

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

November 17, 2009, 7:00 p.m.  
Highland High School  
4301 E. Guadalupe Rd.  
Gilbert, AZ

**Attendees:**

<b>Mr. William Lopp</b>	<b>Air Force Center for Engineering and the Environment (AFCEE)/Base Realignment and Closure (BRAC) Environmental Coordinator (BEC)/Air Force Co-Chair</b>
<b>Ms. Carolyn d'Almeida</b>	<b>United States Environmental Protection Agency (USEPA), Region 9, Remedial Project Manager</b>
<b>Mr. Andre` Chairadia</b>	<b>Arizona Department of Environmental Quality (ADEQ), Remedial Project Manager</b>
<b>Mr. Harry Hendler</b>	<b>ADEQ</b>
<b>Mr. Don Atkinson</b>	<b>ADEQ</b>
<b>Mr. Jim Holt</b>	<b>RAB Member</b>
<b>Mr. Lonnie Frost</b>	<b>RAB Member/Town of Gilbert</b>
<b>Mr. Dale Anderson</b>	<b>Gila River Indian Community (GRIC)</b>
<b>Ms. Jean Humphries</b>	<b>Arizona State University (ASU) Polytechnic</b>
<b>Mr. Matthew Feske</b>	<b>Community Member</b>
<b>Ms. Lori Klaw</b>	<b>Community Member</b>
<b>Mr. Matthew McLoy</b>	<b>Community Member</b>
<b>Ms. Beverly Selvage</b>	<b>Community Member</b>
<b>Mr. John Becker</b>	<b>Community Member</b>
<b>Mr. Alan Ruffalo</b>	<b>Community Member</b>
<b>Mr. Paul Cooper</b>	<b>Community Member</b>
<b>Mr. John Schroeder</b>	<b>Community Member</b>
<b>Mr. Jay Harbin</b>	<b>URS Corporation</b>
<b>Ms. Janet Workman</b>	<b>URS Corporation</b>
<b>Ms. Elspeth Sharp</b>	<b>URS Corporation</b>
<b>Mr. Ed Mears</b>	<b>BEM Systems</b>
<b>Mr. Phil Schneider</b>	<b>BEM Systems</b>
<b>Mr. Eric Jacobs</b>	<b>BEM Systems</b>
<b>Ms. Teresa Harris</b>	<b>TetraTech</b>
<b>Mr. James Elliot</b>	<b>TetraTech</b>
<b>Mr. Charles Helms</b>	<b>Booz Allen Hamilton</b>

Mr. Lopp called the meeting to order at 7:00 p.m. and RAB members and attendees introduced themselves. The RAB approved the August 2009 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 addressed 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 also 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 the Air Force had collected samples in February, May and August of 2009. The samples were collected at multiple depths in the aquifer and were analyzed for benzene, toluene, ethylbenzene and xylene (BTEX). Mr. Lopp said that although not required, the Air Force chose to sample groundwater at ST012 quarterly to closely monitor the fuel plume during and after steam injection conducted under the TEE pilot study. He added that the Air Force plans to conduct annual sampling at 17 monitoring wells at the site in November.

Mr. Lopp and Mr. Harbin then discussed the specific sampling results at ST012. Mr. Harbin said the results have remained consistent at various depths. No constituents exceed drinking water maximum contaminant levels (MCLs) at the 11 sentry well locations.

Mr. Alan Ruffalo asked a question regarding water quality on base affecting surrounding communities. He wanted to know if there was radioactive contamination of the groundwater. Mr. Lopp explained that there have never been radioactive contaminants discovered in any wells on the base.

Mr. Lopp noted a correction to Slide #9: AWQS/MCL for M&P-Xylene. Change 1,000 to 10,000.

Mr. Harbin said that the Air Force plans to replace abandoned “N-series” monitoring wells at site ST012 in Fiscal Year 2010. The old wells will be replaced with paired Upper Water-Bearing Zone and deeper “W-Series” monitoring wells. The Air Force will also abandon an unused injection well located west of site ST012 and 11 “N-Series” monitoring wells.

Mr. Ed Mears, BEM Systems, noted a correction to the third bullet on Slide #12. Instead of “Install 5 UWBZ wells and 7 W-Series wells”, this bullet should read, “Install 7 UWBZ wells and 5 W-Series wells”.

Mr. Jim Holt asked for clarification of the term “well abandonment” and noted that there were numerous abandoned mines in Arizona that presented a risk for falling. Mr. Lopp explained that well abandonment was a poor choice of words and suggested that decommissioning would be a better word. Mr. Jay Harbin explained the Arizona Department of Water Resources (ADWR) requirements for decommissioning a well and noted that decommissioning a well includes a procedure for plugging the well so that surface contaminants may not move into groundwater through the well.

Next, Mr. Lopp discussed the TEE pilot study at site ST012. He said the Air Force ceased steam injection into deep soils at the site in April 2009. Soils at the site continue to cool. He said later in November, the Air Force will conduct a passive flux meter test at the site, with soil and groundwater sampling following in January 2010. He noted an action item for the next RAB meeting, to provide RAB members a discussion on passive flux meter testing.

