KELLY RESTORATION ADVISORY BOARD

May 10th, 2011 6:30 p.m.
Port San Antonio Board Room
907 Billy Mitchell Boulevard
San Antonio, Texas 78226

RAB Community Members:
Beverly Abbott
Rodrigo Garcia
Nazirite Perez
Brian Skrobarcek

RAB Government Members:
Tommy Camden, San Antonio Metropolitan Health Department (SAMHD)
Paul Carroll, Air Force Real Property Agency (AFRPA), Government Co-Chair
Kyle Cunningham, SAMHD, Alternate
Paco Felici, Port Authority
Greg Lyssy, United States Environmental Protection Agency (EPA), Alternate
Abigail Power, Texas Commission on Environmental Quality (TCEQ), Remediation
Jorge Salazar, TCEQ, Alternate
Kathryn Thomas, United States EPA
Mark Weegar, TCEQ

AFRPA Staff:
Richard Black, Contractor
Rachel Fish, Contractor
Laura Guerrero-Redman, Contractor
Jose Martinez, Contractor/Facilitator
Jerry Preston, Contractor
Jason Rose, AFRPA

Public Attendees:
Leslie Brown
Bob Goodson
Nanda Nanjurdappa
Rick Rogus
Stephanie Smith, Representative for Charlie Gonzalez

RAB Members Not Present:
Jose Arzola
Eloy Garcia
Ivan Jaime

MR. MARTINEZ: Ladies and gentlemen, it is 6:30, actually past 6:30. I would like to welcome you to the May 10th meeting of the Restoration Advisory Board of the former Kelly Air Force Base. My name is Jose Martinez. I will be your facilitator for the evening.

With that said, I'd like to pass the floor over to Ms. Abbott, the community cochair, to discuss a few items on RAB membership, after which I will come back and continue discussing the agenda. Ms. Abbott.

MS. ABBOTT: Just to remind you that last meeting in October we voted on a new member. His name is Ivan Jaime and he can't be with us tonight because he's traveling for his job. But just to remind you, Mr. Jaime was voted in during the October meeting and he replaced Paul Person. He's the replacement from the Union Pacific and he serves as the Director of Border Policy and Community Affairs at Union Pacific on Quintana Road just on the other side of the railroad tracks.

He's also on the board of directors for the San Antonio Chamber of Commerce and a Court-appointed Special Advocates. And Ivan is also bilingual in English and Spanish and hopefully -- and we expect to have him at our next meeting so we look forward to introducing him to you-all at our next RAB meeting. And I understand we have a roll call, if we have a list of members to see who is here and who is not.

MR. MARTINEZ: May I simply ask maybe ask each member to introduce themselves and who they represent. Mr. Garcia.

MR. GARCIA: Rodrigo Garcia, agent, community next door.

MR. CAMDEN: Tom Camden representing San Antonio Metropolitan Health District.

MS. THOMAS: Kathy Thomas, EPA.

MR. SKROBARCEK: Brian Skrobarcek, community member.

MR. PEREZ: Nazirite Perez, I represent my area that's close by, Palm Heights, and I'm a representative of the San Antonio River Authority.

MR. FELICI: Paco Felici representing Port San Antonio.

MR. MARTINEZ: Thank you. Thank you very much.

We know that Mr. Mark Weegar will be joining us this evening and when he does, we will recognize him so that we have a record that he did attend this evening.

With that -- with that said, I'd like to go over briefly the agenda items. Next item on the agenda, the administrative items. This is basically simply my reporting to you action items that you requested be done at the last meeting, your last meeting of October 12th. Recall that we had a slight glitch in the production of the presentation materials. Those materials you requested that they be sent to

you in a complete form. That was done on October 13th of last year.

Already stated, you voted to move the meeting to today's date and here we are. You requested that an orientation be provided to Mr. Jaime, the new member, and that was done just yesterday. Mr. Garcia, you requested a letter on the topic of dioxin be drafted and I understand that that was done as well.

And then on December 9th, the transcript of the October meeting was mailed to the members of the RAB. If any member of the RAB did not get it or may have not -- misplaced it, we do have a few copies if anybody would like to have an extra copy of that.

So that said, if there are any suggestions that you'd like to make to the transcript, please communicate that to staff. It is not an item that requires a -- a vote because it is not a set of minutes, it is an actual transcript.

Other items that you requested at the October 10th -- 12th meeting last year and are on the agenda are in the next item by Mr. Paul Carroll. You requested a report on the Semiannual Compliance Plan. You requested a report on the Site S-1 electrical resistance heating, it is listed on the agenda, as well as an overview of the land use controls. And then following that presentation you also requested a presentation on the performance based remediation

contract.

Next on the agenda, if there is any member of the public that would like to make a comment to the RAB, we have at approximately 8:00 p.m. the public comment period. As usual, we ask any member that -- of the general public that would like to make a public comment to approach the staff in the back and get a signature card for two purposes. We'd like to make sure we get your information accurately for the record and, secondly, so that I know who to call.

Are there going to be any members of the public that would like to make a statement to the RAB during that period? Okay. Maybe somebody else will come after.

After that period, if we have such a period, we will then ask Paul to discuss with the members of the RAB suggested items that you would like to have added to the agenda. The next meeting you will notice at the bottom of the agenda is scheduled for Tuesday, October the 11th, 2011.

And then after that, we will recognize Mr. Mark Weegar, who just walked in, an unpleasant and regretful action item, his retirement. And I would imagine that that means he will be going off the RAB board.

So with that said, I would like to now, unless I've forgotten anything, pass the baton on to Paul to discuss the environmental update.

MR. CARROLL: Hi, everyone. My name is Paul

Carroll. I'm the BRAC environmental coordinator for Kelly. Get to the right slide here to start. We'll have an environmental update, of course, as we usually do.

Talk about first the whole base transfer ceremony we had in December here quickly and then I'll discuss at length the Semiannual Compliance Plan Report and also talk about the S-1 electrical resistance heating and have a quick overview of land use controls.

And then I'll have a briefing that was left over from last time on the performance based remediation contracts and kind of assess those that we see across our agency.

So as y'all know, we reported last time that we did complete the last, final property transfer at Kelly September of 2010, end of September, and that was the culmination of a lot of work on behalf of a lot of people here to get the property ready for transfer. So just my appreciation to the RAB for your insight and your input in the cleanup activities throughout all of this time frame.

We had a whole base transfer celebration in December on the 1st of December by which Mr. Moore signed off -- signed over the deed to Port Authority and Mr. Miller also signed the deed here. Anyway, that -- the total of acreage is 18,000 -- 1887 acres since closure in 2001 and we transferred all of that acreage. We have more than 70 organizations established at the Port property now including Boeing, Pratt & Whitney,

Lockheed Martin.

The Air Force leases back about 200 acres from the Port including Building 171, a large administrative building where we have moved in about 3,000 Air Force people, close to it now. There's going to be 11 or 12 Air Force agencies that are going to be housed in that building, including us.

At the transfer, of course we had commemorative photos given over to the Port and the ceremony went really well. Ms. Abbott even spoke at the ceremony. We appreciate your speaking there.

MS. ABBOTT: Thank you.

MR. CARROLL: So anyway, that covers that. Now the deed is not done. That's one of our topics that we talked about. So we still have work to do. We have a lot of work to do around here.

So the next subject I'd like to talk about is the Semiannual Compliance Plan Report. This covers the period of July through December 2010. And the activities that we are -- were covered in the report are compliance monitoring, groundwater monitoring and Zones 2, 3, 4 and 5, long-term monitoring and sampling. 297 wells were sampled. Permeable reactive barrier samples were taken also at 128 wells. Recovery wells from our groundwater treatment systems were sampled as well as RCRA well samples. Those are at the RCRA sites that we had. And those Sites E-3 and S-8 were performed

in July 2010. And these were all in accordance with the governing document is the hazardous waste -- Hazardous Waste Permit issued by TCEQ and updated in April 2009.

We'll jump right in. As you all know, most of you are familiar with the shape of the base and where these zones are. If I may point to the portion right over there, the zones real quickly are the blue zone, which is Zone 5; the green zone is Zone 3; the pink down at the south is Zone 2; the yellow over to the left is Zone 1 which is the responsibility of Lackland; and the Zone 4 is over to the right. So all of you know that already, but I want to be sure everyone is familiar with that.

