DEPARTMENT OF THE AIR FORCE



20th FIGHTER WING (ACC) SHAW AIR FORCE BASE, SOUTH CAROLINA

27 Jun 11

MEMORANDUM FOR 20 FW/CV

FROM: 20 CES/CEAN

SUBJECT: Restoration Advisory Board (RAB) Meeting Minutes

1. Meeting information:

a. Date: 13 June 2011

b. Time: 1830

c. Location: New Beginnings Banquet Facilities, 1335 Hwy 441, Sumter, SC 29154

d. Chairman: Col Donavan Godier, USAF Chairperson

e. RAB Members/Alternates and Others in Attendance

City/County Officials

Mr. Bill Rozier, City Representative

Mr. Eddie Newman, County Representative

South Carolina Department of Health and Environmental Control (SCDHEC)

Ms. Rachel Poole, SCDHEC, Columbia Office

Mr. Keith Lane, SCDHEC Region 4, Sumter Office

Civilian RAB Members

Mr. James Hinkle (Not Present) Rev. Willie Lawson (Not Present)

Mr. Arthur Campbell (Alt for Rev. Lawson)

Mr. Daniel Burkett (Not Present)

Ms. Melanie Bennett Dr. Wendell Levi, Jr.

Others, Air Force Affiliated

Col Walter Fulda 20 MSG/CC
Mr. Keith Kellner 20 MSG/DI
Ms. Margaret Patterson HQ ACC/A7AN
Capt Jonathan Carroll 20 FW/JA
Mr. Robert Sexton 20 FW/PA

Maj Brian Hughes20 AMDS/SGPBMr. Nicholas Muszynski20 CES/CEANMr. Juvenal Salomon20 CES/CEANMs. Aliza Tindall20 CES/CEANMs. Amber CargileSmith/Associates

Ms. Jean Chytil

Mr. Kevin Howe

Ms. Molly Maxwell

US Army Corps of Engineers
US Army Corps of Engineers
US Army Corps of Engineers

Mr. Jeffrey Johnson Shaw E&I, Inc Mr. Kyle Kirschenmann Shaw E&I, Inc Mr. Kyle Dermatis Shaw E&I, Inc

Mr. Bob Mallisee URS
Ms. Cybil Boss URS

Mr. Denny Jorgenson URS Mr. Dave Overbey URS

Others, State of South Carolina

Mr. William BrittonSCDHECMs. Stacey FrenchSCDHECMr. David ScaturoSCDHEC

Media Representatives (Not Present)

Community Members

Ms. Brenda Fields

Mr. Anthony Horton

Ms. Margaret Lawson

Mr. Albert Gagnon

Mr. Justice Lawson

Ms. Erin Benenhaley

Mr. John Benson

Ms. Loretta Sparrow

Ms. Jennie Skelton

Ms. Tamika Malone

Ms. Sarah Nathaniel

Mr. Ralph Oxendine

Ms. Vanessa Bertka

Mr. Brian Caldwell

- 2. Mr. Salomon, Base Restoration Program Manager, served as meeting moderator and opened the meeting. He introduced the 20th Fighter Wing Vice Commander, Col Donavan Godier.
- 3. Col Godier opened the meeting by expressing his appreciation to the community for their attendance. He stated that it had been a while since Shaw AFB had a RAB meeting; the last scheduled meeting was canceled due to a snowstorm. He thanked the community for their patience and discussed the objective of the meeting which was to provide the community with updates regarding Shaw AFB's Environmental Restoration Program.
- 4. Mr. Salomon facilitated the remainder of the meeting. The meeting agenda included the introduction of RAB members and guests and the purpose of the meeting. He highlighted the meeting's focus on four topics: status of Shaw AFB's off-base sites, Bilateral Agreement implementation, the RAB Charter that is being revised, and the Community Involvement Plan. The slide presentation is attached (Atch 1).
- 5. Several guests were introduced: RAB members included Col Godier representing Shaw AFB, Mr. Bill Rozier, the city engineer representing the city of Sumter, Mr. Newman, public works director representing Sumter County, Mr. Keith Lane, a new member from the Sumter office at DHEC, and Ms. Rachel Poole from the Columbia office at DHEC. Mr. Hinkle, a long-time Community Member, was not present as he communicated at the last RAB that he is planning to resign, and that it was time to step down to pass on the leadership to other people. The RAB has expanded membership and the new RAB Community Members include, Ms Melanie Bennett, Mr. Daniel Burkett who could not attend, and Rev. Lawson who was represented by Mr. Arthur Campbell and Dr. Wendell Levi. He also introduced Ms. Jean Chytil from US Army Corps of Engineers, Omaha District, who has been providing contract management and technical support services at Shaw AFB and Mr. Nicholas Muszynski, the new Environmental Programs Chief.

