



SPRING VALLEY FORMERLY USED DEFENSE SITE PROJECT
RAB Meeting

September 15, 2015
7:00 – 8:30 p.m.

UNDERCROFT MEETING ROOM
ST. DAVID'S EPISCOPAL CHURCH
5150 MACOMB ST. NW, WASHINGTON, DC

Agenda

- 7:00 p.m. I. Administrative Items**
Co-Chair Updates
▪ Introductions, Announcements
Task Group Updates
- 7:10 p.m. II. USACE Program Updates**
Groundwater Study
Glenbrook Road
Site-Wide Feasibility Study
▪ Next Steps
Pilot Project & New Technology
- 8:00 p.m. III. Community Items**
- 8:10 p.m. IV. Open Discussion & Future RAB Agenda Development**
Upcoming Meeting Topics:
▪ Suggestions?
▪ Introduction to the Groundwater RI Document
▪ Site-Wide Feasibility Study
▪ Pilot Project
▪ 4825 Glenbrook Road Health Consultation Update (ATSDR)
- *Next meeting: November 10, 2015
- 8:20 p.m. V. Public Comments**
- 8:30 p.m. VI. Adjourn**

**Note: The RAB meets every odd month.*

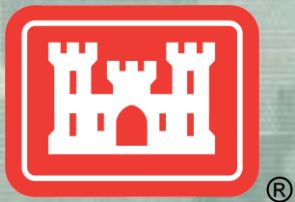
Spring Valley

Formerly Used Defense Site

Restoration Advisory Board Meeting

September 15, 2015

“The USACE Mission in Spring Valley is to identify, investigate and remove or remediate threats to human health, safety or to the environment resulting from past Department of Defense activities in the area.”



®

US Army Corps of Engineers
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Agenda Review



- ❖ **Co-Chair Updates**
 - **Introductions, Announcements**

- ❖ **USACE Updates**
 - **Groundwater Study**
 - **Glenbrook Road**
 - **Site-Wide Feasibility Study**
 - **Next Steps**
 - **Pilot Project & New Technology**

- ❖ **Community Items**

- ❖ **Open Discussion & Future RAB Agenda Development**

- ❖ **Public Comments**



Co-Chair Updates



Introductions



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Co-Chair Updates



Announcements

➤ Website Updates:

- Final Remedial Investigation Report with the 1986 EPIC Report, Volume II *
- July & August Monthly Site-Wide Project Updates
- Weekly 4825 Glenbrook Rd Project Updates with photos
- June Partnering meeting minutes
- July RAB meeting minutes
- September Corps'pondent

* The updated Final Remedial Investigation Report can also be found in the Information Repository at the Tenley Friendship Library



Task Group Updates





Groundwater Update

Groundwater

Groundwater Remedial Investigation Report

The team received comments from the USACE Center of Expertise (CX) on the Draft Groundwater Remedial Investigation Report (RI). The team is in the process of responding to the CX's comments.

Once USACE concludes their response to the CX comments, the edited Draft Final Groundwater RI will be reviewed by our Partners (EPA and DOEE) and the project's independent technical consultant (Peter DeFur).



4825 Glenbrook Road



08/24/2015 09:45

4825 Glenbrook Road

High Probability



After removing the concrete surrounding the crawlspace area, the crews investigated and removed the soil inside. Due to recovering only small amounts of broken American University Experiment Station (AUES)-related glassware and no signs of stained soil in the crawlspace, the effort went quickly.



4825 Glenbrook Road

High Probability



The crews completed demolishing the remaining walls, including all sections of the former house's rear basement wall, a nearby retaining wall, and a remaining side wall along the 4801 Glenbrook Road side of the property.

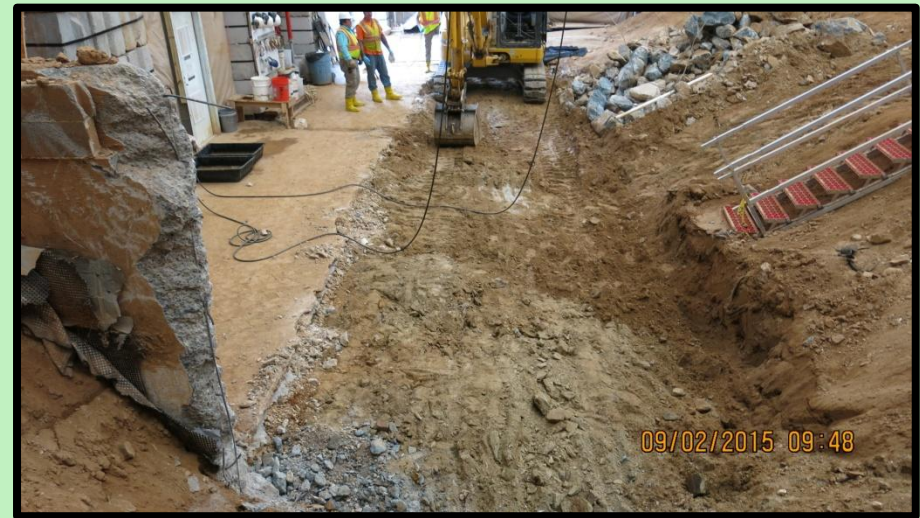
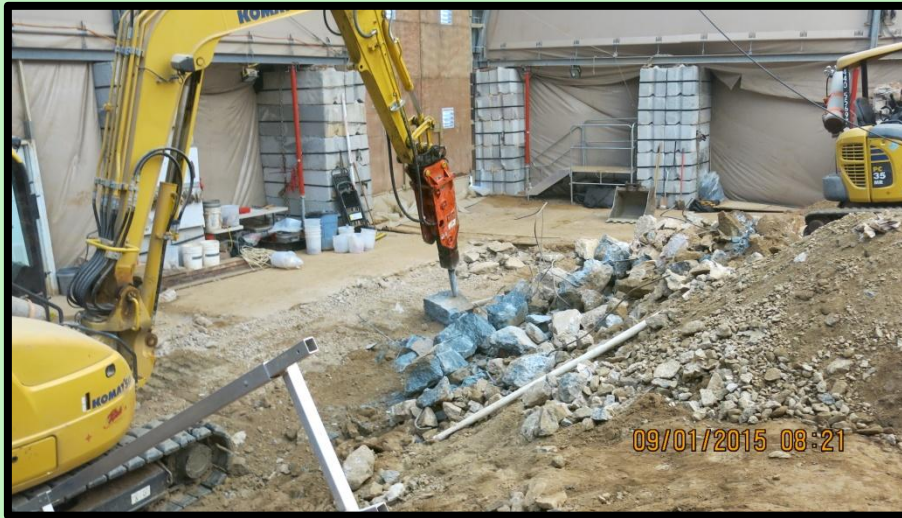


This effort included sampling some sections of the walls before demolition, when it was nearby areas with contaminated soil. All of the cement samples analyzed were clear of contamination. The soil around the walls was also fully excavated to saprolite.



4825 Glenbrook Road

High Probability



The crews began demolishing a nine foot wide section of the back basement floor, as well as the adjacent remaining section of the footer from the basement wall. This is the only section of the basement floor that will be demolished under Tent 2.



4825 Glenbrook Road

High Probability

As these sections of the basement floor and footer are demolished, the crews are filling roll offs with the rubble.




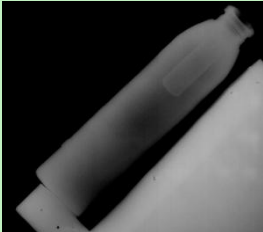


The crews are excavating under the former basement floor area to saprolite.

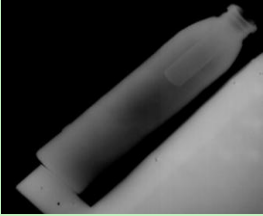






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Tent 2 Finds to-date

Item (Date found)	Picture	Location	Characterization	Head Spaced	Air monitoring / chemical detections	Final
75mm munitions debris item (Dec. 10, 2014)		Behind the backyard retaining wall	Closed cavity empty debris item	YES, Cleared	NO	At Fed Property for disposal as waste
Two 4.7 inch projectiles (Feb. 10, 2015)		Behind the backyard retaining wall	Open cavity empty debris items	YES, Cleared	NO	At Fed Property for disposal as waste
75mm munitions debris item (Feb. 11, 2015)		Behind the backyard retaining wall	Closed cavity empty debris item	YES, Cleared	NO	At Fed Property for disposal as waste
75mm munitions debris item (Mar. 4, 2015)		Behind the backyard retaining wall	Closed cavity empty debris item	YES, Cleared	NO	At Fed Property for disposal as waste

Tent 2 Finds to-date, continued.

Item (Date found)	Picture	Location	Characterization	Head Spaced	Air monitoring / chemical detections	Final
75mm munitions debris item (Apr. 22, 2015)		Former backyard patio porch	Open cavity empty debris item	YES, Cleared	NO	At Fed Property for disposal as waste
75mm munitions debris item (July 31, 2015)		Against SE corner of house foundation	Closed cavity empty debris item	YES, Cleared	NO	At Fed Property for disposal as waste
75mm munitions debris item (Aug. 3, 2015)		Against SE corner of house foundation	Closed cavity empty debris item	YES, Cleared	NO	At Fed Property for disposal as waste
“Livens-like” unknown ordinance item (Aug. 4, 2015)		Against SE corner of house foundation	Closed cavity metallic cylinder, chlorine bleach fill	YES, Cleared	NO	At Fed Property for disposal as waste
Glassware debris (2014-2015)		Various locations under Tent 2	Small pieces of AUES glassware debris	YES, Cleared	NO	At Fed Property for disposal as waste

4825 Glenbrook Road

Summary of Findings Recovered Under Tent 2

For the high probability excavation operation under the second tent, as of last week :

- **Roll-offs and Drums:** 87 roll-offs (20 cubic yards each) of soil, 487 soil drums, 18 roll-offs of rubble, and 226 rubble drums have been removed.
 - **Soil Removed:** ~758 yds³.
 - **~58 lbs. of glass:** Cleared headspace analysis.
 - **No intact glass containers, five intact 75mm munitions debris (MD) items, one open cavity 75mm MD, one intact cylinder metallic item, and two 4.7” projectiles material deemed as safe (empty).**
-
- **There have been no readings for chemical agent on the MINICAMS (near real time continuous air monitoring system) at the pre-filter (inlet to the Chemical Agent Filtration System, or CAFS) under the second tent.**



