



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



Volume 16, Issue 2, August 2023

## **The Robins AFB EAB**

Recognizing the importance of public involvement in environmental matters, Robins Air Force Base (Robins AFB or Base) 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.

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Supplemental Site Investigation (SSI) at Solid Waste Management Unit (SWMU) 36 (DC034) (Horse Pasture) ..... page 1

## **August 2023 EAB Meeting**

The summer EAB meeting was held on Thursday, August 3, 2023.

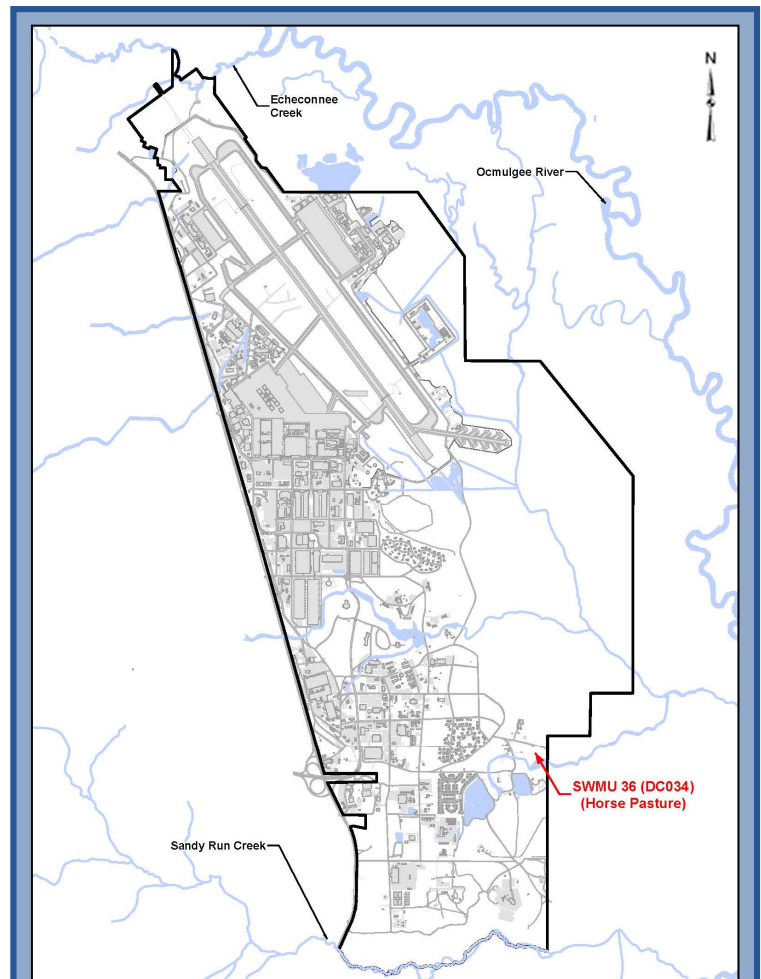
This *Fact Sheet* provides a summary of the information and topics discussed during the meeting.

