

**McClellan Air Force Base (AFB)
Restoration Advisory Board (RAB) Meeting Minutes - FINAL
August 27, 2015 -- McClellan, California**

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

RAB Member Attendees

<u>NAME</u>	<u>AFFILIATION</u>
GARY COLLIER	PARKER HOMES COMMUNITY
CHARNJIT BHULLAR	U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA)
STEVE MAYER	AIR FORCE CIVIL ENGINEER CENTER; CO-CHAIR
STEPHEN PAY	CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCE CONTROL
JAMES TAYLOR	CENTRAL VALLEY REGIONAL WATER QUALITY CONTROL BOARD
CAROLYN GARDNER	MCCLELLAN PARK RESIDENT; CO-CHAIR
TINA SUAREZ-MURIAS	ENVIRONMENTAL COMMUNITY
DANA BOOTH	SACRAMENTO COUNTY
PAUL GREEN JR.	EDUCATIONAL COMMUNITY
GLENN JORGENSEN	NORTH HIGHLANDS COMMUNITY

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, and picked up available handouts. The RAB Members introduced themselves. Mr. Davis provided a meeting overview, which included the purpose of the RAB and ground rules for the meeting, as well as the agenda (Attachment 1).

II. Oct 2014 and May 2015 Minutes

Mr. Davis invited the RAB to review the Oct 2014 and May 2015 meeting minutes and asked if there were any comments on the minutes. He noted that the Air Force responses to May RAB meeting public comments (Attachment 2) during the meeting are attached to the minutes.

Ms. Suarez-Murias pointed out that her name was misspelled a few times and asked that it be corrected.

III. Community Co-chair Update

Ms. Carolyn Gardner provided a brief overview of her professional career, which included performing in many parts of the world and compared her experience being on the RAB with her previous experiences. She stated that she appreciates the ability to ask questions and learn about what's going on. She has enjoyed being the co-chair but now it's time to step aside, and thanked everyone that is part of the RAB.

IV. Community Co-chair Election

Mr. Davis provided an overview of the RAB Co-Chair election ground rules as adopted in the RAB Operating Instructions. Mr. Davis then asked for nominations. Mr. Green nominated Mr. Collier. Ms. Gardner nominated Mr. Green, but Mr. Green respectfully declined. Mr. Jorgensen nominated himself. Mr. Davis then asked for a vote and the results are as follows: Mr. Jorgensen received two votes and Mr. Collier received three votes. Mr. Collier has been elected the new Co-Chair.

V. Privatized Cleanup Status Update

Ms. Valerie Walker provided a briefing (Attachment 3) about the recent field activities and upcoming work related to the Early Transfer with Privatized Cleanup projects.

Mr. Collier requested a larger map showing the sites included in the No Further Action Sites, which will be discussed in the upcoming public meeting. Mr. Bhullar explained the map is available in the Fact Sheet handout in the RAB packet, and will be available at the public meeting.

Mr. Jorgensen asked if the Proposed Plan is available online, and Ms. Walker said that it is available on the EPA's online administrative Record.

Mr. Gardner asked about the Governor's approval of the FOSET. Mr. Pay explained that DTSC puts together a package with all the briefing documents and it goes up through the State to the Governor's office prior to making a decision as to approve the FOSET or not. The work is not allowed to begin unless the Governor approves the FOSET.

Ms. Suarez-Murias asked for clarification as to the types of contaminants and depth being looked at with the sites in the Proposed Plan. Ms. Walker explained that Privatization is only to depths of 15 feet, as the Air Force retains cleanup responsibility for deeper soils and the groundwater. The contaminants of concern are primarily fuels and PCBs, depending on the former use of each particular site.

A member of the public stated that transformers were stored in Building 200. Ms. Walker explained that each area is evaluated and if there is a concern it becomes a site to be further evaluated. The member of the public also pointed out that the federal government is always responsible for the cleanup even after privatization is complete.

A member of the public asked why a public meeting for the proposed plan would be held only 9 days into the public comment period. Mr. Mayer explained that it is typical practice and EPA guidance that the meeting is timed someplace in the middle of the comment period so the public can ask questions during the mid-point of the comment period, then still have time to provide comments, written or verbally at the meeting; then the comments are considered after the comment period is over and during the creation of the Record of Decision, which is done several months after the completion of the comment period.

Another public member asked how much the projects have cost the federal government that TetraTech works on at McClellan. Ms. Walker stated TetraTech works for McClellan Park, not the federal government.

VI. Regulatory Update

Mr. Bhullar announced that SJ Chern has retired and a new remedial project manager is in attendance, Chris Dershel. He also encouraged people to attend next week's proposed plan public meeting and pointed out the handouts in the back of the room.

VII. Redevelopment Update

There was no update, but Mr. Booth gave a brief overview of the County's role of Local Redevelopment Authority at McClellan.

VIII. Air Force Cleanup Update

Mr. Mayer invited RAB members to refer to the *Air Force Cleanup Update* and *BCT Field Update* handout (Attachment 4) in their packets during his presentation. Only information and comments not presented in the attachment are recorded in these minutes.

Mr. Mayer also referenced two documents, "*Chemistry Explained*" and US Geological Service's *Insights into Controls on Hexavalent Chromium in Groundwater Provided by Environmental Tracers Sacramento Valley California*", and encouraged those interested to review these if they wanted to learn more about Hexavalent Chromium. These documents provide a lot of general information about Hexavalent Chromium and may be helpful in light of the new regulatory limit of 10 ppb in California.

Mr. Mayer explained that chromium is both naturally occurring and man-made. It is used in plating operations and widely used in stainless steel. In California, there are varying levels of naturally occurring chromium in the rock formations and in the valley soils and sediments.

RAB Discussion

Mr. Green asked why there is a directive of 50 ppb for total chromium and 10 ppb for Hexavalent Chromium and why there is a split between the two.

Mr. Mayer explained that the vast majority of the chromium in the environment is Cr6 and a small part is Cr3. Cr3 is a mineral that the body actually needs and Cr6 is more harmful to the body when exposed to elevated levels, and that is why California has made a more stringent level for Cr6. The national standard is 100 ppb, but California is now 10 ppb.

Mr. Green expressed confusion why California has made this determination and how it was developed.

Mr. Mayer said part of this is because more information is known about certain materials, more analytics are completed, and levels of exposure to certain contaminants are modified because of better information available.

Mr. Green pointed out that the cleanup efforts and investigations began at McClellan fifty years after the base was in used and questions whether there is a possibility there was migration prior to the investigations. He recognizes that great work has been done over the past 30 years or so with cleanup and investigations, but what about prior to that. He recognizes that McClellan is in a cone of depression, but are the cones of depression, such as was it in 1936?

Mr. Mayer explained that the cone of depression has been in existence essentially since the base opened due the use of water at the base, and pointed out the maps in the presentation that shows the flow direction and water levels around the base prior to the 1980s, which show the cone of depression existing well before cleanup activities commenced at the base.

Ms. Suarez-Murias asked how deep the HexChrome is at the base.

Mr. Mayer said the two very small plumes of HexChrome at the base that require cleanup is only in the A Zone, which is the shallowest zone.

Ms. Gardner asked if Chromium is considered contamination, and how does it affect people.

Mr. Mayer said toxicological studies are done in labs to evaluate the health impacts, and in large amounts chromium is harmful. As with most any chemical, the dose is what determines whether it is a problem, and with Cr6, it has a higher level of harm at lower levels.

A community member said there is a lot of data, and when she heard about the Chrome 6 she started asking for data and cited a 1996 health study report that in 1979 the Air Force suspected disposal practices might have contaminated the area groundwater with VOCs, PCBs, heavy metals in on- and off-base wells, soils and soil sediments. She went on to state several private and municipal wells were closed. She also asked in 2002 for monitoring well data, specifically for Chromium. She also recently received new data and for monitoring well 214 there was a reading of 1,750 ppb, and in monitoring well 209 in 1993 was 27,700 ppb. She finds it very interesting that .002 ppb levels can cause cancer. And she said this has hurt the groundwater. She said that Rio Linda does not have treatment to clean up the contamination.

Mr. Mayer stated the data set she is using is very old data. He also referred to the maps of the Wood Rodgers report and the results from water production wells, with levels ranging from 7.5 ppb to 14 ppb. This is current data is from Rio Linda Water District. He encouraged the member of the public to talk after the meeting.

The member of the public pointed out that Rio Linda has been extracting water for many years.

Mr. Mayer agreed and pointed out the water has been there for thousands of years and the only reason we are having this discussion is the State has determined the new standard should be 10,

and that is irregardless of impact on water purveyors. He pointed out other communities are also dealing with this issue, such as Davis and Woodland because their naturally occurring levels also exceeding this new standard.

Mr. Jorgensen asked how deep the monitoring wells are and how it is determined the depth of HexChrome.

Mr. Mayer stated that wells are down into the C zone and the screen intervals are designed to take water from the specific zone.

A public member asked if there is water being discharged into Magpie Creek and if there is storm water being discharge into the creek, and if any testing has been done in the creek.

Mr. Mayer said yes, and there is a discharge permit for the creek. He explained that in 2003 Phase III of the groundwater network was installed and the treatment plant was shut down briefly. Once the treatment system was turned back on, there was slightly higher levels of HexChrome so we installed the ion-exchange system and operated it for a relatively short period of time. It's no longer needed because levels are below 10 ppb.

The public member asked if there is a possibility that contaminants were in the creek?

Mr. Mayer said that the Air Force actually just completed a creeks cleanup project for several sites, including Magpie Creek and Don Julio Creek. So yes, there was contamination in creek sediments that required cleanup. This included on and off base creeks up to Raley Blvd. This is part of the Ecological Sites ROD. This contamination is from base activities over the years. He pointed the community member to the Ecological Sites Remedial Action Completion Report, which is nearly finished and will be available in the Administrative Record.

A community member asked where the Magpie Creek contamination was found.

Mr. Mayer pointed out on a map the location of the Ecological Sites cleanup activities, both on and off base. The sites were dredged and backfilled with clean soil.

A community member asked if the data of the known Chrome sites at McClellan was excluded in the background study, and stated that she didn't believe that made sense to do.

Mr. Mayer said yes, that is correct and explained that by adding that data to the analysis would artificially elevate the data to determine the background. By excluding the data of the known plumes, this creates an accurate lower background level.

A community member asked how often the monitoring wells are tested.

Mr. Mayer said they have a quarterly monitoring program, but all wells are not required to be sampled as often as other wells. Some are sampled quarterly, some annually for example. The sampling plan is worked out with the regulatory agencies.

A community member clarified for the RAB that wells are constructed with well screenings in several different depths in water production wells, and all the depths are blending together which

can lead to some of the higher readings of hex chrome. They (Rio Linda Water District) are looking at blocking off some of the screen intervals to reduce the hex chrome levels in certain wells. Regarding private wells, which are not as deep, do not have sanitary seals on them like production wells so surface water influences private wells.

A community member who lives northwest of the base asked why surrounding private wells are not being looked at, such as his well, which he had sampled and was told he was likely to have HexChrome.

Mr. Mayer explained that there are Air Force monitoring wells in that area and there is data about the HexChrome for this area, at levels around background.

The community member asked about the cleanup activities at the recycle area not long ago and there could be runoff to near his property from this site.

Mr. Mayer explained this is A-1 Metals and the Air Force cleaned up PCBs and surface soil, which was cleaned up last year. There are monitoring wells in the area as well, and there are no issues of contamination in the area, there were no industrial processes other than the land the Air Force bought with previous industrial activity, and there was only PCBs at the site.

A community member asked what the boundaries for when the Air Force changed from private to public water. She also said that they had to pay for their water to be switched over, so was there a funding issue and stopped when the Air Force ran out of money.

Ms. Henrici from Rio Linda Water District stated that the Air Force paid for the connection fees based on the available paperwork. She also said she has a map with the boundary and would share that.

Ms. Gardner asked if the Rio Linda Water District finds HexChrome at 600 feet, if it is naturally occurring or not.

Ms. Henrici said this is what they are trying to figure out through their investigations, and everyone is trying to work together to figure out. She stated that they find it more in the upper layers than the lower layers.