So we'll start with Zone 2 and move up. The sites in Zone 2 -- uh-oh, wrong button -- are Site E-3, which is right here, and the 600 area waste management area will be right in here, Building 621 -- which include Building 621, the chrome treatment site and then the 300 area waste management area which is -- includes plumes that migrate down toward -- from the north into Zone 2 from the 300 area. We'll talk about those plumes in the other part of the briefing.

But the treatment systems here, there's a passive reactive barrier here that treated that groundwater before it enters Leon Creek and then Site S-1, which is right down here.

We have a groundwater recovery system at Site E-3 that consists of three recovery wells. Contaminants exceeding

limits in July '10 included benzene, chlorobenzene, cis 1,2-dichloroethene, and vinyl chloride.

So here are the plume maps that we typically show with these sites. You have them in your handout so if you have any questions, please stop me, but I'm going to kind of probably hurry up through these when we look at the plume maps so it won't take up too much time. But this is -- I'm sorry. I really didn't mean to hurry that much.

Benzene over here is in this little area and then chlorobenzene is in just a little bit larger area and the concentrations are a little bit higher, well above the cleanup level. So we still have to work on these -- these plumes.

Moving over to the 600 area, waste management area, that includes some area where we're doing -- yes, sir.

MR. GARCIA: The contaminants I see in the Compliance Plan are the benzene, the chlorobenzene and the dichloroethene and the vinyl chloride, are we going to take additional steps or additional actions to counteract the -- they exceed the Compliance Plan, what are we going do about that?

MR. CARROLL: We have three recovery wells there that are pumping that groundwater and treating the groundwater in the Zone 2 groundwater treatment plant.

MR. GARCIA: So you got three additional wells?

MR. MANGINE: Yeah. We installed three additional

wells and -- two additional wells at the site in 2009 I believe.

MR. GARCIA: Three -- three wells to -- to pick up the contaminants that are exceeding the Compliance Plan?

MR. CARROLL: Yes. Those are to remediate that, keep it from moving.

MS. ABBOTT: What does that green and black area represent in your diagram, previous slide?

MR. CARROLL: That's basically the outline of the IRP site or the RCRA site, that represents the outline of that.

MS. ABBOTT: Okay.

MR. CARROLL: Okay. In the 600 area treatment area, several things here going on. There was a Building 621 vegetable oil injection site and hexavalent chromium treatment site there. Also, a PCE plume that originally originated in the vicinity of Building 621 is present there. Treatment includes veg oil injection in February 2006, five groundwater recovery wells in the southern portion of that area. Two wells were installed in 2009 to supplement the recovery network to capture all of the contaminants that may be going off of the area. And the chromium plume consists of a mixed hexavalent and trivalent chromium.

What that means is the trivalent chromium is not as dangerous to human health so the treatment is to reduce

hexavalent chromium to trivalent and that includes bioremediation injections in 2004 and again in 2008.

MR. SKROBARCEK: Quick question for you.

MR. CARROLL: Yes, sir.

MR. SKROBARCEK: So what type of injections? What is it that you're injecting?

MR. CARROLL: It's HRC, hydrogen reducing compound.

MR. SKROBARCEK: Okay.

MR. CARROLL: We've talked about that a little bit in the past.

MR. SKROBARCEK: Oh, yes.

MR. CARROLL: Contaminants that exceeded the Compliance Plan limits in July 2010 include PCE and total chromium.

MR. GARCIA: And those five wells are doing the job?

MR. CARROLL: They are containing the plume and keeping it from moving further --

MR. GARCIA: So five wells are enough.

MR. CARROLL: -- south to Leon Creek. Sir?

MR. GARCIA: So five wells are enough to contain it?

MR. CARROLL: Yes. Those five wells in addition to the injections that we're doing to bring down the concentrations as well as injections.

MR. GARCIA: So the five wells are enough.

MR. CARROLL: Yes.

MR. GARCIA: And the pumping.

MR. CARROLL: Those are sufficient. Yeah, the --

MR. GARCIA: Five wells are pumping and the injection is enough?

MR. CARROLL: Yes. They're keeping things from continuing to move toward Leon Creek.

Here are the maps with the concentrations, PCE over to the left and the chromium -- chromium hits are over here to the right. And there's only one small location remaining in the chromium area that's over the protection standard, the cleanup level there. So we're making some progress there, but this plume still needs some work to get it down to the MCLs, the cleanup levels.

MR. GARCIA: Are you going to add any more remediation to that one that exceeds the Texas standard levels?

MR. CARROLL: This one?

MR. GARCIA: Yeah.

MR. CARROLL: We're watching it to see if it continues to degrade. If it stops degrading, we will -- we will add additional treatment to it, yes.

MR. SKROBARCEK: Paul, before we move off that, that's pretty close obviously to Leon Creek there. Are we seeing seeps into the creek from that area?

MR. CARROLL: Yeah. There's -- chromium -- I'll

have to check to be sure, but the chromium I don't think exceeds the -- the surface water standard there at that location. I don't think it -- I think it only extends to where -- you know, where this contour is, this little circle is (indicating).

MR. SKROBARCEK: Okay. But as far as the PCE, it looks as though the plumes are near the creek.

MR. CARROLL: Uh-huh. There are some levels that we've seen of PCE in the seeps but they're still below the standard, the surface water standard. Yeah.

MR. SKROBARCEK: Okay.

MR. GARCIA: You can keep us informed at the next meeting and tell us how -- what happened and give us a statement as to what -- how the additional remediation works or other extra steps you have to take.

MR. CARROLL: Okay.

The groundwater contamination that originates in Zone 3 migrates down towards Zone 2. This is what we're talking about in this location, this slide. Current remedies for that include vegetable oil injection at former Building 522, Zone 2 permeable reactive barrier consisting of zero valent iron is present there and there's a slurry wall that helps direct the water into and through that barrier. And the groundwater pump and treat from one vertical recovery well there.

Contaminants of concern there are TCE and tetrachloroethene or sometimes called perc, perchloroethene.

MR. GARCIA: Are we going to have additional remediation for that PCE and TCE?

MR. CARROLL: Yeah. Here's what we're doing with the remediation on that. There is the zero valent iron wall here, which is treating all of that -- all of that area. There's a recovery well right in this area that keeps water from bypassing by that slurry wall. And also we're watching this to ensure that contaminants don't leach into Leon Creek. They're naturally attenuating and we've also done some vegetable oil injections to help degrade --

MR. GARCIA: Make sure we're getting more remediation steps for processing to make sure that it doesn't get into Leon Creek.

MR. CARROLL: We're continuing to do this -- this treatment is ongoing.

MR. GARCIA: Okay.

MR. CARROLL: It's -- it's staying active. We will monitor this and if it looks like it's not effective, we will look at whatever other measures we need to do to take care of it.

MR. GARCIA: All right.

MS. ABBOTT: Have you compared that plume to the last compliance report? Is it shrinking?

MR. CARROLL: We compare every time and some areas of the plume are shrinking and of course there are some that aren't. So in general though, as we show these plumes, you know, almost every time, we've -- the plumes have degraded almost 50 percent since we started monitoring in 1998. So in the last 12, 13 years, they're about 50 percent of what they were when we first started monitoring them.

They're degrading. They're degrading because of natural attenuation, number one, but they also are degrading because of the systems that we have installed. I think Mark had the next question.

MR. CAMDEN: Paul, at one of the other prior meetings I think you said it might take another ten, 15 years to clean up the PCE and that there may be some other engineering methods, some newer techniques --

MR. CARROLL: Yes.

MR. CAMDEN: -- that may be out there. Have you-all done any further inquiry into maybe looking at some other new engineering techniques to clean it up faster?

MR. CARROLL: We're inviting that by awarding a new performance-based contract and that's -- that should be awarded in the next month or two. That will put the innovation in the hands of the private contractor to make those kinds of decisions to use the best and most -- most recent cleanup technologies, most aggressive technologies that

they -- they think are usable and will be effective here. So I'm pretty confident that we'll get some more aggressive treatment and some more action in getting these things taken care of.

This -- this plume that comes from Zone 3 is a major groundwater plume and it's going to take probably the longest to clean up of any plume we've got.

We started addressing these plumes that go off-base right away as soon as we could. You know, the people here before I was did that to keep things from migrating off-base and try to be aggressive about addressing those. But you know, we've got to look at it -- this performance-based contract will look at it on a -- you know, the entire contract will cover the entire -- everything that we do so that contractor will have all these decisions at their disposal.

MR. CAMDEN: That might be something to -- as an agenda item for next time, just to maybe educate us a little more on that.

