)

- FOSET 2 Institutional Controls Only and No Further Action Sites
Proposed Plan consisting of 80 sites is being drafted and will be finalized in 2014.
 - Institutional Controls Only Sites (30 proposed sites).
 - No Further Action Sites (50 proposed sites).
- Proposed Plan Fact Sheet and public meeting are forthcoming.
- Record of Decision to follow in 2014/2015.

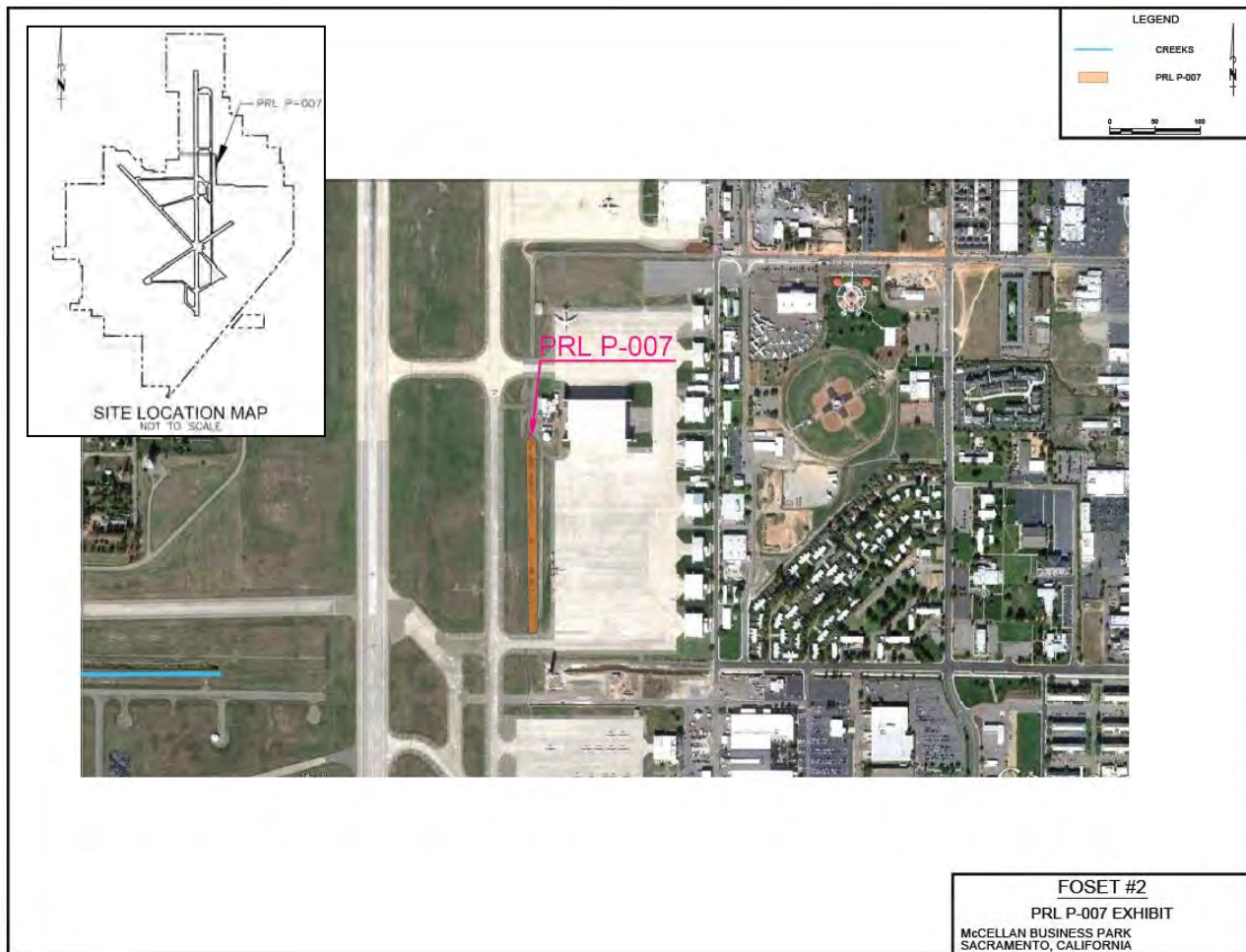
FOSET 2 (cont.)