Ms. Gardner asked if she knew why the Water District is finding the HexChrome in the higher layers more so than the lower layers.

Ms. Henrici said no they don't know, but it is similar to what the Air Force is finding in that where there is contamination it is down to around 250 feet. But they don't know if it is natural or not, but they are still investigating.

Mr. Collier said that there is a lot of perched water in his area, and asked if there is any impact on Chromium 6 on wildlife.

Mr. Mayer said the State level being discussed tonight is for drinking water and asked Mr. Taylor is there is a wildlife level.

Mr. Taylor said there is a Chrome 6 standard for aquatic wildlife, which drives the lower discharge levels for the permit, and it is 10 ppb.

Ms. Suarez-Murias asked regarding the Wood report what the depth those samples are from.

Mr. Mayer stated that since they are production wells, they range from 200-500 feet.

IX. 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.

Ms. Mary Harris: Looking at this health study report that was finalized in '96, now it did say that it was inconclusive because only 13 people participated in it. And they did conclude to follow up on the health study, and so I am hoping that a new health study is taken because it is very important for our community anyway so if you went to all the trouble, I would like to see a follow up health study.

Mr. Anna Marie Tomlinson: I am a resident of Rio Linda community and Elverta community and I personally have done a cancer study in our community and I have found two clusters, cancer clusters that have been verified by the cancer registry. And they are breast cancer and lung cancer. I am still continuing my survey study and I know there are many more clusters out there. We have just had two residences this past week die, one was I street and 16th or 18th and he had prostate cancer and thyroid cancer and on West 4th Street we just had a resident die of pancreatic cancer. When I worked with the cancer registry, in order to determine a cluster you have to go within the last fifteen years and you have to find five or more of one kind of cancer and that is where I was able to do the breast cancer and lung cancer. My problem that disturbs me is also that database takes three years to update. So we have people being diagnosed with cancer right now today and within the last three years and it will not be posted for three years. This cancer has been going on, I have a case I believe from '96, '84 – they said those don't count. They will count. They should count. This cancer has been going on for many years. And I truly believe that not only the Air Force, but the federal government needs to take care of us, because too many people are dying, and it's not right. We know we have a problem out here. And I'm really looking to find a resolution and help. So again, you'll hear from me, and I have a Facebook page Rio Linda Elverta Cancer Study, and I have a survey attached to it and anybody that has had cancer or has had a friend or family member have cancer please fill out my survey so I can hand it over to the proper people. Thank you.

Mr. Frank Miller: I would like to address what's really going on with this chromium issue. What we have here is out in Rio Linda, Rio Linda Elverta Water District for many years they have had a lot of feckless people out there who have been really sloppy with chromium. There were lumberyards out there that used chromium for wood preservation, they used chromium for leather manufacturing and upholstery use. Again chromium for car parts, motorcycle parts and a whole range of parts. There are old car lots out there, they have been sloppy with chromium out there. And what's going on here is you all at the Rio Linda Elverta Water District, you want to

screw the American taxpayer here at McClellan for the problems you have out in your district. You want more production wells, and you want the American taxpayer to pay for it. That's what's really happening here. Now whether we're talking about 50 parts per billion or 10 or 20 or 30, that doesn't amount to a hill of beans. That's all within the margin of error, the margin of sampling error, the margin of laboratory error, the margin of calibration of machines, and the margin of attenuation on the machines. You know I used to do this kind of work. You talk about chromium; you know I worked at American Smelting and Refining Company, Central Research laboratory in South Plainsfield in New Jersey. I did this kind of sampling and this kind of analysis. You people don't know what you're doing, you don't know what chromium 6 is, why they're talking about chromium 6, because it ionized into the water, and that's what you can drink. You don't understand the first thing about chemistry; a high school kid should know that. Well it's important here tonight to get to the truth, and the truth is that the problems at Rio Linda Elverta Water District are their own, and you're not going to stick that on the hardworking American taxpayer on McClellan. We're going to get to the truth on this issue. Another point is that you all have this public comment section way at the end of the meeting, and well everybody's gone. How about having it at the front of the meeting? It used to be that way years ago. Thank you.

Ms. Mary Henrici: I just want to give another point of information to the Board, the Rio Linda Water District only supplies water to 20% of the people in our District boundaries. There are hundreds and hundreds of people on private wells out there and they are more of my concern than our own public water supply because we will be able to find the resources to correct our water supply but the people who have their own private wells that have high levels of chromium, they're the ones who is going to have a problem. And it's on their shoulders. That's my only comment.

XI. RAB Members' Advice, Comments, and Announcements

Mr. Suarez-Murias appreciated the discussion about HexChrome and chromium and it's nice to have an audience to discuss it with, and hopefully a lot of people are better informed and more knowledgeable about the situation. She said more detailed conversations such as this could be very helpful and informative, as the public deserves this type of open forum.

Mr. Collier would like to talk with the community member briefly after the meeting about the survey.

Mr. Pay thanked everyone for attending the meeting, taking part in the presentation and sharing their thoughts and opinions.

Mr. Green said tonight is what the RAB is supposed to have been about. RAB members are an advisory committee not an oversight committee and represents the community, so when the community comes, it is great. He is grateful for the participation and the courtesy of those who participated.

Ms. Blanchard was impressed with the level of interest from the women in attendance especially and is inspired by their participation.

Mr. Mayer said he hopes everyone has taken with them some new insights and this is an ongoing discussion, and the Air Force welcomes continued dialogue. Feel free to contact the public affairs group if anyone would like to visit the base or look over data. This topic will continue to be of interest and the Air Force is sensitive to the fact this issue is relating to neighbors of the base and we want to be good stewards for the community as well as taxpayer.

The next RAB meeting will be the holiday social, to be held on Dec. 10 at 6:30 pm.

The meeting adjourned at 8:30 p.m.

**McClellan Restoration Advisory Board (RAB) Meeting
North Highlands Recreation Center
Thursday, August 27, 2015, 6:30 – 8:30 pm**

AGENDA

<u>TIME</u>	<u>TOPIC</u>	<u>LEAD</u>
6:30 – 6:35	Welcome, Introductions and Purpose	Facilitator, Bill Davis
6:35 – 6:40	Agenda and Ground Rules	Facilitator, Bill Davis
6:40 – 6:45	Comments on May 2015 and Oct 2014 Minutes	Facilitator, Bill Davis
6:45 – 6:50	Community Co-chair Update	Community Co-chair Carolyn Gardner
6:50 – 7:00	Co-chair Election	Facilitator, Bill Davis
7:00 – 7:15	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
7:15 – 7:20	Regulatory Update <i>Goal: Provide an update of regulatory agency items of interest</i> <i>Process: Presentation and Q&A</i>	Regulatory Agencies
7:20 – 7:25	Local Reuse Authority Update <i>Goal: Provide an update of Local Reuse Authority activities</i> <i>Process: Presentation and Q&A</i>	Sacramento County
7:25 – 8:10	Air Force Cleanup Projects Status Update <i>Goal: Provide an update on each active cleanup project</i> <i>Process: Presentation and Q&A</i> <ul style="list-style-type: none"> • Field Update • Property Transfer • Hexavalent Chromium 	Air Force, Steve Mayer
8:10 – 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, more time may be allowed as necessary and available.</i>	Facilitator, Bill Davis
8:15 – 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; comments will be recorded and will form future agendas</i>	RAB

MEETING GUIDELINES

Ground Rules

- *Be respectful – no personal attacks*
- *Be progress oriented*
- *Participate*
- *Speak one at a time*
- *Be concise*
- *Use “I” statements when expressing opinions*
- *Express concerns and interests (not positions)*
- *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*

**Addendum to McClellan Air Force Base (AFB)
Restoration Advisory Board (RAB) Meeting Minutes
May 21 2015 -- McClellan, California**

Responses to Public Comments during the May 21, 2015 McClellan Restoration Advisory Board Meeting Public Comment Period

Ms. Mary Henrici: I am the general manager of the Rio Linda Water District, and I wanted to tell you guys about what's happening within our district and chromium 6. Before the State came down with their new requirement of ten parts per billion for chromium 6 the district had done a hydrogeologic assessment of our area because we were trying to find a site for a new well in the northern part of our district and we wanted to make sure we were going to put a well in an area that was not having any arsenic issues that we have to the west in our district. When we did the study we asked them to do depth-specific arsenic, chromium 6, and manganese in our wells and surrounding wells in the area and it was noted that six of our wells, which is 55% of our supply have chromium 6 over ten. Most of them are eleven, just to make it really annoying for us. But we are having additional studies done right now to determine why that is here; whether it is natural or man-made, and I wanted to ask if we could possibly have this item on the next agenda for this committee if possible?

Air Force response: The Air Force agrees that due to regional concerns about HexChrome it would be appropriate to include it as a primary topic at the next RAB meeting, currently scheduled for Aug 27.

Mr. Frank Miller: Regarding the community relations budget, is it still at a stunning \$561,000? Regarding Brian Sytsma Group and WR Davis Collaborator, by law, provide the name and legal address for receivership of legal process. That's if it's even legit to begin with. The next point is, imagine if the neighborhood RAB people could actually read or look at a technical report. Imagine if they could read from any work product. Imagine if they could represent the hardworking American taxpayer. They do not. They are incompetent poodles. They are obstructionists. They are accessories to fraud, waste, and abuse. They are accessories to crime. I ask each of you, how much money have you saved the hardworking American taxpayer? The answer is zero. Please enumerate, for the hardworking American taxpayer your accomplishments. The answer is, the amount is zero. What is in this room tonight is a microcosm of the rest of the country that is circling the drain. I hear your chains rattling. Next point, research has revealed that the claim by the RAB member Gary Collier to have a degree in soil science is a complete falsehood and his resignation or dismissal is expected. Thank you.

Air Force response: The Sytsma Group's current community relations support contract is for support from April 2015 to April 2016 and is a fixed-price competitively bid contract for the amount of \$340,540, which includes all labor, supplies and materials (such as printing and mailing), and travel. The contract is for BRAC support for all Western Region closed bases, to include Castle, George, March, Mather, McClellan, Norton, and Williams Air Force Bases. Napkin Communications, LLC is a California limited liability company, and is "Doing Business As" (DBA) Sytsma Group. Napkin Communications, LLC is certified with the CA Department of General Services as a Small/Micro Business and Veteran-owned. The company address is 1791 Tribute Road, Suite G, Sacramento, CA 95815. WRDavis Collaborative is a subcontractor under the community relations contract to provide meeting facilitation for the McClellan RAB meeting, with a mailing address of PO Box 1019, Davis, CA 95617.

RAB members are volunteers and the purpose of the RAB is to provide a forum through which the community can become involved with the cleanup of the former base. A RAB member is not required to have experience or education in any technical field. Please refer to the DoD Restoration Advisory Board Rule Handbook (2007), which clearly describes the role of the RAB.