MR. CARROLL: Yeah. I would like for them to brief their plan, their strategy for conducting the cleanup.

MR. GARCIA: Yes. And if we can find a way to speed it up instead of 15 years. You know, I'll be dead by then.

MR. CARROLL: This Zone 3 is looking like late '20s, '30s.

MR. GARCIA: I'll be dead by then and I'll be coming

over and haunting your operation.

MR. CARROLL: You may be around longer than I am. You never know.

MR. WEEGAR: Paul, the purple dash line and then the solid green, the solid green is the permeable reactive barrier and the other one is the slurry wall?

MR. CARROLL: That's correct.

MR. WEEGAR: So what you're actually seeing on the Leon Creek side of the wall, for both TCE and PCE is really kind of the -- it's kind of a historic or residual contamination that was there preinstallation of the wall.

MR. CARROLL: Right.

MR. WEEGAR: So everything has been cut off, continues to migrate, is being treated. Those concentrations, while they're above the Groundwater Protection Standard, they're actually very low and I would say that, you know, you're seeing that there because they've cut a lot of the groundwater flow off so you're just not seeing a whole lot of movement there.

But even if that stuff were to potentially get into Leon Creek, the concentrations in the groundwater are so low that once they got into the creek, I mean they're not going to be above Surface Water Quality Standards at that point. They're not going to be representing kind of a harm. But it's not a -- what you're seeing there is not a continuous flow of

contaminations going through there and just continuing to create this problem. It's kind of a historical artifact that exists preinstallation of the PRB and the slurry wall. Looks like the slurry wall and the PRB are actually working pretty effectively to, you know, cut off any further migration through that area.

MR. CARROLL: That's correct. Yes.

Okay. Site E-1 over to the eastern portion of Zone 2 consists of a former evaporation pit, groundwater recovery system entirely consisting of trench and four standpipes. Standpipes are basically wells that have been put in that trench to remove the water. Contaminants that we're concerned with here are PCE, TCE, 1,2 dichloroethane, cis 1,2-DCE, vinyl chloride, benzene and chlorobenzene. Lot of different constituents in this area here.

This location, here is the recovery trench with the recovery wells. The RW designation is recovery well. So you can see the concentrations of PCE here, concentrations of TCE up to about 1,600 in the middle of this former evaporation pit.

MR. GARCIA: Will we need additional remediation systems because we exceed the Compliance Plan?

MR. CARROLL: We have remediation systems that are addressing the contamination that they're working effectively. I'll look -- we'll look at this at the next couple of slides.

But they are working effectively; however, it could be done more aggressively under the performance based contract when the contractor gets in.

MR. GARCIA: That will be a good idea to try and speed it up because if we're exceeding the Compliance Plan limits, we need to find a solution here and now.

MR. CARROLL: Right.

MR. SKROBARCEK: So Paul, just to help us, any areas as you're going through this -- the summary of the results here, if there's any proposed new systems that you guys are planning, just go ahead and point those out to us and then we can -- we'll identify what those are.

MR. CARROLL: Okay. Will do.

MR. SKROBARCEK: Thanks.

MR. CARROLL: Here are the findings and the conclusions. We kind of talked about this already, a lot of it. Site E-3, groundwater recovery system for this site has two recovery wells within the boundary and a third outside the footprint.

Area where the groundwater exceeds the standards in the Compliance Plan are within the capture zone of the recovery system wells. And then the 600 area, lower PCE concentrations remained throughout the center of this area but we had complete capture by the existing recovery system.

And the good news here is that we've -- the TCE

concentrations have dropped below those limits in 2010 so there's one place where we cleaned up at least one contaminant, one of the main contaminants in this site, but we still have PCE left there.

And in the groundwater plume that migrates down from the 300 areas, the iron filing wall is working as intended to cut off PCE from further downgradient and migration into Leon Creek and PCE and vinyl chloride downgradient also continue to decrease in concentration so we're watching those closely.

And for Site E-1, as you can see in those previous figures, the majority of the contamination is within that site itself upgradient of the recovery trench and that trench is operating as intended. Three smaller isolated plumes downgradient of that trench appear to be stable and not moving. And LNAPL, which we had seen there in the past for several years, was not identified in the well that we had seen at this time. That's another piece of good news.

Moving up to Zone 3, the industrial -- the main industrial portion of the base, it includes RCRA Site S-8, which is this site right here (indicating). I guess the green and white outline designates the RCRA regulated unit site so that's why they have a little bit different outline than the others.

We also have the 300 area waste management area which includes 360, Building 301 and Building 331 and also

here is Site MP. And then we also have Site S-4 to the south, the south side of the area.

Here's where some of our biggest challenges are because we've got PCE and TCE plumes that run all the way through these areas beginning up around Building 360 and running all the way down, you know, right by Site MP also, running down to the southwest all the way down the permeable reactive barrier we just discussed in Zone 2. So this is an important cutoff to this plume. And that's PCE, this is TCE.

Site S-8 is a former UST facility and location of the "green worm" parts cleaning operation. You-all have probably heard that word before. Yes, sir.

MR. GARCIA: I was going to ask you a question. Why did we wait to get all this stuff to GKDA until we had cleaned up all this PCE and this TCE? Because some of that in the residential area and the other is right across the tracks right there next to the double set of railroad tracks. Why did we wait till we finished cleaning up all the PCE and the TCE before we gave them anything?

MR. CARROLL: Well, there's two ways that we transfer property. One is if we clean up the site completely and close it or there's no contamination there to begin with; another is if when we do operating properly and successfully. So we have to install systems. We have to prove to U.S. EPA here that those systems are operating as intended and in the

meantime they're protecting human health and the environment and we have to make assurances that we're not being dangerous to whatever the use is there.

If we can meet this operating properly and successful demonstration with EPA, we're unable to transfer the property. That gives the property -- complete control over of the property into the hands of Port San Antonio so they can redevelop it into, you know, beneficial use.

MR. GARCIA: Yeah, but will that redevelop --

MR. CARROLL: Those are two ways you can transfer property.

MR. GARCIA: Will that redevelopment interfere with the cleanup procedure of PCE and TCE?

MR. CARROLL: No. We ensure that it will not in the property deeds and we also ensure through pretty consistent meetings with the Port Authority that their redevelopment won't interfere with our cleanup and that our cleanup basically won't impede redevelopment anymore than absolutely necessary. So we work with them hand in hand on their redevelopment issues.

MR. GARCIA: You know, because some of the people, like me, that have been involved in this since the middle 1990s are very leery about everything that's going on with the GKDA and we're -- we don't trust these people and we want to make sure that you have the right to continue with the cleanup

without any interference.

MR. CARROLL: We have that right and we do -- we haven't -- I can't name an incident where we were impeded on cleanup from anything going on here.

MR. GARCIA: All right.

MR. WEEGAR: Well, just to clarify, when the property is transferred to the Port, as the owner they were added to the Kelly Air Force Base Hazardous Waste Permit. Makes them a co-owner -- makes them the owner of the property and the Air Force is the operator responsible for doing the cleanup.

If for whatever reason the Port was not to allow the Air Force to do the things that they needed to do to clean up the environment, the Port Authority would be responsible. They have -- by signing that deed and taking that property, they are now a -- they are jointly responsible in theory under the law for doing the cleanup. So it's to their interest to not prohibit the Air Force or impede their progress in doing the cleanups because if they were to do that, the State of Texas could go to the Port and say, Okay, you're not letting the Air Force, the designated cleanup authority, do what they need to do so it's your responsibility now to do it.

So they have a vested interest from a legal standpoint and from a financial standpoint to ensure that they don't impede the Air Force's cleanup authority whatsoever.

MR. GARCIA: All right. It's just -- it's just my concern because the GKDA has been very poor in establishing links with the community and letting the community know what's going on and having the community input meetings and stuff like this so I'm just very concerned about what the GKA -- GKDA will not interfere with Mr. Carroll. That's my main concern.

MR. CARROLL: Okay.

MR. SKROBARCEK: But in the areas that we just discussed, the 300 area, I can speak to the coordination efforts that take place. Actually we were discussing those just before the meeting started regarding groundwater sampling and those types of things that occur, they're required to occur, and the coordination efforts that have to do with the GKDA as well as the -- the tenants on this -- this former base.

So there's -- there's active things going on and you may not be aware of those things that occur.