4825 Glenbrook Road

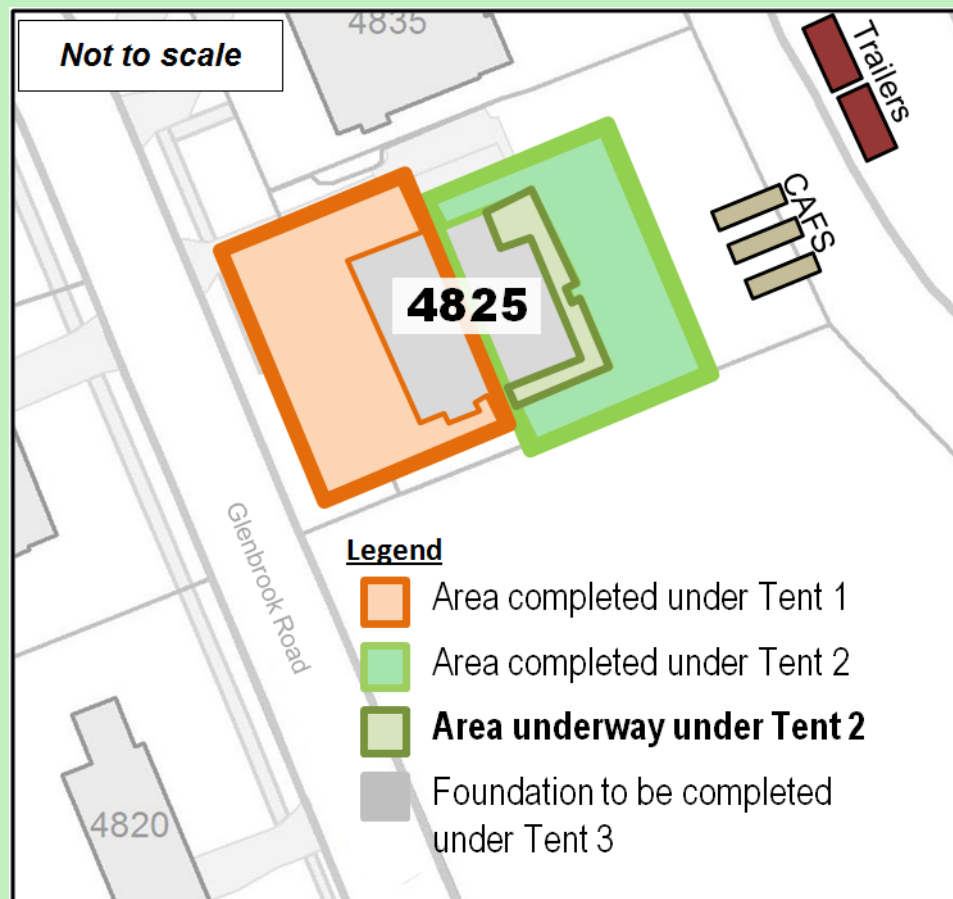
Tent Move Activities

Our summer schedule, continues to help us maximize our operations in spite of the heat and humidity.

Based on progress to date and the remaining work to be completed under Tent 2, we anticipate completing high probability operations under Tent 2 in October 2015, more than a month ahead of the current schedule.

We will then rearrange the site layout and relocate the tent to its final location (Tent 3).

We expect to resume high probability operations in February 2016.



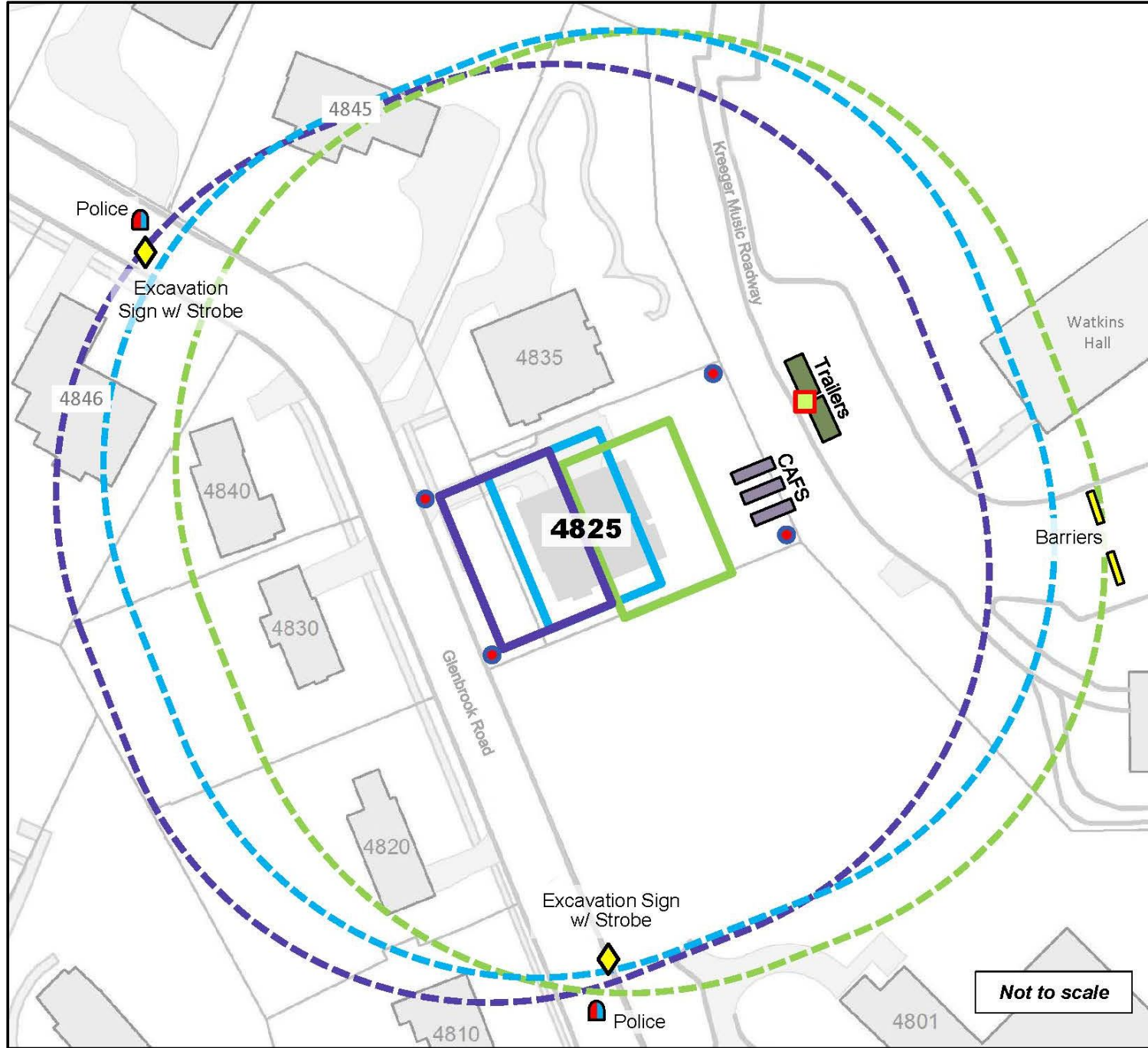
4825 Glenbrook Road

Tent Move Activities

- The **Shelter-in-Place** system will be suspended from November to January. There will be no siren tests for those three months.
- **At the end of September**, we plan to revert back to our normal schedule, 8 a.m. - 4 p.m.
 - **No high probability excavation work will take place during the tent move operations.** The tent move is expected to last three months, November - January. We anticipate resuming high probability operations by early **February**.



Shelter-In-Place Zones During High Probability Operations



Key	
	ECS 1
	ECS 2
	ECS 3
	Zone 1
	Zone 2
	Zone 3
	Base Station
	Strobe & Speaker
	Excavation Sign w/ Strobe

The first scheduled Engineering Control Structure (ECS) location (purple) is in the front yard towards Glenbrook road. Then the ECS moves towards the backyard and Kreeger Music Roadway (green).

Three Chemical Agent Filtration System (CAFS) units will be utilized for this operation

District of Columbia-Metropolitan Police Department (MPD) District 2 will cut and pull traffic during an emergency. This map indicates the 2 locations they will respond to, after receiving a 'Code 1' notification. All MPD District 2 officers working during operation times will be briefed prior to operations starting.

Not to scale

4825 Glenbrook Road

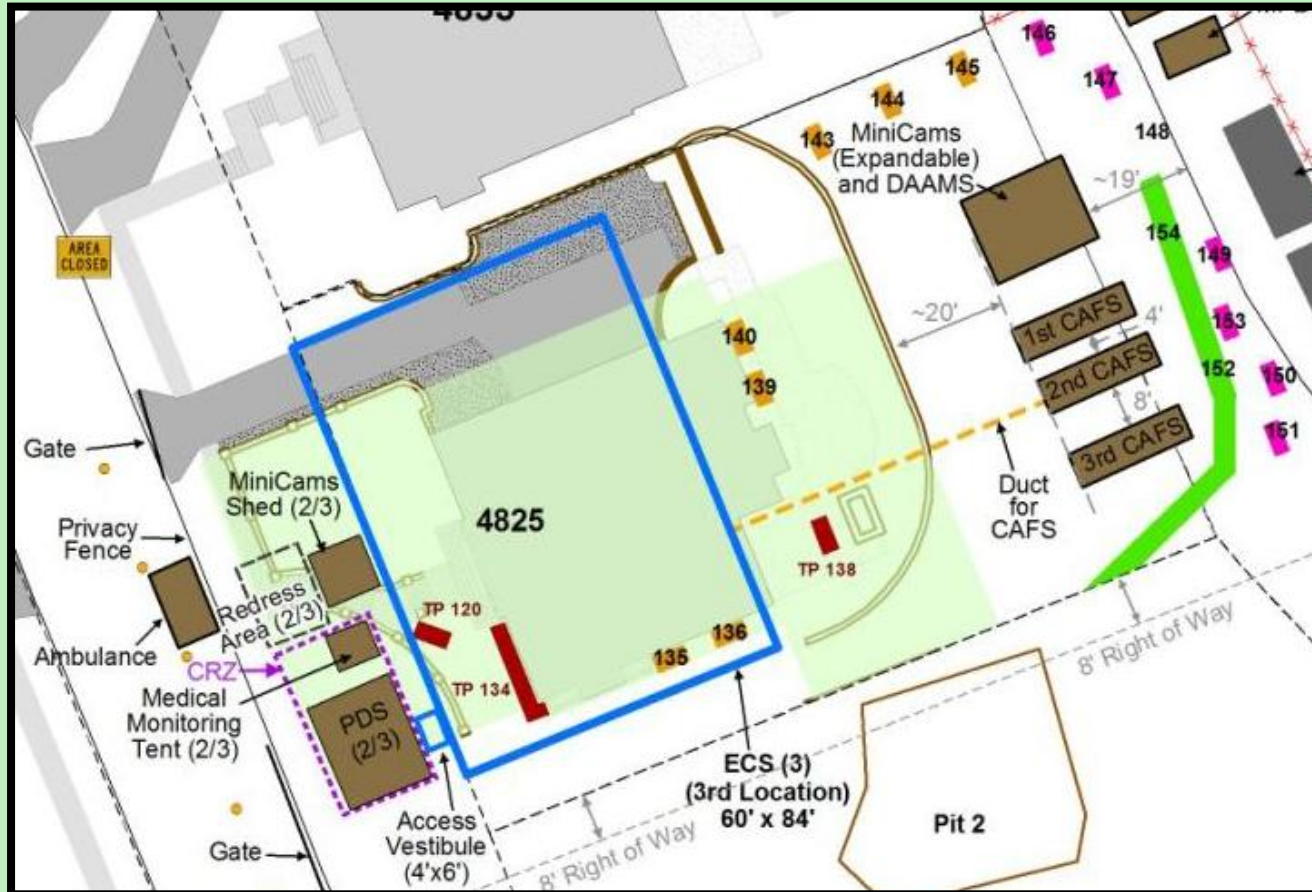
Tent Move Activities

➤ Activities during the tent move:

- Remove equipment from the tent, including lights, cameras, hoses, and excavator. Backfill under the second tent.
- Relocate the 'Personal Decon. Station' (PDS), redress tent, and other support equipment.
- Mobilize the crane on the front lawn, which will then move the tent in three sections to the middle of the property.
- Replace the 'skin' of the tent.
- Install equipment back in tent and realign CAFS ducting.
- Perform a smoke test to ensure negative pressure.



Tent 3 Location



4825 Glenbrook Road Schedule Update



✓ December 2012 through May 2013

Site Preparation/ Initial Low Probability Work

- Test pits in backyard and re-locating utilities
- Install soldier piles to support embankments

✓ May 2013 through September 2013

ECS Set Up, High Probability training, and Pre-Operational Exercises

→ **September 2013 through Winter 2016/2017**
High Probability Excavation

Winter 2017 through Spring 2017

Final Low Probability Excavation

Spring 2017 through Summer 2017

Site Restoration



USACE Updates

Site-Wide Feasibility Study (FS)

Figure 1-2
American University Experiment Station
(AUES) and Camp Leach Boundaries

Spring Valley FUDS
Washington, DC

Legend

-  FUDS Boundary
-  Roads and Parcels
-  AUES and Camp Leach Buildings in 1918
-  AUES Fence Line in 1918
-  AUES Boundary in 1918
-  Camp Leach Boundary in 1918

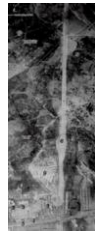


0 375 750
Feet

November 2014

The CERCLA Process

(The Comprehensive Environmental Response, Compensation, and Liability Act)



Preliminary Assessment



Site Inspection



Remedial Investigation

General Purpose: Collect data to characterize site conditions; Determine the nature of the waste; Assess risk to human health and the environment; & Evaluate treatment options.



Feasibility Study

General Purpose: To develop, screen, and evaluate alternatives for clean-up.

Information gathered as part of the RI influences the development of the FS which, in turn, may require further data collection and field investigations.

Decision Document



General Purpose: Select the alternative as well as provide an overview of the project. This would include site history, previous and current investigations, and characterization of contamination.



Proposed Plan

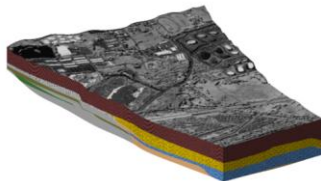
General Purpose: Presents the evaluation of clean-up alternatives and provides a recommendation for the preferred alternative.

This document is made available for public review and comment.



Removal Action

General Purpose: If prompt action is deemed appropriate prior to the completion of the RI/FS process, USACE will begin removal of the contaminants of concern.



Remedial Design/ Remedial Action

General Purpose: Implementation of the action determined in the Decision Document.



Long Term Monitoring

General Purpose: To conduct any long term monitoring necessary and conduct five year reviews of the Formerly Used Defense Site.

Spring Valley FUDS

Next Steps: Feasibility Study

The purpose of the Feasibility Study is to develop, screen, and evaluate alternatives to achieve possible remedial action objectives.

Viable alternatives will be presented for public review in the Proposed Plan.

EPA's Screening Criterion for clean-up alternatives:

- Threshold**
 - Overall Protection of Human Health and Environment;
 - Compliance with Applicable or Relevant and Appropriate Requirements (ARARs);
- Balancing**
 - Long-term Effectiveness;
 - Reduction of Toxicity, Mobility and Volume Through Treatment;
 - Short-term Effectiveness;
 - Implementability (Technical Feasibility, Administrative Feasibility, & Availability of Materials and Services);
 - Cost;
- Modifying Criteria**
 - Regulator Acceptance; and
 - Community Acceptance.



Spring Valley FUDS Tentative Schedule

Fall 2015	*Feasibility Study to be finalized to evaluate alternatives for addressing any unacceptable risks or hazards identified in the Final RI Report.
2016	Pilot Project
Winter 2015/16	Prepare the Proposed Plan and start public comment period.
Summer 2016	Prepare and sign the Decision Document in Summer 2016.
~2017-2020	Begin remedial design/remedial action plan/conduct clean-up action.

***The FS has been reviewed by the USACE Center of Expertise (CX). The CX's comments are currently being reviewed and considered. The edited Draft Final FS will be reviewed by our Partners (EPA and DOEE) and Dr. Peter deFur.**

USACE Updates



**Pilot Project &
New Technology**



**Schoenstat: Used to
Better locate anomalies
while digging**

**Reacquiring exact anomaly
location with the G-858
Magnetometer**



Figure 3-2
Tilden Street
G-858 Magnetometer Survey

Spring Valley
 Washington, D.C.

LEGEND

- Potential Pit or Trench with Waypoint
- EM Anomaly and ID (See Table 3-2)
- MAG Anomaly and ID (See Table 3-2)
- Water Valve
- Water Meter
- Utility Pole
- Landscaping Border
- Ground Scar 1918 Aerial Photo
- Ground Scar 1922 Aerial Photo
- Ground Scar 1927 Aerial Photo
- Ground Scar 1928 Aerial Photo
- POI
- Sewer
- Storm Drain
- Inaccessible
- Outdoor Lighting
- Parcel Boundary
- Utility - Interpretation based on geophysical data
- Surveyor Nail



Notes:
 1) Coordinates in [NAD 83, Maryland CS83 projection].
 2) Coordinate Units are U.S Survey Feet.



Mag North: -9°

Scale 1:360



US survey foot
 NAD83 / Maryland CS83

Client: U.S. Army Corps of Engineers

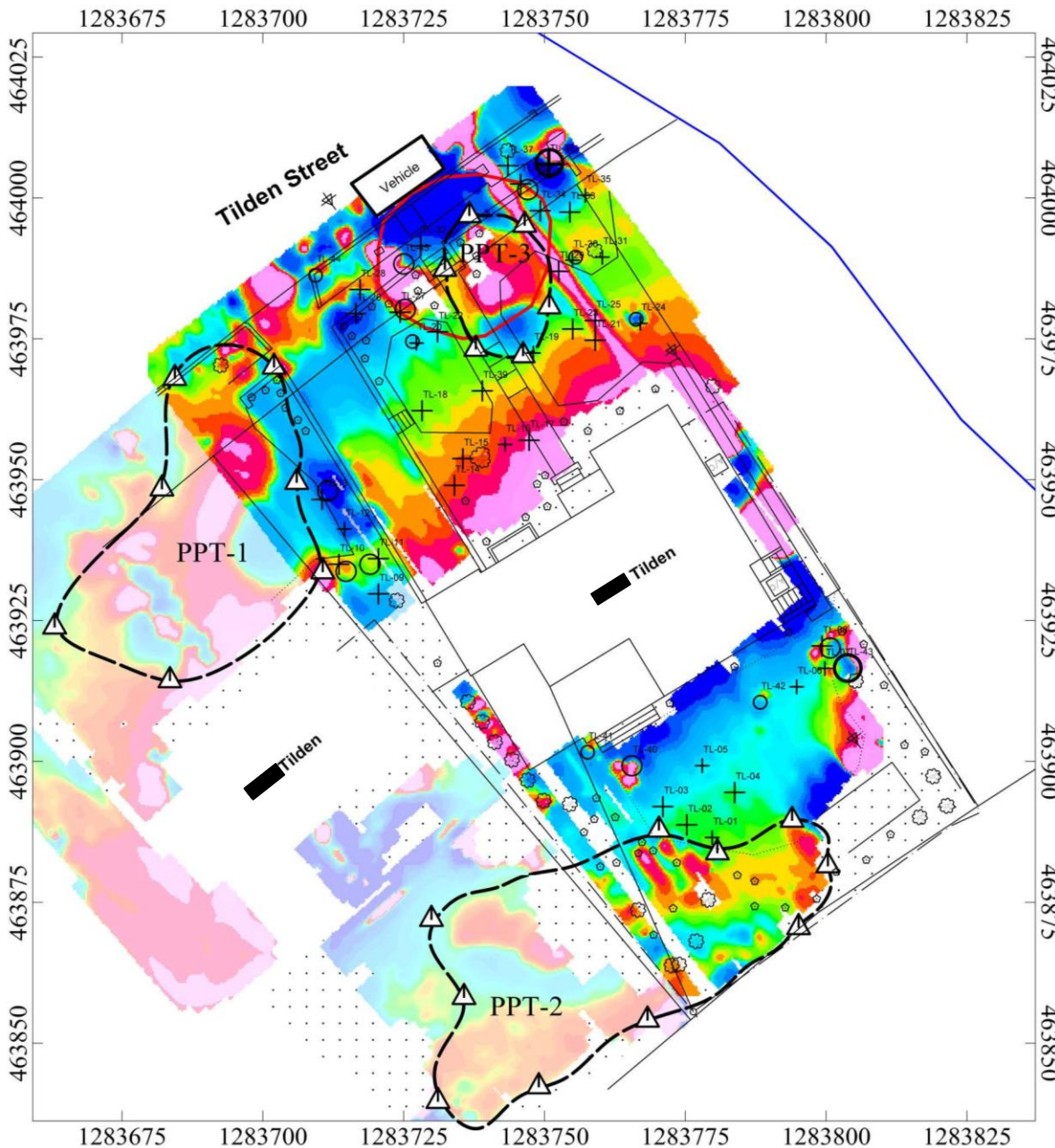
Project: Spring Valley FUDS

Contractor: Weston Solutions, Inc.