- Map of No Further Action Sites

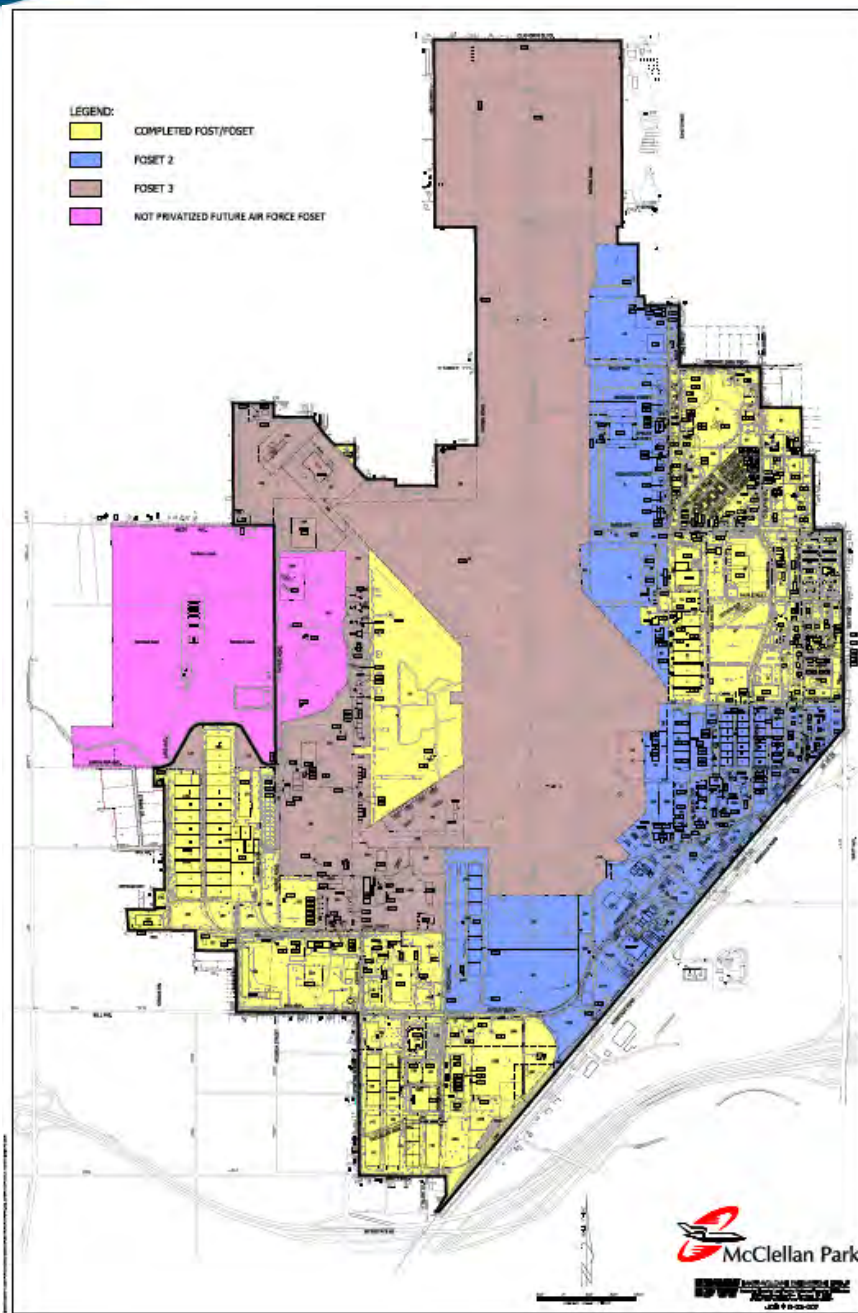


FOSET 2 (cont.)

FOSET 2 Ecological Site PRL P-007



- RD/RA Work Plan to address estimated 470 cubic yards of PAH-impacted creek sediment has been approved by Regulatory Agencies.
- Fieldwork will be conducted in September 2013.
- Soil removed during field work will be disposed of off-site.



FOSET 3

- FOSET 3: Final portions of the former base
- Property transfer anticipated in 2014

McClellan Park RAB – SEP 2013

Questions?

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McClellan Groundwater Update

Restoration Advisory Board Meeting
September 17, 2013



Topics



- ❑ Contaminants of Concern
- ❑ Remedy
 - ❑ Institutional controls
 - ❑ Soil vapor extraction
 - ❑ Groundwater
 - Pump-and-treat
- ❑ System Optimizations
 - ❑ Downsizing
 - ❑ Increasing flow
- ❑ Monitoring
 - ❑ Contaminants
 - ❑ Water levels



Contaminants of Concern



- ❑ Past industrial practices

- Disposal pits
- Industrial waste lines, treatment plant
- Washracks, plating, other

- ❑ Volatile organic compounds (VOCs)

- Solvents and degreasers



- ❑ Non-volatile organic compounds

- Pesticides, metals, petroleum hydrocarbons
- Treated in VOC treatment process

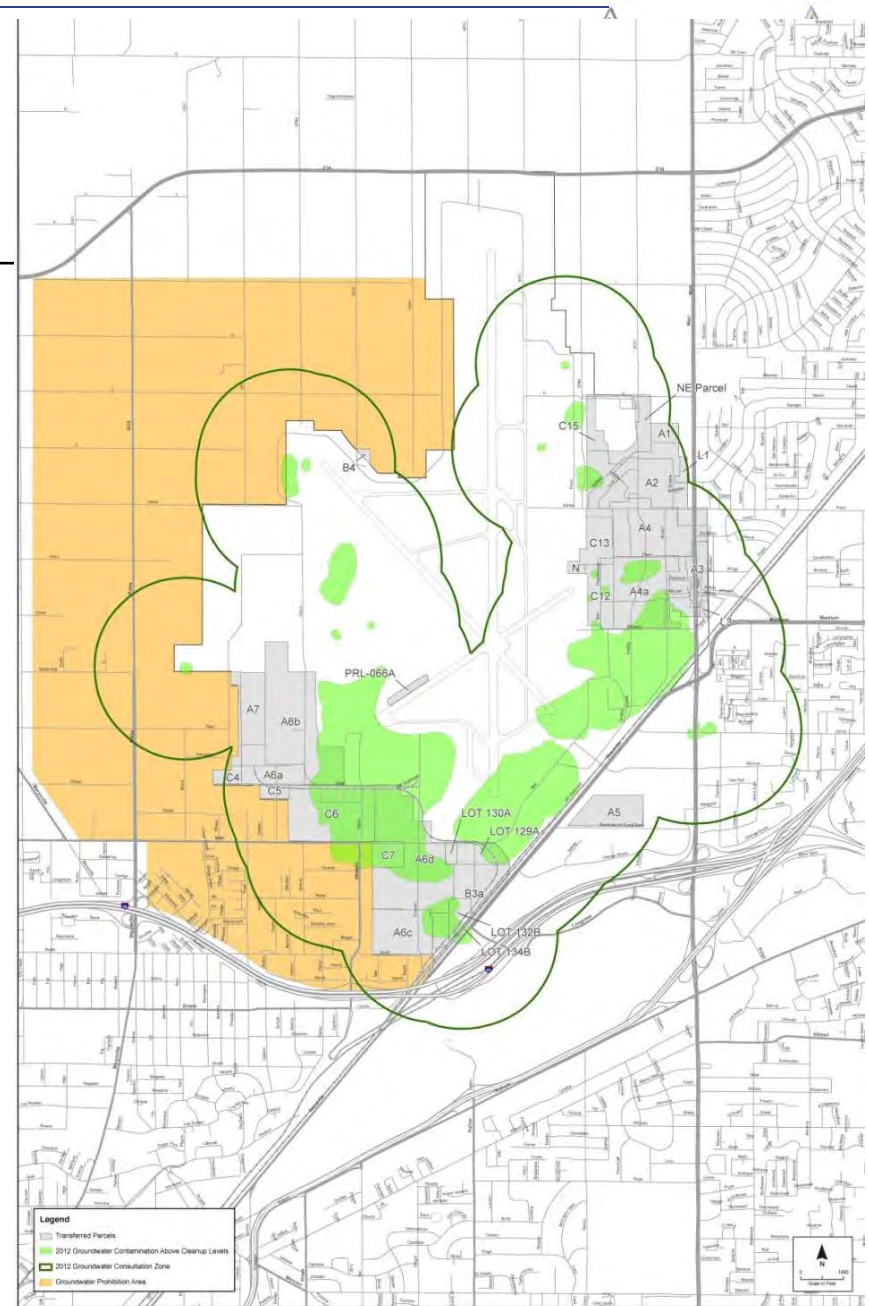
- ❑ No radionuclide contaminants in groundwater

