Former Williams Air Force Base (AFB)
Restoration Advisory Board (RAB)
Meeting Minutes

April 8, 2008, 7:00 p.m.

Highland High School
4301 E. Guadalupe Rd.
Gilbert, AZ

Attendees:

Mr. William Lopp	Air Force Center for Engineering and the Environment (AFCEE)/Base Realignment and Closure (BRAC) Environmental Coordinator (BEC)/Air Force Co-Chair
Mr. Len Fuchs	RAB Community Co-Chair
Mr. Don Atkinson	Arizona Department of Environmental Quality (ADEQ)
Mr. Bob Peeples	ADEQ
Mr. Thom Schuett	RAB Member
Ms. Lisa Gerdl	RAB Member
Ms. Beverly Selvage	RAB Member
Mr. Jim Holt	RAB Member
Mr. Scott Bouchie	RAB Member/City of Mesa
Mr. Dennis Orr	RAB Member
Ms. Amber Cargile	Cargile Communications
Mr. Jay Harbin	URS Corporation
Mr. Ed Mears	BEM Systems
Mr. Matthew Meyer	BEM Systems
Mr. Steve Pegler	BEM Systems
Mr. Jim Husbands	Booz Allen Hamilton

Mr. Fuchs called the meeting to order at 7:00 p.m., welcomed RAB members, and asked attendees to introduce themselves. The RAB approved the November 2007 meeting minutes as submitted. Mr. Lopp then began the main presentation, which included updates of cleanup activities at several remediation sites.

The first site Mr. Lopp addressed was site ST012, the Former Liquid Fuels Storage Area. He said the Air Force issued additional funding in March 2008 to cover expenses for work at site ST012. He added that the Air Force is negotiating contracts with BEM Systems to complete construction of the thermal-enhanced extraction (TEE) system at the site. He anticipates the TEE system to be operational during the summer of 2008.

Mr. Lopp then discussed long-term monitoring at site ST012. He said URS Corporation conducted interim groundwater monitoring in January 2008, in which 17 monitoring wells were tested at the site. Groundwater samples were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), total petroleum hydrocarbons (TPH) and metals. The data tables and maps on slides 8-10 of the attached presentation display the results of the tests.

Mr. Lopp stated that these tests indicate that the benzene plume at site ST012 remains stable, with little change since similar testing was conducted at the site in 2003.

Mr. Holt asked how far the groundwater at site ST012 is rising each year. Mr. Harbin said that groundwater is rising approximately 3.5 feet per year, with a total rise of 17.5 feet noted since 2003 at the site. Mr. Holt asked why the rising groundwater has had no apparent effect on the plume. Mr. Harbin said that in the innermost rings of the plume, benzene is close to a saturation point; however, the water table is relatively flat and does not demonstrate a lot of flow. Mr. Lopp added that bacteria in the soil and groundwater consume the benzene through a process called natural attenuation. At site ST012, bacteria are consuming the benzene as fast as the groundwater flows, resulting in a plume that is fairly stable.

Ms. Selvage asked what kind of bacteria is performing natural attenuation at site ST012. Mr. Lopp said that it is a naturally-occurring bacteria found in the soil and groudwater at the site. He added that tests conducted at the site showed that dissolved oxygen is present in groundwater in the outer areas of the site, but no oxygen is present at the center area of the plume. This may indicate that both aerobic and anaerobic bacteria are present at the site.

Mr. Bouchie asked if the Air Force has considered natural attenuation as a possible remedy at the site. Mr. Lopp said that the Air Force had considered it, but that the U.S. Environmental Protection Agency (USEPA) and ADEQ preferred a more aggressive remedial approach. Thus, the Air Force agreed to perform a pilot test study at site ST012 to measure the potential efficacy of the TEE system to clean the site. He also added that monitored natural attenuation will continue to be a major part of remediation at site ST012.

Mr. Bouchie asked if the Air Force tested for methyl tertiary butyl-ether (MTBE) at the site. Mr. Harbin said that URS Corporation tested for chemicals prescribed in the Record of Decision (ROD) for the site. Since MTBE is a component of auto fuel, not jet fuel, it was not sampled. Mr. Bouchie asked about chromium and nickel results at the test wells. Mr. Harbin said the low-level chromium and nickel findings were from the stainless steel well screens. Mr. Lopp said that in the future, the Air Force plans to install new wells with polyvinyl chloride (PVC) screens at the site. Mr. Atkinson added that in existing PVC wells, metals like chromium and nickel are almost non-existent, supporting the conclusion the metals at the site are from the stainless steel well screens.