- 6. The Purpose of this meeting was to solicit feedback from the community and provide updates regarding environmental cleanup of legacy sites. Shaw has closed 96 out of 113 legacy sites and is now left with the toughest Environmental Restoration Program (ERP) sites that are difficult to cleanup.
- 7. Mr. Kyle Kirschenmann, senior scientist and hydro geologist from Shaw AFB's Environmental & Infrastructure, Inc., provided updates regarding cleanup sites AOC F/OT-16B (TCE/PCE plume) and SWUM 78/OT-16A (dieldrin plume). Mr. Denny Jorgensen, project manager from URS, briefed about the investigation plan for two new sites, AOC-O/CG-38, and what Shaw AFB is doing with site AOC-N/SS-36 in terms of selecting a remedy.
- 8. Ms. Aliza Tindall, project manager from Portage Environmental Inc., briefed the Bilateral Agreement (BA) Implementation plan process for residents who own land on top of the TCE/PCE groundwater plume and Southwest Lobe TCE plume. The TCE/PCE groundwater plume BA Implementation process has been completed and residents will receive an annual notice in August. An annual notice was mailed in Nov 2010 to residents who live above the Dieldrin plume. The second BA notice was mailed to residents in Jun 2011 who live over the Southwest Lobe TCE plume.
- 9. Ms. Amber Cargile, senior public affairs consultant from SMITH/Associates, briefed about the new RAB Charter and the Community Involvement Plan. The RAB Charter is being updated to reflect the new Department of Defense RAB Rule and to accommodate increased RAB community membership. The Community Involvement Plan, as required by law, is being updated with a plan to interview community leaders and survey the community to find out how Shaw AFB can best communicate its ERP to the public.
- 10. Community members posted a few questions. Answers to these questions are attached (Atch 2).
- 11. Prior to closing, Mr. Salomon, RAB administrator, sought inputs from the RAB panel. Mr. Campbell expressed his concern about finding a way to address issues raised by some residents, as some of these concerns are outside the purview of the RAB charter. Mr. Newman reminded everyone about the specific purpose of the RAB and that it serves to provide updates to the community on what Shaw AFB is doing to cleanup specific legacy sites.
- 12. Colonel Godier provided closing remarks. He expressed his appreciation to the community and gave special thanks to the RAB members for their continued participation and involvement. He stated the challenge of this board is to keep the focus on the path forward; to identify what we know, where we are going and what we are doing to mitigate the contamination. He reminded everyone that the Air Force is being transparent in what we are doing to protect human health and the environment. We do have a new Charter and he will take an action item to get the Charter finalized.
- 13. The next meeting is scheduled for 12 Dec 2011 at 1830 at the New Beginning Banquet Facility. Questions regarding the meeting may be directed to Shaw AFB's Public Affairs Office, (803) 895-2019.

// signed – jqs – 27 Jun 2011 //
JUVENAL Q. SALOMON, GS-12, DAF
RAB Administrator

Approved as written.

//signed-deg-31 Aug 2011// DONAVAN E. GODIER, Colonel, USAF Vice Commander, 20th Fighter Wing

Attachments:

- 1. RAB Presentation Slides
- 2. Question and Answer Session

cc:

20 FW/CV/CCS/JA/PA

20 MSG/CC

20 CES/CC/CEA/CEAN

20 AMDS/SGPB

HQ ACC/A7AN (Ms. Margaret Patterson)

AFCEE/ERB (Mr. John Ekhoff)

US Army Corps of Engineers (Mr. Kevin Howe)

SCDHEC (Ms. Rachel Poole, Mr. Keith Lane)

Sumter County Public Works Director (Mr. Eddie Newman)

Sumter City Engineer (Mr. Bill Rozier)

RAB Community Members (Mr. James Hinkle, Mr. Daniel Burkett, Rev. Willie Lawson,

Ms. Melanie Bennett, Dr. Wendell Levi, Jr.)



20th Fighter Wing



RESTORATION ADVISORY BOARD



"Welcome"

Col Donavan Godier
Vice Commander
Shaw Air Force Base

13 June 2011



Agenda



- Introductions
- Purpose
- Question Cards / Ground Rules
- Status Update Off-base Sites
- Bilateral Agreement Implementation
- New RAB Charter
- Community Involvement Plan (CIP)
- Question / Answer Session
- Closing Remarks



Introductions



Organization

RAB Member

- Shaw AFB
- City of Sumter
- Sumter County
- DHEC, Sumter Office
- DHEC, State Office

Col Godier

Mr. Bill Rozier

Mr. Eddie Newman

Mr. Keith Lane

Ms. Rachel Poole



Introductions - Continued



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Community

RAB Coordinator

Special Guests ...

RAB Member

Mr. James Hinkle

Ms Melanie Bennett

Mr. Daniel Burkett

Rev. Willie Lawson

Dr. Wendell Levi, Jr.

Mr. Juv Salomon



Purpose



MISSION: To establish and maintain a forum with all stakeholders for the exchange of information in an open and interactive dialogue concerning the Shaw AFB restoration program.

OBJECTIVES:

- Facilitate communication and coordination;
- Provide an opportunity for members to comment on actions and proposed actions;
- Facilitate regulatory and public participation.



Question Cards



Health Technical Legal Other Question: What is?	John Doe 123 Question St. Sumter, SC 29154 (803) 895-XXXX
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Please turn in question cards during intermission.

Questions will be addressed after briefing.