Institutional Controls

 County and City Prohibition Zones

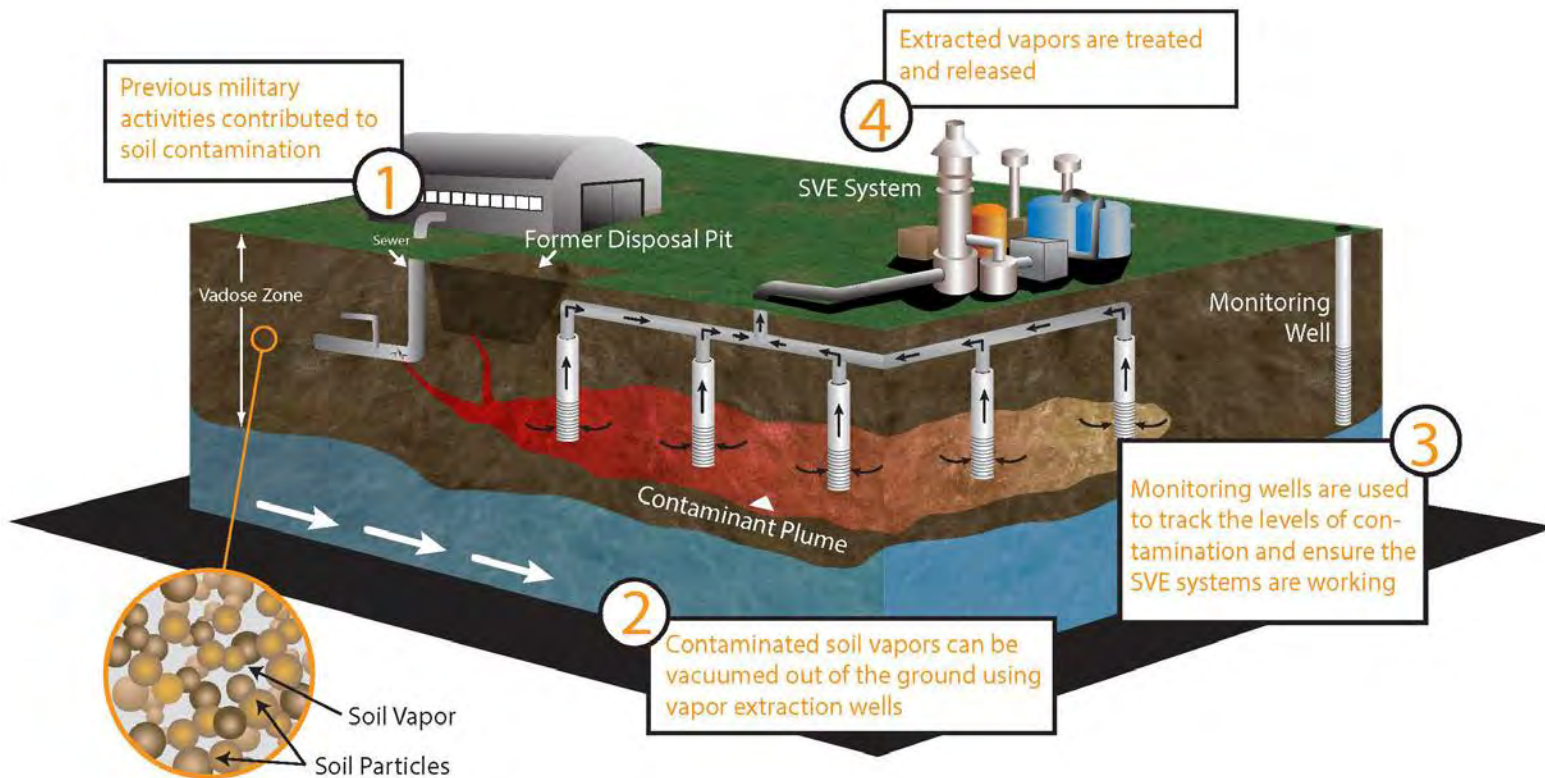
 Regional Water Quality Control Board Consultation Zone