McClellan RAB Presentation Privatized Cleanup Progress

Former McClellan AFB, California
27 August 2015

Privatized Cleanup Recap

Parcel C-6 – Complete

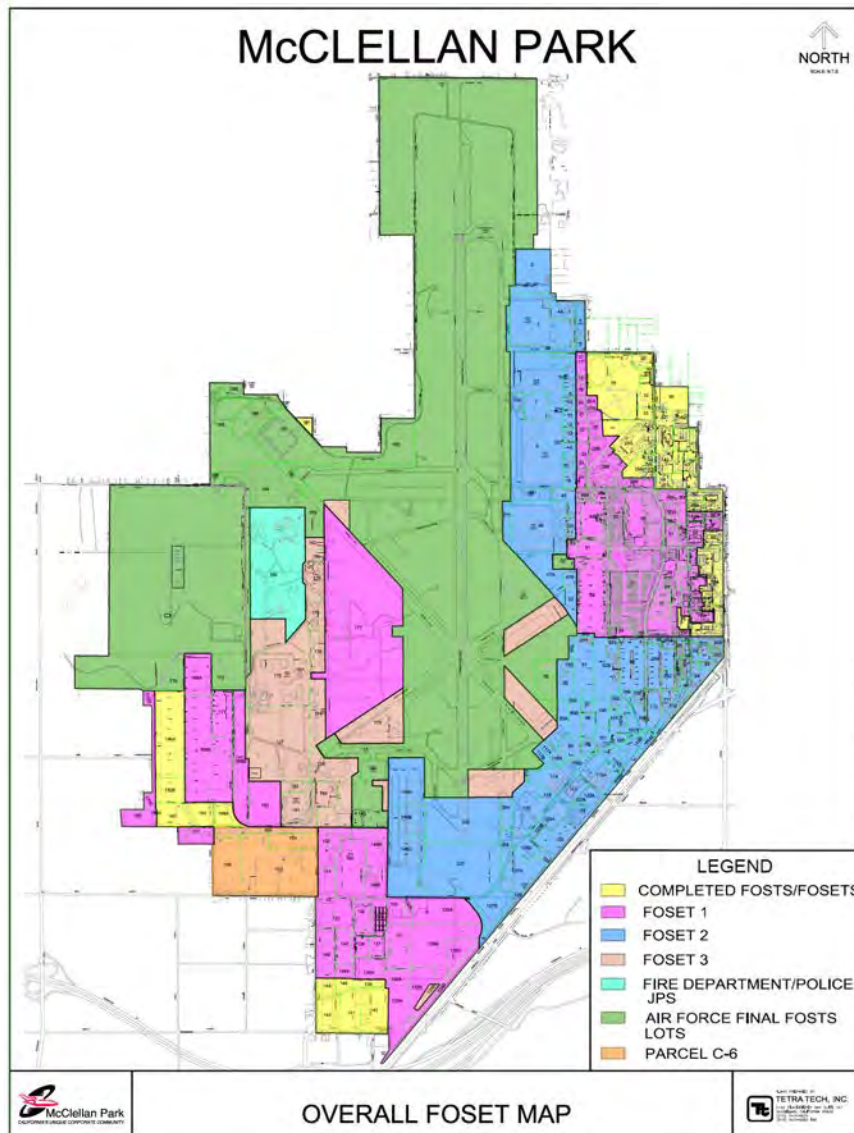
FOSET 1 –

- Complete (IP #2)
- Cleanup in Progress (IP #3)
- Study in Progress (Group 4)

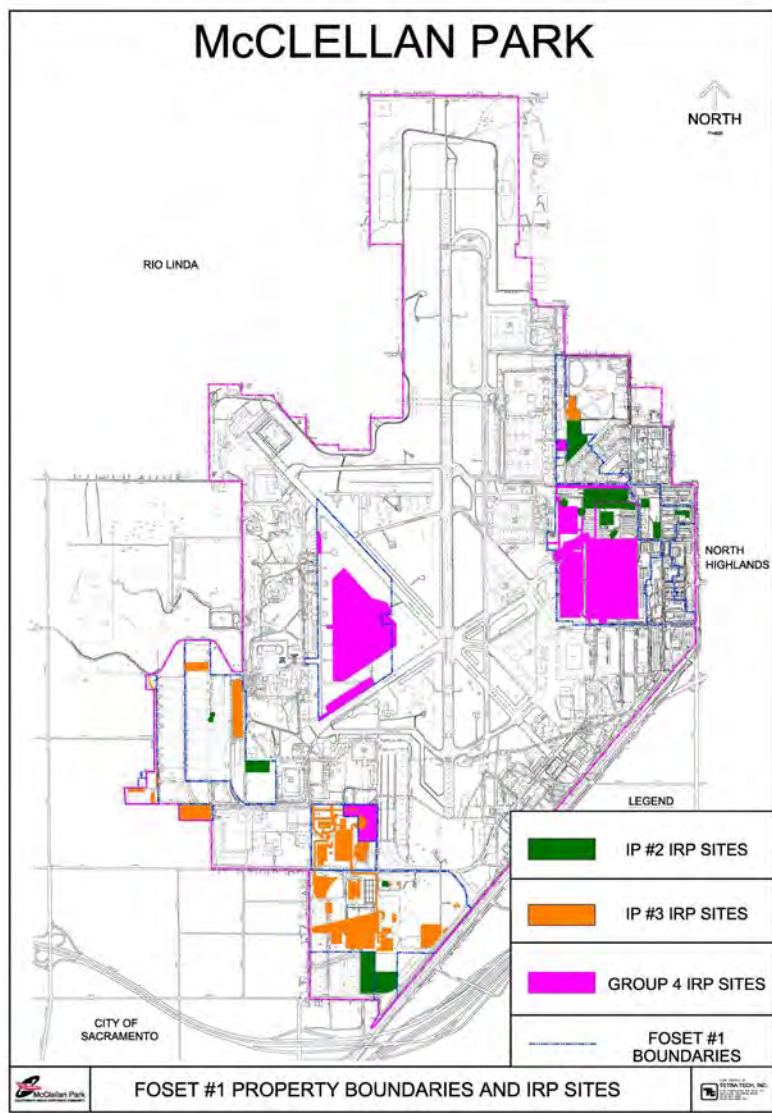
FOSET 2 –

- Cleanup Decision in progress
- Remedial Design / Remedial Action
in progress

FOSET 3 – Property transfer in progress



Finding of Suitability for Early Transfer (FOSET) I

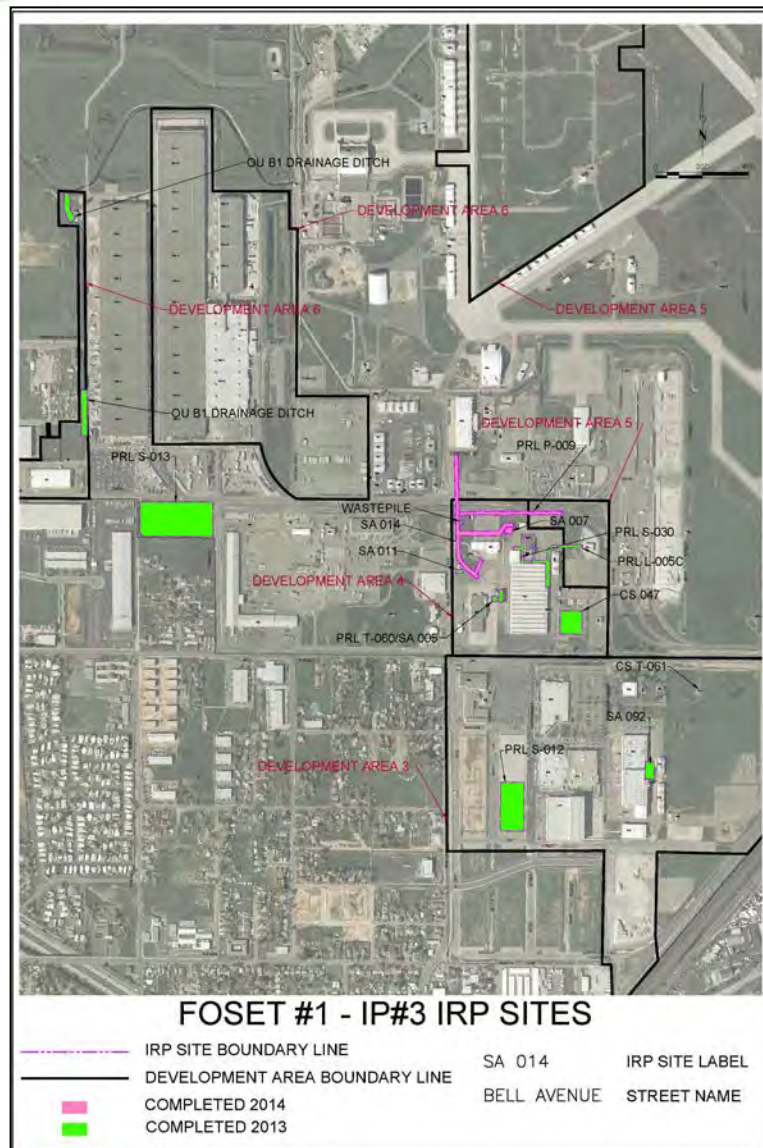


- **Initial Parcel #2 ROD Sites – Complete**
- **Initial Parcel #3 ROD Sites –**
 - Remedial Action complete
 - Completion Reports in progress
- **Group 4 IRP Sites – Remedial Investigation / Feasibility Study in progress**

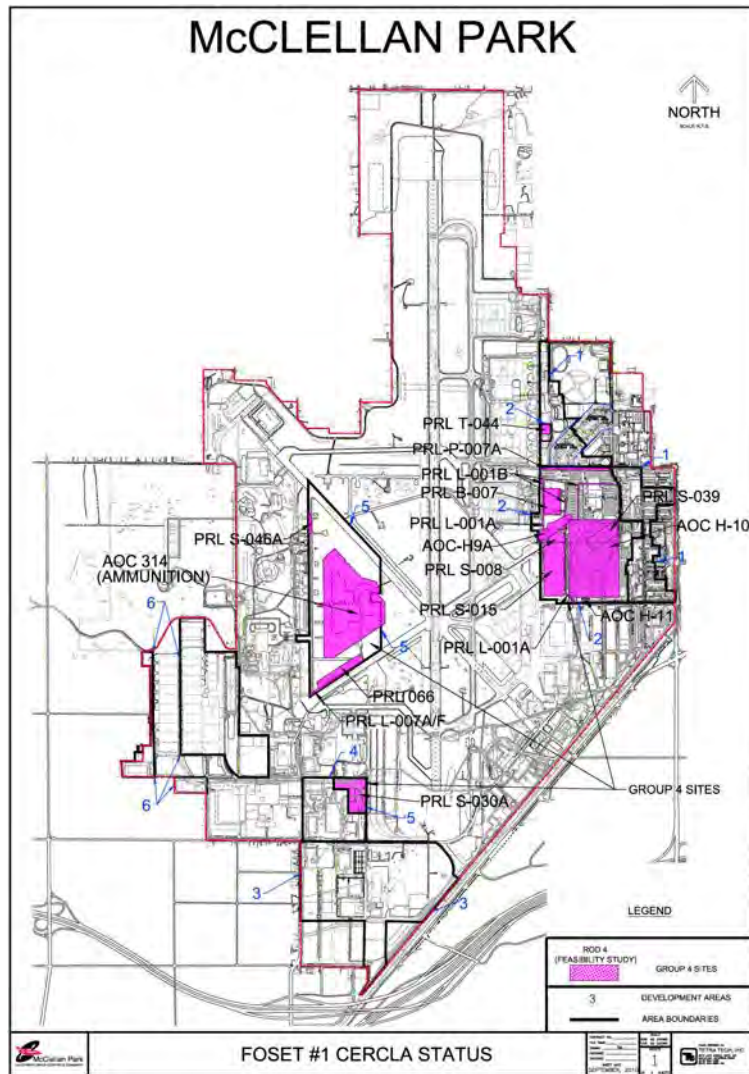
FOSET I (IP #3)

IP #3 IRP Sites

- Field Cleanup Activities 100% completed
- Completion Reports pending



FOSET I (Group 4)



- Summer 2015
 - Completed data gap sampling
- Early Fall 2015
 - Final RI/FS
- Mid 2016
 - Proposed Plan approval
 - Public Meeting & Public Comment Period
- Early 2017
 - ROD approval