Next, Mr. Lopp and Mr. Harbin discussed the supplemental remedial investigation (RI) for site LF004, the Landfill. A briefing on the methodology and objectives of the RI was provided at both the August and November RAB meetings. Mr. Lopp noted that the purpose of the RI is twofold. The first purpose is to locate a source responsible for the low levels of trichloroethylene (TCE) and perchloroethylene (PCE) located in LF004 groundwater. The second purpose is to characterize the PCE and TCE groundwater plume at the southeast corner of LF004.

Mr. Harbin said that URS Corporation collected shallow soil gas samples from soils beneath the former Temporary Treatment Facility (TTF). (As mentioned at the November 2007 RAB meeting, fieldwork in this area was delayed until the soil at the TTF was disposed.) The shallow soil gas tests beneath the TTF detected some TCE and PCE. Mr. Harbin said additional step-out sampling would be conducted in April or May 2008 inside the Kinder-Morgan tank area

and additional monitoring wells would be installed at the site in order to improve the monitoring well network. Mr. Harbin also said that URS Corporation would conduct additional shallow groundwater tests to try to locate and characterize the source of the TCE and PCE.

Mr. Bouchie asked why the TCE contour lines, as shown on slide 13 of the attached presentation, are not shaped like the groundwater lines. Mr. Lopp said some wells are located at different depths in the test area and that may affect the data. He added that the Air Force would be directing some of its resources in the next year toward getting a better vertical profile of the site, which will tend to yield more useful data and contours that better define site conditions.

Mr. Bouchie asked what the depth for the groundwater at LF004 is. Mr. Lopp said that it ranges from 165 below ground surface (bgs) to 150 feet bgs, moving eastwardly across the site.

Mr. Holt asked if TCE weighs more than water. Mr. Lopp and Mr. Harbin said that as an organic compound, TCE can be found in both liquid and gas forms. As a liquid, it is heavier than water and is known as a dense nonaqueous phase liquid or "DNAPL". As a vapor, it is lighter than water, but heaver than air. It can also be adsorbed onto soil particles where it resides in soil and tends to volatize and become a vapor. As a soil vapor, it is detectable when sampling soil gases.

Mr. Holt asked if the Kinder Morgan-leased tank area is the source of the TCE contamination. Mr. Lopp said that Kinder Morgan stored fuel at the site and fuels do not contain, TCE. He said that TCE spills at the site may have occurred, consistent with small-scale disposal. In this case, the TCE levels are consistent with the conceptual site model of groundwater rising into contaminated soil and "liberating" the sorbed TCE. There does not appear to be a clear single source for the contamination.

Ms. Gerdl asked if the TCE and PCE at site LF004 could be byproducts of natural attenuation of one parent compound, since TCE and PCE are closely related compounds. Mr. Harbin said that sometimes PCE does break down and produce TCE, but not always. He said that in looking at the low concentrations of TCE and PCE in the plume, he does not see different breakdown chemicals, indicating one parent source. Rather, he thinks there are separate sources for the PCE and TCE.

Mr. Bouchie asked whether the Air Force has considered installing a soil vapor extraction (SVE) system at any TCE/PCE "hot spots" before the groundwater rises further. Mr. Lopp said the Air Force has programmed for an SVE system for the landfill LF004 site for installation in the 2010 timeframe in order to reserve funding for a remedy. He further noted that the investigation is not complete and there is not adequate information to conclude that installing a SVE system now would provide an effective remedy. A better vertical picture of the plume, as described earlier, should yield more insight into how to best move forward with a remedy.

Next, Mr. Lopp discussed the TTF, which is located near the landfill. The TTF was used to treat dieldrin-contaminated soil removed from Site SS017. As briefed at the August and November 2007 RAB meetings, the soil was reclassified as nonhazardous waste by the Air Force and regulators. Mr. Lopp said that an estimated 8,500 tons of soil, treatment amendments, and pad material were removed from the site and transported to Allied Waste Southwest Regional Landfill in November 2007. At that time, soil confirmation samples were taken to ensure no dieldrin remained in the soils below the site. Mr. Lopp said that test results for discrete areas

exceeded the Arizona residential soil remediation levels (RSRLs) for dieldrin. Additional step-out sampling was conducted by URS Corporation in March 2008, with results still pending. Mr. Lopp stated that the Air Force intends to excavate these areas and remove any soil exceeding RSRLs, then backfill the site to grade.

