

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

May 18, 2010, 7:00 p.m.
Highland High School
4301 E. Guadalupe Rd.
Gilbert, AZ

Attendees:

Ms. Michelle Lewis	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. Andre` Chiaradia	Arizona Department of Environmental Quality (ADEQ), Remedial Project Manager
Mr. Bill Lopp	AFCEE
Mr. Don Atkinson	ADEQ
Mr. Jim Holt	RAB Member
Mr. Tom Zuppan	RAB Member
Mr. Lonnie Frost	RAB Member/Town of Gilbert
Mr. Dale Anderson	Gila River Indian Community (GRIC)
Ms. Jean Humphries	Arizona State University (ASU) Polytechnic
Mr. Dominick Hernandez	Community Member
Mr. Matthew Fesko	Community Member
Ms. Lori Kluck	Community Member
Mr. Paul Cooper	Community Member
Mr. Jay Harbin	URS Corporation
Ms. Janet Workman	URS Corporation
Ms. Elspeth Sharp	URS Corporation
Mr. Ed Mears	BEM Systems
Ms. Laura McNamara	HGL
Mr. Jeff Schone	BEM Systems
Mr. Eric Jacobs	BEM Systems
Ms. Teresa Harris	TetraTech
Mr. James Elliot	TetraTech
Mr. Charles Helms	Booz Allen Hamilton

Mr. Lopp called the meeting to order at 7:00 p.m. and RAB members and attendees introduced themselves. Mr. Lopp introduced the RAB's new Air Force Co-Chair, Ms. Michelle Lewis, who will be replacing him as the BRAC Environmental Coordinator for the former Williams AFB. The RAB approved the February 2010 meeting minutes, without changes. Mr. Lopp began the main presentation, which included updates of cleanup activities at several remediation sites.

First, Mr. Lopp and Mr. Harbin provided a groundwater sampling status at site ST012, the former liquid fuels storage area. Mr. Lopp said the Record of Decision (ROD) for Operable Unit 2 (OU-2)

requires annual long-term monitoring at the site. However, the Air Force has been conducting quarterly groundwater monitoring at 11 sentry wells during the thermal enhanced extraction (TEE) pilot test using polyethylene diffusion bags (PDBs). Mr. Lopp said that although not required, the Air Force chose to conduct quarterly sampling to closely monitor the fuel plume during and after steam injection conducted under the TEE pilot study. He said the Air Force had collected samples in February, May, August and December of 2009. Slides 9-12 (attached) illustrate the sampling results as of December 2009. The tests confirmed none of the chemicals of concern had moved down gradient from the site. The final ST012 Annual Groundwater Monitoring report was published in May 2010. Two quarterly samples are planned for 2010 (March and June) and annual sampling at 17 monitoring wells on the site is planned for November 2010. Sampling will then be conducted annually since the TEE pilot study is finished.

Next, Mr. Lopp discussed soil vapor extraction (SVE) at site ST012. The purpose of conducting SVE at the site is to reduce benzene levels to 5 mg/kg and reduce total petroleum hydrocarbons (TPH) levels to 2,000 mg/kg. Mr. Lopp and Mr. Harbin provided performance data on the SVE system from April 2005 to December 2009. During that period, the total petroleum hydrocarbons (PHC) destroyed in the vadose zone by SVE and natural biodegradation is estimated at 4,190,000 pounds (668,000 gallons).

Mr. Holt asked if the TEE program caused a reduction in natural degradation and if there is a decision on whether to use TEE as a solution for the site. Mr. Lopp said the Air Force just reviewed the draft preliminary report on the TEE pilot study and the formal review is not yet complete. He said some modeling suggests that even without TEE, we may reach remediation goals for benzene in the lower saturated zone (LSZ) within 50-100 years. Just above the LSZ there is a clay layer and then the upper water bearing zone. As groundwater rises across the East Valley, some modeling suggests we might not reach benzene remediation goals in that zone within 50-100 years, even with TEE. Mr. Lopp added that the 1992 ROD for Site ST012 asserts that pump-and-treat remediation will not work at the site because of insufficient water yield. Mr. Lopp said this is no longer true, because groundwater has subsequently risen at the site since 1992. He said the Air Force may need to reevaluate pump-and-treat remediation as a potential solution given the new circumstances and conceptual site model.

Mr. Zuppan asked if the SVE system is operating now at Site ST012. Mr. Lopp said yes it is. He said the SVE contract with BEM Systems ended in December 2009 and a new contract was awarded to URS Corporation in mid-February. URS Corporation restarted the SVE system in late February 2010.