Env. Restoration Pgm. Success



- 96 sites finished and CLOSED!
- 13 In Post-Closure Operations
- 2 Final Remedial Actions continuing
- 1 Site in final remedy selection
- 1 Site to be investigated ... in DoD 2014 goal
- Total of 113 cleanup sites

98.2% = 111 of 113 RIP*

AF Goal: RIP* by 2012

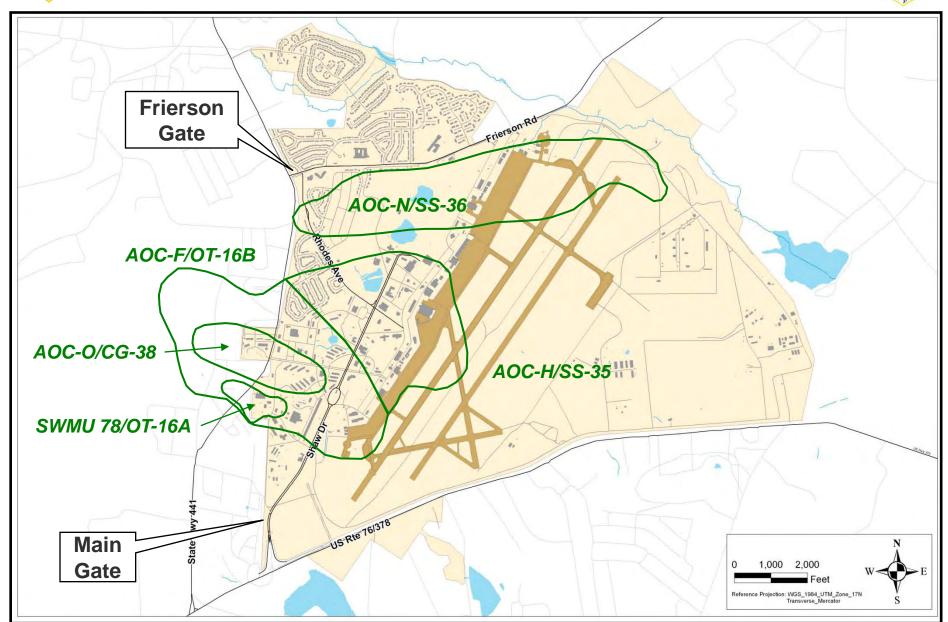
DoD Goal: RIP* by 2014

*Remedy-In-Place



Off-Base Sites - Status Update









SWMU 78/OT-16A (Dieldrin Plume) AOC-F/OT-16B & AOC-H/SS-35 (TCE/PCE Plume)

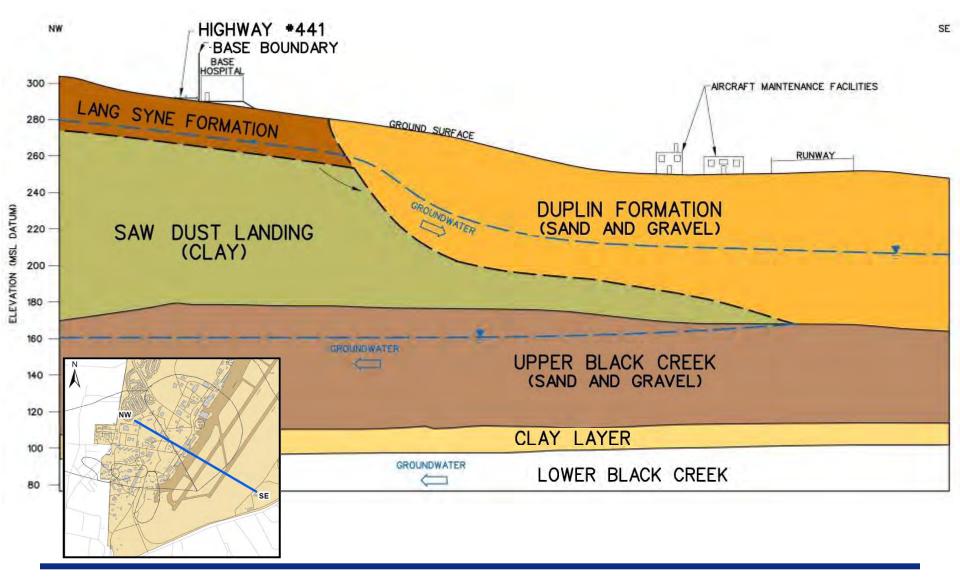
Mr. Kyle Kirschenmann, RPG
Hydrogeologist
Geosciences Group, Shaw E&I

13 June 2011



Conceptual Groundwater Model







SWMU 78/OT-16A



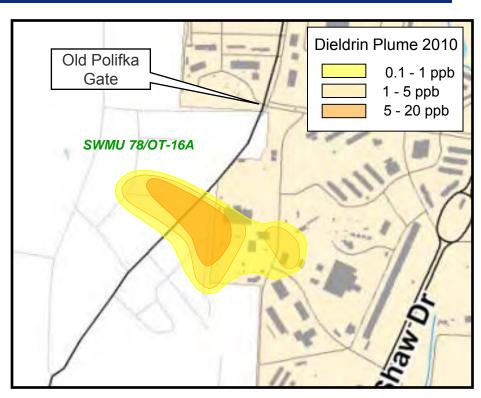
- Site Discovered: 1995
- Site Description:
 - AF purchased cotton field
 - Motor pool area, built in 1954
 - Shallow (Lang Syne) Aquifer
 - approx 30 ft below surface

Primary Contaminants (MCL):

- Dieldrin (pesticide)
- No Federal Drinking Water Stds
- Historically used for agriculture

Actions and Current Status:

- Jan 2002: removal of 161 tons of soil; 390 tons of new
- Plume is not moving
- No exposure pathways thru soil or water



Cleanup Plan:

- Final Remedy selected (Aug 2009):
 Long Term Monitoring & Informational
 Land Use Controls (LUCs)
- Post-Closure Operations: '09-25



SWMU 78/OT-16A Final Remedy



- Long-Term Monitoring (LTM)
 - Annually, first three years (2010, 2011, 2012)
 - Every five years thereafter (2015, 2020, 2025)
 - After 2025 LTM event, evaluate need to continue monitoring
- Land Use Controls
 - On-Base
 - Review zoning/land use plans
 - Restrict construction activities
 - Limit human exposure to soil and groundwater
 - Off-Base
 - Annual notification to affected landowners (14 parcels)
 - Periodic public meetings, in form of RAB
 - Report inconsistencies/actions that limit LUC effectiveness