MR. CARROLL: Richard Black right there deals with the Port Authority almost on a daily basis on things that they have going on and he's one of our employees that works -- contractors the Authority works with and he's been doing this for years. He can vouch more how many times they've talked about redevelopment activities and coordinate things that go on.

Okay. At Site S-8 there was a soil vapor extraction system operated for a year. That system was converted to biovent system which adds oxygen to the subsurface to promote degradation of the contaminants. In 2010 we converted this system back to an SVE system because we had some expansion of the system and we found a new location where there were additional contaminants. We kind of have been reporting that at the last couple of RABs.

Also a groundwater recovery system consisting of four recovery wells and contaminants we're looking at here are benzene, chlorobenzene, PCE, TCE, cis 1,2-DCE, vinyl chloride and arsenic, all the -- all the typical culprits you see in a lot of these sites.

Here are the benzene and chlorobenzene maps. You'll see we have a couple of little areas right in here, benzene and one little bit north of the area. Chlorobenzene down here, up to about 2200 micrograms per liter and then another little spot of it over here. We'll discuss those -- especially these sites and these sites, what we're doing to ensure we're remediating these -- these issues in a new slide, couple of slides.

Building 360, contaminant sources are historic chemical storage and usage. A lot of that occurred in the northwest corner of that building and in the basement area and in the western wing of the building. Current remedies we have

include a passive reactive iron filing wall and a slurry wall. That was installed in 2003. We also do vegetable oil injections there. We've done a couple of rounds of those in 2006 and 2008 and the soil vapor extraction system with three horizontal wells installed in 2008 that are still operating. Contaminants that we see there are PCE, TCE, cis 1,2-DCE and vinyl chloride.

So here's the plumes for this building. And here is the outline of the building. These things right here are those horizontal wells that we've installed under the building for the SVE, soil vapor extraction system. Concentrations you see here, PCE are up to a thousand, little bit over a thousand in some locations. Majority of this is upgradient of this reactive wall. There are some locations that are outside of it and you can see -- actually the good news story here is that this plume used to be one plume and it's cut off into two plumes that are being addressed both by this as well as this one here and some -- the other treatments that we're doing around in this area.

So TCE is at much lower levels. You can see the PCE was probably the most common solvent used for many years here at Kelly.

MR. SKROBARCEK: Paul, can I point something out to you on that?

MR. CARROLL: Yes, sir.

MR. SKROBARCEK: Just want to let you know that today -- I don't know if it will impact your system, but yet last night there was a water main break right here (indicating) and don't know exactly -- it was going as of up until I left work so I don't know if that's going to affect your system much, but with the concentrations in this area here, I don't know if it will affect much.

MR. CARROLL: Okay. So that was going from last night through -- at least through all day today?

MR. SKROBARCEK: And it was coming up through the subsurface running down the street.

MR. CARROLL: Okay. That's good to know. We -- of course we'll be monitoring these wells and we'll see if it has any effect. Sometime you may see a little effect in things like this.

MR. SKROBARCEK: May see something.

MR. CARROLL: And then Building 301, which is just to the east of Building 360, there's also a permeable reactive barrier and iron filing walls, an iron filing wall here that was installed in 2003 and we did that ERH system that we've been talking a lot about in 2008 and 2009. Contaminants that exceed the limits in 2010 include PCE, TCE, cis 1,2-DCE and vinyl chloride.

Here's the PCE and TCE maps showing these contaminants. As you can see, we have PCE both upgradient of

this wall. Groundwater flow is to the south here, southeast. So we'll see the contaminants are both on north and the south side of this wall and little bit lower levels of TCE to the south of that wall, too. We'll discuss that in a couple of slides. Whoa, didn't mean to do that.

Site MP, this of course is in the parking lot of Building 171 you-all have seen a few times, the former plating shops. Of course we did the big soil excavation. Some of our folks call it the Big Dig there where we removed a lot of that source in 2009. And the current remedies after we removed the soil -- the contaminated soil from that site were to conduct enhanced bioremediation and we continue to pump and treat groundwater from the downgradient recovery wells. Contaminants exceeding Compliance Plan limits include PCE, TCE, cis 1,2-DCE and vinyl chloride.

So here are the plume maps at Site MP. One notable success that we definitely like to show here is that there is no levels of PCE within that former slurry wall where we did our excavation and did that biological treatment. So that's a very -- been a very successful project.

What you're seeing here is a PCE plume that's part of the main Zone 3 plume. That's actually got some concentrations here outside of that slurry wall. These recovery wells are addressing that plume though. So here's the TCE and that's also outside of that wall.

Site S-4, that's from -- that site was abandoned fuel lines, distribution lines, USTs. Current remedies include groundwater recovery from on-base and off-base. There are a couple of recovery trenches and a couple of vertical recovery wells installed there.

There's also a low permeability barrier that's off-base there. That was sometimes called the City of San Antonio culvert. It was put off-base to actually stop migration -- further migration of groundwater. Contaminants that exceeded the Compliance Plan limits in 2010 include PCE, TCE, cis 1,2-DCE and vinyl chloride. Benzene and arsenic also.

Here are the concentration maps of the plumes here. This is in the southern part of this Zone 3 so you can see that, you know, there's some pretty high concentrations of PCE on base that are being recovered by these wells and trenches.

So the recovery system is within this area here and then the -- this is that off-base low permeability barrier that basically keeps the groundwater from moving to the south. And these are extremely low levels of PCE and TCE that are offsite that are being degraded by natural attenuation.

Findings and conclusions on Zone 3 sites. Site S-8, those isolated plumes that I showed off to the north of Site S-8, they're not associated with the zone-wide PCE and TCE plumes. However, we're monitoring those plumes to ensure that

they don't migrate and they'll eventually be captured at Site S-8. And also an isolated chlorobenzene plume exists north of Site S-8. We have two new recovery wells to ensure that we have plume -- plume capture there at that site so we'll -- those will be captured by those two wells.

At Building 360, the vegetable oil injection performed in 2008 was effective in reducing the contamination and the PRB wall, the iron filing wall, is also operating as intended.

At Building 301, we've seen higher PCE concentrations in the vicinity of where we had installed an ERH system. We believe that to be a temporary, localized effect resulting from operation of that system. But we're monitoring that to watch and make sure that it returns back to normal. If it doesn't return back to normal, we will do something additional to address that contamination that's bypassing or going through that wall and not being completely treated.

And then there was one part of that wall where groundwater migration is going parallel to the wall. So if you're looking at groundwater that needs to go through the wall and it's going parallel to it, it's not being treated by that -- by that -- did I hear thunder?

MR. WEEGAR: I don't know. I'm not sure what that even sounds like anymore.

MR. CARROLL: Don't watch. Might scare it away.

Okay. I think I said what I need to say on that. Building 331, we performed vegetable oil injections in November of 2009. We injected a lot of veg oil there, ten times the normal rate, and we see significant reductions of PCE and TCE and cis 1,2-DCE concentrations in that area. So that's been pretty successful and the new performance based contractor will monitor that and will probably take that to heart and probably do some additional things like that.

At Site MP, as I said, the TCE and PCE and vinyl chloride concentrations are almost at nothing within the slurry wall, suggesting the current combined remedy is effective. And we've got the contaminants that are outside that wall that are being captured by the recovery wells so they're not being allowed to go migrate off-base.

At Site S-4, the groundwater recovery system and off-base monitored natural attenuation also appeared to be effective remedies.

Moving on up to Zone 4, this is commonly called East Kelly so we call our waste management area East Kelly waste management area. That includes site OT-51 here in this area, the east bank area which is the eastern part of Zone 4 where we've got a bank of extraction wells that were installed here and the south bank area, which is the south part of that, which we've got another bank of extraction wells installed

there. Also zone wide groundwater, Zone 4 groundwater.

I wanted to show the entire plume map that we're addressing from -- this is Zone 4 here, East Kelly. The entire plume over here to the right is the plume that we address under this Zone 4. So as you can see, this is the -- this is the PCE plume and the 2011 concentrations here, about three miles off the base. And you can see the current -- the current outline is in the blue, the original outline is in the green.

Some of the reason we've explained before for this being kind of a different area, looking like it's migrated kind of to the north and directly to the east may be partly because of some migration; however, a lot of it is because this -- in 1998, when we first did our sampling, this wasn't completely -- the extent of this was not completely known yet. So this may be an artifact of us having to go out and do additional monitoring wells to find out exactly how far it had gone.

MR. GARCIA: How are we going to clean that up?