Mr. Lopp also provided an update on ST012 well replacement, which occurred from December 2009 to March 2010. Twelve wells were replaced with new discreetly screened wells. A draft report is due from the contractor to the Air Force in June and a final report will be complete by August. The diagram on Slide 20 illustrates the construction of the new wells. Mr. Zuppan asked if the Air Force planned to place another monitoring well further east to delineate the eastern boundary of the benzene plume at Site ST012. Mr. Lopp said it has not yet been determined whether this will be necessary.

Mr. Lopp and Mr. Harbin provided the 2010 sampling results for the new wells at Site ST012. Mr. Holt asked if there is groundwater in both the upper and lower zones. Mr. Lopp said there is an easterly flow of groundwater in each zone, but not vertically through the clay separating the two layers. Mr. Mears added that the lower zone has more water movement than the upper zone at Site ST012.

Next, Mr. Lopp and Mr. Harbin updated RAB attendees on groundwater sampling at site ST035, the former Bldg. 760. Site ST035 is a former underground storage tank (UST) site located on the ASU Polytechnic campus. The Air Force conducts quarterly groundwater monitoring at eight monitoring wells at the site. All eight wells were replaced in 2007 and 2008. Quarterly sampling was conducted throughout 2009, with groundwater samples analyzed for benzene, toluene, ethylbenzene and xylenes (BTEX); methyl-tert-butyl-ether (MTBE); and ethylene dibromide (EDB). Mr. Lopp and Mr. Harbin discussed the 2009 sampling results. As briefed at the previous RAB, benzene exceeds the ADEQ Tier 1 UST cleanup standard at five of eight sampled wells. These detections are located in groundwater 140 feet below ground surface with no receptors or pathways for human exposure. The Site ST035 groundwater monitoring report was published in May. The Air Force conducted sampling in March and May and will conduct more quarterly sampling in August and November 2010.

Mr. Lopp also discussed the SVE system being installed at Site ST035. The system is expected to be operational in June and is specifically designed for noise considerations at the ASU Polytechnic campus. Mr. Holt asked if contamination at this site is in the soil or groundwater. Mr. Lopp explained that benzene is in both. He added that the Air Force plans to install additional wells to better delineate the plume.

Mr. Fesko asked if he could get a copy of the groundwater monitoring report for Site ST035. He said ASU Polytechnic relocated the information repository. Ms. Cargile and Mr. Harbin both said they were unaware of the move and would look into the library situation as well as try to source a copy of the report for him.

Mr. Hernandez asked which way the plume is moving at Site ST035. Mr. Harbin said the Air Force is installing more wells to try to better understand the plume, but that it is not necessarily expanding. Mr. Fesko asked if the Air Force ran vapor intrusion models in the new university buildings that sit on the site. Mr. Harbin said that ASU installed a passive vapor barrier in the bottom of the new buildings on the site when they were constructed.

Next, Mr. Lopp and Mr. Harbin discussed long-term groundwater monitoring at Site LF004 (the old landfill). Groundwater is sampled semi-annually at the site. Inspections and maintenance of the landfill cap are conducted annually. The Air Force conducted groundwater sampling in May and December 2009. Annual cap inspection was conducted in January 2010. The final 2009 Annual Groundwater Monitoring Report for the landfill was published in May. The Air Force plans to conduct semi-annual monitoring in May and November 2010.

Mr. Lopp and Mr. Harbin presented the December 2009 landfill sampling results for trichloroethylene (TCE) and perchloroethylene (PCE). Mr. Zuppan asked if the high concentration noted on Slide 32 is where the old pipeline was located. Mr. Lopp said the Air Force got an easement and Kinder Morgan pulled out the pipeline. He noted, however, that there is no evidence about whether there is a connection between TCE/PCE contamination and the pipeline and storage tank. He said the tank held jet fuel, which does not contain TCE or PCE.

Mr. Holt said that there is a storm water area on the west side of Power Road (near the landfill) and asked whether it is a recharge area for the aquifer. Mr. Frost said it is a storm water retention area and the water goes back into the East Maricopa Floodway and is not intended to recharge.

Mr. Lopp said the Air Force has installed 28 new monitoring wells at the landfill with the purpose of establishing a better, three-dimensional picture of the TCE/PCE plumes. He added that the Air Force has approval from ADEQ and Environmental Protection Agency to install nine off-site monitoring wells. These wells should provide a better understanding of the plume south of the landfill. The Army Corps of Engineers is assisting the Air Force with obtaining property easements to install the wells and he expects installation to occur in the fall of 2010.