AOC F/OT-16B & AOC H/SS-35



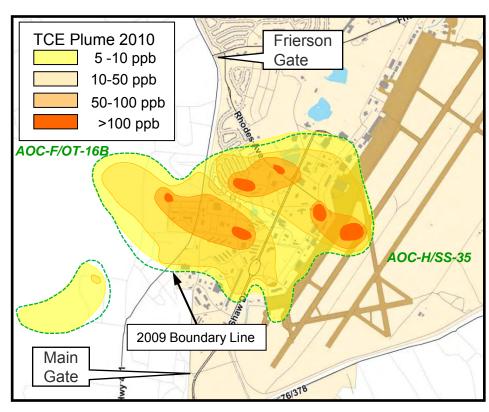
- Site Discovered: 1989
- Site Description:
 - TCE releases along flight line
 - PCE from on-base dry cleaners
 - Two plumes co-mingled
 - Duplin and Black Creek Aquifers

Primary Contaminants (MCL):

■ TCE (5 ppb), PCE (5 ppb)

Current Status:

- Pump & Treat operated since 1998
- Installed add'l wells (Jul 08–Jul 09) to refine OT-16B plume and area around impacted private wells
- AF re-activated two (2) off-base extraction wells to improve capture



Cleanup Plan:

- Optimize Pump & Treat
- Long-term monitoring and LUCs
- Estimated Closure Date: TBD



AOC F/OT-16B & AOC-H/SS-35 Final Remedy

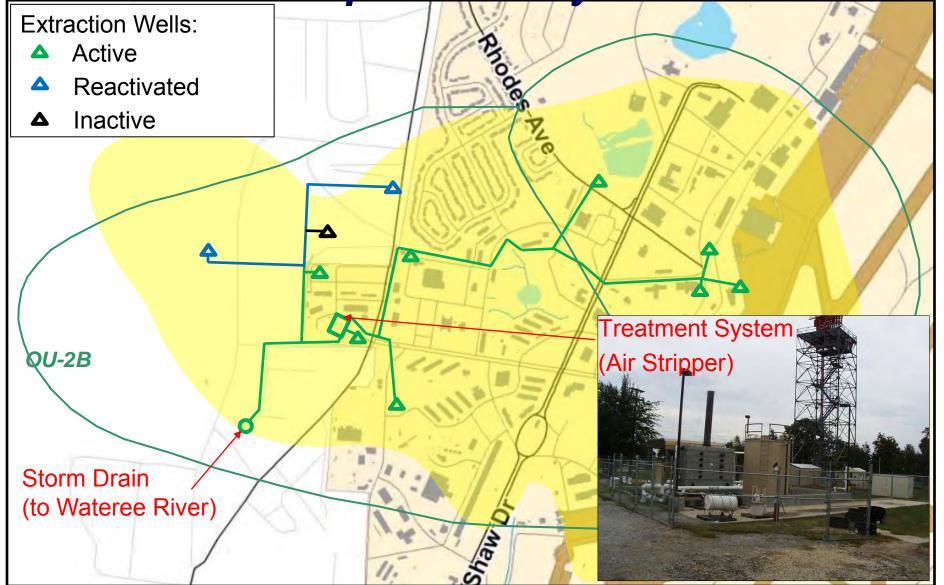


- Hydraulic Control Pump & Treat System
- Land Use Controls
 - Bilateral Agreements (Deed Notifications) ... 105 parcels
 - Annual Notice to Landowners / Occupants
 - Annual Review of Property Transactions
 - Request Private Well Installation and Notices of Intent Data from DHEC for Zip Code 29154
 - Annual Neighborhood Drive-through Inspection
 - Annual Long-Term Monitoring
 - Semi-Annual Public Meeting (RAB)
 - Response Action/Activities to Landowners As Required
 - Progress Reporting of Activities



AOC F/OT-16B & AOC-H/SS-35 Pump & Treat System

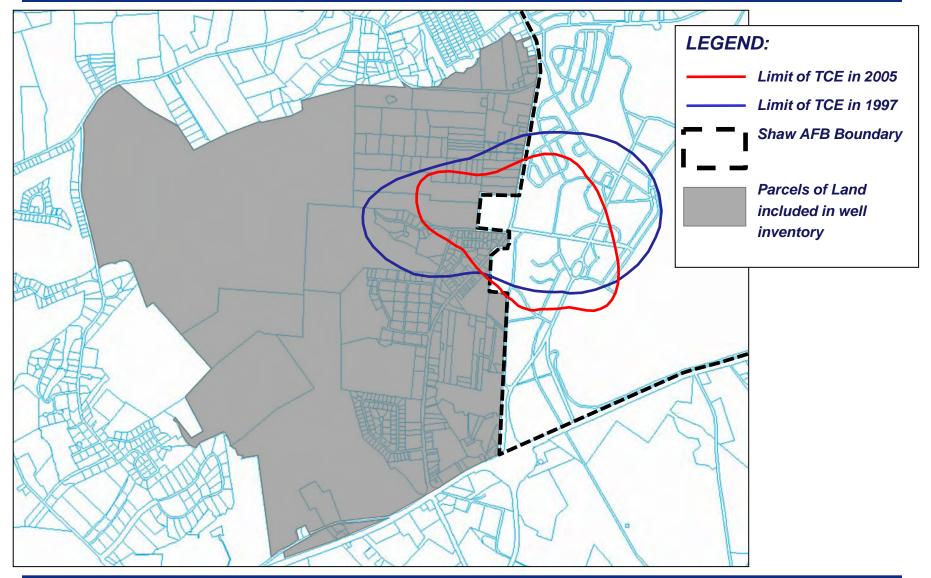






Well Survey









AOC-N/SS-36 (TCE @ Runway N. End) AOC-O/CG-38 (TCE/PCE-Shallow Aquifer)

Mr. Denny Jorgenson, P.G.
Project Manager
URS Group, Inc.