Created By: MBJ Verified By: MBJ Approved: JAW

Date: April 2008 File: 1494/Spring Valley/5026 Tilden

Page Number: 3-3 Scale: 1:360





Electromagnetic (EM)-61

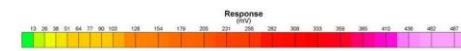


Figure 3-1
Tilden Street
EM61-MK2 Survey

Spring Valley
 Washington, D.C.

LEGEND

- Potential Pit or Trench with Waypoint
- EM Anomaly and ID (See Table 3-2)
- MAG Anomaly and ID (See Table 3-2)
- Water Valve
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Notes:
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Mag North: -9°

Scale 1:360



US survey foot
 NAD83 / Maryland CS83

Client: U.S. Army Corps of Engineers

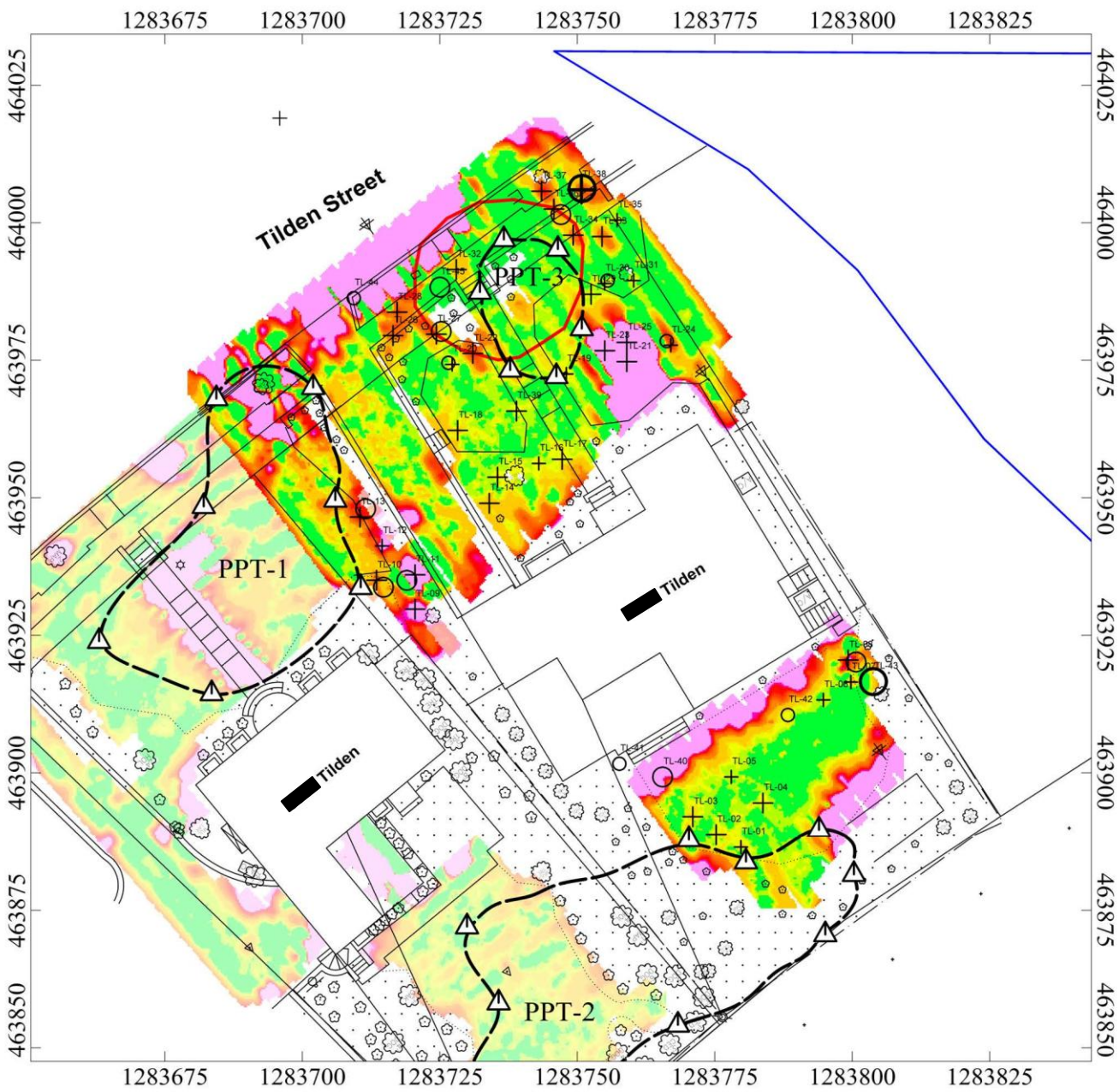
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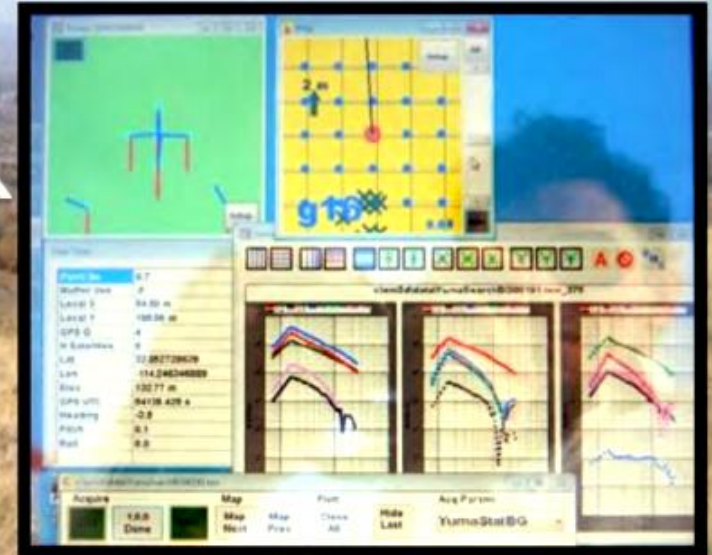


Man Portable Vector (MPV)

Backpack with data acquisition and power unit (35 lbs)

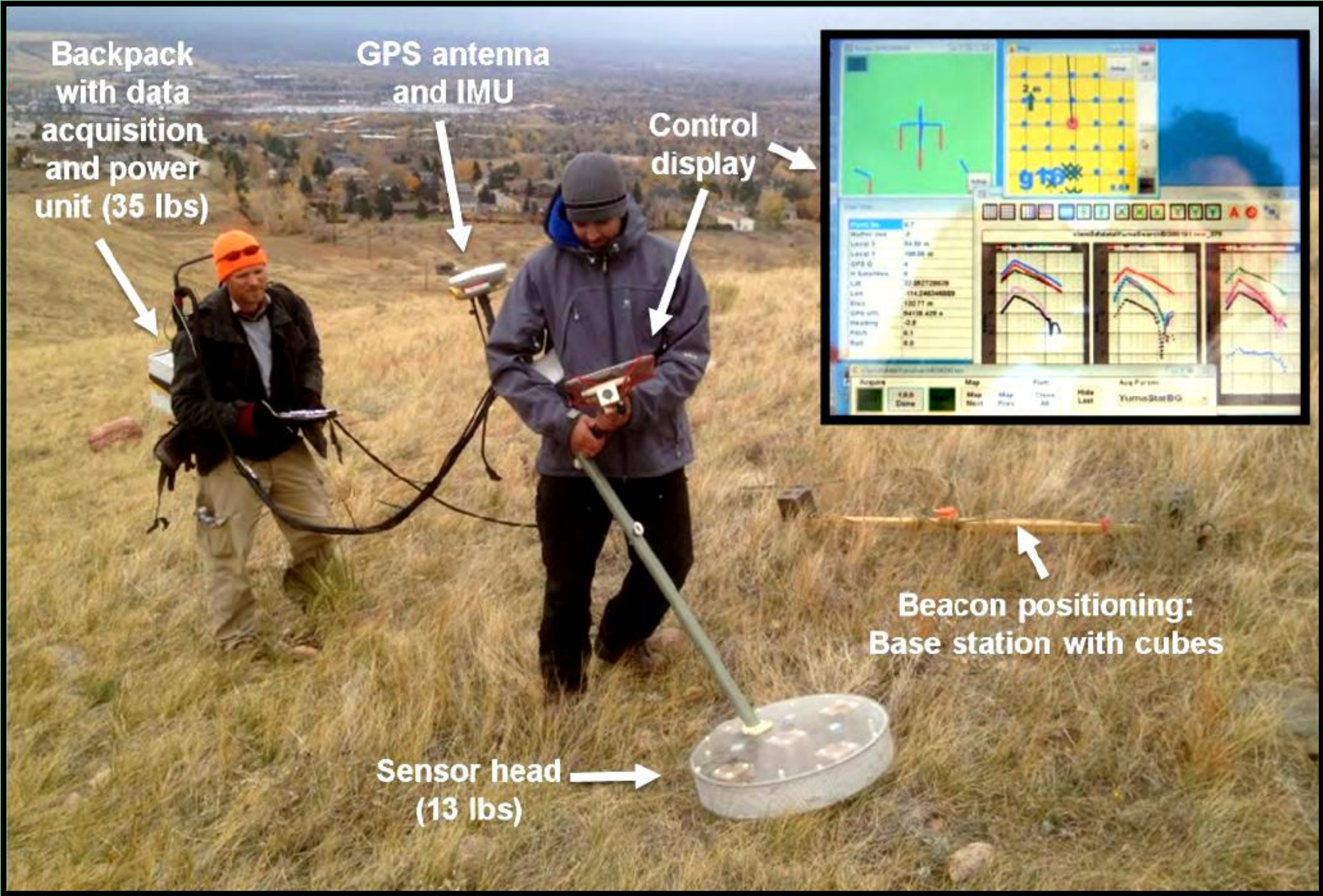
GPS antenna and IMU

Control display



Beacon positioning: Base station with cubes

Sensor head (13 lbs)



Spring Valley FUDS

Tentative Schedule for Pilot Project

January 2016	Award Contract.
Winter 2016	Planning – Work Plans for chosen properties.
Spring 2016	Regulator Review of Work Plans.
March/May	Detailed RAB Presentation by experts on Pilot Project plans and technology.
Late Spring/Early Summer 2016	Field Efforts, including surveying and digging.
December 2016	Evaluation and Reporting of Pilot Project results.