Mr. Lopp provided an update on the Supplemental Remedial Investigation/Feasibility Study (RI/FS) for Site LF004. The draft document was submitted to regulators for review in April 2010. The purpose of the Supplemental RI/FS was to identify sources of TCE and PCE at LF004, as well as potential transport mechanisms, migration routes and exposure pathways. Additionally, the Supplemental RI/FS was intended to characterize the occurrence of the TCE and PCE groundwater plume southeast of the site.

Mr. Lopp and Mr. Harbin explained the methodology used in the Supplemental RI/FS, which included shallow soil gas sampling, deep borings for soil gas and soil samples, and groundwater sampling. Mr. Anderson asked when the samples were collected. Mr. Lopp said there were five separate field sampling events between 2007 and 2009 at the site. Slides 42 through 45 characterize the plume based on those samples.

Mr. Lopp noted that the conclusion of the Supplemental RI/FS coincides with the Air Force transition to a Performance-Based Remediation (PBR) contract at the former Williams AFB in early 2011. He said he plans to discuss the PBR in more depth at the next RAB meeting, but that the benefit of the PBR is that it brings the best minds from industry looking at potential solutions for remediating the site in the fastest period of time and at the most reasonable cost.

The Parcel N Debris Area (PDNA) was the next topic on the RAB meeting agenda. Mr. Lopp explained the history of the PDNA, which involves the discovery of ruptured .50-caliber cartridge casings on the ground. He said that the Air Force has prepared an explosive safety plan and follow-on work plan for the site and has requested an expedited review of the plan by regulators. He anticipates field work at the site will be complete during the summer of 2010.

Mr. Anderson asked when field work is scheduled. Mr. Harbin said URS Corporation is planning to begin work in July or August. The work will involve conducting a geophysical survey at the site with ordnance experts using metal detectors to look for any additional munitions. Mr. Anderson asked if the site is archaeologically significant. Mr. Lopp said it sits on an archaeological site and that the plan has already been vetted through the Arizona State Historic Preservation Office and an archaeologist on the URS staff. Mr. Anderson asked if the GRIC archaeologist could visit the site. Mr. Lopp said he was welcome to visit the site.

The final environmental update of the evening was a presentation on the Temporary Treatment Facility (TTF) by Ms. McNamara. She provided a history of the TTF, which has been discussed at several previous RAB meetings. She said that since the last RAB meeting, the remaining TTF surface soil was excavated, soil was disposed and the TTF was backfilled to grade. Mr. Frost asked how the soil was disposed. Ms. McNamara said the soil was sampled and accepted by Cactus Landfill. Mr. Cooper asked why the soil was taken to Cactus Landfill if it was non-hazardous soil. Mr. Lopp said that the soil in the TTF was originally under the ASU water tower, where a pesticide shop was located. Dieldrin was in the soil and it was moved to the TTF for treatment before disposal. This soil was originally considered "listed" as a hazardous waste. A consequence of having "listed" waste under the Resource Conservation and Recovery Act (RCRA) requires onerous disposal and treatment. Listed wastes are usually seen in manufacturing sites, not small

disposal sites such as the one at the former Williams AFB. The Air Force petitioned ADEQ in 2005 to reclassify the waste so it is not listed. ADEQ approved this in 2007, and the soil was reclassified as a non-hazardous waste. However, it still exceeded the Arizona maximum contaminant levels (MCLs) for dieldrin. It can be taken to Cactus Landfill as cover material and now the TTF site passes residential MCLs for dieldrin.

Lastly, Mr. Lopp provided a brief update of current Air Force environmental contracts related to the cleanup of the former Williams AFB. The three major contractors are URS Corporation, BEM Systems and HGL, Inc. Upcoming contracts include the Five Year Review, storage and maintenance of TEE equipment and the PBR Contract mentioned earlier. Mr. Lopp also updated attendees on the status of property transfer. Currently more than 96% of the property at the former base has been transferred for redevelopment.

Ms. Cargile reviewed action items from the meeting:

1. Groundwater Monitoring Report for Site ST035 to Mr. Fesko
2. Check into the ASU Polytechnic library information repository

Mr. Lopp thanked the RAB for its support during his term as Air Force Co-Chair and BRAC Environmental Coordinator and introduced Ms. Lewis. Ms. Lewis thanked Mr. Lopp for 20 years of work at the site in various capacities and told RAB members she looked forward to working with them.

Mr. Fuchs adjourned the meeting at 9:20 p.m. The next Williams RAB meeting date is scheduled for Tuesday, August 24, 2010 at 7:00 p.m., at Highland High School.

Attachment:

May 2010 RAB meeting slide presentation