- Same for all plumes in County
- 2000 feet from known contaminant plume





Soil Vapor Extraction



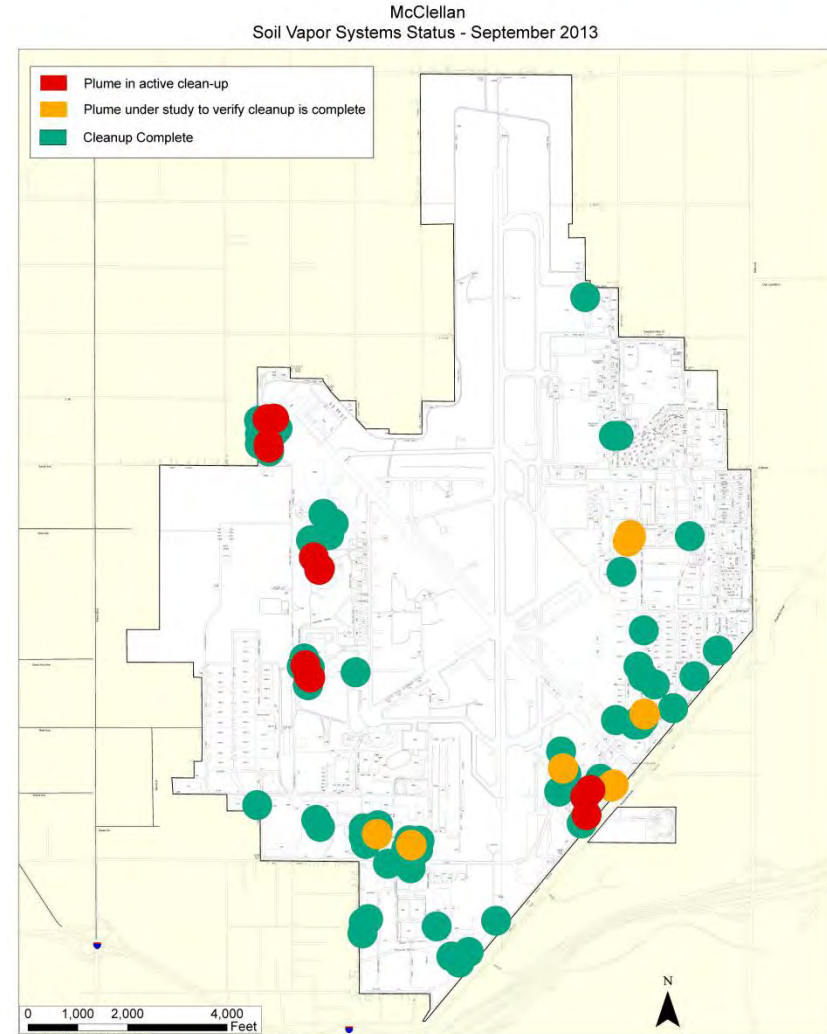
Soil vapor is the gas in the spaces between soil particles underground.

Soil Vapor Extraction vacuums vapors below ground and treats them. The byproduct is harmless.

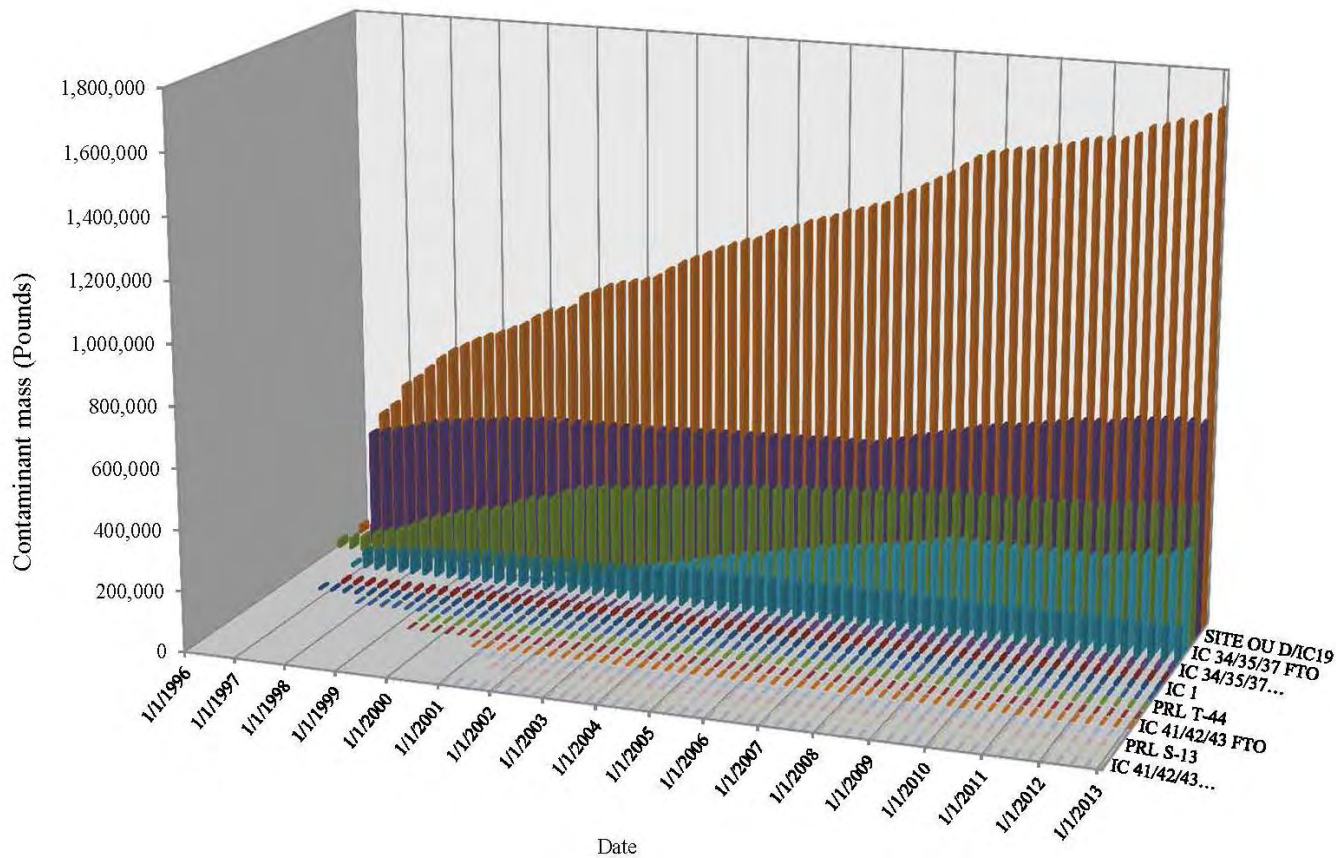
Soil Vapor Extraction System



- 1993 - 16 systems treating VOCs from 26 well fields
- Today - 4 systems treating VOCs from 4 well fields