**The next meeting will be held on Thursday, November 2, 2023.**

## **Supplemental Site Investigation (SSI) at Solid Waste Management Unit (SWMU) 36 (DC034) (Horse Pasture)**

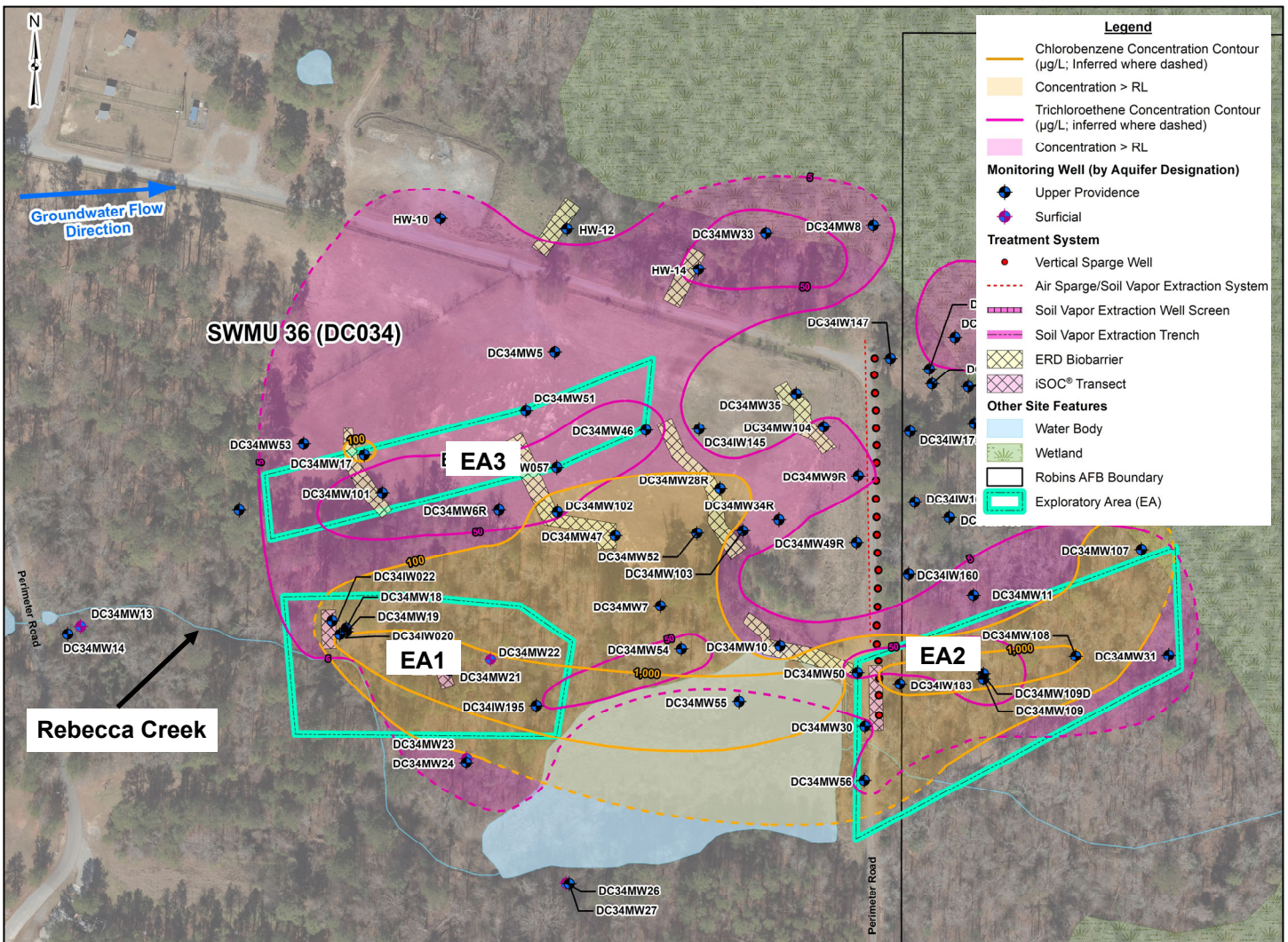
**Mr. Justin Knight of Geosyntec Consultants, Inc.** briefed: “SSI at SWMU 36 (DC034)” at the August 2023 EAB meeting. SWMU 36 is also known as the Horse Pasture Site and is located in the southeastern portion of Robins AFB.

The current corrective action plan (CAP) objectives for SWMU 36 are to reduce contaminant of concern (COC)  
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During the recent EAB meeting, updates on SSI activities at SWMU 36 were provided.

## SSI at SWMU 36 (DC034) (Horse Pasture) (Continued...)



**SWMU 36 SSI EAs**

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concentrations in groundwater to below remediation levels (RLs) and limit further off-Base migration of groundwater COCs. The key indicator groundwater COCs for SWMU 36 include trichloroethylene (TCE) and chlorobenzene.

Key site remedial system features currently include enhanced reductive dechlorination (ERD) injection transects, in-situ submerged oxygen curtain (iSOC®) wells, and an air sparge/soil vapor extraction (AS/SVE) curtain installed to minimize off-Base plume migration.

SWMU 36 is an Alternative Objective (AO) site under the Optimized Remediation Contract (ORC) for Robins AFB. The AO sites are defined by the Air Force as having “complex attributes that have,

to date, inhibited progress toward the achievement of RC [Response Complete].” AO sites generally have incomplete conceptual site models (CSMs) and are expected to require longer than 30 years to achieve RC under the current remedial approach. Under the ORC, advanced site characterization (ASC)/high-resolution site characterization (HRSC) techniques are being used during SSIs to revise the site’s CSM. The updated CSM is then being used to evaluate the current site remedy for potential enhancements, modifications, or alternatives.

Phase I of the SSI at SWMU 36 consisted of conducting membrane interface probe (MIP) and Hydraulic Profiling Tool (HPT) borings (collectively know as MiHpt) and collecting discrete soil and

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## SSI at SWMU 36 (DC034) (Horse Pasture) (Continued...)

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groundwater samples in three Exploratory Areas (EAs) of the site:

- ◆ EA 1 is in the southwest corner of the site near Rebecca Creek, where a confining kaolinic clay layer, which underlies the majority of the site, is less continuous and includes interbedded layers of sand and clay.
- ◆ EA 2 is near the eastern site boundary where the plume migrates off-Base south of the AS/SVE curtain.
- ◆ EA 3 is in the vicinity of historical excavations at SWMU 36 and in the core of the TCE plume.

Each EA represents significant data gaps in the current CSM, including:

- ◆ EA 1 – Does the chlorobenzene plume extend upgradient of the Site? How deep is the chlorobenzene plume in this area?
- ◆ EA 2 – Where is the plume migrating off-Base south of the AS/SVE barrier? How deep are COCs at the Base boundary?
- ◆ EA 3 – Is residual source material present in the bottom depths of confining kaolinic clay layer that underlies the site?