Mr. Lopp provided information on groundwater monitoring wells and a planned SVE system at site ST035, the former base service station (Bldg. 760). The site is part of ADEQ's underground storage tank (UST) remediation program. Mr. Lopp said this has been a very successful partnership between the Air Force and Arizona State University Polytechnic (ASU Poly). Site ST035 contained USTs that held fuel for the base service station. These USTs were removed, but there was some residual soil contamination from leaks in the pipeline between the USTs and the dispenser island. The Air Force installed groundwater monitoring wells in March 1997. Mr. Lopp said ASU approached the Air Force in 2006 with plans to construct new buildings on this parcel of land. As part of the construction, ASU wanted to relocate some of the groundwater monitoring wells. The Air Force and ASU worked closely together through the planning process and successfully relocated the monitoring wells. When complete, the SVE system is intended to address residual soil contamination present in the vicinity of the new buildings. The SVE system and monitoring wells will treat the site while presenting minimal impact to the university operations.

Mr. Lopp provided an update on the debris area at Parcel N, which is located east of site LF004 in the south-central portion of the former base. Parcel N was briefed in more depth at the November 2007 RAB meeting. He said the Air Force submitted a draft Preliminary Assessment/Site Inspection work plan for Parcel N to regulators in February 2008. He stated that regulatory comments will be incorporated into a draft-final work plan and that he anticipates work will begin on the site in June 2008. He said the team also plans to use instruments like a magnetometer to detect potential debris that would be excavated. He added that the work plan provides for an archaeologist to be on site when any intrusive excavation work is performed, in order to ensure compliance with Arizona State Historical Preservation Office requirements.

With the main technical presentation complete, Mr. Lopp next discussed program resources for the former Williams AFB. He said the Williams remediation project continues to be on track to receive adequate Air Force funding to implement its cleanup programs.

The last topic presented by Mr. Lopp was the status of property transfer at the former base. He said that ADEQ is reviewing a draft Declaration of Environmental Use Restriction (DEUR) for site ST012. Once finalized, the DEUR will allow for transfer of the parcel to Phoenix-Mesa Gateway Airport (PMGA).

Mr. Lopp said that a draft DEUR is also being reviewed by ADEQ for site SS016, the former Electroplating/Chemical Cleaning Shop. He noted that the Air Force has met all requirements detailed in the ROD for cleanup at the site and intends to transfer the property to PMGA with an associated DEUR.

Additionally, Mr. Lopp briefed that a DEUR was signed for site FT002, the former Fire Training Area #2, and the property will be transferred to PMGA. He said that the Air Force will also be developing a ROD amendment (ROD-A) for the site. A post-ROD risk evaluation of FT002 was performed in 1998. This evaluation concluded that there is no threat to human health or the environment from contaminants identified in the soils at FT002, and no further remedial

action is required at the site, provided the site is used for nonresidential purposes. Therefore, an amendment to the OU-3 ROD is necessary to reflect the current risk situation at FT002.

Lastly, Mr. Lopp said that the Air Force plans to submit a DEUR to ADEQ regarding site SS020, the former Firing Range. This site was previously used by the Gilbert Police Department for training. USEPA and ADEQ concur the site has been cleaned sufficiently for nonresidential use. After DEUR approval, the Air Force will transfer the property to PMGA for redevelopment.

Ms. Cargile then covered action items from the November 2007 RAB meeting. She asked members to discuss a RAB tour of the TEE system at site ST012. Mr. Lopp said the TEE system contract should be awarded by the August 2008 RAB meeting. He suggested the RAB set a date for a RAB tour of site ST012 at that meeting.

Mr. Fuchs wrapped up the meeting by reviewing action items and soliciting proposals for agenda items for the next RAB meeting.

Action items included:

- Schedule TEE system tour (Ms. Cargile/Mr. Lopp)

No proposed agenda items were noted. Mr. Fuchs noted in his closing remarks that the Williams project is a "shining star" compared to many other cleanup sites he has seen.

The meeting was adjourned at 9:00 p.m. The next Williams RAB meeting date is scheduled for Tuesday, August 26, 2008, at 7:00 p.m., at Highland High School.

Attachments:
1. April 8, 2008, RAB meeting agenda
2. April 8, 2008, RAB meeting Air Force slide presentation