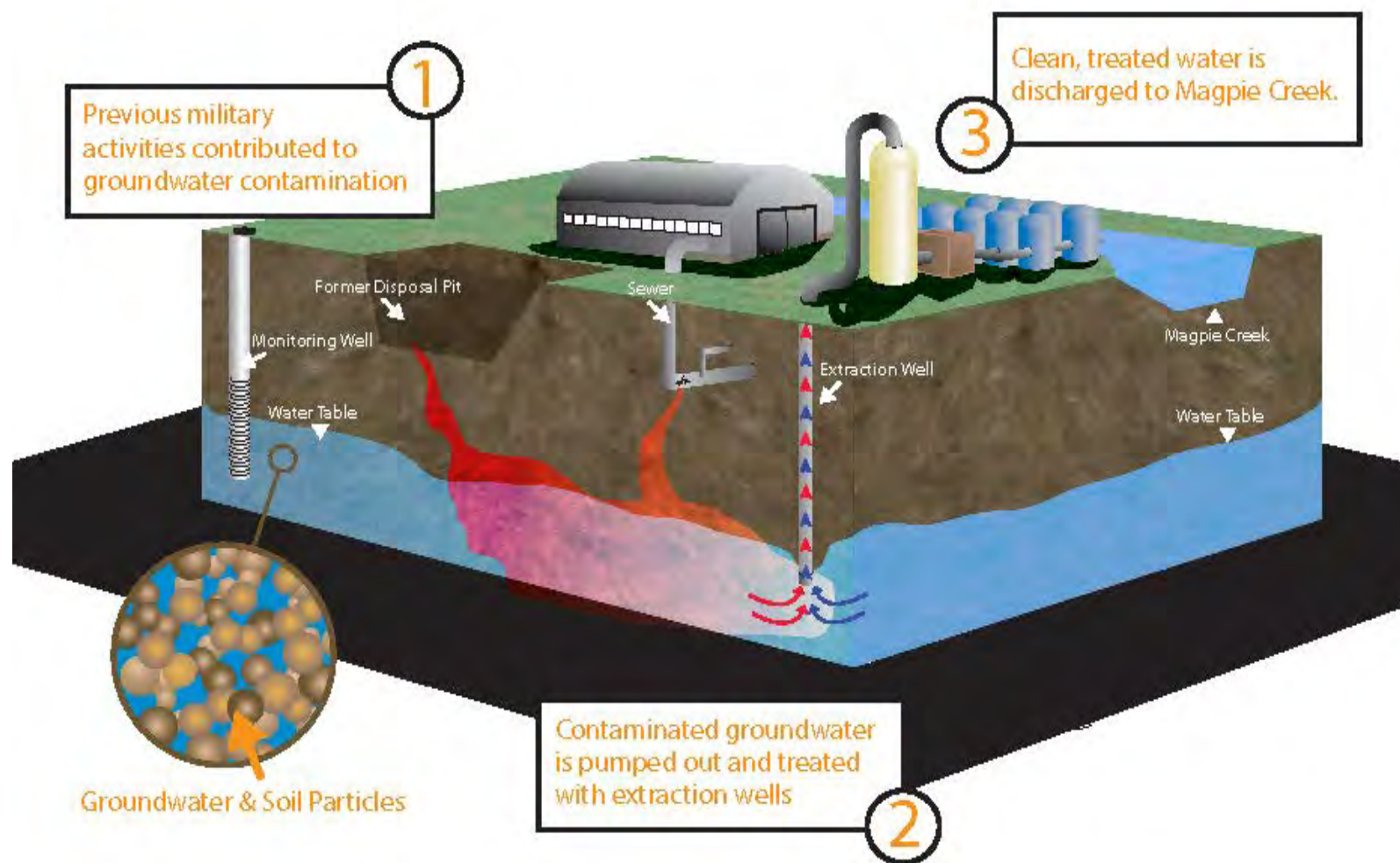


Soil Vapor Extraction



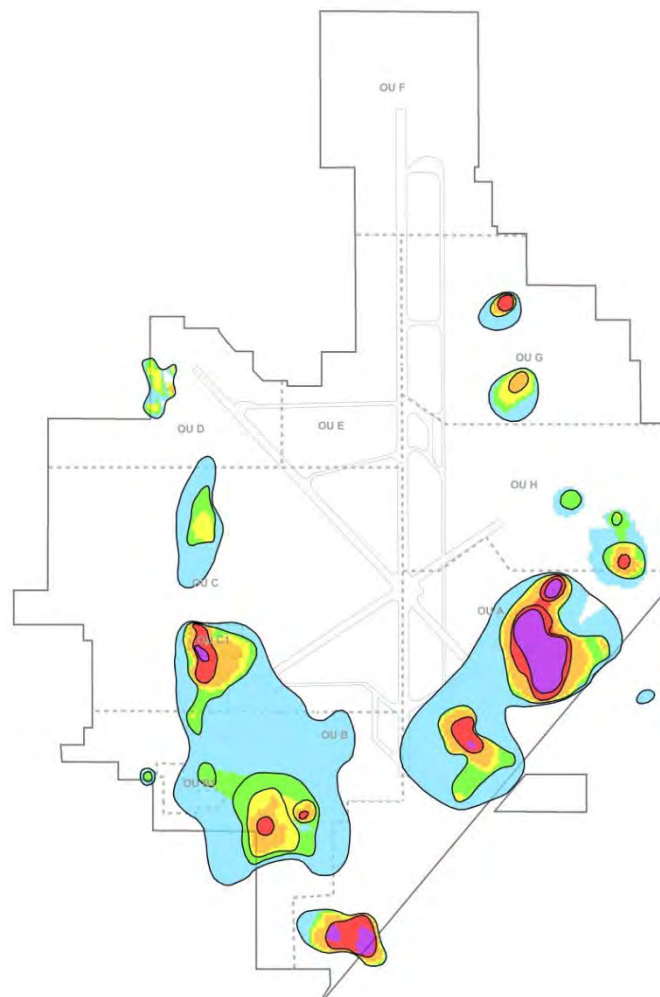
Nearly 1.7 million pounds of VOCs removed by SVE through December 2012