FOSET 2



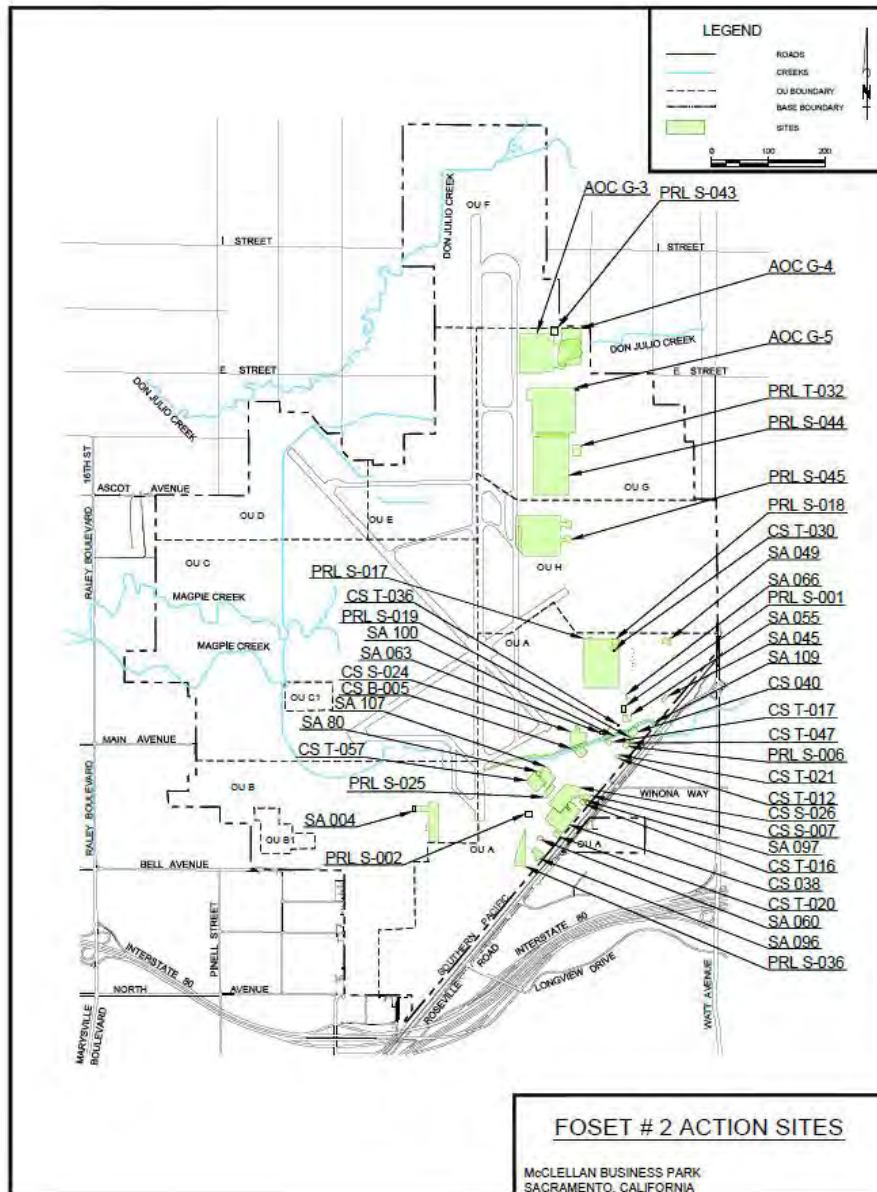
Transfer Included:

- 528 acres of former McClellan AFB
- 133 Installation Restoration Program (IRP) sites
- Ten IRP sites in the FOSET 2 are included in other Air Force RODs
- Three FOSET 2 RODs will include 123 IRP sites
 - FOSET 2 Action Sites ROD (43 IRP Sites)
 - FOSET 2 No Further Action ROD (35 IRP Sites proposed)
 - FOSET 2 Group 2 Action Sites ROD (45 IRP Sites proposed)

FOSET 2 (cont.)

FOSET 2 Action Sites (43 Sites)

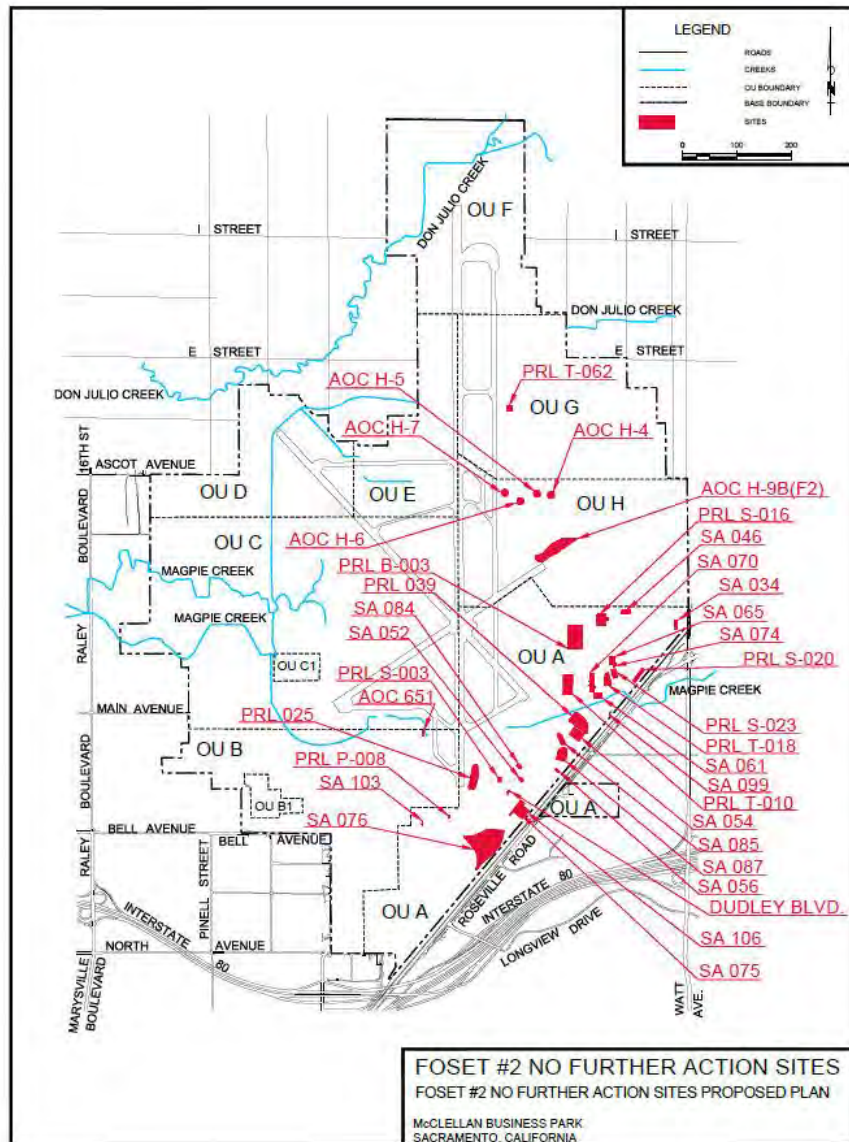
- Record of Decision signed by Environmental Protection Agency (EPA) on March 2, 2015
- Draft Final Remedial Design/ Remedial Action (RD/RA) Work Plan being reviewed by regulatory agencies



FOSET 2 (cont.)

No Further Action Sites (35 Proposed Sites)

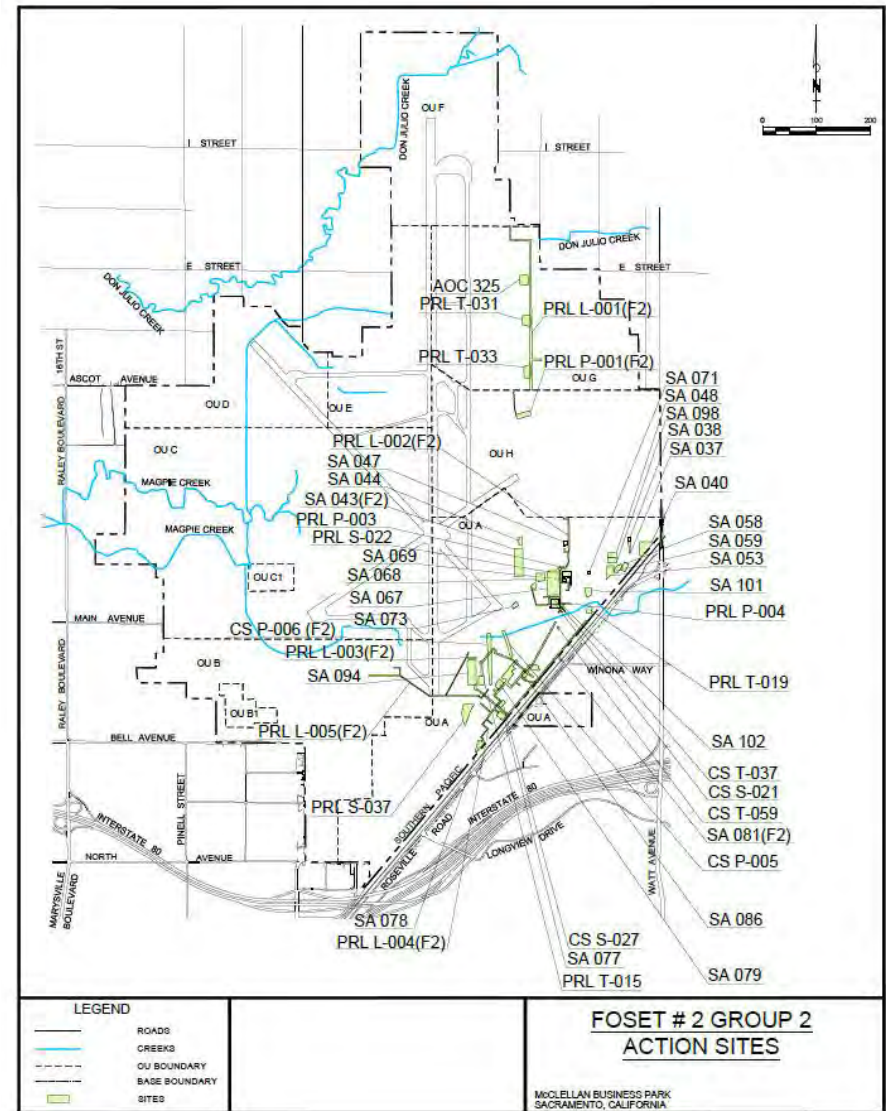
- Late-2015
 - Proposed Plan final and posted for review
 - Proposed Plan Fact Sheet mailed
 - Public Meeting (Wednesday, September 2, at 6:30 PM)
 - Public Comment Period (August 24 through September 25)
- 2016
 - No Further Action Sites Record of Decision

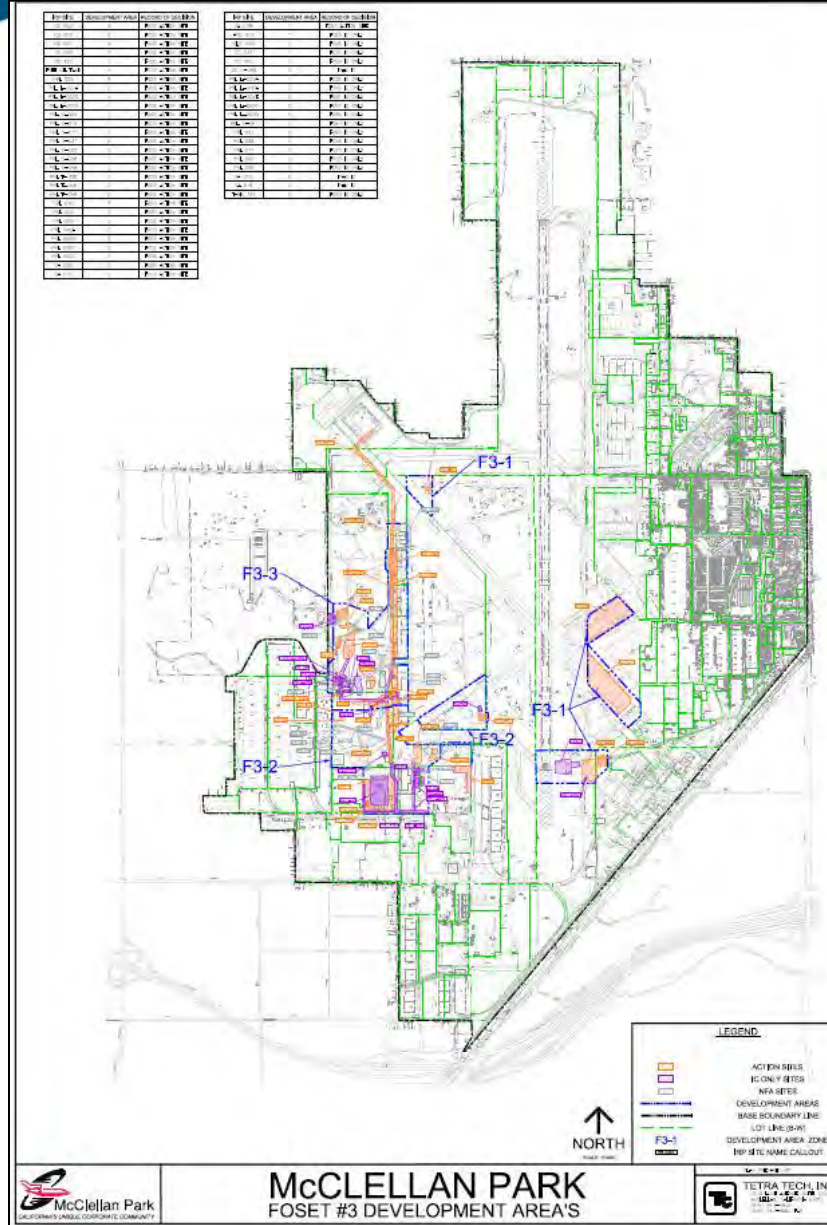


FOSET 2 (cont.)