Spring Valley FUDS Restoration Advisory Board



Community Items



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Spring Valley FUDS Restoration Advisory Board



➤ Reminders:

- The next RAB meeting will be Tuesday, November 10th *

➤ Upcoming Agenda Items

- Suggestions?
-

- Introduction to the Groundwater RI Document
- Site-Wide Feasibility Study
- Pilot Project
- 4825 Glenbrook Road Health Consultation Update (ATSDR) – TBD



Spring Valley FUDS Restoration Advisory Board



- **Public Comments**

- **Wrap-Up**



**U.S. Army Corps of Engineers
Spring Valley Restoration Advisory Board
St. David's Episcopal Church
Minutes of the September, 2015 Meeting**

RESTORATION ADVISORY BOARD MEMBERS PRESENT AT THIS MEETING	
Dan Noble	Military Co-Chair/USACE, Spring Valley MMRP Manager
Greg Beumel	Community Co-Chair
Linda Argo	At Large Representative – American University
Ralph Cantral	Community Member
Dr. Peter deFur	Environmental Stewardship Concepts/RAB TAPP Consultant
Mary Douglas	Community Member
Alma Gates	At Large Representative – Horace Mann Elementary School
Steve Hirsh	Agency Representative – US Environmental Protection Agency, Region III
Lawrence Miller	Community Member
Lee Monsein	Community Member
James Sweeney	Agency Representative – Department of Energy & Environment
George Vassiliou	Community Member
John Wheeler	Community Member
Kathleen Connell	Community Member
Malcolm Pritzker	Community Member
RESTORATION ADVISORY BOARD MEMBERS NOT PRESENT AT THIS MEETING	
Mary Bresnahan	Community Member
Paul Dueffert	Community Member
William Krebs	Community Member
Tom Smith	Community Member
ATTENDING PROJECT PERSONNEL	
Brenda Barber	USACE, Spring Valley Project Manager
Chris Gardner	USACE, Corporate Communications Office
Alex Zahl	USACE, Spring Valley Technical Manager
Rebekah McCoy	ERT
Rebecca Yahiel	Spring Valley Community Outreach Program

HANDOUTS FROM THE MEETING
I. Final Agenda for the September 15, 2015 RAB Meeting II. Army Corps of Engineers Presentation III. August 2015 Monthly Project Summary IV. September 2015 <i>Corps'pondent</i> V. Project Timeline

AGENDA

Starting Time: The September 2015 Restoration Advisory Board (RAB) meeting began at 7:06 PM.

I. Administrative Items

A. Co-Chair Updates

Greg Beumel, Community Co-Chair, welcomed everyone and opened the meeting. He turned the meeting over to Dan Noble, Spring Valley Project Manager and Military Co-Chair.

D. Noble welcomed everyone to the RAB meeting and noted that the agenda included updates on the groundwater investigation, 4825 Glenbrook Road, the Feasibility Study and Next Steps, and the Pilot Study & New Technology.

B. Introductions

D. Noble noted that there were no new introductions.

C. General Announcements

D. Noble reviewed website updates. A digital copy of the 1986 Environmental Photographic Interpretation Center (EPIC) Report, Volume II has been added as an appendix to the Final Remedial Investigation (RI) Report. This was in response to community member request to have the report formally included as an important reference document in the RI report appendix. Inclusion of the report took some time as the US Army Corps of Engineers (USACE) needed to get a good hard copy (including large oversize maps) of the report in order to digitize it. The updated complete RI Report is available online. The hard copy of the RI Report at the Information Repository (IR) at the Tenley-Friendship Library has also been updated with a new DVD to include this added appendix document.

The July and August Monthly Site-Wide Project Updates are on the website. Weekly 4825 Glenbrook Road Project Updates continue to be posted, including photos when available. The June Partnering meeting minutes, July RAB meeting minutes, and the September *Corps'pondent* newsletter is also available on the website. The *Corps'pondent* was mailed to the community and additional hard copies are also available.

USACE has published updated guidance regarding IRs. It is now acceptable to have an electronic-only IR if all stakeholders and parties on the project agree that that would be the most efficient way to make project information available. The Tenley-Friendship Library has accommodated our IR but has occasionally mentioned that they would like to minimize the space taken up by the IR. D. Noble offered that this could be a topic for the RAB to discuss.

Comment from Larry Miller, Community Member – It would be nice to get an idea of how many people come to the library to look at the Spring Valley IR specifically.

D. Noble responded that he does not think the librarians track that closely.

Comment from George Vassiliou, Community Member – I propose that we transition to an electronic IR only. We do not need a hard copy repository.

D. Noble explained that he did not intend for the RAB to decide tonight but wanted to inform the RAB of the updated guidance.

L. Miller recommended that USACE inquire with Tenley–Friendship to see if the librarians have a sense for how often the documents are looked at. Based on his experience, he noted the librarians would likely have a general sense of whether the documents are never looked at, looked at once a month, or are frequented.

Rebecca Yahiel, Spring Valley Community Outreach Team, noted that she knows the IR is visited because handouts are taken and documents are moved around. She has spoken with the librarians about the IR. Some are not aware of the project IR even though she has spoken with several of them on multiple occasions. They do not appear to be trained on it. She will follow up with the librarians and ask again.

Comment from Allen Hengst, Audience Member – There are two sources of information at the library. There are the shelves of printed copies which are out of sight of the librarians. They cannot see people that are using the area. However, when I go there, I find the document first in hard copy form, then I go to the desk and ask for the DVD copy. With the DVD copy, you can copy and attach the file on the DVD to an email. While they do not know how many people are using the printed copies, they should know how many people ask to see the DVD binders. However not everything that is in print is available in those binders or on the website. Therefore, that print repository has the most comprehensive information in one place.

G. Vassiliou requested confirmation that not everything is digitized.

D. Noble acknowledged that not everything that is in print is available on DVD or online. Not all project documents are in the IR (hard copy or electronic). USACE maintains a larger project file [the complete Administrative Record (AR)] at the Baltimore District offices.

A. Hengst noted that there is a binder in the Tenley–Friendship Library that provides the AR Index. It lists every document produced associated with the project. Often if a document cannot be found in print, it is listed in there and can be made available upon request to USACE.

L. Miller commented that if there is a thorough index of project documents and the library has public computers, then it likely would not be too difficult for the librarians to direct people from the AR Index to the DVD to view and print.

A. Hengst explained that it is always easier to go to printed collections first because several documents can be viewed at once. Law school students for example are still going to the print collections first before going online. I think that you still need both.

D. Noble reiterated that there is no need to make a determination to change the way USACE makes documents available to the public. The library is not asking USACE to remove the print IR at the moment. USACE will continue to maintain the IR in hard copy form as well as online until the group decides to take a different approach.

D. Task Group Updates

No task group updates were presented.

Question from Kathleen Connell, Community Member – How many people are clicking on the website? It would be interesting to know how well used the website is. I understand that usually most websites capture that information.

D. Noble replied that USACE has looked at that previously in response to RAB request. USACE was able to produce some statistics and could do that again for the USACE website. He noted that he would have to check to see if the Google Docs site, the separate online archive also captures that information.

II. USACE Updates

D. Noble, Spring Valley Project Manager, provided a brief status update on the groundwater investigation.

Brenda Barber, Spring Valley Project Manager, provided an update on the activities at 4825 Glenbrook Road.

D. Noble provided an update on the Site-Wide Feasibility Study and introduced plans for a Pilot Project using New Technology.

A. Groundwater Study

The Draft Groundwater RI report is under internal review by the Center of Expertise. They have reviewed and provided comments. USACE is working with them to address their comments. The goal is to resolve comments and produce a Draft Final Groundwater RI report to be submitted to the US Environmental Protection Agency (USEPA) Region III, the District Department of Energy and Environment (DOEE), as well as to the RAB Technical Consultant, Peter deFur. The Draft Final report is expected to be distributed for review this fall; however internal Army review is taking some time.

B. 4825 Glenbrook Road

High Probability

Excavation is now complete in the former crawlspace area. This included removal of soil and the subsequent concrete structure that had been part of the house. It went quickly and efficiently as minimal debris was encountered during the work and there were no signs of stained soil or contamination in the area.

Following completion of the crawlspace excavation, crews continued demolition and removal of the former basement walls. The basement wall closest to the front porch was sampled, consistent with what was done previously as a result of finding contaminated soil adjacent to the concrete wall. A similar situation was encountered for the wall adjacent to the 4825 Glenbrook Road southern property line; therefore the concrete wall was sampled. The samples of concrete in both walls were clear of contamination. The concrete was removed, broken into rubble, and packaged for disposal off-site. The area was excavated to competent saprolite and taken down to grade in order to continue remediation of the property.

Excavation continued from the basement walls to the former basement floor and a portion of the garage area. Under this tent location, only a nine foot section of the basement floor is being removed [the remainder will be removed during excavations under Tent 3]. The basement area was excavated to saprolite. Crews excavated the garage floor, subfloor, soil, and then encountered a second floor. It is unclear why the builder laid a second floor. It did lead to crews spending some additional time in the area to remove the additional floor. The area was then excavated to saprolite. A similar situation [second floor] was also encountered previously when crews removed a portion of the driveway: the asphalt and subbase were removed as well as significant soil; then a second floor was encountered.

Findings under the second tent include some previously reported to the RAB. Previous findings include a 75mm munitions debris item found in December 2014, two 4.7 inch projectiles classified as debris items found in February 2015, three more 75mm munitions debris items recovered in February, March 2015, and April 2015. Since the last RAB meeting, three additional items have been recovered. Two more 75mm munitions debris items were recovered in the backyard area. A closed cavity metallic cylinder

filled with bleach was also found. The items were found in late July/early August. Broken glassware continues to be recovered; however no intact glassware has been found under this second tent location.

Question from Gerry Barton, Audience Member – Was there actually bleach in the item?

B. Barber confirmed this.

A total of 87 roll-offs of soil, 487 drums of contaminated soil, 18 roll-offs of rubble, and 226 drums of rubble have been removed from under Tent 2. Approximately 758 cubic yards of soil and 58lbs of glassware have been removed. All glassware cleared headspace analysis. There have been no detections on the MINICAMS (near real time continuous air monitoring system) of chemical agent during operations.

High probability excavation under Tent 2 is nearing completion. The summer schedule has allowed teams to be as efficient as possible in the summer heat and humidity. Based on current progress, completion of high probability efforts under the second tent is anticipated a month ahead of schedule, in late October 2015. Upon completion of high probability work, the teams will break down the site, rearrange the site layout and move the tent to its final location (Tent 3). Tent move activities are expected to take three months to complete. High probability operations are projected to resume in February 2016.

