

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

February 24, 2009, 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
Ms. Lisa Gerdl	RAB Member
Mr. Scott Bouchie	RAB Member/City of Mesa
Mr. Shannon Reed	Community member
Mr. John Pekala	Environmental International Corporation/community member
Ms. Amber Cargile	Cargile Communications, LLC
Mr. Jim Husbands	Booz Allen Hamilton
Mr. Jay Harbin	URS Corporation
Ms. Elspeth Sharp	URS Corporation
Mr. Ed Mears	BEM Systems
Mr. Patrick Shinaberg	BEM Systems
Mr. Chad Rogers	BEM Systems

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 August 2008 meeting minutes and tabled the November 2008 minutes until the May meeting, to give members more time to review them. Mr. Lopp then began the main presentation, which included updates of cleanup activities at several remediation sites.

First, Mr. Lopp and Mr. Harbin addressed the Supplemental Remedial Inspection (RI) at site LF004, the former base landfill, which addresses trichloroethylene (TCE) and perchloroethylene (PCE) at the site, exceeding the maximum contaminant levels (MCLs) for drinking water. Mr. Harbin said that since the last RAB meeting, the Air Force has conducted more fieldwork at site LF004. This fieldwork included shallow soil gas sampling as well as deep soil gas and groundwater sampling near the former Kinder Morgan above-ground storage tank. Shallow soil gas sampling, which samples soil gases to a depth of 15 feet below ground surface (bgs), did not indicate a clear source area for the TCE and PCE contaminants. The deep soil gas and groundwater sampling, which sampled to a depth of approximately 150 feet bgs, however, yielded TCE and PCE detections from ground surface to groundwater, suggesting a possible source.

Mr. Harbin said the results support the conceptual site model that soil contaminants at the landfill tend to spread laterally with increasing depth, and indicate that contaminants at the surface have migrated down to groundwater. Mr. Harbin said the next step for the site will be to prepare a

Feasibility Study report, which will evaluate possible remedies for cleaning the site. He said the Air Force will also complete installation of 40 additional monitoring wells. This includes 31 new wells on the landfill in 2009 as well as nine wells planned for installation just off the southwestern base boundary in 2010. (The Air Force submitted a well installation work plan to regulators in January 2009.) Next, the Air Force will conduct an aquifer test following installation of the first 31 wells in order to evaluate the groundwater technologies considered in the Feasibility Study. Mr. Harbin and Mr. Lopp said the Air Force plans to install a pilot system to treat the soil at the site, with a soil vapor extraction (SVE) system at the site planned for 2011.

Mr. Harbin next discussed long-term groundwater monitoring at the landfill. Twenty wells were sampled in January 2009, with results pending data validation. Preliminary results are detailed in the diagrams on slides 13 and 14 of the attached presentation. Mr. Harbin said that landfill cap maintenance was conducted in November and December 2008, with more maintenance planned for March 2009.

Mr. Pekala asked about the theory that multiple plumes exist at the site, as opposed to a single large plume. Mr. Harbin said the Air Force thinks that, given the site history, the contamination likely results from more than one release rather than one large release and one plume. However, he added, they are considering both possibilities as they conduct the RI. Mr. Lopp added that the additional monitoring is creating a more robust, three-dimensional view of the landfill and will help determine whether the contamination comes from a single or multiple sources.

Mr. Bouchie asked if the Air Force is concerned it might create additional problems by putting so many test borings into the landfill, such as puncturing a drum and creating new contamination. Mr. Harbin said most of the debris in the landfill was disposed in a trench system. The testing process is taking these trenches into consideration in an effort to minimize such risk. Additionally, he said that if such an event should occur, the team on site would contain any spill and remediate it immediately.

The next environmental update of the evening covered the Preliminary Assessment/Site Inspection (PA/SI) at the Parcel N Debris Area, which is located in the south-central portion of the former base, east of site LF004. The PA/SI was initiated after Air Force, ADEQ and URS personnel observed expended ruptured ammunition (.50-caliber cartridge casings) on the ground.

Mr. Lopp said there were two objectives of the PA/SI: First, identify any environmental releases requiring a Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) response action; and second, to identify and clear any possible energized munitions. The PA/SI work plan included a site inspection, geophysical survey and excavation of any detected anomalies, soil screening and sampling of suspect areas, and a PA/SI report. Mr. Lopp added that the Air Force Safety Center and the Arizona State Historic Preservation Office reviewed the PA/SI work plan.

Mr. Harbin said that the surface clearance work at the Parcel N Debris Area was conducted in two areas by unexploded ordnance-certified personnel. The first area focused on the location where ruptured ammunition had been previously observed. The second area focused on a location where paint cans and other debris had been noted. He said munitions-related debris (MD) was located, mapped and identified in both areas as well as outside the limits of the PA/SI boundary. Mr. Harbin said that none of the debris contained explosive material, was certified "inert" and removed from the site. Although all of the debris found inert, Mr. Lopp said the Air Force is installing a fence around the area as a safety precaution. Mr. Harbin then showed photos of the type of debris found (slides 18 and 19 of the attached slide presentation).