Group #2 Action Sites (45 Proposed Sites)

- 2016
 - Proposed Plan
 - Proposed Plan Fact Sheet
 - Public Meeting and Public Comment Period
- 2017
 - Group #2 Action Sites Record of Decision





FOSET 3

- Final privatized portions of the former base
- All FOSET 3 sites are included in a signed ROD (FOSS ROD)
 - 28 Action Sites
- In process for Governor's signature Third Quarter 2015
- Privatized field work anticipated to begin next field season (late 2016)

McClellan Park RAB – August 2015

Questions?

For more information, contact:



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or



Valerie Walker
(916) 643-4826 x124
valerie.walker@tetrattech.com



Air Force Cleanup Update

Steve Mayer

Air Force Civil Engineer Center

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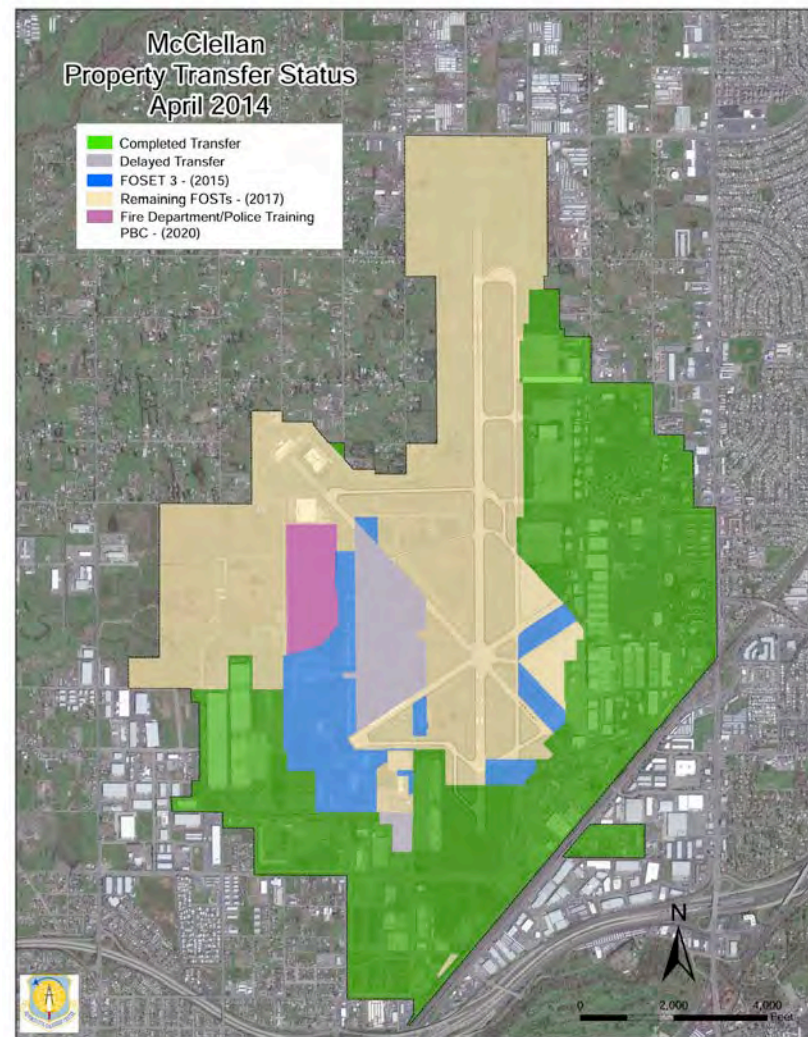
Field Update

BRAC Cleanup Team (BCT) Handout - 27 AUG

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Property Transfer

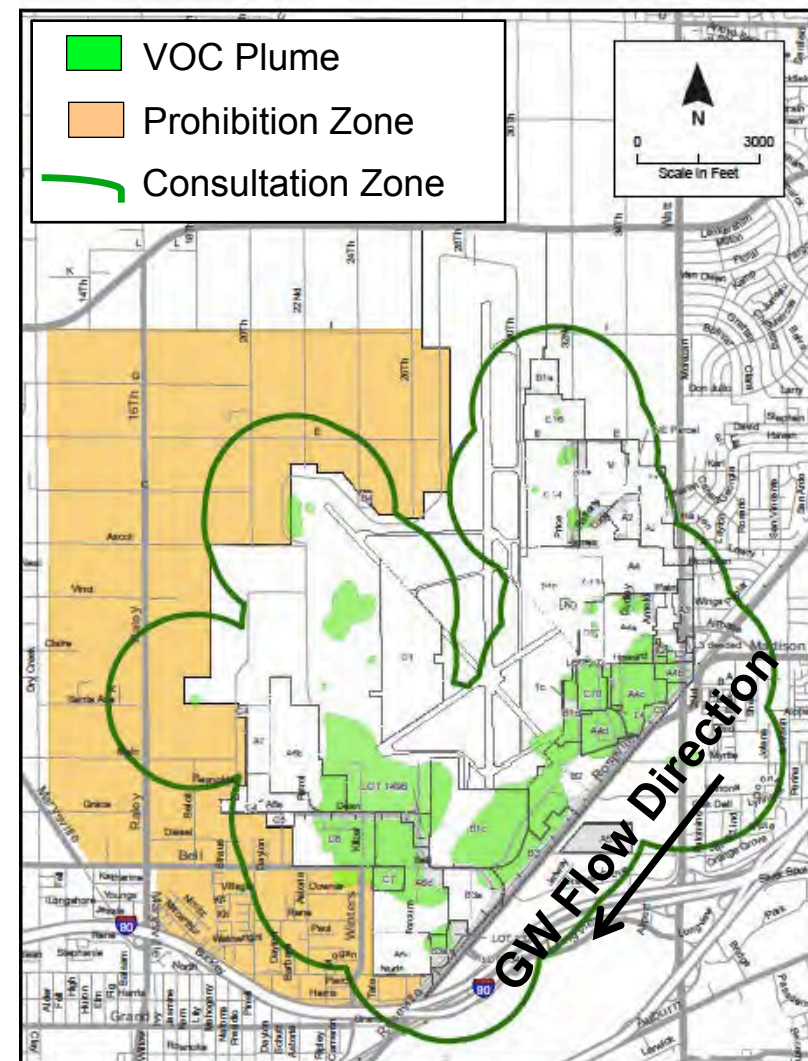


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Groundwater History

- 1980s investigations initiated
- 1986-1987 very conservative protective measures put in place
 - Municipal water hookups for west area residents
 - County and City enacted prohibition zones
- Water Board also has a Consultation Zone surrounding all known GW plumes





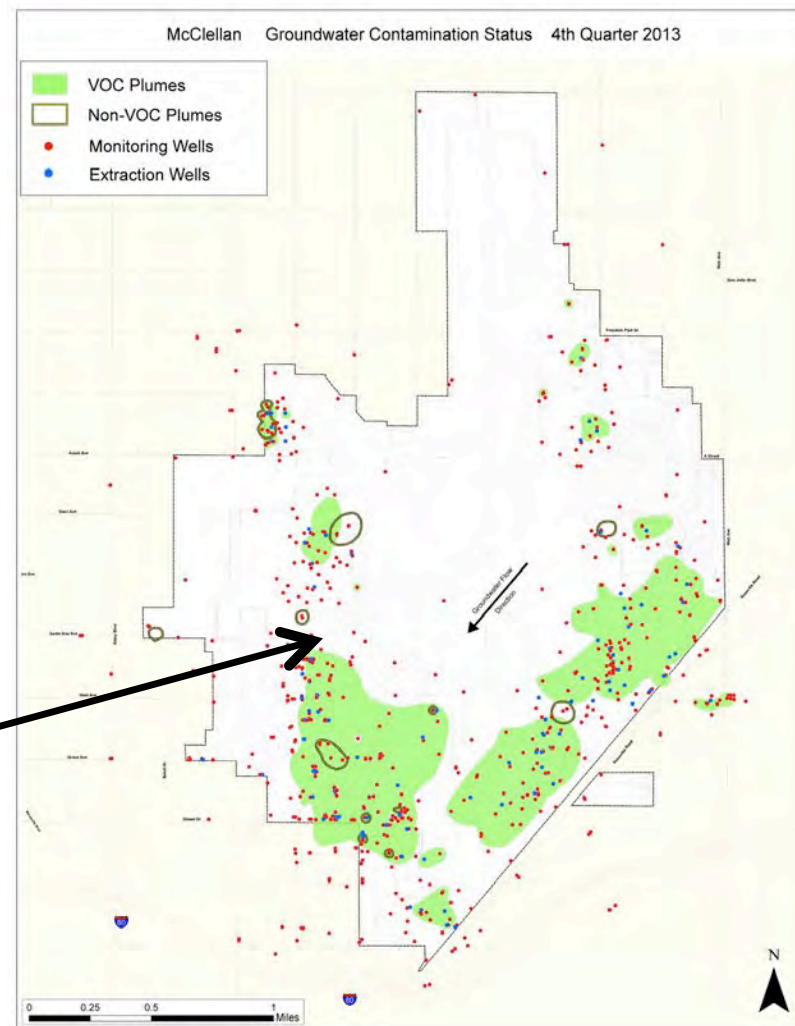
Groundwater History

- **1987 – Constructed groundwater treatment system**
 - **1995 – Interim Record of Decision**
 - 3-phase implementation of pump-and-treat as remedy
 - **2003 – “Slip-Stream” treatment of HexChrome**
 - To meet aquatic discharge limits of 10 ppb (Magpie Creek)
 - Effluent currently below 10 ppb – no treatment required
 - **2007 – Record of Decision (ROD)**
 - Established cleanup levels for VOCs in GW
 - California and US EPA concurrence
 - **2009 – ROD Amendment for non-VOCs**
 - 1,4 Dioxane and Total Chromium (including Cr6)
 - One additional extraction well in NE portion of base
 - Cleanup level 50 ppb for total chrome (includes Cr6)
-



Groundwater Cleanup Operating Properly and Successfully

- **84 Extraction Wells**
- **Treating 1400 gallons per minute**
- **500+ monitoring wells**
- **2010 – Operating Properly and Successfully (OPS) determination by US EPA**