The Shelter-in-Place system will be suspended during the tent move from November 2015 to January 2016. There will be no siren tests during this time. No high probability excavation work is to take place during the tent move. At the end of September, high probability work hours will revert from summer hours back to the normal 8 a.m. to 4 p.m. schedule. The Shelter-in-Place zone will shift slightly to match the shift in location of the third tent on the property.

Low probability work to be performed during the tent move includes sampling the interior walls of the tent to ensure no contamination on the tent lining before it is moved. All equipment will be removed from the tent including lighting, cameras, air supply hoses, and excavating equipment. The area under the second tent location will be temporarily backfilled in order to reconfigure the site. The personal decontamination station (PDS), redress tent, and other support equipment will then be relocated. A much smaller crane will be positioned on the front lawn near Glenbrook Road to move the tent frame to the third location. This smaller crane will have a minimal impact to American University and Glenbrook Road as it will be fully confined to the property. Once the tent frame is relocated, the skin will be replaced on the frame and all equipment will be re-installed. The Chemical Agent Filtration System (CAFS) will be reconnected and a smoke test will be performed to ensure negative pressure is maintained.

The site configuration will remain similar to the set-up for Tent 2 but more compressed in front yard area. As a result, the staging for the ambulance will likely be relocated to the parking area on American University as there is no space for it on the property.

The team remains slightly ahead of schedule with high probability operations projected to continue until Winter 2016/2017. This will be followed by final low probability excavation work in the driveway area. Site restoration is projected to take place during Spring and Summer 2017.

B. Barber noted that with respect to the potential for a government shut-down, if USACE is legally allowed and funding is available, work at the site will continue. If we cannot obtain authorization to continue work, the site will be shut down and secured with continued 24-hour guard coverage at a minimum. There will be no impact to public health or safety.

Discussion

Question from Peter deFur, RAB TAPP Consultant – What did you say about the floor beneath the floor? Was it removed?

B. Barber confirmed that it was removed and nothing was found underneath it.

D. Noble noted that it is significant. The removal of a strip of the basement slab and the garage floor is essentially getting underneath the house. Though the team did find this second floor under the garage floor, nothing else was found under this portion of the house; just clean soil, then saprolite.

C. Site-Wide Feasibility Study and Next Steps

D. Noble provided a review of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) process USACE is following for the soil at the Spring Valley Formerly Used Defense Site (FUDS). This is the same process taken to get to the current remedial action (RA) at the 4825 Glenbrook Road site. The RI is completed and the Site-Wide RI Report is finalized. USACE is currently working on the Site-Wide Feasibility Study (FS).

After the FS is completed, the Proposed Plan (PP) will be issued and be made available for review by the public through a formal public comment period. The Decision Document (DD) will follow the PP, which will document the selected approach to address the issues described in the Site-Wide RI Report. The Remedial Design (RD) phase includes development of plans to implement the DD. The RA phase carries out the activities planned in the RD. Site close-out and potential long term monitoring are the final steps in the process.

The RI report phase through the DD phase essentially involves administrative paperwork documentation, and no field activities. The next time USACE technically returns to the field is during the RA phase to cleanup areas identified in the RI report. The CERCLA process often takes place at large, complex sites that have unique situations. As this administrative part of the CERCLA process is undertaken, there are times where not all the data is available to reach the best conclusion. There is a structure set up within CERCLA that allows the agency, during the administrative part of the process to undertake pilot studies to get necessary data to make the best informed decisions.

There are three points in the administrative phases of the process where a pilot study could take place. It could be done before the FS is completed in order to better ascertain whether available technologies are suitable for a site. At the PP phase, sometimes additional data may be needed to help determine the selection of the proposed preferred technology. Various technologies could be assessed and run in a pilot study to determine which ones work the best for the site. Finally, following the DD in the RD stage, the agency could need additional data that would help in efficiently using the selected technology by ensuring it is customized to the specific site conditions in the RD. This would potentially lead to the best outcome in the RA when the cleanup activities are performed. Therefore a pilot study could be done ahead of the RD phase to feed site-specific data and processes into the RD.

For the Spring Valley FUDS, the project team is confident with the data available to complete the FS, PP and DD without needing to perform a pilot study to provide supplemental data. One of the alternatives being considered in the FS is bringing some new technology to the site to detect munitions underground. There have been very recent developments in the technology used to detect buried munitions. USACE is looking at potentially using this technology as part of the RA. As it has not previously been used at Spring Valley, the project team thinks that a pilot study would be helpful to provide Spring Valley – specific best practices that could be incorporated into the RD stage in planning to complete the RA. This would be performed in parallel with continuing the FS and additional administrative phases.

Question for K. Connell, Community Member – Can you elaborate more regarding when this technology enters the cleanup process and what the technology is?

D. Noble confirmed that the remainder of the presentation describes the new technology, what was previously used at the Spring Valley FUDS and how this technology is different.

D. Noble briefly reviewed the specific elements of the FS phase. The FS follows the USEPA's nine criteria to evaluate remedial technologies that could be used to address the remedial action objectives. The final two criteria (regulator acceptance and community acceptance) are evaluated in the PP phase when

formal comments on the acceptability of the technology and the proposed preferred alternative are sought from regulators and the public.

The FS is expected to be completed in Fall 2015. USACE is planning to initiate and complete the pilot project in 2016. The PP is expected to be released for public comment in Winter 2015/2016 followed by signing of the DD in Summer 2016. The RD phase will immediately follow signature of the DD and likely continue into calendar year 2017. With the pilot study scheduled to be completed in 2016, data from the pilot study would be incorporated into the RD.

The FS has completed internal Army review. The project team had been working to address comments received during review of the Center of Expertise. Submitted responses to comments were just accepted by the Center of Expertise today (September 15th, 2015). USACE can now move forward with developing the Draft Final Site-Wide FS for distribution to the regulatory partners and Dr. Peter deFur for review. Pending completion of their review, USACE will brief the RAB on the FS at the next RAB meeting.

D. Pilot Test and New Technology

D. Noble emphasized the difference between the RI and the RA. The RI purpose is to investigate, identify, and define the issues at the site. The RA objective is to complete the action necessary to address the issues identified in the RI. Therefore the processes used during the investigation phase would not necessarily be the same as those used during the cleanup phase because the objectives are different.

There were two primary issues identified in the RI for soils. First, a couple of properties were identified to have residual chemical contamination in the soil addressed. The approaches to address contaminated soil are well understood and have been implemented at the Spring Valley FUDS. Secondly, approximately 100 properties were identified for USACE to go back and thoroughly search for and remove any munition hazards left from the American University Experiment Station (AUES). The pilot project will focus on how to use new technology to look for buried munitions because technology and approaches continue to evolve in this field.

A distinction to note is that when USACE requested access to a property to perform a munitions investigation during the RI phase, the investigation would cover the entirety of the property. Based on the resulting data, a list of metallic anomalies would be ranked, prioritized, and presented to the Anomaly Review Board (ARB). The ARB, which included members from USEPA Region III and DOEE, would determine the list of selected metallic anomalies which would be intrusively investigated. The list of anomalies investigated was never the complete list of anomalies detected on the property. Enough anomalies were intrusively investigated on the property to obtain the information needed to support the RI and determine whether there was a potential munition hazard in the overall area. The Army's approach to conducting a cleanup on the property is to explain 100% of anomalies detected and specifically identify each of the detected anomalies.

Question from Malcolm Pritzker, Community Member – Have you identified the 100 properties that need further work done?

D. Noble confirmed that the RI report identifies all the properties which require further work. A map showing the location of the properties is in the RI report and available on the Spring Valley project website.

About half of the properties were included in the field work done during the investigation phase. The resulting identification of the anomalies from the digs was of interest to the Army, including whether the anomaly was a horseshoe, construction debris, munition debris or an intact munition item. During the cleanup phase, the Army will be focusing on only finding and removing intact munitions to remove the hazard from the neighborhood. Munition debris does not pose an explosive hazard. If there were a technology that differentiated between an intact munition item and munition debris or other non-hazardous items, then this would be of interest to the Army. It would reduce the time spent on the cleanup

as well as minimize impacts and damage to private properties resulting from intrusive digging of anomalies. Therefore USACE is looking to identify technologies that can positively identify anomalies as munitions and explosives of concern (MEC).

Question from K. Connell, Community Member – If we are using a more refined technology and that technology exposes areas that have munitions that we were unaware of before, are we legally obligated to go back and use this higher level technology on every property in this area to assure ourselves that we didn't miss something?

D. Noble responded that during the investigation stage, USACE used proven methods to help collect the data to determine what areas in the community were of concern with respect to potential remaining munitions hazards. Moving into the cleanup phase, USACE can use some of those same methods as part of the process to remediate the identified areas while integrating some of this newer technology. This new technology does not have to therefore be taken everywhere in the FUDS. The RI has already identified and delineated the areas of concern.

K. Connell asked whether members of the community could volunteer their properties to allow USACE access to the property to use the technology to potentially identify new areas that many not have been identified previously? Would USACE allow them to be added to list of 100 properties?

D. Noble responded that USACE would not consider adding additional properties. USACE will focus the cleanup on the 100 properties identified in the RI report.

Comment from John Wheeler, Community Member – As I understand it, it is like the idea of false positives. The approach taken before involved a lot of false positives and there was a lot more digging. This method would be a way of ruling the false positives out so it is more precise digging.

D. Noble confirmed this.

D. Noble reviewed the technologies used during the investigation which will also be used during the cleanup. Magnetometers are one class of instruments used. The industry standard magnetometer, the G-858, is used world-wide and has been used in Spring Valley. It is an instrument used to detect buried metals, particularly ferrous (iron containing) metals. It will not detect metallic items such as copper or aluminum because they do not have a strong magnetic signature. The Schonstadt magnetometer is also useful and has been used at 4825 Glenbrook Road as well as when teams went back to properties to intrusively investigate anomalies. It is a handheld magnetometer that uses an audible signal to let the technician know when the tip of the instrument is close to a buried ferrous metal item. It is less sophisticated and less sensitive than the G-858 magnetometer. With its audible signal, it helps the technicians during active digging to target the excavation and efficiently uncover the metallic item.

The magnetometer instrument is a passive detection instrument. This means that it detects the earth's magnetic field and when there is an anomaly or change in the magnetic field, it is indicative of the magnetometer getting close to a ferrous metal object. Another characteristic of these instruments is that they detect in a 360 degree radius; therefore, the instrument would detect the influence in the earth's magnetic field from a low-hanging powerline and register it as an anomaly as well.