Groundwater Pump and Treat

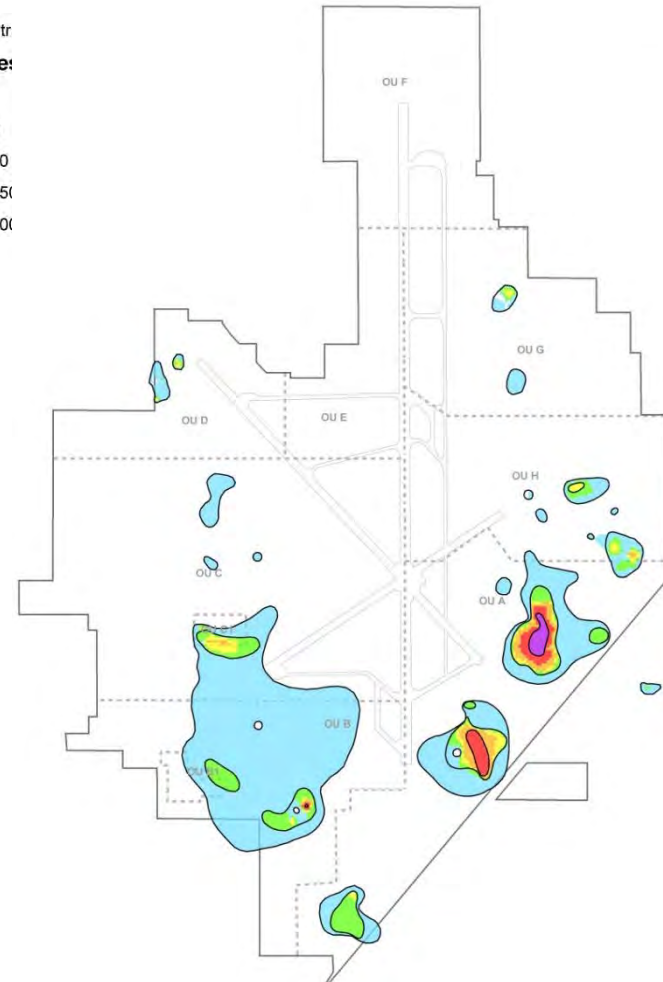
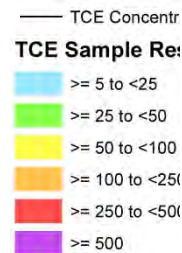


TCE Concentrations: A-zone

(110–130 feet below ground surface)

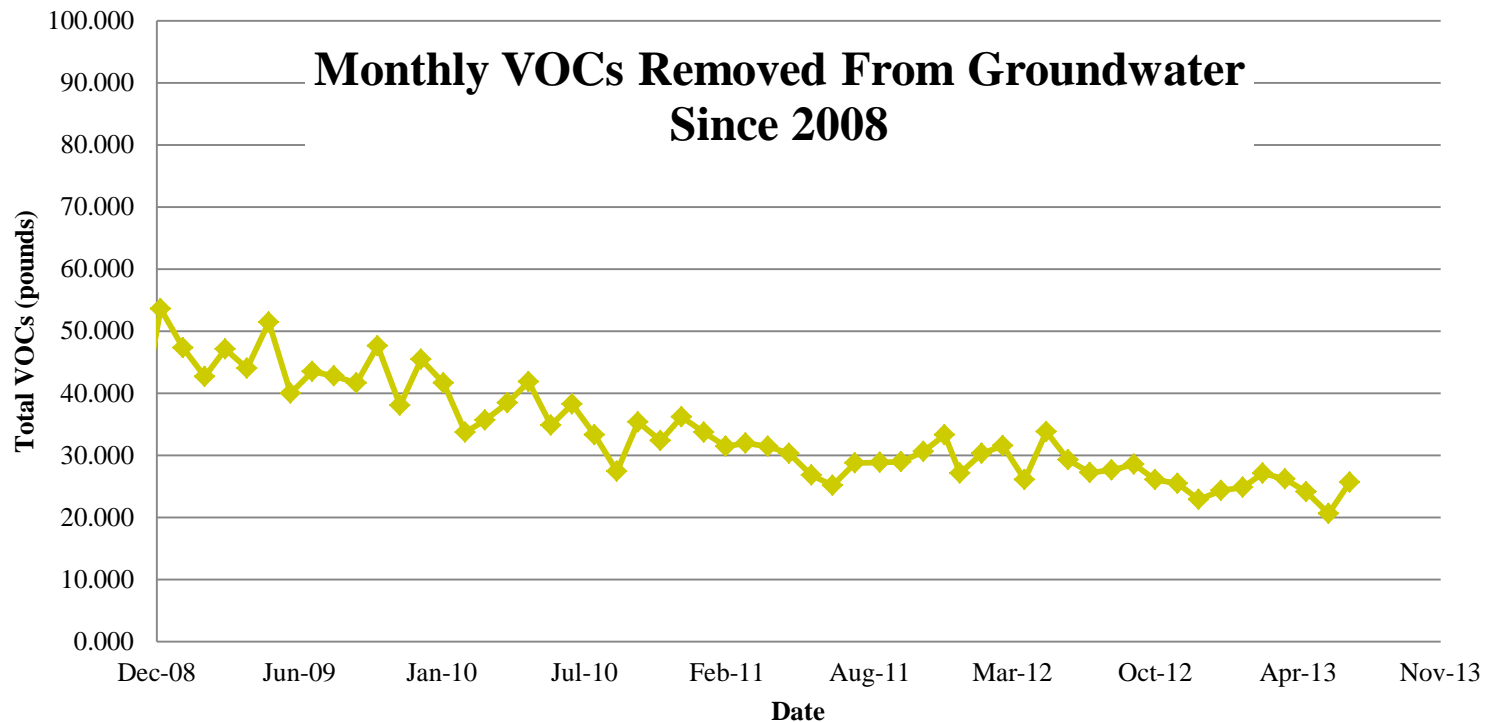


2000



2012

Groundwater Pump and Treat



- Monthly VOC extraction rate decreasing as concentrations in groundwater decrease