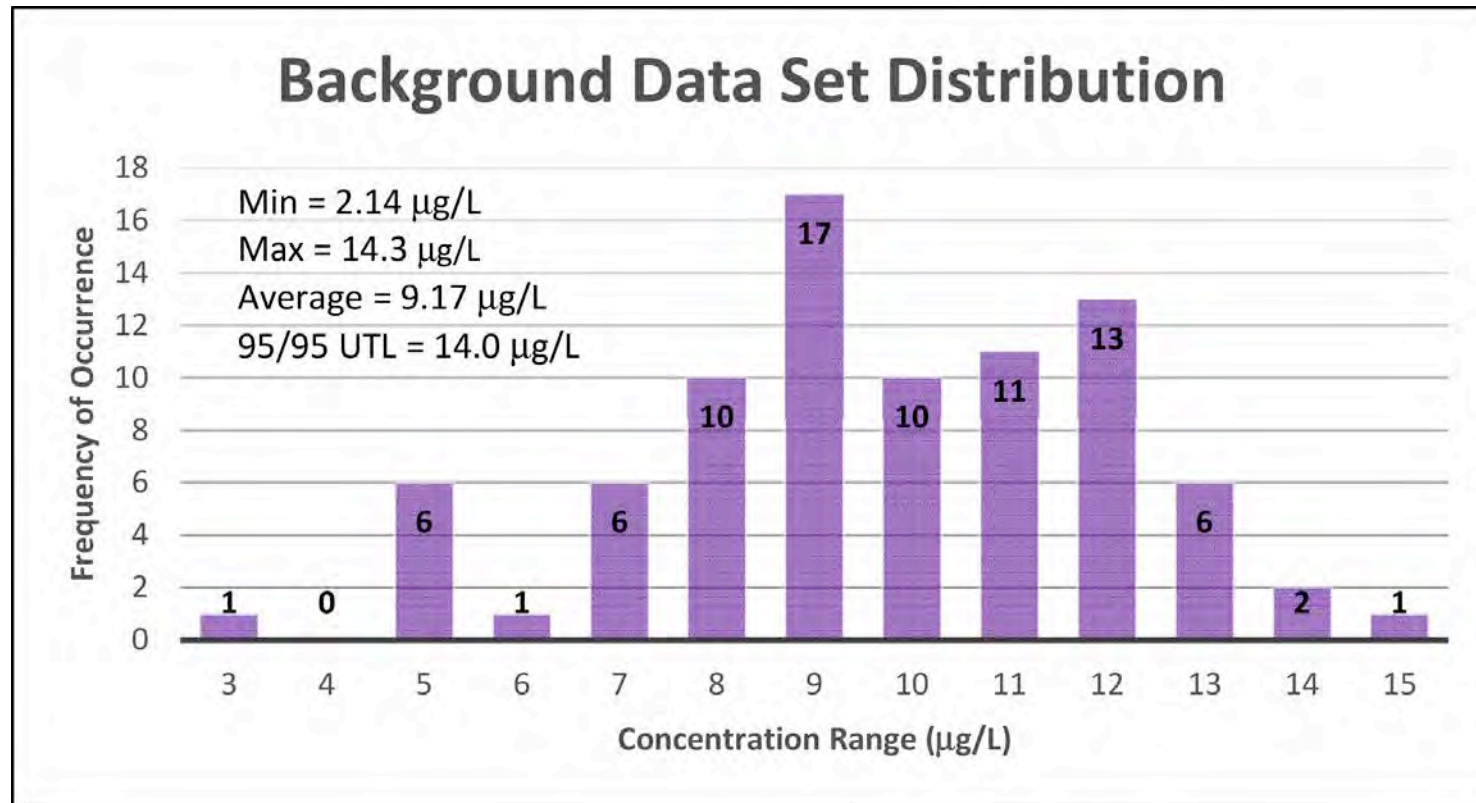


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Background HexChrome

- Two sources
 - Geogenic
 - Anthropogenic



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Background HexChrome

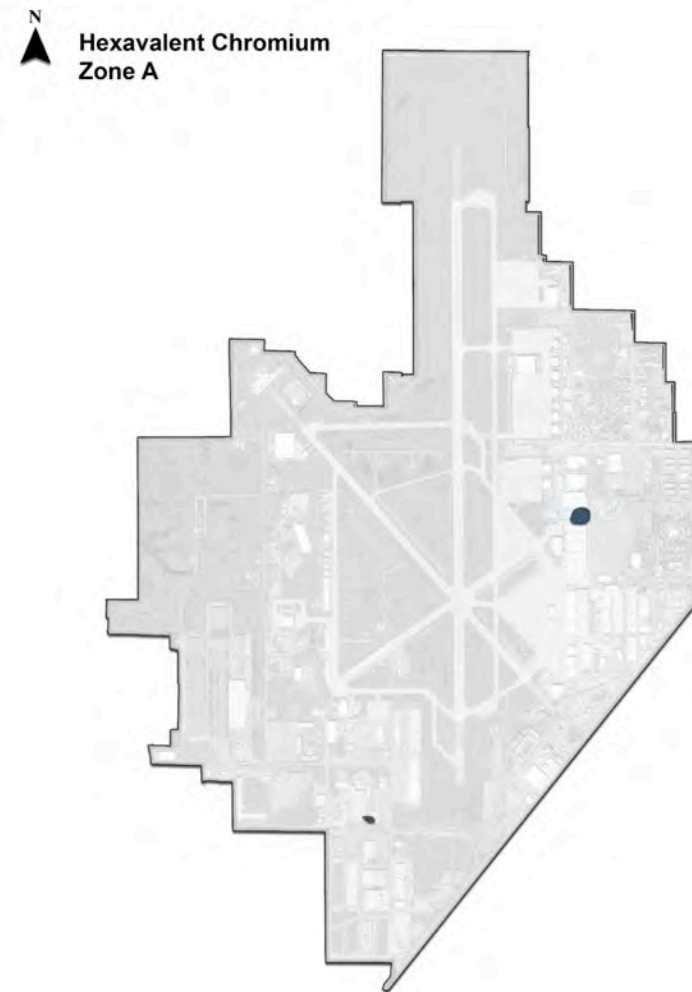
- **5 ways of aquifer recharge**
 1. High elevation precipitation, mountain-block recharge
 2. Mountain streamflow, stream loss
 3. Low elevation precipitation
 4. Deep vadose zone recharge (>50m)
 5. Irrigation

- **Primary source of geogenic Cr₆ is percolation of water through Chrome-rich minerals in soils and sediments derived from ultramafic rock in the Sierras and Coast range mountains**
 1. Chromite
 2. Cr-magnetite
 3. Cr-bearing silicates



Hexavalent Chromium Location

- **McClellan has two small plumes**
 - Two former plating shops
 - Well within the boundaries of the former base
 - Comingled with VOC plume
- **3 Extraction wells at the plumes**
 - Highest concentrations within plumes are ~100 ppb
- **Low permeable soil impedes lateral or vertical migration**
- **Current cleanup level is 50 ppb (shown to the right)**
- **Currently updating maps according to new 10 ppb standard**





Wood Rogers Report

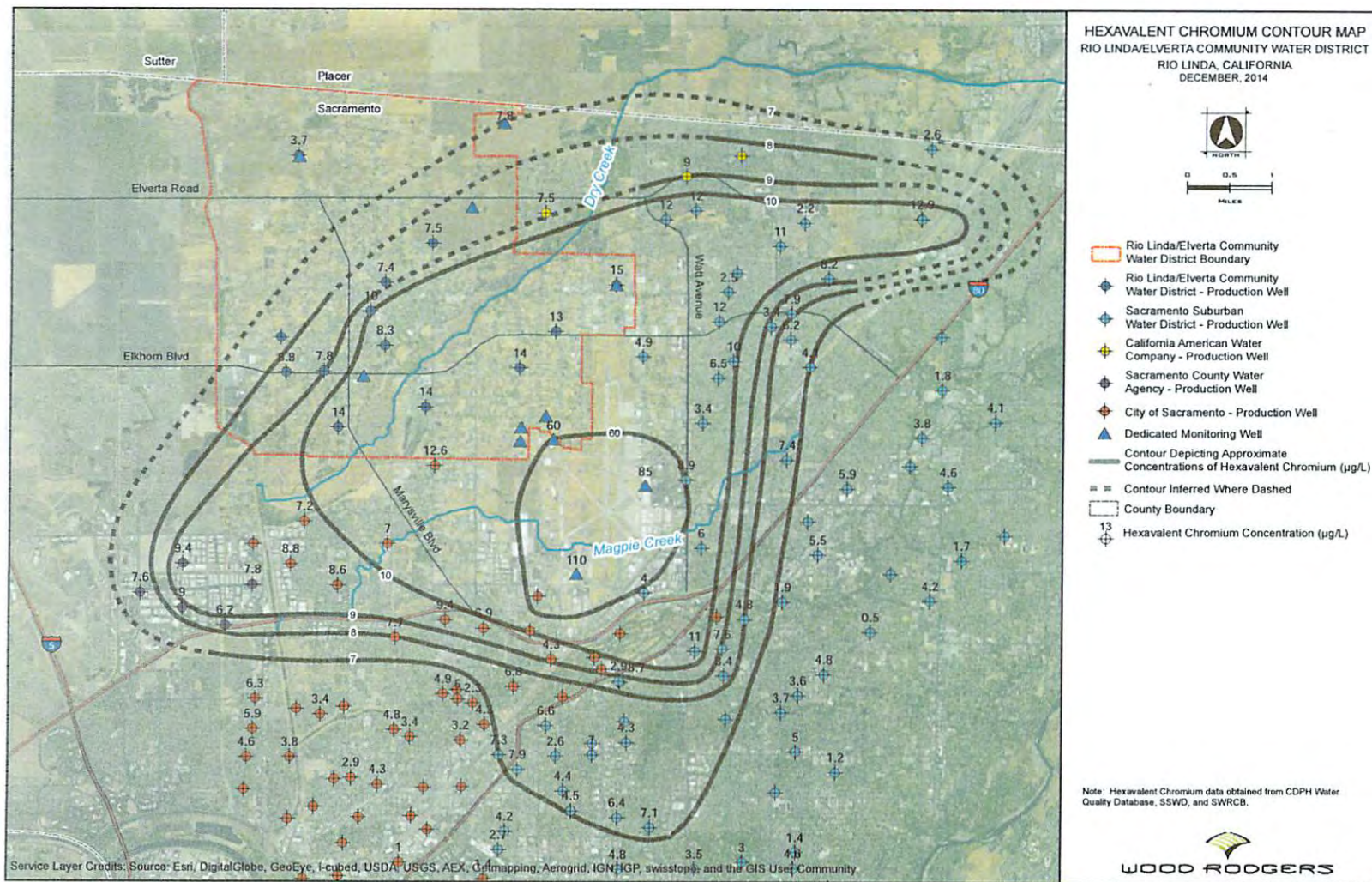


FIGURE 5

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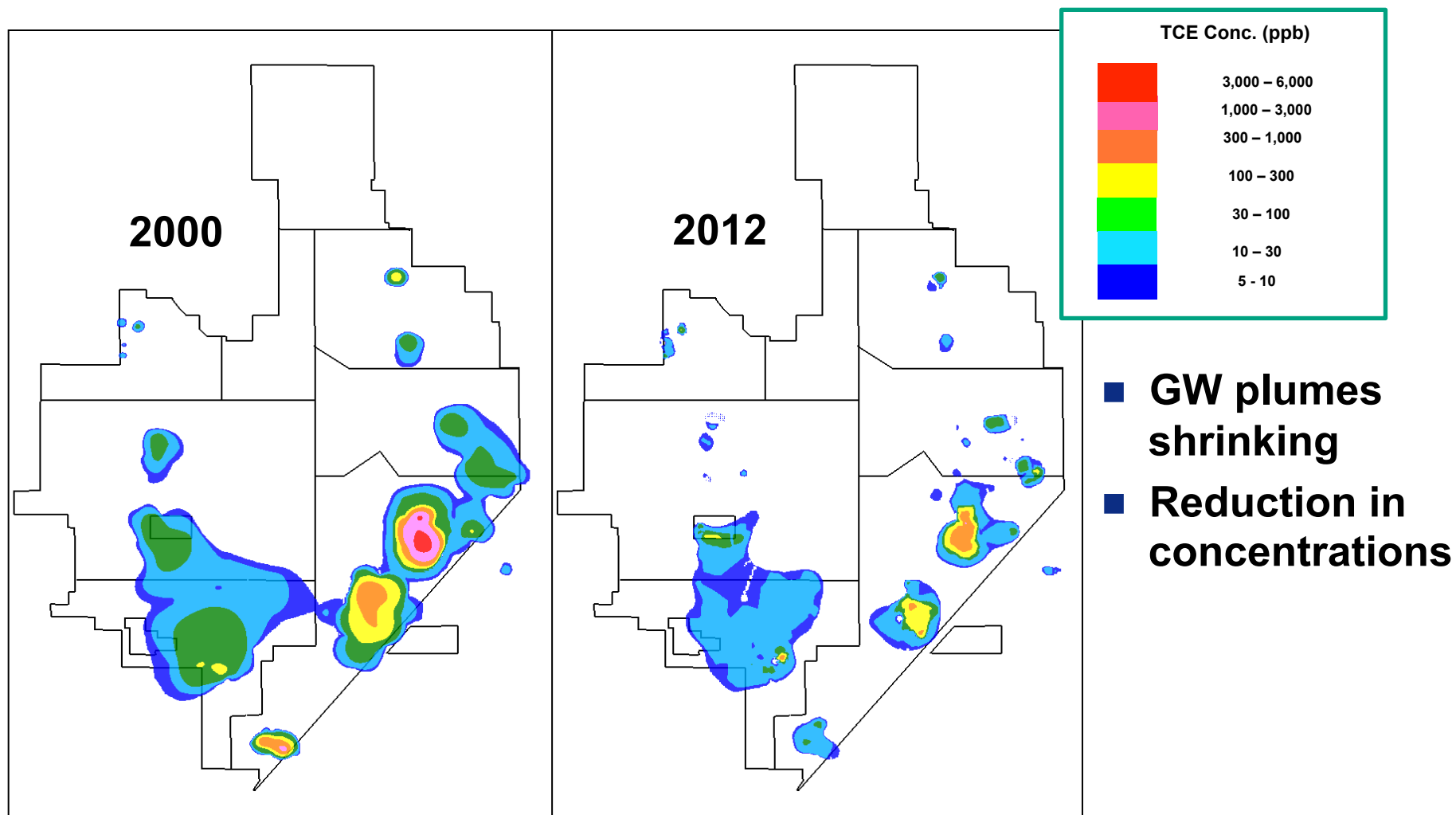


