



Robins Air Force Base Environmental Advisory Board (EAB) *Fact Sheet*



Volume 10, Issue 3, February 2016

The Robins AFB EAB

Recognizing the importance of public involvement in environmental matters, Robins Air Force Base (Robins AFB) has established the Environmental Advisory Board (EAB). The mission of the EAB is to encourage participation of surrounding communities in the Base's environmental programs and allow community members and other stakeholders to have meaningful dialog with Base officials. Specifically, the EAB serves to promote community awareness and obtain constructive community review, comment, and input on current and proposed actions associated with environmental programs at Robins AFB. The EAB supports the Air Force environmental mission of sustaining readiness, being a good neighbor, protecting human health and the environment for the Base and community, and making smart business decisions.

Inside this issue...

- Update on Progress: Solid Waste Management Unit (SWMU) 36 (DC034) page 3
- Electronic Administrative Record Available to Public page 4

February 2016 EAB Meeting

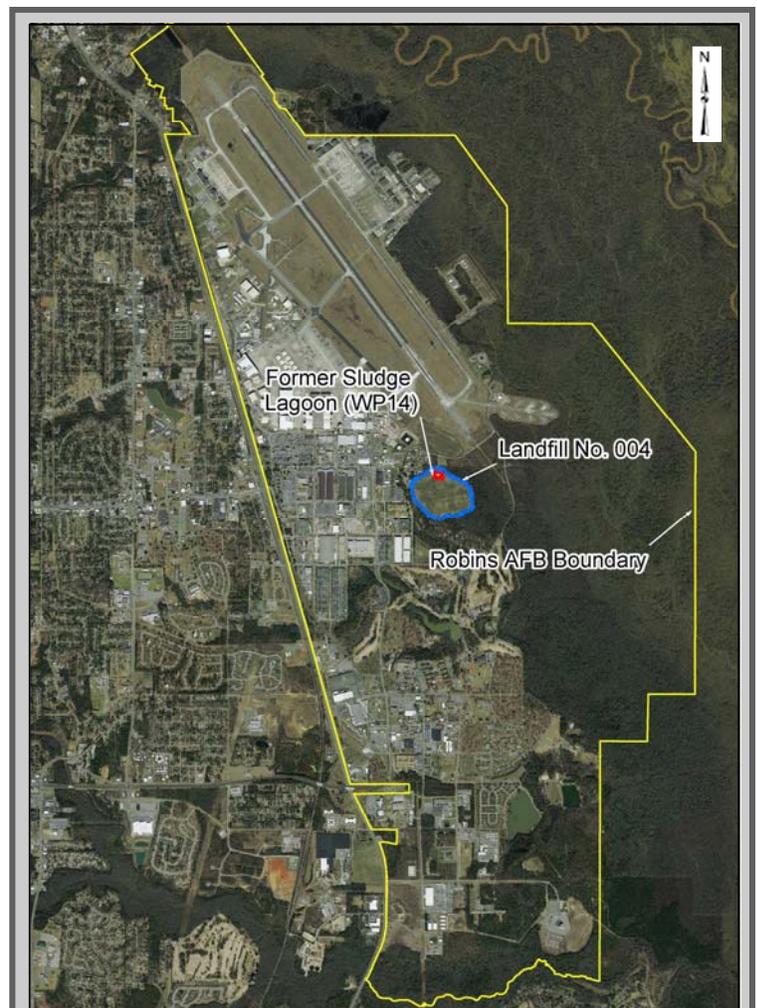
The winter EAB meeting was held on Thursday, February 4, 2016. The topics briefed included: "Results of the Five-Year Review for the National Priorities List (NPL) Site", "Update on Progress: SWMUs 36 (DC034)", and "Administrative Record Overview."

This *Fact Sheet* provides a summary of the information and topics discussed during the meeting. **The next meeting will be held on Thursday, May 5, 2016.**

FOURTH FIVE-YEAR REVIEW COMPLETED FOR NATIONAL PRIORITIES LIST (NPL) SITE

Robins AFB has recently completed the fourth five-year review of the Base's NPL site. Five-year reviews include a comprehensive evaluation of remedial progress at a site. They are required for NPL sites by the United States Environmental Protection Agency (US EPA) to determine if the selected remedy is protective of human health and the environment.

(Continued on page 2)



The NPL site (Landfill No. 004 and the Former Sludge Lagoon) is located in the central portion of Robins AFB.

FOURTH FIVE-YEAR REVIEW COMPLETED FOR NPL SITE (CONT'D...)

(Continued from page 1)

Ms. Maria Pijnenberg, with AECOM, briefed on the five-year review process and the results.