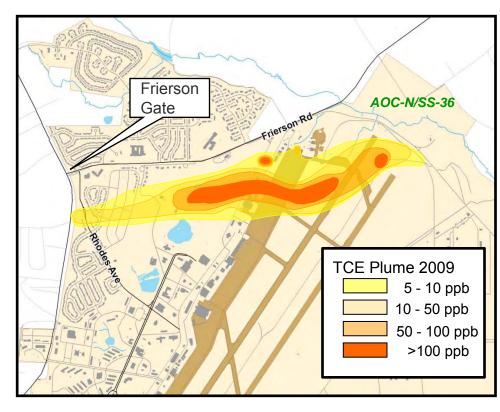
13 June 2011



AOC N/SS-36



- Site Discovered: 2000
- Site Description:
 - Base Well #5 TCE detections; sampled quarterly, below MCL
 - Suspected source in shallow aquifer near runway north end
 - Main plume in Upper Black Creek
- Primary Contaminants (MCL):
 - TCE (5 ppb)
- Current Status:
 - Field investigations, Nov 06-May09
 - Air stripper installed in BW-5
 - Need to determine off-base impact
 - Proposed remedies submitted to DHEC
 - Remedial design/action funded



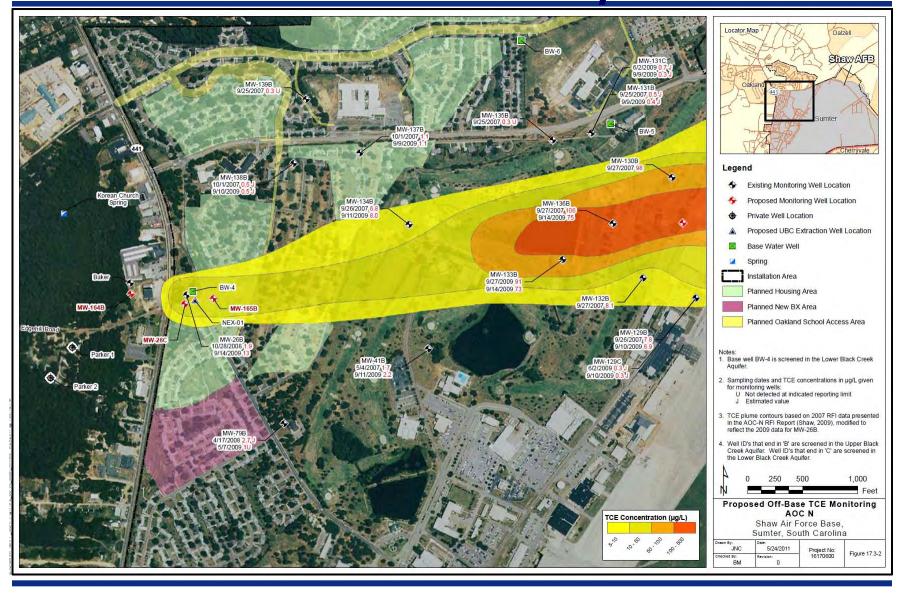
Cleanup Plan:

- Hydraulic containment
- Chemical destruction of TCE
- Long-term monitoring and LUCs
- Estimated Closure Date: TBD