Hexavalent Chromium

- **Air Force acknowledges regional concerns relating to HexChrome**
 - 2014 State HexChrome cleanup levels: from 50 ppb to 10 ppb
- **National level for total chromium – 100 ppb**
 - CA – still 50 ppb for total chromium
- **Data indicates McClellan is not a source of chromium in local drinking water supply wells**
 - Naturally occurring HexChrome levels exceed 10 ppb
 - 28 years of rigorous testing and regulatory oversight
 - Location of HexChrome plumes on McClellan
 - Successful groundwater cleanup
 - Hydrologic/Geologic evidence



Successful Groundwater Cleanup VOCs

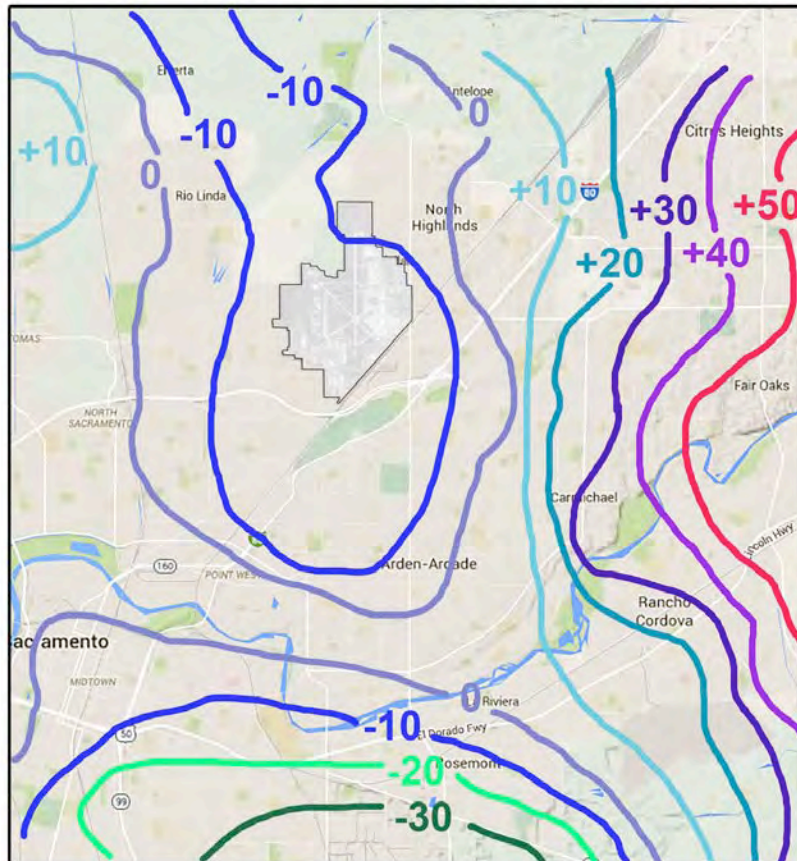


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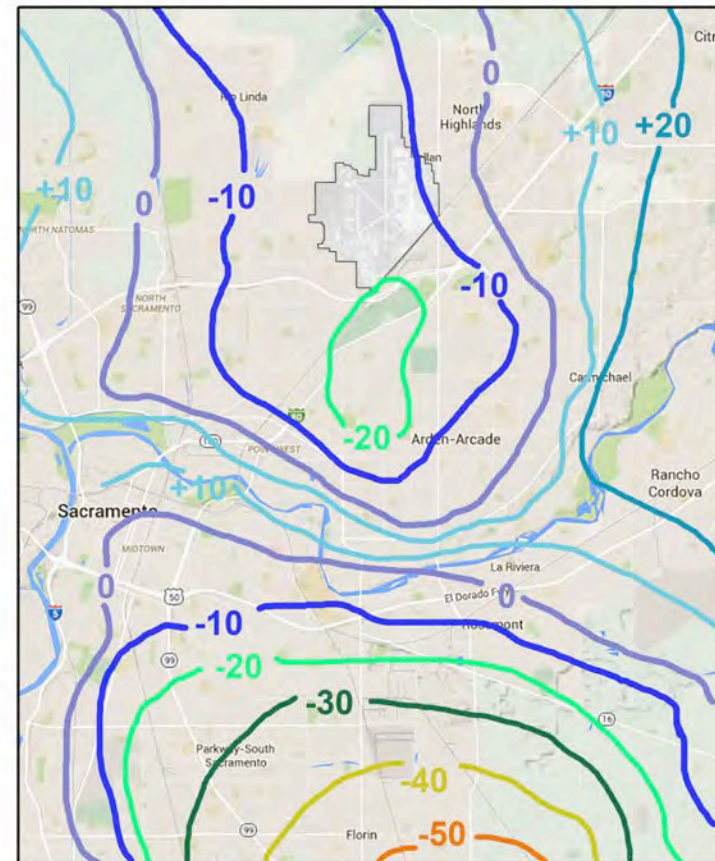


Localized GW “sink”

Spring 1975 Contours Map



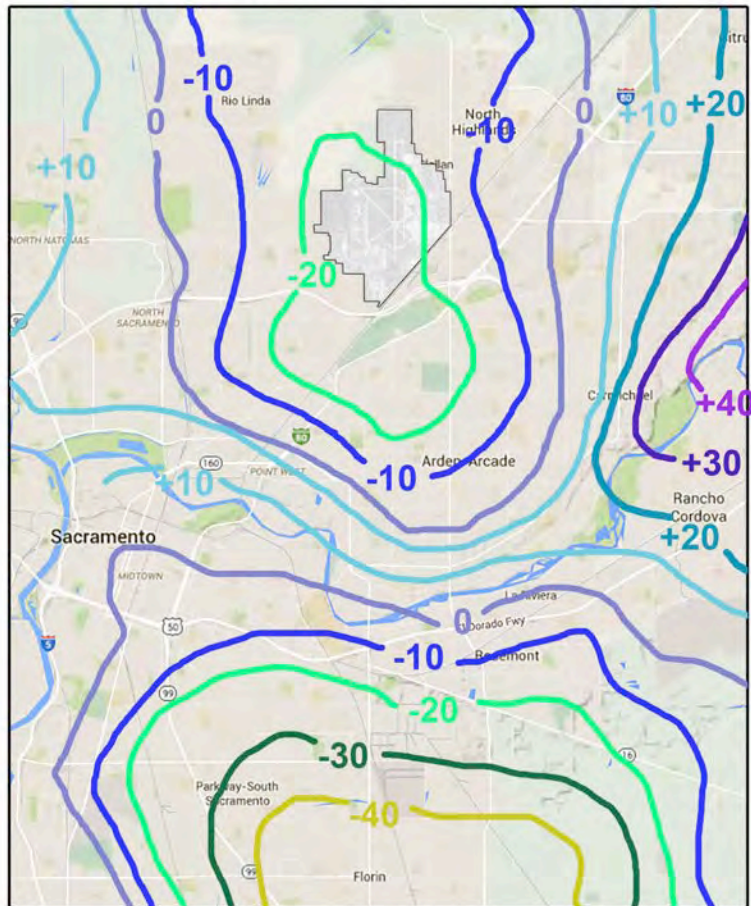
Spring 1978 Contours Map



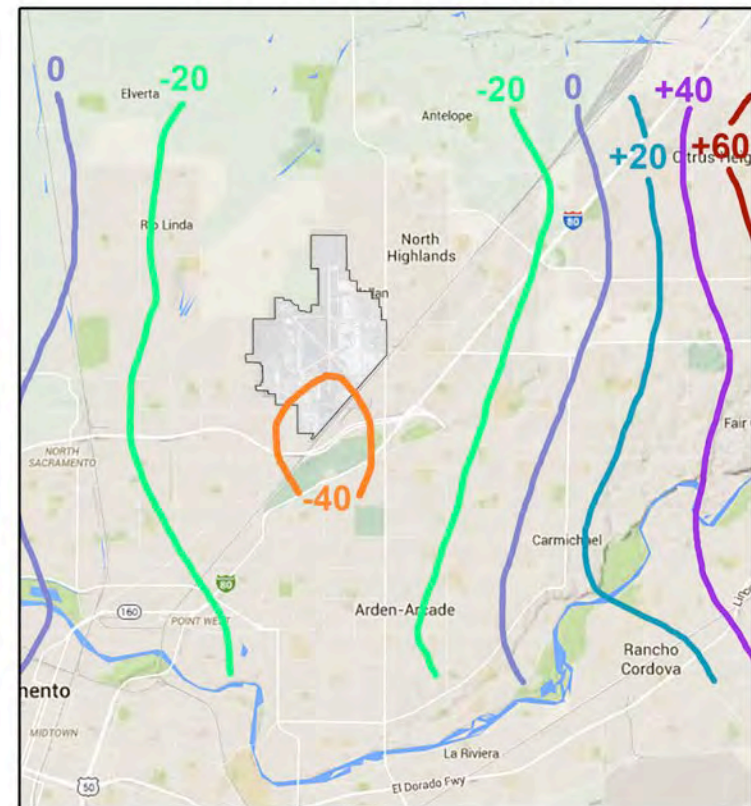


Localized GW “sink”

Spring 1980 Contours Map



Fall 1989 Contours Map





Groundwater Flow Direction



Spring 1975
SOURCE: County of Sacramento Dept. of Public Works,
Water Resources Division, 1989



Spring 1983
SOURCE: County of Sacramento Dept. of Public Works,
Water Resources Division, 2011



Fall 1989
SOURCE: County of Sacramento Dept. of Public Works,
Water Resources Division, 1989



Fall 1995
SOURCE: County of Sacramento Dept. of Public Works,
Water Resources Division, 1998



Spring 2004
SOURCE: County of Sacramento Dept. of Public Works,
Water Resources Division, 2004