The NPL site at Robins AFB, which was added to the NPL in 1987, includes Operable Units 1 (OU1) and 3 (OU3). OU1 represents the Landfill No. 4 (LF004) (45-acre landfill) and Waste Pit 14 (WP14) contaminant source areas, and OU3 represents the groundwater impacted by releases from OU1. OU2, which represents the downgradient wetlands, was also originally part of the NPL site. However, OU2 was remediated under the Resource Conservation and Recovery Act, and is no longer considered a part of the NPL site.

Remedial actions for OU1 have included: (i) source area remediation of WP14 (i.e., in-situ volatilization, excavation, and solidification) in 1996; and (ii) engineering and institutional controls for LF004, including installation of a landfill cover, passive gas venting system, and stormwater management controls in 1998, and implementation of Land Use Controls (LUCs). LUCs limit site access, use, and activity to prevent potential exposure to the residual contamination present in the landfill. Quarterly inspections and annual operation and maintenance reporting are also conducted.

For OU3, the remedial action included a groundwater recovery and treatment system, which was installed in 1997. In 2007, the US EPA and the Georgia Environmental Protection Division (GA EPD) approved the shutdown of the groundwater recovery system to evaluate transition of the remedy to

Monitored Natural Attenuation (MNA) as a result of the significant remedial progress. In 2010, the agencies approved the transition of the site remedy to MNA. Annual groundwater sampling and performance evaluations are ongoing.

The five-year review process includes development of a review team; a site inspection; public notification that the five-year review has been initiated; a technical assessment and reporting; and public notification of the results of the review. The review team consisted of Robins AFB, the US EPA, the GA EPD, and AECOM. A site inspection was conducted on 28 October 2015 with representatives from the US EPA. The public notification that the five-year review had been initiated was completed at the November 2015 EAB meeting.

The results of the five-year review indicate that the remedy at the NPL site is currently protective of human health and the environment. Potential exposure pathways are controlled by the landfill cover system and implementation of LUCs. Significant progress has been made toward restoring contaminant concentrations in site groundwater to Maximum Contaminant Levels (MCLs), with decreasing contaminant concentration trends continuing at many locations under the MNA remedy.

The draft five-year review was submitted to the regulators in early February 2016. The report is scheduled to be finalized in June 2016. Upon completion, the document will be available to the public through the electronic Administrative Record (see page 4 of this Fact Sheet).



LF004 Passive Gas Vent



LF004 LUC (Fence and Locked Gate)



Stormwater Management Control
(Run-On Diversion Channel)

UPDATE ON PROGRESS: SWMU 36 (DC034)

SWMU 36 (i.e., the Horse Pasture Trench Disposal Site) was used as a disposal area from the 1950s until the 1970s. Soil and groundwater at the site were impacted by volatile organic compounds (VOCs). Initial remediation activities consisted of excavation of the contaminated soil and in-situ chemical oxidation (ISCO) for the contaminated groundwater.

While ISCO resulted in notable decreases in groundwater contaminant concentrations, concentrations at many locations remain elevated and additional remediation is required.

To address the residual groundwater contamination, CH2M has implemented three new remedies. These remedies include: (i) enhanced reductive dechlorination (ERD); (ii) in-situ submerged oxygen curtains (iSOC[®]); and (iii) an Air Sparge/Soil Vapor Extraction (AS/SVE) cut-off barrier. ERD involves injection of a carbon substrate to stimulate anaerobic bacteria to degrade the contaminants. The iSOC is designed to deliver oxygen into the aquifer to stimulate aerobic bioremediation of the chlorobenzene groundwater plume at SWMU 36. The AS/SVE system is designed to cut-off the groundwater contaminant plume at the Robins AFB property boundary. Air is injected into the groundwater through the AS wells. The air volatilizes the contaminants in the groundwater, and air bubbles with the contaminants rise toward the ground surface, where they are captured by the SVE system.

The corrective action objective for SWMU 36 is to reduce concentrations of contaminants of concern to below remedial levels and limit further off-site migration of groundwater contaminants of concern.

Under the Performance-Based Remediation Contract, CH2M has three contractual performance metrics: (i) reduction of trichloroethylene concentrations in seven ERD performance monitoring wells; (ii) reduction of chlorobenzene concentrations in three iSOC performance monitoring wells; and (iii) reduction of total VOC concentrations in three AS/SVE performance monitoring wells (additional wells are used to monitor overall performance). VOC concentrations in off-site wells must also be reduced

in a specific timeframe or a supplemental remedy must be implemented.

At the winter EAB, **Mr. Mike Perlmutter** of CH2M focused on the performance of the AS/SVE system. Based on recent groundwater sampling results, contaminant concentrations in groundwater along the AS/SVE cut-off barrier are significantly decreasing. The combined total VOC reduction in five monitoring wells located downgradient of the barrier was 90 percent from December 2013 to October 2015.

The path forward for the site includes continued collection of groundwater data to evaluate remedial progress and plume containment status. Monitoring wells will also be installed further downgradient to verify plume delineation. The ERD, iSOC, and AS/SVE systems will also continue to be operated.