AOC-N/SS-36 Plume Extent & Pump Test

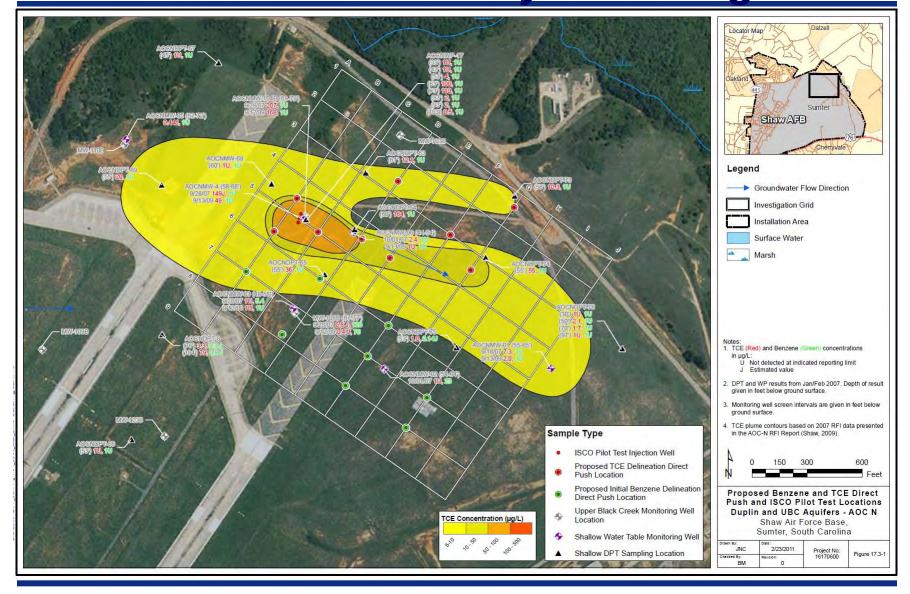






AOC-N/SS-36 Shallow ISCO Study/Pre-Design



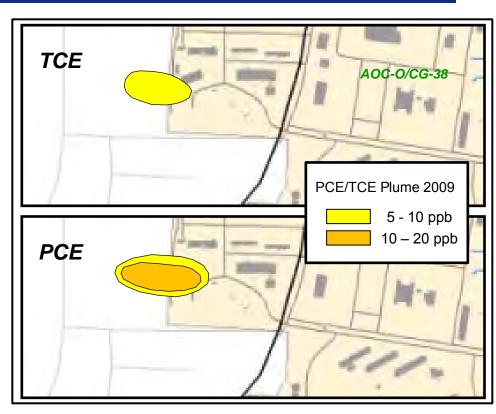




AOC O/CG-38



- Site Discovered: 2009
- Site Description:
 - In Shallow Lang Syne Aquifer
 - Discovered during off-base groundwater investigation
- Primary Contaminants (MCL):
 - TCE (5 ppb), PCE (5 ppb)
- Current Status:
 - Sporadic detections of contamination in and around hobby shop and motor pool areas
 - Need to complete remaining remedial investigation (RI)
 - Fill-in data gaps along west end
 - RI & Feasibility Study (FS; recommend final remedy) funded

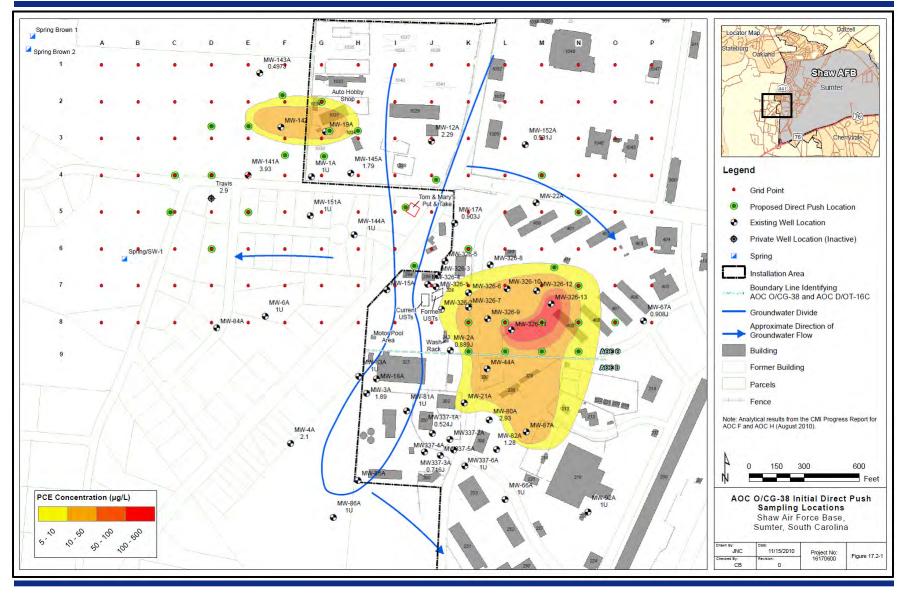


- Cleanup Plan:
 - Complete remedial investigation
 - Develop/implement Final Remedy
- Estimated Closure Date: TBD



AOC-O/CG-38 Determine Plume Extent









Bilateral Agreement Implementation

Ms. Aliza Tindall Assistant RPM / LUC Specialist Portage Environmental, Inc.

13 June 2011



Bilateral Agreements (BA)

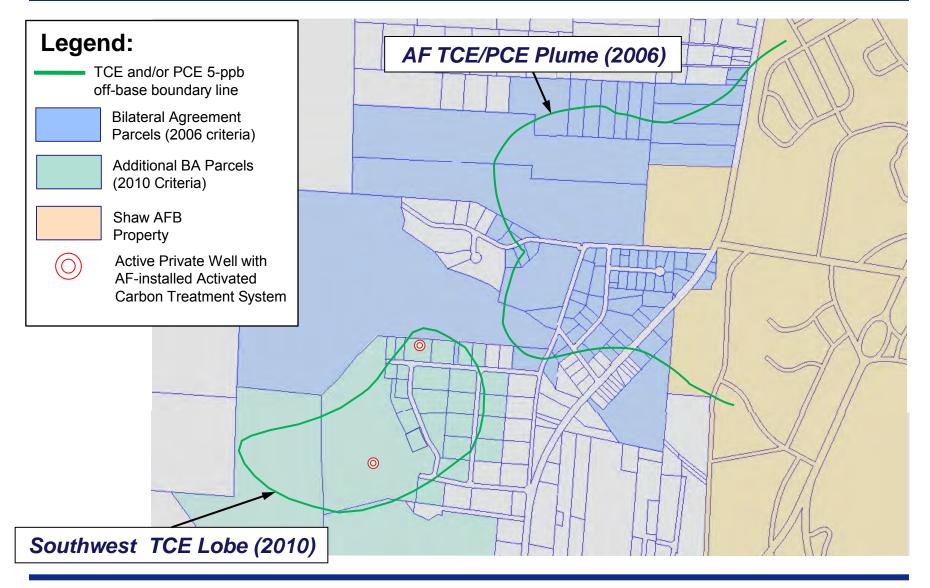


- DHEC approved BA Implementation Plan, 27 Feb 09
- BA is between AF and affected landowner
 - AF seeks voluntary agreement to file deed notice
- BA states that landowner is aware of groundwater contamination on his property (nearly 150 ft below)
 - Per SC Law, owner provide written disclosure to purchaser
 - Once safe levels reached, BA will be cancelled
- Using 5 parts per billion (ppb) MCL as boundary
- Agreement cancellation criteria
 - 3 consecutive annual sampling events below MCL