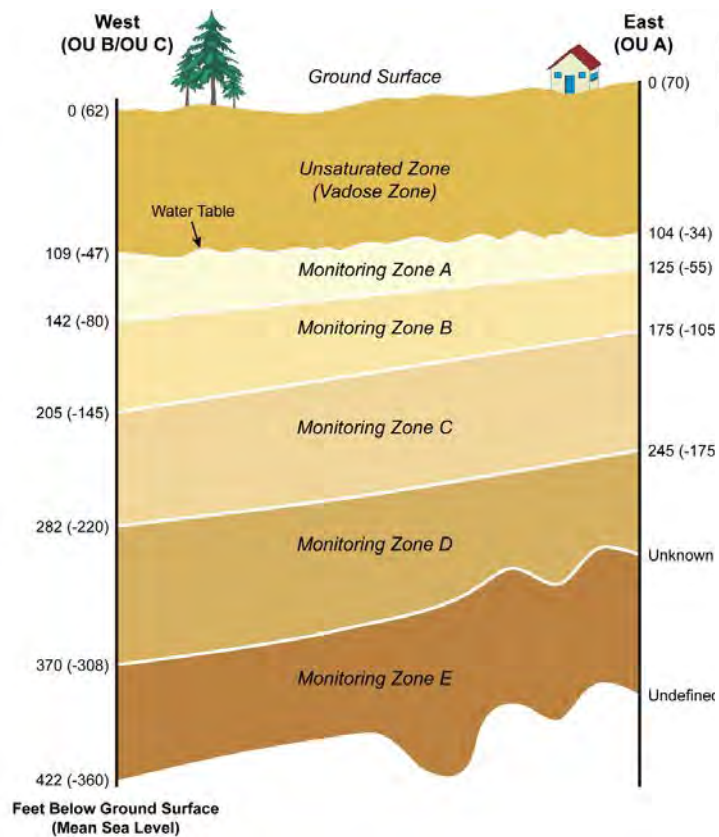


Fall 2007
SOURCE: County of Sacramento Dept. of Public Works,
Water Resources Division, 2011

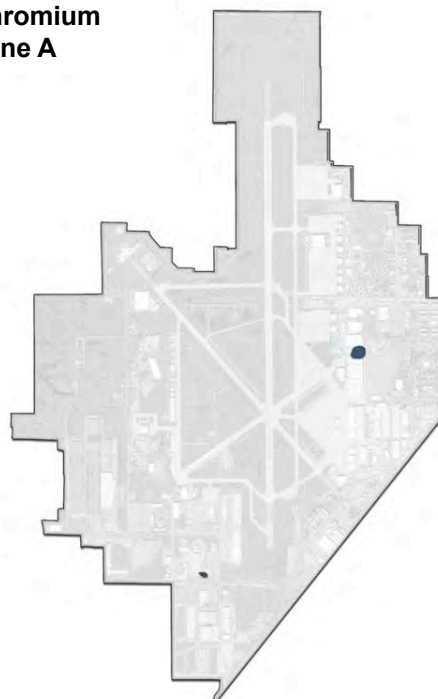
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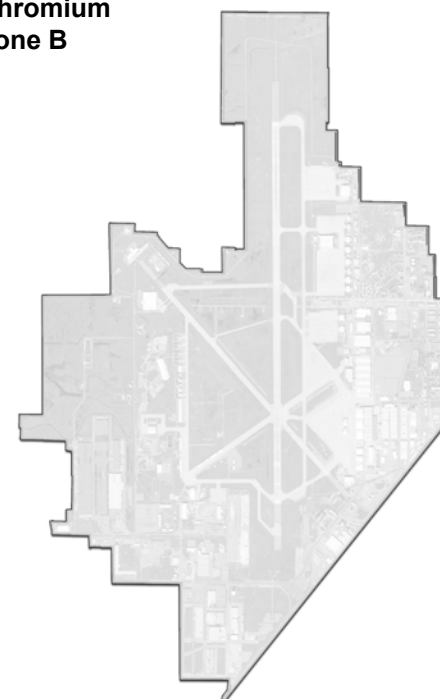
HexChrome Cleanup Zone



Hexavalent Chromium Zone A



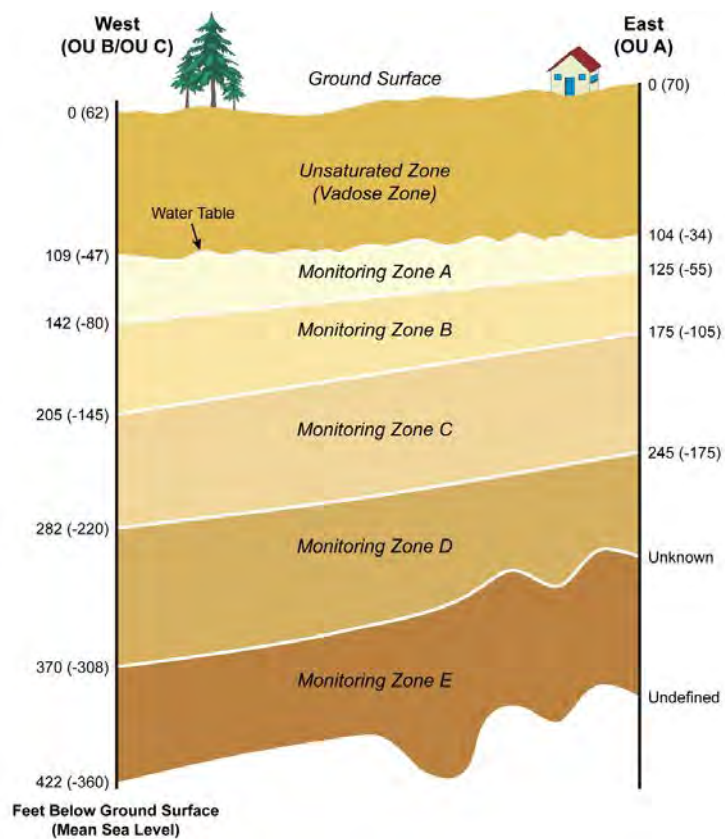
Hexavalent Chromium Zone B



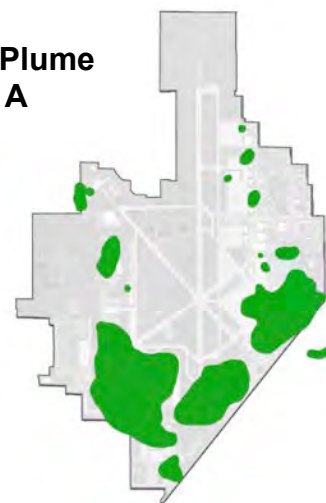
Water supply wells are typically between 300-500 feet below surface



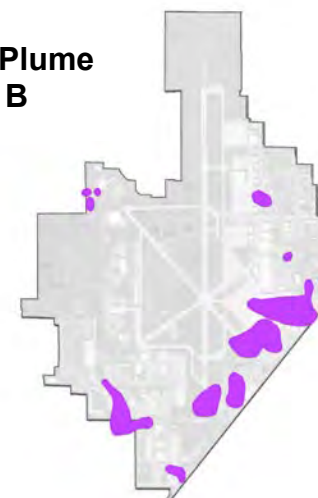
VOC Cleanup Zones



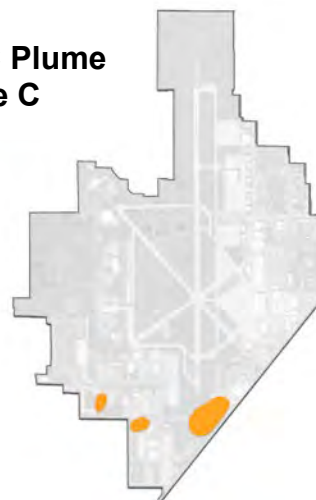
VOC Plume Zone A



VOC Plume Zone B



VOC Plume Zone C

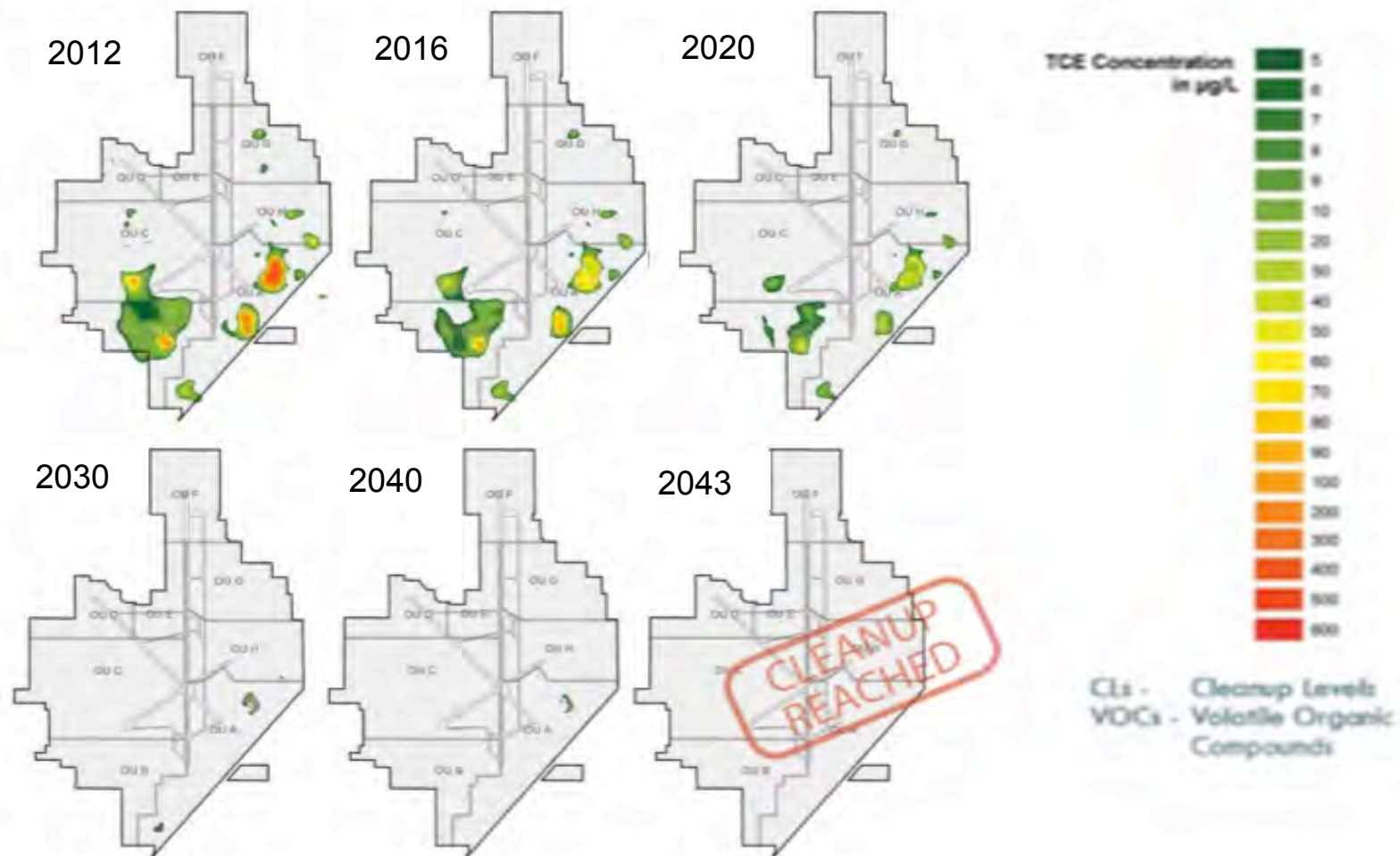


VOC Plume Zone D

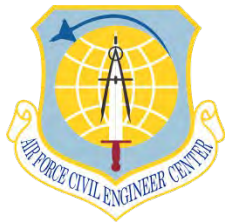




GW Cleanup Timeline



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Hexavalent Chromium

Next Steps

- **Determine background of HexChrome at McClellan**
 - **Finalize HexChrome background tech memo**
 - **Establishing background levels up to 14 ppb**
- **Conduct additional off-base sampling**
- **Will modify or adjust sampling and monitoring as needed**
- **Amend Record of Decision (ROD) to incorporate new State cleanup levels**
- **Continue long-term operation and maintenance of treatment system**
- **Continue rigorous sampling and data collection/analysis**
- **Air Force and Regulators will ensure continued protection of human health and environment**



Key Points

- **McClellan has a well-regulated, successful cleanup program**
- **The Air Force is successfully capturing and cleaning up contamination from past operations**
- **The Air Force is preparing to align cleanup program with new State HexChrome cleanup levels**
- **Based on existing data set, there is no evidence McClellan is the source of any contamination in local drinking water supplies**



Questions

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