MR. CARROLL: We are cleaning this up by -- in a couple of -- couple of slides I'll show you where the reactive barriers are, the iron filing walls are in these locations.

MR. GARCIA: Okay. All right. All right.

MR. CARROLL: May have to go to one of our other maps. I'm not sure I've got the slide.

But here's the similar map of the TCE concentrations. These -- these walls are shown on this map, but they're hard to see. You might be able to see them in your handout. But there are like four of those walls installed across these plumes in this location, this location. I think these are called Commerce Street PRBs. There's one down here in this location (indicating).

MS. ABBOTT: Commercial.

MR. CARROLL: Commercial Street.

MR. GARCIA: Yeah.

MR. CARROLL: Commercial Street, I'm sorry.

There's one up here in this area up here, too. So as I've explained, PCE and TCE are groundwater -- above the cleanup levels. We see long-term diminishing, decreasing concentration trends. We see natural attenuation occurring. At OT-51, TCE and vinyl chloride continue to decrease through natural degradation, reductive dechlorination from veg oil injections that we've done here. And on the east and south bank areas, we have an overlapping horizontal well system that is addressing the TCE and PCE in groundwater.

That south main system has been discontinued. It's still present if we need it. But we had no plumes moving in that direction. It's treated the plumes that were already there. So we're operating the east bank system and capturing the majority of the upgradient of the plume there.

MS. ABBOTT: It looks like you're having better results with TCE than you are with PCE. The plumes seem like they're shrinking more.

MR. CARROLL: I think it may be because the PCE concentrations originally were lower and we may be -- you know, it may be decreasing in a little bit better rate. The higher concentrations of PCE seems like they would be taking a longer time.

MR. GARCIA: I'm concerned about the TCE and PCE being so far down in the south side and what we can do to speed up the cleanup. We need to do something because of the people that are there. We need to speed up the cleanup somehow besides natural attenuation.

MR. CARROLL: Right. There are other cleanup -- there's the reactive walls that are installed there also, but the natural attenuation is part of that remedy. But stay tuned.

MR. GARCIA: I think that --

MR. CARROLL: Until the next time --

THE COURT REPORTER: Excuse me. One at a time.

MR. CARROLL: Sorry.

MR. GARCIA: Oh, I'm sorry.

MR. CARROLL: Stay tuned until the next time when the new performance based remediation contractor comes on board and see what they have to -- as a strategy for these

off-base plumes.

MR. GARCIA: Okay.

MR. CARROLL: Because they'll have a commitment to clean up the entire -- all of it.

MR. GARCIA: So they're going to have them clean up all this stuff you showed us.

MR. CARROLL: Yeah.

MR. GARCIA: Okay.

MR. CARROLL: The first thing we did here was to ensure that the plume -- the sources of the plumes were cut off. So we cut off those sources at -- like at Site MP at the base boundary. That helped reduce concentrations quite a bit; however, the -- the immensity of the size of the plumes, you know, we couldn't go every square foot and do things there so we installed those iron falling walls that captured and treated things as they went through.

But yeah, there could be more aggressive treatments done for all of these plumes including the off-base plumes.

MR. GARCIA: I'd like to see that.

MR. CARROLL: Okay. Findings and conclusions at OT-51, they're almost done. And on the east bank and south bank recovery systems, the east bank is the only one we're still operating as I said. Concentrations are similar for PCE both upgradient -- I'm sorry, TCE upgradient and downgradient, but the system is pretty much cutting off the TEC. And on the

Union Pacific Railroad, that iron filing wall, groundwater is flowing through in kind of an odd angle and that's because of these recovery systems. They're pulling the groundwater to the south instead of to the east as it would normally go. And we try to balance that pumping of these systems to keep that from happening as much as possible. And we're -- we'll probably have to readjust that based on the results of this Compliance Plan report.

On the Commercial Street PRB, transect monitoring data indicates that they're generally effective in reducing contaminant concentrations.

Moving on up to Zone 5, and this is the last zone we'll be covering so hopefully we'll be getting close to the end. We've got the Site S-1 waste management area right in this area, which includes Site S-1 in the red, the OT-50 north waste management area, which includes a lot of this area right in here, and plume D waste management area which is way down here in the southern portion of Zone 5.

Just showing a couple of general maps showing where these areas are and the groundwater plumes. This is PCE and we've got a pretty good concentration just to the north of the base here and that's the main part of the PCE that we see in -- in this area.

Here is the TCE basewide map, but in Zone 5 we have a little bit more TCE than we've got PCE problems, but we'll

get into some more detailed maps here.

This is at Site S-1 and just to the north of the base, on 34th Street, we have another iron filing wall that's installed there that's treating PCE that's going through that -- that location.

You see concentrations right now about around the 200 range going through that -- going through that wall. Couple of years ago, it was up to around 700 so it's decreased to around 200 from -- from then. We think there's a combination of reasons for that. One is that year we had a lot of rainfall. Things were really moving around a lot and it's been pretty dry over the last couple of years so it's kind of gone back to readings that we were seeing before that 700 level.

And here are the TCE concentrations. Pretty good sized TCE plume along western side of the Zone 5. A little bit of TCE associated with this PCE up here to the north of the base and an additional TCE plume that's being treated by another iron filing wall before it leaves the base here (indicating).

So here's the plume D down toward the southern portion of this Zone 5. If you're familiar with the base, this is the old officer's -- visiting officer's quarters. This is out in kind of an open field in the parking area to the north of that building. It's pretty high concentrations

in this area. So we'll show what we're doing to treat those.

Site S-1 is where we've had the electrical resistance heating going on. I've got a short presentation on that to give you an update so we'll kind of skip over that. Arsonic, benzene and chlorobenzene plumes within the site are stable and appear not to be moving.

At the OT-50 north waste management area, we've done injections near the -- near that iron filing wall on the eastern side of the base Building 1533. That's been effective in degrading, reducing the size of the plume. And in the plume D waste management area, there's a PCE and TCE plume in the central portion.

We've also done substrate injections there. I believe that was veg oil. It may have been HRC though. I forget right at the moment. But we see decreasing concentrations right there also. We still have a long way to go with that plume so we're monitoring it closely to ensure that it doesn't migrate. And that's it for the Compliance Plan.

MR. MARTINEZ: Any overall comments or questions from the members of the RAB for staff? Yes, sir.

MR. GARCIA: On this Compliance Plan, I would like to see where we exceed. Just give us exactly how much we exceed and what are they and show the relationship with what we exceed as to what is going to be written up in the -- the

Performance Plan we're going to expect the contractor to do so we can understand the relationship between the two. Like where we exceed TCE or PCE, whatever, what kind of contracts you're going to put in and what kind of demand are you going to put in there so we can see if it's feasible or not see. See what's going to happen, things like that.

MR. CARROLL: I think that's all what we plan to brief next time already.

MR. GARCIA: Okay. All right.

MR. CARROLL: Yeah.

MR. GARCIA: Okay. So we'll try to have a pretty comprehensive briefing of their strategy, how they're going to treat everything by the next time. Yes, sir, Brian.

MR. SKROBARCEK: So one of the previous slides regarding plume D, what was the source of that material?

MR. CARROLL: We're not sure. We think it may --

MR. SKROBARCEK: Because that was the highest value that we saw tonight.

MR. CARROLL: Right here? We don't know. We can't find where the source -- we couldn't find where the source was. Do you remember anything in addition to that?

MR. WEEGAR: No.

MR. CARROLL: I didn't think so either. So we're not sure. We think there's still some free product there with it though, so we're looking forward to what the performance --

performance based contract is going to do, be aggressive about cleaning this up. This is kind of out in the open and we've done a couple of rounds of injections and it's not knocking it down as quickly as it needs to knock it down. So we do need to do something different probably there.

MR. WEEGAR: It's such a small little area up there. Obviously there's not much groundwater movement, but, you know, historically going back to the '30s, '40s, '50s, I mean who knows, somebody could have poured a couple of gallons of something out there at some previous little maintenance thing or whatever, but it just -- it's gone there. And like I said, the plume is so small. It's small, but hot because there's just not any groundwater moving through there. But, you know, exactly what the source of it is is anybody's guess.

MR. CARROLL: Right now it's about half what it was before we did the last round of injections. So making a little progress, but it's still at a very high level and I think it probably needs to be looked at a little bit closer.

Okay. Anything else?