The advantage of the magnetometer is that it only looks for ferrous metals, which is what World War I munitions were made of. It is hand-held, carried by one person, and can be used to access tight spaces without causing damage to landscaping on a property. Therefore, teams can get good magnetometer coverage on a property. Finally since it is a passive instrument that can be set to highly sensitive levels, the instrument is able to detect ferrous items as far as six to eight feet underground. The disadvantage is that because it only detects ferrous metal, it can register an anomaly for a naturally occurring rock that contains a high amount of iron-ore, called a 'hot rock', leading to a false positive anomalous reading.

D. Noble provided an example of the magnetometer readout for a survey performed on Tilden Street. It indicated the level of coverage that could be obtained using the magnetometer on a property. The example

also showed that often that there are areas on a property that cannot be reached even with the hand-held G-858 magnetometer. At the Tilden Street property, the technicians could not get data in the back corner of the property, a small portion of the side yard and a small strip in the front yard. The magnetometer data is depicted through a color spectrum, with green being neutral, and pink and blue being the north and south dipole (or magnetic positive and negative) extremes indicative of magnetic anomalies. The magnetometer is looking for those dipoles to identify anomalies. Magnetic data is interpreted by a computer which identifies specific magnetic anomaly locations. When there are large anomalous areas, they are marked as potential pit or trench (PPT) on survey maps.

During the investigation, teams also used a second class of instruments: electromagnetic (EM) instruments, particularly the EM-61. The instrument is mounted on a cart and is also a detection-only instrument. Some of the differences are that because this instrument is on a cart, it cannot be used to access tight areas on a property. Also, the detection coils on the instrument are large and have two phases that it oscillates between; an active phase and a listening phase. The active phase sends out an electromagnetic pulse into the ground to establish a current in any buried metallic object. The listening phase listens for any metallic object that conducted the current from the EM. If the EM detects a current in the ground, it assumes there is a buried metallic object holding the current. The oscillation between the two phases occurs approximately several thousand times per second. Because it is looking for any conductive items, the items do not need to be ferrous metals; it will detect all types of metal.

During the geophysical surveys, a land survey marked survey lanes on the property that would then be traversed by the field technicians which noted what numbered survey lane the data was collected in. The data was then stitched together based on the survey lane locations dictated by the field technicians. It therefore took time to visually create the data survey maps for each property.

The map of the EM data is similar to the map of the magnetometer data in that the color green is still indicative of a neutral reading. However the EM does not look for dipoles so it is a singular scale for whether the EM pulse generated a current. Such locations are indicated with a color spectrum scale based on the strength of the current; with pink being the strongest current produced. D. Noble described an example of an EM survey map which showed that the EM-61 could not access as many locations on the property because it was on a cart. Because the EM-61 is on a cart, it presents a disadvantage because it cannot access the tight areas that a hand-held instrument can access. Another disadvantage is that it cannot 'see' as deep into the ground as a magnetometer. Because it needs to actively induce a current in buried objects, its effective detection depth is approximately three to four feet underground.

D. Noble described examples of the differences in the magnetometer and EM readings obtained from the same property. The magnetometer data showed a strong linear response indicative of a utility line in one location, and a strong dipole response indicative of a PPT in another location. The EM data does not pick up the utility line or the objects that created the strong dipole in the area identified as the PPT. The difference could have been that the magnetometer picked up on a natural phenomenon or hot rocks which are not typically detected by the EM. The EM likely did not detect the utility line feature, most likely because it was buried deeper the EM detection depth. During the cleanup phase, these same instruments will be used and the same comparisons of the data will be used to identify anomalies.

The new technology being considered for application in the cleanup phase of the project is technology that can begin to tell you not only when something is in the ground, but what is in the ground as well - the man portable vector (MPV) is an example of an instrument that uses this new technology. It was developed in 2014 and used for the first time in either late 2014 or early 2015. This instrument can be carried, but takes two people to do so. Prior to 2014, the technology was available but it was not man-portable. It was either towed on a tractor or dragged on a type of skid and worked great for wide open areas, but was not practical for use in areas that required tight access like in residential yards at Spring Valley. Now that a smaller hand-held version is available, it is more conducive to be incorporated for use in a residential setting.

D. Noble noted that there are several improvements in this technology that are different from the magnetometer or EM. First, it has a GPS system incorporated into the device to create highly accurate locational data associated with the readings. This eliminates the need to have a surveyor set survey lanes and helps technicians know exactly where they are at all times, in terms of data collection, and is able to indicate when full coverage has been reached on the property. Second, the part of the technology which is a critical advantage over the standard EM is that it has five coils in a compact area. The MPV is also an EM; however all five coils pulse the ground and work together to not only detect a metallic object, but better discriminate between objects. If a metallic object is detected in the ground, the MPV can be positioned over the detected anomaly in a stationary position. After about a minute, the MPV can determine what is buried in the ground. This is done by creating the current in the buried object, then listening for the decay curve in the current after the EM pulse has stopped. The decay curves are an exact function of the specific type of buried metal, the amount of metal present, and the shape of the item. Therefore, for example since the metallic composition, size, and shape of a 75mm munition item is known, the decay curve for a 75mm munition item is specifically unique. If a decay curve is detected in the field that looks exactly like the curve produced by a 75mm munition item, than the field team can be confident that the buried item is in fact an intact 75mm munition item. With this type of data, the MPV can distinguish between different sizes of munition items. If the team knows it is looking for specific items, the decay curve signature for the different items can be registered ahead of time for a site. For example, if a team is looking for a Liven's projectile, which has not been used since World War I, an inert version of the Liven's can be buried in the ground and be interrogated with the MPV. The specific decay curve produced by the Liven's can be added to the library of decay curves for various types of munition items to ensure that if a team encounters that specific decay curve, they will know it is a Liven's to be intrusively removed.

The MPV has solely been used in openly accessible areas, not the residential environment of Spring Valley. Therefore, USACE needs to confirm that it will work just as effectively in a residential environment as it does in fields and ranges. As an EM type of instrument, it will still have the same drawbacks as any EM instrument in that it will only be able to detect objects down to three or four feet. It still would not be able to detect the utility line that is buried more than four feet underground; therefore the magnetometer will still remain an important tool during the cleanup phase of the project. The MPV also cannot determine whether an area characterized as a PPT by the magnetometer or EM is specifically a PPT of buried munitions because the MPV would not be able to isolate a specific decay curve from one item in the PPT, rather the entire PPT would have its own decay curve unique to the variables that characterize the PPT. As a result, the instrument will be most useful in looking at single-point anomalies, not PPTs. PPTs will still have to be excavated to determine their composition. The MPV will be particularly helpful in situations where there is an anomaly located in a patio or driveway area. Previously, the only way to identify the anomaly was to cut through the hardscape and excavate the item. This caused damage that would then need to be repaired to the property owner's satisfaction. Often the excavation would identify the anomaly as something like a horseshoe. Causing expensive damage to excavate a non-hazardous horseshoe is something USACE would like to avoid.

During the cleanup, the MPV will help teams to characterize single-point anomalies and only proceed with intrusive work if it will result in removal of a munitions hazard. During the investigation phase, USACE could elect to not look at anomalies under hardscape in order to minimize damage; however, during the cleanup phase, USACE is required to have explanations for each anomaly identified by the magnetometer and EM regardless of its location. If there is a piece of buried munition debris, it will not identify it as something to be dug and removed because munition debris does not pose a hazard. If there is a buried intact munition item, the decay curve will identify it as such, and the item will be removed.

Discussion

Question from J. Wheeler, Community Member – Are the most likely intact debris that we find shells that did not explode?

D. Noble confirmed that they could have been fired, or static tested, or never used and discarded.

J. Wheeler asked whether the discarded munitions would likely have been buried together.

D. Noble responded that yes, there would likely be more than one in that scenario and teams would have to dig into the larger resulting anomalies to find out what was there.

Question from Lee Monsein, Community Member – Since the EM-61 and the MPV area are both based on EM technology, it would seem that anything already proven negative by the EM-61 would not be worth imaging with the MPV because it would also be negative. So the only places the MPV could be used are areas where the EM-61 has already positively identified an anomaly.

D. Noble agreed that EM detected anomalies that were left behind on properties can also be seen with the MPV.

L. Monsein requested confirmation that the MPV would not need to be used on any anomaly that had previously already been cleared on a property, and that the MPV would not provide any more robust sensitivity or depth beyond the detection of the EM-61.

N. Noble confirmed this. If during the investigation an anomaly was identified, for example, as a water pipe, the team would not go back with the MPV to reconfirm that it was a water pipe.

Comment from Steve Hirsh, Agency Representative, USEPA Region III - If there are anomalies that were not dug up during the investigation, USACE will still go back to that anomaly with the MPV because it will provide additional information.

Question from Dr. Peter deFur, RAB TAPP Consultant – Is there a library of signals for known items that have previously been dug up in Spring Valley, for example a nail, a horseshoe, root basket?

D. Noble explained that the library could potentially have these signatures, but reiterated that USACE would not be interested in characterizing those. USACE is focused on having a complete library of items that the Army wants to find and remove to reduce hazards.

S. Hirsh noted that on each site, there may be a unique item that continuously shows up as a signature, they would want to dig a couple of them up just to see what they are to confirm that signature is not from an item that poses a hazard.

D. Noble reiterated that if the anomaly is an anomaly only detected by the magnetometer, or if it is characterized as a PPT, the only way to clear it during the cleanup phase remains to excavate it. But if a single-point anomaly is detectable with EM technology, USACE is hopeful that the MPV will greatly reduce the number of intrusive digs on each property. They have field tested the MPV and run them through scenarios where the operators are consistently correctly identifying buried munition items greater than 99 percent of the time in the tests.

Request from L. Monsein, Community Member – Could you provide us with a little background regarding who developed it and who is USACE contracting with to use it?

D. Noble responded that the technology was developed as a partnership between universities, industry and the government in the last three to five years. It produced the large scale instruments that were good in open spaces but not in residential scenarios. Development of the MPV technology was a private effort by one company. There are other smaller instruments produced by other companies, such as an instrument called the TEMTADS which is frequently used by the Navy. It is a similar small, man-portable instrument. D. Noble was unaware who developed the TEMTADS. The USACE significantly supported development of another instrument called MetalMapper. MetalMapper is still a large piece of equipment; it is not man-portable so there is a low likelihood that it would be used at Spring Valley.