Mr. Lopp said the PA/SI at the Parcel N Debris Area identified and mapped approximately 150 subsurface anomalies. Based upon the debris found on the surface, he said, it is plausible that open-pit munitions burning may have occurred in the area in the past. He said that the data collected in the PA/SI indicates the need for a full Military Munitions Response Program (MMRP) investigation and clearance at the site. The Air Force temporarily suspended work on the site in February while it prepares a work plan for the expanded investigation.

Mr. Lopp next discussed the Thermal Enhanced Extraction (TEE) pilot system at site ST012, the former liquid fuels storage area. The pilot study began in August 2008 and will be complete in July. Mr. Lopp said that 9.2 million pounds of steam has been injected into the soil at the site since last October. Additionally, since last August, 18 million gallons of groundwater have been treated; 2,800 gallons of dissolved fuel has been treated; 5,500 gallons of liquid fuel have been removed from the oil/water separator and recycled; and 2,600 gallons of fuel vapor has been destroyed through thermal oxidizers. In total, 11,000 gallons of fuel have been recovered and removed from site ST012 since the start of the pilot study.

Soil vapor extraction (SVE) at site ST012 continues, said Mr. Lopp. He said SVE removes sources of fuel contamination in deep soil that impacts the groundwater, thus reducing the time required to clean up groundwater. A previous SVE system at the site, which operated from 1997 to 2003, consisted of internal combustion engines. The current SVE system consists of seven, three-well clusters, each covering shallow, medium and deep soils. The system was installed in 2005 and operates around the clock. In total, SVE operations at the site have removed 785,000 gallons of total petroleum hydrocarbons (TPH) since 1997. Mr. Lopp added that two additional SVE wells have been installed near the Army Reserve Center located near the site.

Mr. Lopp next provided an update on groundwater sampling at site ST012. He said sampling is conducted in accordance with the Operable Unit-2 (OU-2) Record of Decision (ROD), as well as to complement the TEE pilot study. The Air Force conducted groundwater sampling at 17 monitoring wells in January 2009, with samples analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), TPH, metals and pesticides. (Sampling for pesticides is not required by the ROD but was checked because barely detectable levels were found in the treated groundwater.)

Mr. Lopp then provided specific test results, as indicated on slide 30 of the attached slide presentation. Although the data has yet to be validated, he said preliminary results indicate that samples from six monitoring wells exceeded the MCL for benzene (5 mg/l). One well's sample exceeded the MCL for ethylbenzene (700 mg/l). Four samples exceeded action levels for nickel and/or chromium metals; however, the OU-2 ROD attributes these detections to stainless steel in the actual well materials, not to site contamination. He said pesticides were also detected at low levels in two monitoring wells. Mr. Lopp then outlined a proposed work plan addressing monitoring well installation and abandonment. This would result in a net increase in monitoring wells at the site, as well as replacement of some of the wells with stainless steel screens.

The last environmental update focused on Site ST035, the former Building 760. This is a former underground storage tank (UST) site, part of the old Base Service Station, and currently part of the Arizona State Polytechnic campus. The Air Force conducts quarterly groundwater monitoring at eight monitoring wells, said Mr. Lopp. The last quarterly sampling occurred in January 2009, with samples tested for benzene, toluene, ethylbenzene, and xylene (BTEX), methyl tert-butyl ether (MTBE), ethylene dibromide (EDB), lead and natural attenuation parameters. Tests were pending validation, but Mr. Lopp presented the initial benzene results as shown on slide 35 of

the attached slide presentation. Mr. Lopp said the Air Force will submit a work plan to ADEQ's UST division to install five additional monitoring wells. This project is validated and funded for construction in 2009.

Mr. Lopp also said that the Air Force's SVE pilot test at site ST035 in 2008 has validated the need for an SVE system at the site. The project is funded to complete the final design, installation and operation of the SVE system in 2009. He said the SVE system will treat the soil above the groundwater at the site and added that the Air Force will make use of the data collected from the additional monitoring wells in order to evaluate groundwater treatment options.

Mr. Lopp then provided an overview of property transfer at the former base. He said site SS016, Building 1085, was transferred to the Williams Gateway Airport Authority in February 2009. More than 96% of the former base's property has been transferred to date. The remaining properties awaiting transfer include Parcel N (which includes the landfill); site SS017 (the old Pesticide/Paint Storage Shop, which sits underneath the ASU water tower); and site FT002 (the former Fire Training Area).

Ms. Cargile then provided RAB members with an update on the Community Involvement Plan (CIP). She said the Air Force received regulatory comments on February 12, 2009 and were being incorporated into the final document. The final CIP is scheduled to be published in March 2009. Since there were no action items from previous meetings, she asked attendees for suggested agenda items for the next RAB meeting. There were no suggested agenda items.

Mr. Lopp adjourned the meeting at 8:45 p.m. The next Williams RAB meeting date is scheduled for Tuesday, May 19, 2009 at 7:00 p.m., at Highland High School.

Attachment:

February 24, 2009 RAB meeting Air Force slide presentation