MR. GARCIA: Do you think -- do you think when they tell us about this contract and performance contract they can give us a little one-page or two-page handout showing us in writing so we can follow them and explain -- while they explain what they propose in that contract?

MR. CARROLL: One page or two pages? I don't know

if we can do it in one page or two pages.

MR. GARCIA: Or whatever -- whatever it takes so we can know what they -- what they plan to do.

MR. CARROLL: Can the pages be four feet by six feet? It's a pretty complicated site and yes, we'll direct them -- we'll ask them to, you know, have kind of a --

MR. GARCIA: Executive summary is the --

MR. CARROLL: Executive summary --

MR. GARCIA: Executive summary or --

MR. CARROLL: -- game plan.

MR. GARCIA: -- whatever you want to call it.

I write those stupid executive summaries all the time so they're not that hard to do.

MR. CARROLL: Okay. I promised you-all a briefing on Site S-1, the electrical resistance heating and so you're stuck with me doing this, too.

Here is a time line. I'm not going to bore you with all of this because you-all were caught up to speed in October, November. So after -- after the last RAB briefing, in December, they reached the maximum site temperatures. Had a couple of electrodes that had failed and they conducted -- in March of this year, they conducted 60 percent groundwater sampling which means they anticipated that they were 60 percent done with the cleanup and they did groundwater sampling.

In April, they repaired a damaged drip system that had been completely destroyed by the freeze that we had in February, about February 7th I believe is the date of that. I was here for that. Had an inch of ice on the roads.

In May, as of today, they've removed 120 pounds of chlorobenzene, 89 pounds of 1,2-dichlorobenzene, 17 pounds of 1,4-dichlorobenzene, 3 pounds of benzene and over 765 pounds of total petroleum hydrocarbon from that site from this system.

Here is the temperature chart. As you-all saw this about right here, it was still increasing (indicating). One of the things they did about this time, they were having trouble getting it to the right temperatures in some zones so they were going to inject steam into the formation and y'all probably remember that.

They did go ahead and do that and it brought that temperature up to about between 90 and 100 degrees centigrade. They reached that about December 1st, maintained that temperature. They kept trying to raise the search temperature because their target temperature was up here at 110, but they could never get it past this level. And this is about the time they had the freeze so you see a little bit of a drop in temperature here. They replaced that system that added water back into the formation right about here so you can see some trends going back up as of the last month (indicating).

Here is the chart showing what I just described about the mass removal. Here is the total mass removal here in the purple line. This green line is chlorobenzene, which is basically the target chemical they're trying to reach. And 1,2-dichlorobenzene, the other chemicals are down here. As you can see by the curve of the line, we're still getting some results. We're still getting contaminants out of the ground. They're still running the system.

Current status, the gravelly areas do present a problem with this type of remediation because it relies on electrical current and the heating of the formation from soils that need to have a lot of clays in it and have a lot of moisture. So the removal rate is lower than projected design and they had to run it longer. This is a firm fix price contract so they've been there -- they anticipated to be done right after Christmas here and they're still here running the system.

The mass in the subsurface is being recalculated due to possible variability in the design calculation and the actual mass. So they're doing that. We're going to work with them to evaluate the system to determine if they need to keep running it or not. But from -- from these curves here, you can see that once these become a flat line, they're no longer removing contamination from that site. So we're watching this pretty closely. They're starting to look like they're going

to become a flat line before too long. So we're working with them to -- I think we may have reached what we can get from this type of remediation from this site.

Okay. Any questions on that?

Okay. Moving on, I promised also an overview of land use controls. This is generally what we're doing with the Port Authority on a recurring basis and now with the land use controls. As you know, as part of the property transfer process, we put these land use controls in the deed to ensure that there is no contact to harmful contamination at the site and that's -- that's to prevent, you know, problems with whatever use that the Port is using the property for.

So these land use controls are an important part of our environmental projects and our property transfer and ongoing communication dialogue with the Port Authority.

One thing we've done is the Port has requested removal of some land use controls from part of this area right here in Zone 5 so that they can clear this property for possible residential or mixed use development. And we sent a memo to U.S. EPA on the 12th of April and the objectives of that are to evaluate those land use controls to see if we can reduce those for seven sites previously closed under Standard Two, Standards for Industrial Use.

And one site we had already deed recorded to allow for residential use so that leaves us six other sites that

we're working with TCEQ and EPA to get those deed -- deed restrictions removed or approval to removed those deed restrictions.

What we've done to do that is to look at the closure reports for these sites. Those were reviewed. And to look at several different things under those closures including how -- what kind of concentrations we looked at to close those sites. So this -- this may be a little bit too technical, but SCLP sampling is a type of sampling that you look at to compare to see if it meets industrial or residential standards.

We're going to recommend to TCEQ and EPA to reduce the land use controls for five sites to allow residential use and these are the sites that we're talking about. All of these sites have soil contamination that we close under an industrial standard. We're re-evaluating those. We're looking at those standards, those levels of contaminants that were left there and we've -- we've internally made the decision that those levels also meet residential standards, which will allow residential use.

What we have now is to -- to ask TCEQ and EPA if they agree with those -- with those conclusions and we're in the process of doing that now. There are two locations within this area that the Port wants to use for residential use also that have groundwater contamination and that groundwater contamination may have some vapor intrusion problems. Vapors

from the plumes may be migrating up into some houses so we don't want that to happen so we're going to work with EPA to ensure that we're going to put a restriction or keep that restriction against residential use over those plumes and a buffer area outside those plumes to make sure that the recovery -- that we don't have problems there in the future.

MR. GARCIA: How many acres are we talking about?

MR. CARROLL: Let's see. I think we're talking about maybe 150 acres if I'm not mistaken.

MR. GARCIA: All those?

MR. CARROLL: Well, these sites -- no, these sites don't cover 150 acres. These sites are small sites. They cover probably a total of ten or 12 acres out of the entire area.

MR. GARCIA: I'm worried about the -- that residential because they have children. Suppose the children go outside and play and the kids being little kids, they end up playing in the dirt or eating dirt and they have a cut or something, dirt gets on their skin or something like that, you know, will anything happen to those kids?

MR. CARROLL: That's why we want to ensure that any of these areas definitely meet these -- the cleanup standards that we would allow for residential use there.

MR. GARCIA: Including the sub -- the surface and subsurface? Will we test the surface and subsurface to make

sure --

MR. CARROLL: That's right.

MR. GARCIA: -- so if they water too much and it turns into mud, the kids go play in the mud, they won't get any harm from -- from doing that.

MR. CARROLL: That's right.

MR. GARCIA: Because I feel we need to be more than more than more than more than safe on all this before we turn it over for residential use.

MR. CARROLL: That's right. And we're being very careful to ensure that these sites meet the standard for residential use prior to -- prior to doing that. And we'll get TCEQ and EPA approval on that before we proceed with that.

MR. GARCIA: All right.

MR. MARTINEZ: Any other questions from any member of the RAB on this topic?

Paul, you get no rest. The next topic is yours as well. Performance based remediation contracts.

MR. CARROLL: Okay. Last time you-all wanted a briefing. I'll kind of give you some examples of performance based remediation contracts and this is what I have.

We had in -- back about four or five years ago had done what's called a BRAC Master Plan. That covered all of our BRAC bases. And it -- they did a very in-depth evaluation of what we're doing environmentally, property transferwise,

the whole process of what the BRAC world does in the Air Force to clean up property and transfer property. We had a comprehensive document that came out of that and told us, you know, You're not doing it the most efficient way here. There's better ways of doing both the cleanup and the property transfer.

One of the main things that -- of course the goals were to achieve property transfer, validate the environmental costs we were -- we were spending on cleaning up and to get early resolution in the environmental program. Applying that vision, you know, we achieved -- of course the goal is to achieve property transfer and to conduct environmental remediation in an aggressive way. The -- the main goals are to return asset value, get property transferred and to clean up sites faster in a more efficient way.

So following that, the environmental part of this is performance based remediation. One of the main results of that study were we need to -- we need to go performance based remediation or privatization in a lot of the locations where the Air Force was conducting the cleanup on their own and it was being done, you know, more or less in a piecemeal fashion, one site after another. And this performance based remediation provided a competitive atmosphere providing us with the best and brightest solutions to achieve site closure. It brings innovative solutions and accelerates site closure

and it reduces our overall site cost to complete at the same time.

The intent is to have one contractor focused on the entire installation. One of the good things that does is provide consistency with the regulators. It streamlines contract management, which you-all don't see but we see a lot of that. Lowers overhead for the Air Force. So it takes fewer of me to deal with them.