Mr. Lopp noted that Slide #17 corrects groundwater extraction and treatment calculations presented in Slide #12 at the May 2009 RAB. Slide #18 corrects calculations presented in Slide #15 at the May 2009 RAB.

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. He said that he had incorrectly reported the pounds of petroleum hydrocarbons (PHC) removed at the site through SVE from 1997 to 2003. The correct PHC during that time period is 2,058,000 pounds. That figure, combined with 1,439,000 pounds of PHC removed between 2005 and 2009 bring the total PHC removed by the SVE system at the site to 3,497,000 pounds.

Mr. Lopp and Mr. Harbin provided attendees an update 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 in January, May and August 2009, with groundwater samples analyzed for BTEX, methyl-tert-butyl-ether (MTBE) and ethylene dibromide (EDB). Mr. Lopp and Mr. Harbin discussed the January, May, and August 2009 sampling results. Of note, 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.

Mr. Lopp noted a correction to Slide #21: Title of this slide indicates that only May 2009 Sampling results are discussed. However, this slide includes analytical results for January, May, & August 2009 sampling events. Mr. Lopp also noted a second action item for the next RAB meeting, to provide the date that ST035 tanks were removed to ASU student, Matt Feske. Also, discuss how MTBE is being addressed differently than other chemicals of concern (COCs).

Mr. Lopp added that five additional monitoring wells will be installed at site ST035 in late 2009, with the next round of quarterly sampling scheduled for November 2009. He said that work on putting in the SVE system at the site will begin in December 2009, with an SVE system evaluation report produced after six months of operation.

Next, Mr. Lopp and Mr. Harbin presented an update regarding groundwater sampling 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 2009, when 21 monitoring wells were sampled using PDBs for volatile organic compounds (VOCs). The sampling also analyzed natural attenuation indicators at all wells. Mr. Harbin said the only VOCs detected at LF004 wells were trichloroethylene (TCE) and tetrachloroethylene (PCE). There was no evidence of free-phase TCE or PCE dense, non-aqueous phase liquids (DNAPLs) at the bottom of the shallow aquifer.

Mr. Lopp said the next steps at site LF004 are annual groundwater sampling in November 2009; annual landfill cap inspection and maintenance in November 2009; installation of 31 new monitoring wells to improve groundwater monitoring, beginning in October 2009; aquifer tests and bench scale treatability tests in December 2009; publication of the Remedial Investigation (RI) and Feasibility Study (FS) document in early 2010; and publication of Proposed Plan Amendment and Record of Decision Amendment, following the completion of the RI/FS. Mr. Lopp added that the 31 new monitoring wells will result in a major renovation of the sampling network at site LF004, providing a much more thorough "picture" of the site.

Mr. Lopp noted a third action item for the next RAB meeting, to provide a more detailed overview of the Conceptual Site Model (CSM) at the landfill and discuss the impact of rising groundwater at the site. He added a fourth action item, to provide basewide plume diagrams to Mr. Alan Ruffalo (similar to Slides #22, 26, & 27).

Located next to the landfill, the Parcel N Debris Area is being investigated for ruptured .50-caliber cartridge casings that were observed on the ground. URS Corporation, on contract with the Air Force, is performing a Preliminary Assessment/Site Inspection (PA/SI) to determine if munitions-related activities or other disposal or burning activities warrant additional response actions under the Comprehensive Environmental Response, Compensation and Liability Act, or CERCLA, commonly referred to as the "Superfund Act". Fieldwork for the PA/SI began in January 2009. URS Corporation field workers found various inert munitions debris that appeared to be burnt. All of the debris was inert, but results suggested that the scope of the investigation should be expanded at the site. Mr. Lopp said the Air Force was finalizing a contract with URS Corporation to complete the inspection.

As the final environmental update of the evening, Mr. Harbin and Mr. Lopp also discussed the Temporary Treatment Facility (TTF), which was used to treat dieldrin-contaminated soil from site SS017. All soil from the windrows and all pad material were removed in November 2007. Confirmation samples from under the windrows and pad showed four isolated areas, approximately 6-12" in soil depth, with dieldrin levels above Arizona Residential Soil Remediation Levels (RSRLs). The Air Force is in the process of reviewing contract proposals to excavate and remove soil exceeding RSRLs.

Mr. Lopp provided a property transfer update. Site SS016 was transferred in February 2009. Site SS017 and Parcel N still await transfer. URS Corporation is removing vapor wells at site FT002. Mr. Lopp noted a correction to Slide #32, to remove site SS016 from the slide.

Mr. Helms reviewed action items from the meeting, as follows:

1. Present a Site ST012 Passive Flux Meter Test discussion during the February 2010 RAB.
2. Provide the date that site ST035 tanks were removed to ASU student, Matt Feske. Also, discuss how MTBE is being addressed differently than other COCs.
3. Discuss the Conceptual Site Model (CSM) at the landfill and the impact of rising groundwater at the site.
4. Provide basewide plume diagrams to Mr. Alan Ruffalo (for examples see Slides #22, 26, & 27).

Mr. Lopp adjourned the meeting at 9:30 p.m. The next Williams RAB meeting date is scheduled for Tuesday, February 23, 2010 at 7:00 p.m., at Highland High School.

Attachment:  
November 17, 2009 RAB meeting slide presentation