AS and SVE lines



AS/SVE remediation equipment compound



Perimeter Road after AS/SVE system construction

ELECTRONIC ADMINISTRATIVE RECORD AVAILABLE TO PUBLIC

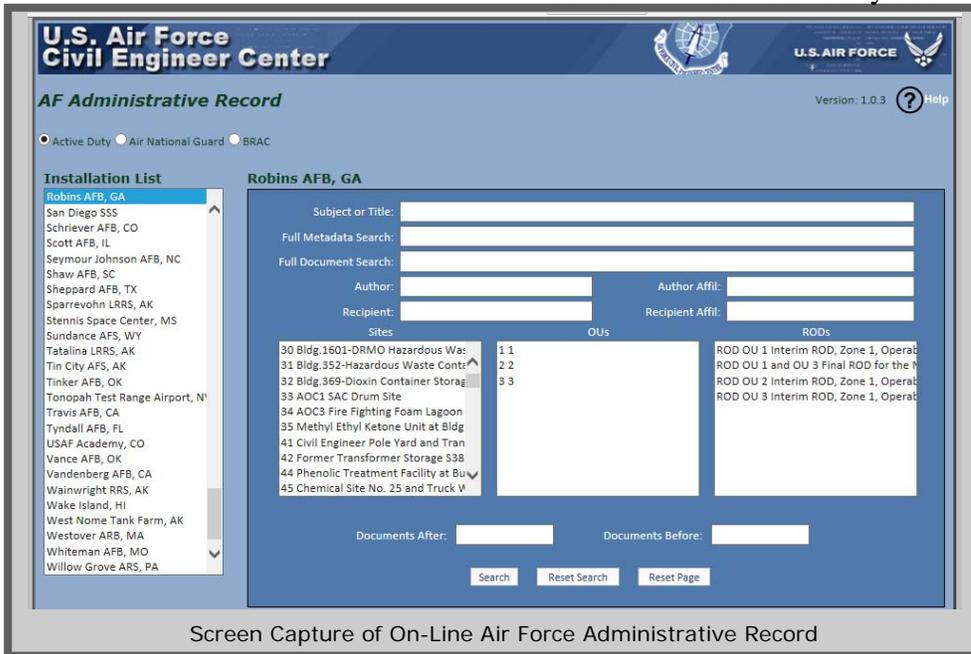
During the winter EAB, **Ms. Laurel Cordell** with the Air Force Civil Engineering Center – Robins Installation Support Team introduced the EAB members to the online electronic version of the Air Force’s Administrative Record.

requirement of the Comprehensive Environmental Response, Compensation, and Liability Act. Documents related to environmental cleanups must be readily accessible to the public.

housed at the Nola Brantley Memorial Library in Warner Robins. In 2010, the Air Force initiated efforts to developed an electronic online version of the Administrative Record. The home page for the website is located at <http://afcec.publicadmin-record.us.af.mil/>.

The Administrative Record is a re-

The Administrative Record for Robins AFB has historically been



Screen Capture of On-Line Air Force Administrative Record

For more information regarding the EAB, please contact **Ms. Charline Logue, Robins AFB EAB Manager**, at (478) 327-9268 or visit <http://www.robinseab.org>

<u>Acronyms</u>	
AFB	Air Force Base
AS/SVE	Air Sparge/Soil Vapor Extraction
EAB	Environmental Advisory Board
ERD	Enhanced Reductive Dechlorination
GA EPD	Georgia Environmental Protection Division
ISCO	In-Situ Chemical Oxygen
iSOC	In-Situ Oxygen Curtain
LF004	Landfill No. 004
LUC	Land Use Control
MCL	Maximum Contaminant Level
MNA	Monitored Natural Attenuation
NPL	National Priorities List
OU	Operable Unit
SWMU	Solid Waste Management Unit
US EPA	United States Environmental Protection Agency
VOC	Volatile Organic Compound
WP14	Waste Pit 14

Environmental Advisory Board Members

Mr. Alexander Stokes, Robins AFB Installation Co-Chair	Dr. Dan Callahan, Warner Robins Community Member	Ms. Debra Jones, Warner Robins Community Member	Mr. Don Thompson, Macon Community Member
Dr. Brian E. Rood, Macon Community Co-Chair	Mr. James Harden, Warner Robins Community Member	Mr. Mike Maffeo, Macon Community Member	Mr. Penrose Wolf, Perry Community Member
Ms. Lila Llamas, US EPA Region 4 Hazardous Waste Division	Mr. John Harley, Centerville Community Member	Dr. Linda Smyth, Macon Community Co-Chair	
Ms. Mary Brown, GA EPD Hazardous Waste Management	Mr. Stephen Johnson, Macon Community Member	Dr. Joseph Swartwout, Fort Valley Community Member	