Bilateral Agreement Parcels

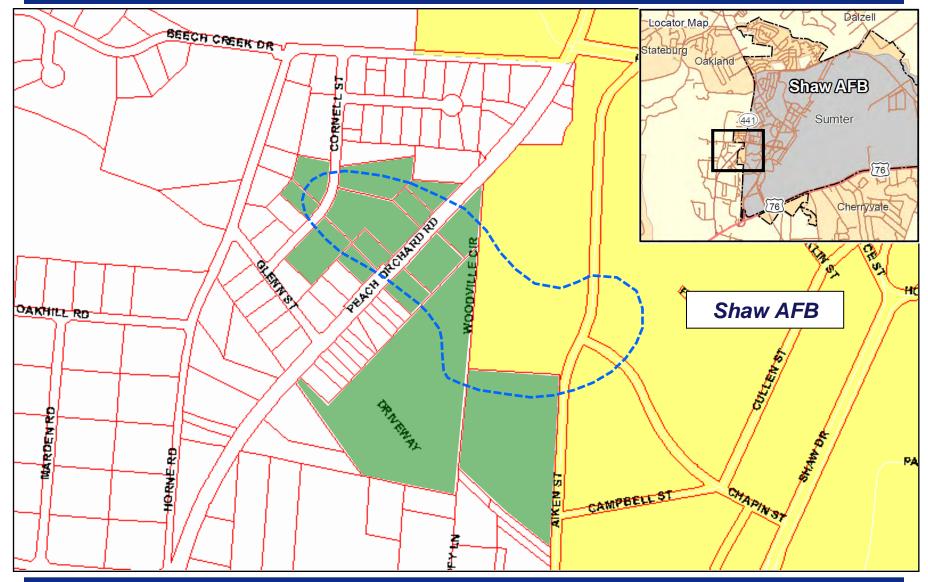






Dieldrin Plume Annual Notices









New RAB Charter

Amber Cargile
Senior Public Affairs Consultant
SMITH/Associates

13 June 2011



New RAB Charter



Members held workgroup training/meeting, 11 May

- Trained on RAB rules and process
- Received Shaw AFB cleanup sites status update
- Developed new draft charter

Why update the RAB charter?

- Has not changed since RAB was formed, 1995
- New DoD RAB Rule codified, 2006
- New Community Members elected by RAB, 2010
- Continuing membership interests
- Accommodate Community Co-Chair



Proposed Charter Revisions



- Must follow DoD RAB Rule, 2006 (32 CFR, Part 202)
- Local Community Membership
 - No more than 20
 - 3-year renewable term; by majority vote of Community Mbrs
 - Open application
 - Final appointment by Installation/CC (32 CFR, Part 202.4.ii)
- Community Co-chair
 - Elected by Community Members
- Organizational members appointed; no term limits
- Detailed membership procedures/responsibilities





Community Involvement Plan (CIP)

Amber Cargile
Senior Public Affairs Consultant
SMITH/Associates

13 June 2011



Community Involvement Plan (CIP)



- The Comprehensive Environmental Response, Liability & Recovery Act (CERCLA) requires public involvement for sites requiring 6 months or more of cleanup ("removal actions")
- Shaw AFB follows CERCLA and RCRA for its cleanup program
- CERCLA requires the responsible party to develop a CIP that outlines how it plans to involve and inform the public with cleanup
- Shaw AFB is updating its CIP
- Community feedback forms the foundation of the CIP
- Interviews and surveys will seek public opinions about cleanup and help identify key concerns as well as feedback regarding public communication preferences.



Intermission



- 10 minutes
 - Please turn-in question cards





Questions & Answers



Closing Remarks



- Inputs from Board Members
- Action Items
- Address questions to Shaw AFB Public Affairs
 - **(803) 895-2019**
- Administrative Records/Information Repository (AR/IR)
 - Contact Shaw AFB FOIA Manager, (803) 895-1630
 - http://www.shaw.af.mil/library/foia.asp
- Next Meeting
 - 6:30 pm, 12 December 2011
 - New Beginnings Banquet Facility







Attachment 2 Questions from the Restoration Advisory Board (RAB), 13 June 2011

(*To protect an individual's privacy, questions pertaining to an individual's specific issues or processes were omitted in the minutes and will be addressed in a different forum. For example, status of a claim is dealt with individually and on a case-by-case basis. Questions raised that are out of bounds of the RAB charter were not included in these minutes. Additionally, questions and answers were paraphrased and combined for clarity.)

1. Questions during Shaw E&I and URS technical presentation:

a. Is potassium permanganate fluid hazardous? How long does it take the potassium permanganate to break down TCE and/or PCE?