Groundwater Pump and Treat



- Currently extracting and treating 65 million gallons of groundwater per month
- Removing approximately 3 gallons of VOCs per month
- Approximately 60,000 lbs VOCs removed to date



System Optimizations

□ Adjustments due to decreasing concentrations

■ Groundwater Treatment Plant

- Eliminated off-gas treatment
- Eliminated carbon filtration



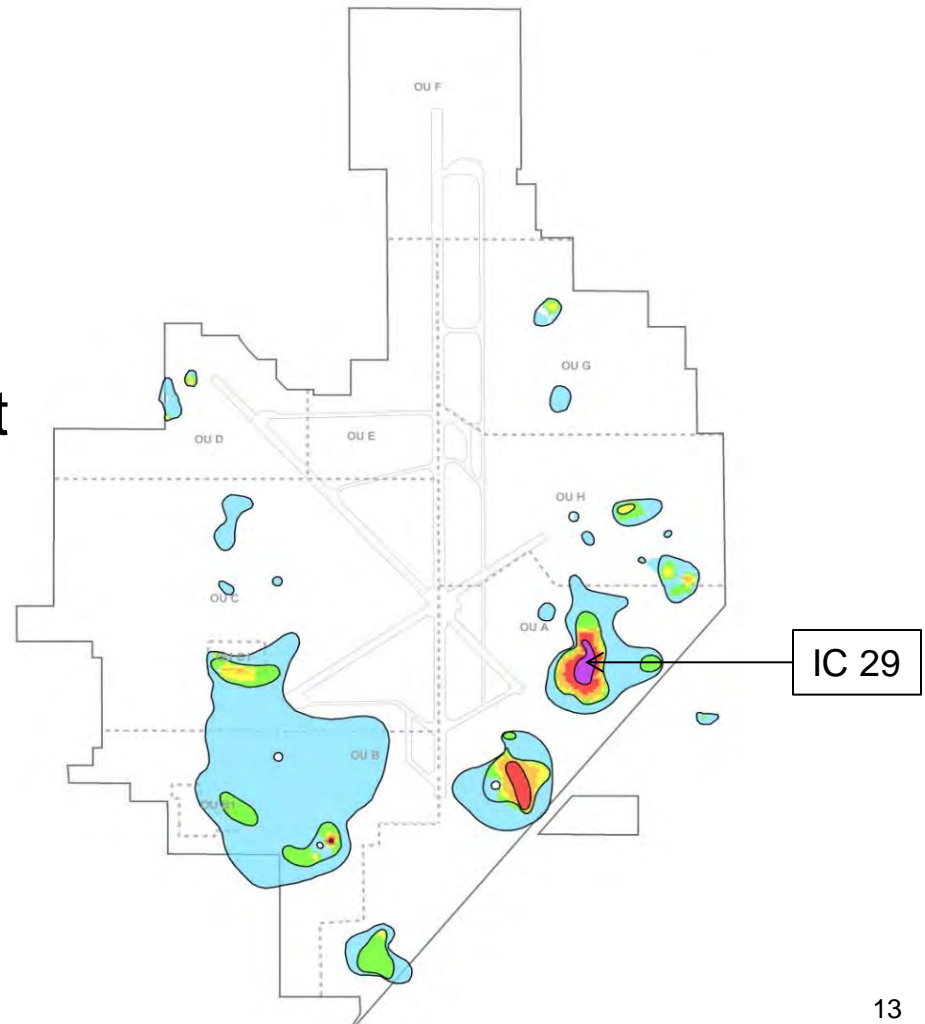
■ Well field adjustments

- Shut down extraction wells not producing
- Sample fewer monitoring wells in established areas

System Optimizations



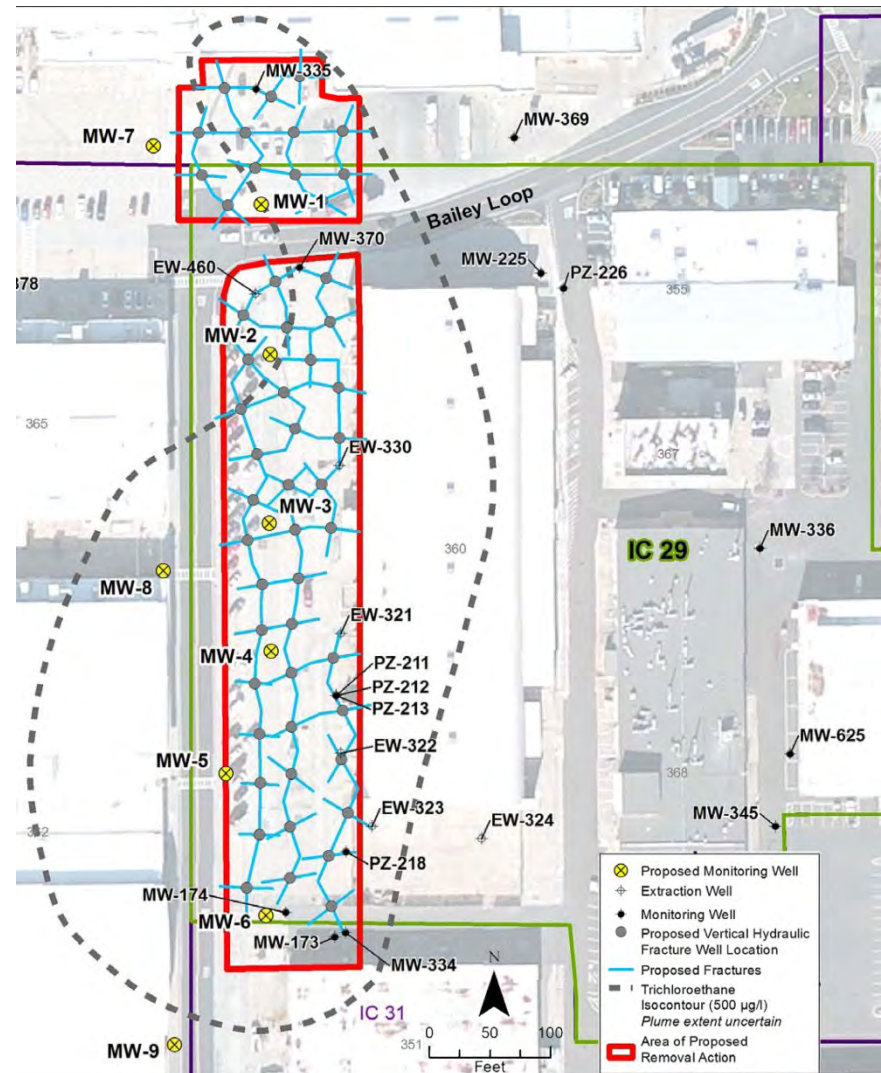
- ❑ IC 29 flow enhancement
 - Loosen soil to increase flow in tight soil with highest contaminant concentrations