Couple of examples I want to show. One is the former Reese Air Force Base in Texas. It was one of our first PBC contracts, performance based remediation contracts, we awarded. That one was done in 2004 through the Corps of Engineers. The goal of that was to attain Operating Properly and Successfully status and to achieve regulatory closure of all impact sites by 2014. That contract has an estimated savings over $20 million to the Air Force and it achieves -- has achieved regulatory closure of all contaminated soil sites within three years of the contract and aggressively treated also the groundwater plumes, the three groundwater plumes that accelerate the remediation.

Two of those plumes have already reached remediation goals and TCEQ has in the Permit and Compliance Plan here, we had the same thing at Reese, requires a three-year monitoring period before they can close those sites.

I don't know if you can see this. You may see it

better in your handout. There's some really postage stamp size maps down here in the bottom.

In 2004, this is what the plume looked like. This is a three-mile plume that looks a lot like the plume going off of Kelly except for it's just got one arm. And in 2006, you can already see some reduction. They've -- they've installed their remedies here which are pretty aggressive remedies in this main part of this plume and them trying to hit these other main -- more concentrated parts of the plume here, too.

So in 2006, you can see some reduction. 2008, you see it looks a little bit more pockmarked and more reduced. And then 2010, you can see some real reduction in the size and the concentrations of that plume.

So overall, they've reduced the size of that plume 80 percent. At the current rate of removal, we anticipate reaching the regulatory limit which is under five micrograms per liter by 2014, more than 20 years sooner than originally planned. And Mark Weegar and I both worked on that project.

Here is another one that was awarded in late 2009, really 2010 before it got started. But this is at Chanute Air Force Base, Illinois. The goal there was to obtain OPS, Operating Properly and Successfully status, and achieve regulatory closure of all impacted sites by 2016. There are 47 sites at Chanute and we have about 20 percent savings

there, too, with this contract.

Twenty-three sites we've done decision documents which are a pretty big milestone for the Air Force. And a couple of innovative cleanup technologies that they've used there are poplar trees to capture and clean landfill leachate. The groundwater there is shallow kind of like it is here. And that's -- I'll show a couple of pictures of that. And there's the new better performing composite landfill cap material that they're installing there also. Remedial actions are scheduled. They've actually already begun last fall on seven sites. And they've got -- 18 additional sites are starting in the spring.

Here is the couple of pictures of what was done there. Those poplar trees that surround the landfill there, here's -- here's where they planted them, April 2009. They basically cut the tree off with no roots, stuck it in the hole. I didn't think you could that around here. But in August, this is what these trees looked like. And then in August of 2010, this is a -- I think this is a six-foot chain link fence so these trees are about 12 feet tall here in August 2010.

The intent of these trees is to -- they have root systems that go all the way through the groundwater system here that's the contaminated groundwater. They pull a lot of water out. Poplar trees take a lot of water, like a weed.

And they do a very thorough job of removing groundwater and keeping the groundwater from escaping from that landfill, the groundwater with contamination. So they capture that, basically treat it through their leaf system and then evapotransporate the excess moisture.

Those are the two sites that I kind of wanted to give you an example of. Here's all of our former bases and where we're going to have -- we already have or are going to have performance based contracts. So pretty much nation wide by 2014 we're supposed to have over 90 percent of our sites under the performance based remediation contract.

Is there any questions on that?

MR. MARTINEZ: Any questions?

MS. ABBOTT: I'm sorry. Are you-all going to be working along with these contractors of these contract or is this going to be solely their responsibility?

MR. CARROLL: The way it works, we stay involved. We're pretty heavily involved. We don't make all the cleanup decisions anymore. They will -- they will determine what works best and we will propose that to the regulators for approval and concurrence and then they'll initiate those contracts, those -- whatever strategies they have.

MS. ABBOTT: Measures.

MR. CARROLL: Those measures to clean up what they have to clean. So we do stay involved primarily to ensure the

Air Force interests are protected in this and if they are not proposing something stupid that we know won't work, which, you know, we evaluate during the contract evaluation process that -- that kind of thing so we kind of pretty much already know that the proposals we get will -- are technically sound. We do that before we even award the contract.

But we do stay pretty closely involved throughout the process. There's a little bit different focus than we do now because now we're running the whole program. We got to do, you know, everything from the day-to-day helping, you know, to ensure that they go out and mark the right locations.

And we would have -- typically we would have weekly meetings with contractors if they're doing a pretty big remediation project to make sure that everything is coordinated and everything moves in the right direction. We'll still have those kind of meetings, but it will be more on the basis of, Okay. Here is what we're doing next. Can you-all -- can you-all work to help us make sure that we've got proper clearances from the Port Authority, and things like that or easements or what have you. So it's a little bit different focus than we normally have. Mark.

MR. WEEGAR: I think it's just important to note that under those PBCs even though the Air Force is -- they're bringing in a contractor, what they're doing is saying, Okay, meet our regulatory requirements and how you get there is up

to you. But the Air Force still retains all the legal responsibilities. They're still responsible to TCEQ for the hazardous waste permit and all that kind of stuff.

They don't -- they haven't somehow turned over, you know, the legal requirements, the legal responsibility to the contractor. They're still a contractor to the Air Force and the Air Force still retains all the legal liabilities and obligations to the State and EPA and everybody else.

MR. CARROLL: And I still get his letters or Kathy's letters if we do something wrong.

MR. MARTINEZ: Any other comments, questions from member of the RAB on this topic?

MR. PEREZ: Well, let me just spread a little bit of what I am picking up. All this information is good for me because in the long run I relay this to the (inaudible). There's some other directors that are asking a lot of questions, all the way to the coast. In fact, there's been trouble with Michael Lerma on animals that are dying and so on. The reason, I don't know yet. Just a matter of time. And all this information is helping me to explain to them and the cleanup and -- well, to all them concerned, this is a very good job you're doing out here.

What I worry is what we're sending over there. Those people want to go swimming and all that, you know, their plans that they have and I disagree. Well, but it's up to

them. And I worry about my fellow men from the south, you know. Regardless their color, they're still my brothers and, you know, we all are related in the long run. But all this helps me a lot.

I'm here to say thank you for the good job you-all are doing, but it's -- problems are bound to grow and it's sad. So sad. Now the Chinese are -- they're contracting with us, the River Authority, to pull some oil out of the ground and they want to use our water. Well, the San Antonio River water, and -- and CPS is spreading and they're going into the solar energy business and so on, in the sense of being contracted with them. So it's growing and I see problems but the thing is that here, things are looking good.

MR. MARTINEZ: Thank you, Mr. Perez.

MR. CARROLL: Thank you.

MR. MARTINEZ: Very good comments.

MR. GARCIA: One more. I just want to tell you that things have been a lot different since you took over and I want to compliment you for that and the way you've been directing the staff. I know we've still got a lot of work to do and a lot of things to do and a lot of that, but you have been very open and very -- very frank with us and your predecessor was not and I want to congratulate you on the fine job that you are doing because it's very rare for us to have such openness with all the people involved with this Kelly

thing and very rarely have somebody who is honest and truthful and doing as good a job as you are.

MR. MARTINEZ: Thank you, Mr. Garcia.

MR. CARROLL: All I can say is thank you. Appreciate it.

MR. MARTINEZ: We've come to the section of the agenda. If there is any member of the general public that would like to make a comment, address the members of the RAB, could you please raise your hand?

Then, Paul, unfortunately we go back to you. Don't sit down. The next section is discussion by members of the RAB on what items you would like to have discussed, presented it at the next RAB meeting.

MR. CARROLL: Okay.

MR. MARTINEZ: Any comments, suggestions? Yes, sir.

MR. SKROBARCEK: Can we get an update on the SVE system, Building 360 performance?

MR. CARROLL: Okay.

MR. SKROBARCEK: Update on all that.

MR. CARROLL: Sure.

MR. MARTINEZ: Any other comments, suggestions?

MS. ABBOTT: The Compliance Plan will be available; right?

MR. CARROLL: Yes.

MS. ABBOTT: From the July results so continue --

MR. CARROLL: The Compliance Plan Report.

MS. ABBOTT: So the result from the Compliance Plan.

MR. CARROLL: That one is the shorter report that covers the two RCRA sites and Leon Creek so we'll be able to concentrate a lot on the actual Leon Creek results next time.

MS. ABBOTT: Good.

MR. CARROLL: We can do that.