Potassium permanganate is a strong oxidizer and should be carefully handled. There are protocols in place for the employees when handling potassium permanganate. Potassium permanganate will consume (oxidize) when it reacts with TCE and/or PCE. Essentially, it eats away at the TCE and/or PCE, turning these solvents into harmless by-products. It can take months or even years for the fluid to break down the solvents. If the potassium permanganate fluid does not come in contact with the TCE and/or PCE it will eventually be consumed by natural organics underground.

b. Have potassium permanganate fluid injections been used last year to treat other contaminated sites and what were the results? Is potassium permanganate effective?

This same technology has been used to treat two other TCE contaminated sites on Shaw AFB. This technology works; potassium permanganate consumes (oxidizes) areas where the TCE is highly concentrated and TCE and PCE concentrations have gone down. However, cleaning up the contamination does take time and has its challenges. Groundwater flows at a slower rate, which is one of the reasons it takes time to clean up the contamination. A good example demonstrating this is the OU-2B/OT-16B TCE/PCE plume; it took approximately 50-60 years for the contamination to flow from the middle of Shaw AFB to off-base property. The flow of the groundwater and the complex structure of the aquifer at Shaw AFB affect the clean up process. The potassium permanganate may flow more slowly or stay in the immediate area. In an area on base where potassium permanganate was injected, the underground formation does not allow the groundwater to flow easily; the potassium permanganate tends to stay in the immediate area of the plume. Another challenge happens when potassium permanganate fluid is injected in the groundwater, like a big wave in the pool, you push in and it comes back. Some rebound does occur; it is consumed in some areas and lingers in other areas. After a few years of monitoring the progress of this remedy, we may have to go back and do a second injection. The challenging part of this remedy is effectively distributing the potassium permanganate in areas where it will be most successful in consuming contaminates.

Potassium permanganate has proven to be an effective remedy; TCE concentrations have gone down.

2. Questions during Bilateral Agreement (BA) Implementation update:

a. Is signing the Bilateral Agreement mandatory?

No, the BA is voluntary. However, if you decide to sell your property, according to South Carolina Law, you must disclose that your property is contaminated.

b. How many off-base parcels were affected by the dieldrin plume? When the soil with the dieldrin

was removed in 2002, where was it done?

There are 14 parcels (11 parcel owners) that are affected by the dieldrin plume.

The soil removal for dieldrin involved only off-base property at the Carolina Mobile Home Park. 161 tons of soil was removed and replaced with 390 tons of clean soil.

3. Questions during New RAB Charter and Community Involvement Plan presentation:

a. Why doesn't the community vote for the RAB members?

The community is always welcome to attend RAB meetings whether you are on the RAB or not. The RAB functions within itself. The RAB is not a representative form of government, it is an advisory body and not a formal decision making body. The RAB members voted for the new RAB members and we are developing a new RAB Charter that will incorporate membership guidelines. There is open membership and the community is welcomed to participate on the RAB. Community participation benefits both the Air Force and Community.

The RAB was operating under the old charter when a RAB Community Member resigned. There was an open window for applications. Applications were received and based upon the guidelines of the old charter they became RAB Community members. The new Charter is based upon new Department of Defense RAB guidelines. The Charter is being revised to include open application and three (3) year term limits (renewable) of community members.

b. How was Mr. [Olen Burkett] and Mr. [James] Hinkle picked to be on the board?

Mr. Burkett and Mr. Hinkle were the original RAB community members when the original charter was established [in 1995].

c. How is the RAB membership established?

The RAB rule is federal law and there is priority membership for those who are directly impacted by the contamination. There are some positions on the RAB that are based on position, e.g. Colonel Godier, our Air Force representative, DHEC representatives, City and County government, major stakeholders such as the Water Board, and community representatives. The RAB rule suggests that members should have a stake (vested interest) and requires RAB membership to represent diverse interests.

d. When was RAB community membership opened back up?

The RAB Charter is being finalized to accommodate for increased membership and establish term limits. We are accepting applications for RAB membership as part of the base efforts to increase community involvement with cleanup.

4. Questions during the Question & Answer Session:

a. Why are you putting in 12 [direct push] wells on base and only three (3) [direct push] wells off base to delineate the new plume?

Correction; approximately 15 off base locations were identified and 12 locations on base.

b. I have recently been diagnosed with two (2) new serious diagnoses (Sarcoidosis, Biliary Cirrhosis). I do not smoke or drink and grew up on the plume 1972 to 1984. Is the contamination the cause of my health issues?

Sarcoidosis and Primary Biliary Cirrhosis are believed to be autoimmune diseases. There is no known association with TCE in either of those diseases. For more information on TCE and its health concerns, visit http://www.atsdr.cdc.gov/substances/toxsubstance.asp?toxid=30.

c. Which agency do we contact to find more information on health issues regarding contamination? Will this contamination damage the vegetation on my property located above the plume?

SC DHEC's community health office is the primary agency dealing with community health issues. We believe the phone number is (803) 896-8967.

Vegetation would not be damaged by the contamination in the groundwater, particularly at these low concentrations.

d. If the Air Force caused damage to me and/or property, what is the process for being compensated?

There is a separate venue for filing a claim (Standard Form 95) with the Air Force if you believe that the Air Force has caused you or your property damage. Damages are documented in that claim and there are two parts to that process. First, every claim filed is evaluated. Second, after the Air Force evaluates your claim and you are not satisfied with their decision, you are entitled to file a lawsuit. The claims process is the venue to address these types of issues.

e. When does the RAB meet and how can we accommodate them?

RAB meetings are normally held twice a year, the second Monday in June and December. The new RAB Charter is more flexible, accommodating and receptive to community concerns. The RAB focuses on the path forward, providing updates to the public on how the Air Force is cleaning up these legacy sites.