**EA 1** - The SSI at EA 1 is focused on the chlorobenzene plume. MiHpt responses indicated the presence of chlorinated volatile organic compounds (cVOCs) in groundwater on both sides of Rebecca Creek, indicating a potential upgradient source. Landfill Number 3 (LF003), another Robins AFB restoration site, is located upgradient of SWMU 36. Based on the detection of chlorobenzene and other COCs upgradient of DC034, additional investigation is being proposed in the LF003 area for the presence of upgradient source(s). Further investigation activities will likely include collection of additional discrete soil and groundwater samples and/or new monitoring wells.

**EA 2** - The SSI at EA 2 is focused on the groundwater plume that continues to migrate off-Base south of the AS/SVE curtain. SSI borings were located along a north to south transect parallel to the eastern boundary of the Base. SSI borings were also proposed to be located on the off-Base property; however, these were unable to be ac-



SSI Field Activities

cessed due to absence of an active Right of Entry (which has since been reinstated). The results of discrete groundwater samples collected at the EA 2 borings confirmed the presence of groundwater COCs at concentrations greater than the RL along the eastern boundary. Additionally, a separate TCE plume was identified to the south of SWMU 36. Due to this new data gap, additional investigation activities are also being proposed in this area.

**EA 3** - The SSI at EA 3 is focused on the TCE “hot-spot” located near monitoring well DC34MW46, the location with one of the highest TCE groundwater concentrations. The objective was to collect soil samples of the bottom of the clay unit that directly interfaces with the upper

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## SSI at SWMU 36 (DC034) (Horse Pasture) (Continued...)

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Providence aquifer and to collect discrete groundwater samples of the upper Providence aquifer.

A MiHpt boring near DC34MW46 showed low-level cVOC responses in the bottom 10 feet of clay and higher cVOC response in groundwater near the aquifer interface. Based on the MiHpt findings, discrete soil samples were collected from the bottom depths of the clay unit and discrete groundwater samples were collected at the top of the aquifer.

The soil sample collected at the very bottom of the clay unit showed a detection of 15 micrograms per kilogram ( $\mu\text{g}/\text{kg}$ ) TCE. The discrete groundwater sample at 40 feet below ground surface (ft bgs) showed a detection of 81 micrograms per liter ( $\mu\text{g}/\text{L}$ ) of TCE. The default maximum concentration limit (MCL)-based soil screening level (SSL) for TCE is 1.8  $\mu\text{g}/\text{L}$ ; therefore, the TCE detection in soil is greater than the SSL and could result in concentrations in groundwater above the MCL. These data will be useful in refining the remedial strategy for SWMU 36.



Kaolinitic Clay at SWMU 36 during Previous Excavation Activities

### Acronyms

AFB	Air Force Base
AO	Alternate Objective
AS	Air Sparge
ASC	Advanced Site Characterization
CAP	Corrective Action Plan
COC	Contaminant of Concern
CSM	Conceptual Site Model
cVOC	Chlorinated Volatile Organic Compound
EA	Exploratory Area
EAB	Environmental Advisory Board
ERD	Enhanced Reductive Dechlorination
ft bgs	feet below ground surface
HPT	Hydraulic Profiling Tool
HRSC	High Resolution Site Characterization
iSOC <sup>®</sup>	In Situ Submerged Oxygen Curtain
LF003	Landfill Number 3
MCL	Maximum Contaminant Level
MiHpt	Membrane Interface Probe with Hydraulic Profiling Tool
MIP	Membrane Interface Probe
$\mu\text{g}/\text{kg}$	microgram per kilogram
$\mu\text{g}/\text{L}$	microgram per liter
ORC	Optimized Remediation Contract
RC	Response Complete
RL	Remediation Level
SSI	Supplemental Site Investigation
SSL	Soil Screening Level
SVE	Soil Vapor Extraction
SWMU	Solid Waste Management Unit
TCE	Trichloroethene

For more information regarding the EAB, please contact  
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or visit <http://www.robinseab.org>

### Environmental Advisory Board Members

<b>Ms. Shan Williams,</b> Robins AFB Installation Co-Chair	<b>Mr. Lawrence Collins,</b> Byron Community Member	<b>Dr. Richard Mines,</b> Macon Community Member
<b>Dr. Linda Smyth,</b> Macon Community Co-Chair	<b>Mr. James Harden,</b> Warner Robins Community Member	<b>Dr. Clarence Riley,</b> Warner Robins Community Member
<b>Mr. Craig Benedikt,</b> US EPA Region 4 Superfund Division	<b>Mayor John Harley,</b> Centerville Community Member	<b>Dr. Brian E. Rood,</b> Macon Community Member
<b>Mr. Jim Ashworth</b> GA EPD Hazardous Waste Management	<b>Mr. Stephen Johnson,</b> Macon Community Member	
<b>Ms. Tiffany Bowen,</b> Warner Robins Community Member	<b>Mr. Mike Maffeo,</b> Macon Community Member	