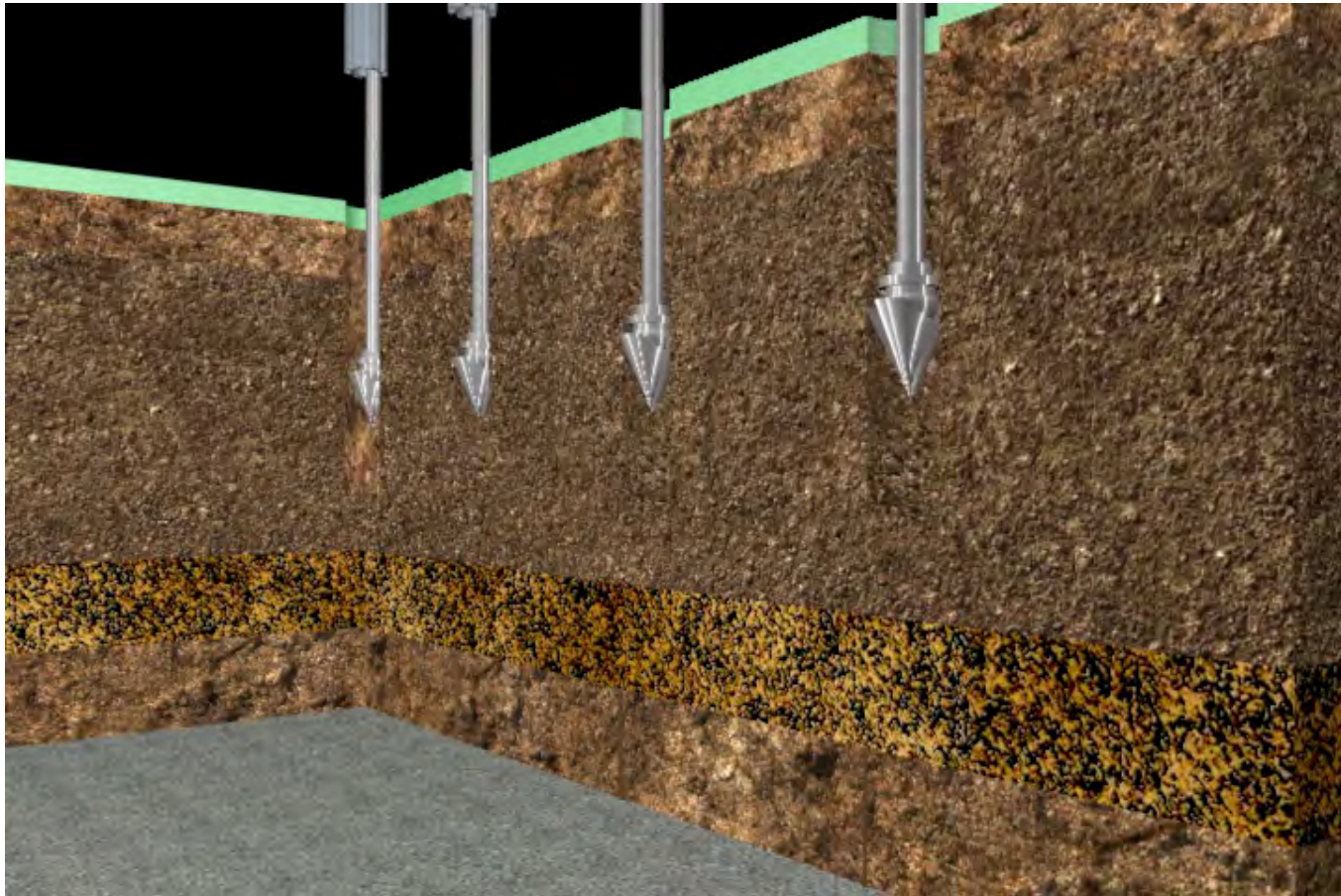
System Optimizations



- ❑ IC 29 flow enhancement
 - Less than 1 acre
 - Shallowest zone (110–130 ft. deep)
 - 52 fracture wells, 30 feet apart



IC 29 Optimization



Technology Transfer



- ❑ Sacramento State faculty tour
- ❑ Consultant staff tour





Monitoring program

- ❑ Contaminants of Concern
 - Sample quarterly
 - ❑ Concentrations
 - ❑ Migration
 - ❑ System problems
- ❑ Water levels
 - Measure biannually
 - Rising approximately 0.5 ft./year
 - No impact on cleanup at this time





Questions and Discussion