MR. GARCIA: And I would like to see a very extensive report on Leon Creek because we actually need it. There's -- you know, I'm still concerned over seeing all those signs about the fishing and environment and I want to be tough but fair with whatever we are responsible for, getting Kelly and everything in line, but we want to get the EPA and TCEQ to finally get the wheels rolling and if there's contamination from the old (inaudible) plant, from those chemicals they use there and some of those truckers dumping -- leaking oil and diesel fuel further up there by old Highway 90, you know, and then that landfill over there on Pinn Road and Commerce, they're probably contributing to all this contamination, too.

So we would like to see if we can talk to EPA and TCEQ and finally get them to get on this thing and let's resolve this issue with Leon Creek once and for all because we've been dragging and kicking this dead horse of Leon Creek since 1996 and we need to get the two government agencies to really, you know, quit messing around and get with it and get

this thing taken care of with Leon Creek.

MR. MARTINEZ: Yes, sir.

MR. CAMDEN: The USGS or the geological survey, we've got one study that's done on all the creeks in Bexar County and it should be -- I think the study is basically complete. We don't have a copy of it yet or anything, but it's gone to the printers and -- and it won't be released until they get all that information back. But that might be something that we can maybe invite USGS to come in at the next meeting and present their report. I think it's Jennifer Wilson with USGS.

MR. CARROLL: Yes. She presented kind of what they were doing a couple of years ago as a matter of fact.

MR. CAMDEN: Right. Right. Several months back. But they -- the final report hasn't been released yet but it's -- basically it's complete and at the printers but --

MR. CARROLL: Should be ready to present by October?

MR. CAMDEN: It should be ready by the next RAB meeting.

MS. CUNNINGHAM: It's gone to publication so any day is what we're expecting.

MR. CARROLL: Y'all want to hear that, everyone?

MR. PEREZ: Oh, yeah.

MS. ABBOTT: Sounds good to me.

MR. MARTINEZ: Any other comments, requests, member

of the RAB? Is that enough for the next meeting?

MR. CARROLL: I did want to volunteer to do -- to have a briefing from the new performance based remediation contractor with kind of their strategy so hopefully we won't take up too much time. We may have to -- I don't know if we'll have to drop off one or another, but we'll try to squeeze everything in. Seeing that we're only meeting twice a year, I'd like to get everything covered that we can though. Is that okay?

MR. GARCIA: I'd like to clarify that. If you need more -- more time and more meetings, I'll be -- I'll be more than willing to attend because, you know, this is very important to people that live in the community to hear everything you've got to say. If we need three or four meetings, I'd be glad to see us go back to three or four meetings but we're going to have a lot of things on our plate with everything that's going on, you know, and I personally would like to see three or four meetings if necessary. With all that's --

MR. CARROLL: It's gone well so far. I was afraid I wasn't going to get everything covered in the right time, but I think we're still within the time frame. So I think we're doing good.

MR. GARCIA: But I'm just saying if we need more meetings to cover more data and more information, then feel

free to tell us about it.

MR. CARROLL: Okay.

MR. GARCIA: I would -- I would -- I would attend more meetings if necessary.

MR. CARROLL: Okay.

MS. ABBOTT: Let's see how our next meeting goes and see how our time is, see if we can get it covered. We can still revisit that.

MR. MARTINEZ: Last item on the agenda is a topic having to do with Mr. Mark Weegar.

MS. POWER: Now what did he to?

MR. WEEGAR: To the principal's office for me.

MR. CARROLL: I wanted to -- didn't want to make too big of a deal of this at the RAB. As Mr. Martinez said a while ago, it's with some regret that we have to announce that Mark is retiring from TCEQ as of -- this Thursday?

MR. WEEGAR: Thursday the 12th. I decided I wasn't going to risk retiring on Friday the 13th.

MR. CARROLL: And if you would like to make your way up here, I'll -- I have a little very small token, very small token, to give you. It's a letter, a letter of appreciation. And I'll read this:

On behalf of the Air Force Real Property Agency, please accept our thanks for your past service on the Restoration Advisory Board with the former Kelly Air Force

Base. Your involvement for over a decade is greatly appreciated. The Air Force greatly values the interest of all stakeholders. Together we have proudly partnered with the community to protect human health and the environment through the Air Force and its environmental remediation program at the former Kelly Air Force Base and in our surrounding neighborhoods. Your representation on the RAB has fostered this critical community alliance.

Thank you again, Mark, for, your time and service at the Kelly RAB.

(Applause)

MR. WEEGAR: Thank you. Well, you know, I'd just like to say that I guess I started on Kelly late 1997 so I've been here for a while. I think we've got a lot accomplished out here and it's been through a partnership. It's not been, you know, any one group doing it. It's been everybody having a shared vision and pulling together in a common goal, you know, teamwork.

I know we've had our somewhat acrimonious RAB meetings over those however many years, but I think it was -- you know, that's going to happen when people have some different perspectives but yet they're very sincere about those positions and, you know, they get very involved with it. And you can't do this without having everybody having, you know, involvement and being really, you know, passionate about

their different views.

And I know that TCEQ's standpoint, we've always listened to what the community had to say. You know, we've communicated those to the Air Force and EPA's listened to them and communicated.

I really think the success we've seen out here has been a group effort. It's been everybody in a partnership pulling in the same direction. I mean, you know, if you would have told me in 1997 when I started here that December of 2010, which is when they had the property transfer ceremony, that you would have all the remedies in place and operating properly, successfully and being able to transfer all this property to the Port Authority for redevelopment and then the tremendous redevelopment that that transfer has had out here, I don't think you could have gotten anybody in those rooms back in 1997 to raise their hand and say, Yeah, I believe that we'll do that that quickly.

I mean it's one of the fastest cleanups of a site this big and this complicated I think anywhere in the Air Force, not just the closing bases, but active duty as well. So I think everybody that's been involved has -- you know, has been a part of this and all needs to share in the -- in the success that we've achieved out here.

And it's been a pleasure working with all of you, with Paul and his predecessors, everybody at EPA, the

contractors. I mean it -- it has been a honor and pleasure to work with everybody and I thank you for the experience.

(Applause)

MS. ABBOTT: On behalf of the community, I want to thank you for all that you've done. Just in the short time that I've been here, I can see that you've been like a voice of reason for us. I know there's been times when I'd hear you say "to clarify" and that really helps, that you put that in terms that we understand and I know that's not just because that's your job, that's part of your personality and we've appreciated that so we wish you well and God bless.

MR. WEEGAR: Thank you.

MR. MARTINEZ: Thank you very much.

(Applause)

MR. MARTINEZ: Having covered every item on the agenda, we are adjourned.

MR. CARROLL: Wait, hold on.

I want to make sure we get our follow-on, Abby Power --

MR. WEEGAR: That's right. My replacement on the Kelly project, BCT and the RAB is Abby Power. She's based down here in San Antonio and the regional office; however, she -- she is officed here, but she works out of our office in Austin. That's how the management structure -- she's matrix managed down here. She's in the remediation division, the

voluntary cleanup RCRA corrective action section so she will be now sitting here with this -- with a new nametag.

MR. CARROLL: The new Mark Weegar.

MS. POWER: Yeah, the new Mark Weegar. Nobody could replace him. Thank you.

(Applause)

MS. POWER: He asked me to move over so I am.

MR. MARTINEZ: Mr. Garcia?

MR. GARCIA: Mark, you just think, you wouldn't have lasted as long if you wouldn't have had me to make your blood boil and get you angry all the time.

MR. WEEGAR: It -- it was nothing.

MR. GARCIA: And I hope you enjoy your retirement and I hope your children push you to baby-sit your grandchildren like they did to me and have a good time doing that.

MR. WEEGAR: Well, thank you.

MR. MARTINEZ: Maybe other members of the RAB would like to chime in? If not, are we adjourned now?

MR. CARROLL: I agree.

MR. MARTINEZ: We are adjourned. Thank you very much.

STATE OF TEXAS)

COUNTY OF BEXAR)

I, Gina K. May, Certified Shorthand Reporter in and for the State of Texas, hereby certify that this transcript is a true and correct a record as possible, transcribed by me through computer-aided transcription.

I further certify that I am neither counsel for, related to, nor employed by any of the parties in the action in which this proceeding was taken, and further that I am not financially or otherwise interested in the outcome of the action.

WITNESS MY OFFICIAL HAND, this the 21st day of June, 2011

/s/ Gina K. May

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