One of the challenges with the MPV is that there may be only one in existence because it is such a new device. The company will need to be contacted to have them build it for the project. The MPV, like the

other new technologies are not available off-the-shelf for purchase. This potential issue is possibly a challenge for initiating and completing a pilot study in 2016 using the equipment. D. Noble expressed confidence that if USACE needed to, such technology could be procured by 2017 to start the cleanup work. USACE would just not have the benefit of having the data gleaned from a pilot study to incorporate into the RD process.

Question from Rob Liberatore, Audience Member - This is the instrument that you would use if you did apply it?

D. Noble confirmed that the MPV would be USACE's first choice. He was not positive that the MPV can be obtained in time but noted USACE is willing to pay for it. He reiterated that the MPV is one company's design that USACE would have to work with to build.

Question from L. Miller, Community Member – How much does it cost?

D. Noble responded that, to his knowledge, it costs about \$150,000.

D. Noble described how the pilot study would work. USACE is proposing to assemble a technical board familiar with the technologies to select properties within the 100 properties identified in the RI they feel would best be suited to generate useful information that could be incorporated into the RD phase. The board would provide recommendations to work at a small number of properties, likely around half a dozen or less. USACE would approach the property owners to request their participation in the pilot project. The benefit for the property owners is that USACE would make the commitment to fully look at their property with the instrument. By doing so, USACE would essentially do everything that would likely be done during the cleanup phase. Consequently, there would be no reason to revisit these properties during the cleanup phase. As a result of the pilot study, at the end of 2016 if everything goes well, there would be a handful of properties that would not need to proceed to the cleanup phase because they were cleaned up as a result of the pilot study. The pilot study would involve everyone necessary to fully clean a property including the geophysical technicians who operate the equipment and the unexploded ordnance (UXO) personnel qualified to excavate items identified as needing to be removed. A letter, signed by the regulators, would confirm for the property owner that all necessary activities for cleanup were performed at the property.

Question from R. Liberatore, Audience Member– May we volunteer to participate in the pilot study?

D. Noble responded that the challenge is that only about six out of 100 properties can be selected for the pilot study. It first needs to be a property that the technical committee determines will provide useful data in developing the RD for the other 94 properties. It is up to the technical committee to determine what property characteristics will result in the best data and best use of resources expended on a very short schedule.

Question from M. Douglas, Community Member – Is there anything that detects items such as glassware or items that could contain chemical agents?

D. Noble replied that he was unaware of any instrument that can specifically detect glass or ceramics. There is certainly instrumentation that can detect if an area had previously dug and filled back in. For example ground penetrating radar (GPR) can show that. GPR has been occasionally used in Spring Valley.

M. Douglas commented that may not be as much of a problem at these 100 properties. You would not be looking out for those kinds of items?

D. Noble confirmed that teams would be interested if anything like World War I–related glassware turned up that was co-located with an excavated metal item. It would be tested and noted to make sure it was not hazardous. However, encountering such an item would be dependent on it being found with an excavated metal anomaly.

Question from G. Vassiliou, Community Member – My understanding was that this is property-specific as opposed to the area you had mapped out. Last time the maps were shown, it was an area to be looked at.

D. Noble confirmed that the area identified in the RI where further work needs to be done is owned by individual property owners. As the project team moves toward wanting to do the cleanup in the identified area, a property-specific approach must be developed. Each property that makes up the area has to be addressed. The pilot study will be property-specific: property lines will define the areas that are looked at. If properties located side-by-side need to be chosen in order for the technical team to get what they need, then that will be done.

G. Vassiliou asked whether the roads were checked and scanned for anomalies in the past.

D. Noble replied that scans had been done of roads occasionally. The challenge in surveying roads is that they often are concrete reinforced with metal which causes significant interference. In addition, roads often have major utilities with buried metal pipes. The machine detects large amounts of buried metal since there are significant amounts of metal in the road including manhole covers, gas lines, and other utility lines that run under the road. Roads tend to be extremely noisy in terms of data and not very much can be determined from the resulting data.

G. Vassiliou commented that Sedgwick Street, for example, is where the trenches were. You would think that the trenches were placed in the area where roads were, right?

D. Noble confirmed that present-day Sedgwick Street runs through the middle of the historic Sedgwick Trenches. Part of the area of the Sedgwick Trenches does go under the road. However the RI report determined that it was not necessary to clean under roads.

Question from A. Hengst, Audience Member – Thank you for posting the geophysical investigation reports to the website. Regarding the geophysical investigation report for a Fordham Road property, there is a possible burial pit analogous to the burial pit at 52nd Court located adjacent to and southeast of the trenches. The report discusses how the EM-61 and G-858 magnetometer work together and notes that because an anomaly was identified with the G-858 in the backyard and it was not detected with the EM-61, it increased confidence in characterizing the area as a burial pit. This was because it was deeper than four feet and the EM-61 did not see anything. Is this an accurate understanding of the report findings?

D. Noble clarified that the example property from Tilden Street shows a similar situation where the G-858 magnetometer showed a PPT, but the EM-61 data does not detect the large anomalous area. The PPT on the Tilden Street property was investigated and nothing AUES-related was found.

A. Hengst requested clarification that the Fordham Road property was not investigated.

D. Noble confirmed this and said there were several properties in the Sedgwick Trench area that were not intrusively looked at during the investigation phase. They will be addressed during the cleanup phase.

Comment from A. Hengst, Audience Member – It is my understanding that the most likely location for last potential burial pit is at the Fordham Road property where Point of Interest 2 is located.

D. Noble explained that Point of Interest 2 is a potential burial pit that USACE has not been able to look at during the investigative phase of the process. The Army will certainly make the attempt to obtain access to look at it during the cleanup phase of the project.

A. Hengst asked whether this property could be made a topic for a future meeting; given the historical location of the property and the findings of the geophysical report?

D. Noble responded that he was unsure whether any one anomaly is more important to look at than another anomaly that has not been looked at yet.

A. Hengst noted that this is the only property where USACE was not permitted access to intrusively investigate the property. Also, I understand that the PPT on the property is in the same orientation

(adjacent to and southeast of the trenches) as the burial pit that was discovered and removed at 52nd Court. Based on this information, I see this property is a particularly special property.

A. Hengst requested that this discussion be a complete agenda topic for a future meeting.

Question from G. Beumel, RAB Co-Chair – What is the purpose of having an agenda topic committed to a specific property?

A. Hengst replied that he would like the RAB and the public to know all that the Army knows about the property.

D. Noble responded that if the RAB would like USACE to talk about Point of Interest 2, USACE can make it an agenda topic for a RAB. Point of Interest 2 would be presented in the same way USACE would present of any other Point of Interest or Area of Interest. The topic does not need to be connected to a specific property. Access to one specific property within an Area or Point of Interest is an administrative issue. Out of the 100 properties within the area that needs to be addressed in the RA, there may be several properties where USACE has difficulty obtaining access. Fifty of the 100 property owners have not previously been approached for munitions investigations or removal. It is unknown how cooperative any of the property owners will be to permitting access for the RA field work. USACE will make its best efforts to access the properties. Once USACE as spoken with all the property owners in detail to explain the purpose and scope of the RA work, it will be clearer as to how much success USACE can achieve in accessing the properties. At some point, a determination will need to be made in coordination with DOEE and the USEPA Region III whether the area covered by the accessible properties is good enough to complete the RA objectives.

Question from G. Beumel, RAB Co-Chair – Would the RAB like to talk about Point of Interest 2 in the near future or wait until the cleanup phase?

J. Wheeler recommended that the RAB wait until a later date and commented that the RAB may lose sight of the big picture if the focus is only on Point of Interest 2.

L. Miller commented that the RAB could wait to see whether Point of Interest 2 turns out to be more important than other locations. If that is the case, it may not need to be on the agenda but could be a noted item as things develop.

Request from A. Hengst, Audience Member - If the discussion could include some legal input regarding the Right of Entry issue and why the USEPA does not want to file a suit, I think that would be helpful.

D. Noble responded that if the RAB is interested, USACE can bring in someone who can discuss the USACE Right of Entry process, how it works, and what property owners are specifically asked to sign.

G. Beumel replied that he thought that could be a useful topic.

L. Monsein noted that the topic has been presented before.

J. Wheeler agreed but noted that there are some new RAB members who were not on the RAB when the topic was presented before.

A. Hengst asked that the legal issues specific to the property where Point of Interest 2 is located be discussed. It is his understanding that the property owner initially permitted access but then through negotiations for further access submitted a counter proposal that the Army did not agree to.

G. Beumel noted that at some point the RAB will deal with Point of Interest 2 and decide whether the Army needs to enter the property and how would they do it from a legal perspective.

G. Vassiliou asked whether USACE would have legal consult to determine the extent to which USACE can say where they are with a property when they request access? But until then, there is nothing to discuss?

D. Noble agreed with G. Vassiliou and noted that once access is requested to all 100 properties, he would expect there to be 100 unique discussions regarding access. Each property owner has his/her own unique concerns. There likely will be some discussions that will go smoothly and likely others where USACE will work to accommodate to the extent USACE can.

In response to G. Vassiliou's question, D. Noble confirmed that USACE has written letters to all property owners in the area identified in the RI report.

Question from Alma Gates, RAB Horace Mann Representative – Do you need consensus from the RAB to move forward with the pilot study?

D. Noble replied that USACE technical personnel are very interested in moving forward with the pilot study to check the brand new technology and use it in an environment where it has never been used. Therefore USACE is going to proceed in doing the pilot study.

III. Community Items

L. Miller noted a September 5, 2015 article in the Washington Post about the Spring Valley FUDS. A copy was available for those interested.

IV. Open Discussion and Agenda Development

A. Upcoming Meeting Topics

- Introduction to the Groundwater RI
- Site-Wide Feasibility Study
- Pilot Project
- 4825 Glenbrook Road Health Consultation Update (Agency for Toxic Substances and Disease Registry (ATSDR))

B. Next Meetings:

RAB Meeting: Tuesday November 10, 2015

C. Open Discussion

No items were discussed.

V. Public Comments

Question from G. Barton, Audience Member 3 – When major construction is takes place at a property in the Spring Valley FUDS, such as rebuilding a house, does USACE get involved and obtain access to do any investigation? If not, should USACE be involved?

D. Noble responded that USACE does not conduct additional investigations at these properties where construction is taking place. USACE does not think that the issues in Spring Valley require property owners to check with USACE before they dig at their property.

Jim Sweeney, DOEE noted that this did occur for a while but it is not done now that the arsenic soil sampling and cleanup is completed.

VI. Adjourn

The meeting was adjourned at 8:20 PM.