



SPRING VALLEY FORMERLY USED DEFENSE SITE PROJECT **RAB Meeting**

September 11, 2018
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
 ▪ RAB Membership, TAPP Contractor
- 7:15 p.m. II. USACE Program Updates**
Groundwater Study
Site-Wide Remedial Action
Glenbrook Road
- 8:05 p.m. III. Community Items**
- 8:10 p.m. IV. Open Discussion & Future RAB Agenda Development**
Upcoming Meeting Topics:
 ▪ (Suggestions?)
 ▪ Policy issues between USACE and EPA concerning Groundwater restoration at CERCLA sites.
- *Next meeting: November 13, 2018 (Last meeting of 2018)
- 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

11 September 2018

“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.”

“The views, opinions and findings contained in this report are those of the authors(s) and should not be construed as an official Department of the Army position, policy or decision, unless so designated by other official documentation.”



AGENDA REVIEW

Co-Chair Updates

- Introduction, Announcements

Task Group Updates

- RAB Membership, TAPP Contractor

USACE Updates

- Groundwater Study
- Site-Wide Remedial Action
- Glenbrook Road

Community Items

Open Discussion & Future RAB Agenda Development

Public Comments



US Army Corps
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CO-CHAIR UPDATES

Introductions



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CO-CHAIR UPDATES

Announcements

Website Updates:

- July and August Monthly Site-Wide Project Updates
- Weekly 4825 Glenbrook Rd Project Updates with photos
- July RAB meeting minutes
- June 28 Partner meeting minutes and scheduled October 18 meeting date

BALTIMORE DISTRICT

US Army Corps of Engineers

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HOME > HOME > SPRING VALLEY

Announcements

Next Restoration Advisory Board Meeting - May 8, 2018

The next RAB meeting is scheduled to be held on **Tuesday, May 8 at 7 pm**. These meetings are open to the public. Currently, the RAB meets every other month for 60-90 minutes in the 'Undercroft' meeting room at St. David's Episcopal Church, 5150 Macomb Street NW, D.C.

Final Site-Wide Decision Document Now Available:

The Final Site-Wide Decision Document is complete and is now available at the Information Repository and for download here on our site. The Decision Document outlines the selected remedies to address both unacceptable risks posed by soil contamination and unacceptable explosive hazards posed by the possible presence of munitions and explosives of concern (MEC).

Click here to visit the Site-Wide section of the Spring Valley page where the Final Site-Wide Decision Document can be downloaded

Spring Valley Overview

The Spring Valley Formerly Used Defense Site (FUDS) consists of approximately 660 acres in the northwest section of Washington, D.C. During the World War I-era, the site was known as the American University Experiment Station, and was used by the U.S. government for research and testing of chemical agents, equipment, and munitions. Today, the site encompasses

Project Efforts

- Project Update
- 4825 Glenbrook Road
- Site-Wide
- Groundwater

Site-Wide

The Corps' pondent

Project Documents



TASK GROUP UPDATES

- RAB Membership
 - The Corps is hosting another RAB orientation on September 17th at 10am – all RAB members welcome.
- TAPP Contractor Retiring



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MEMO

To: RAB Co-chairs, RAB
From: PL deFur, ESC- TAPP advisor
RE: list of issues
Date: 5 Sept 2018

With apologies for tardiness in replying to the discussion point from the July RAB meeting regarding the remaining items/topics for consideration in technical assistance to the RAB under TAPP.

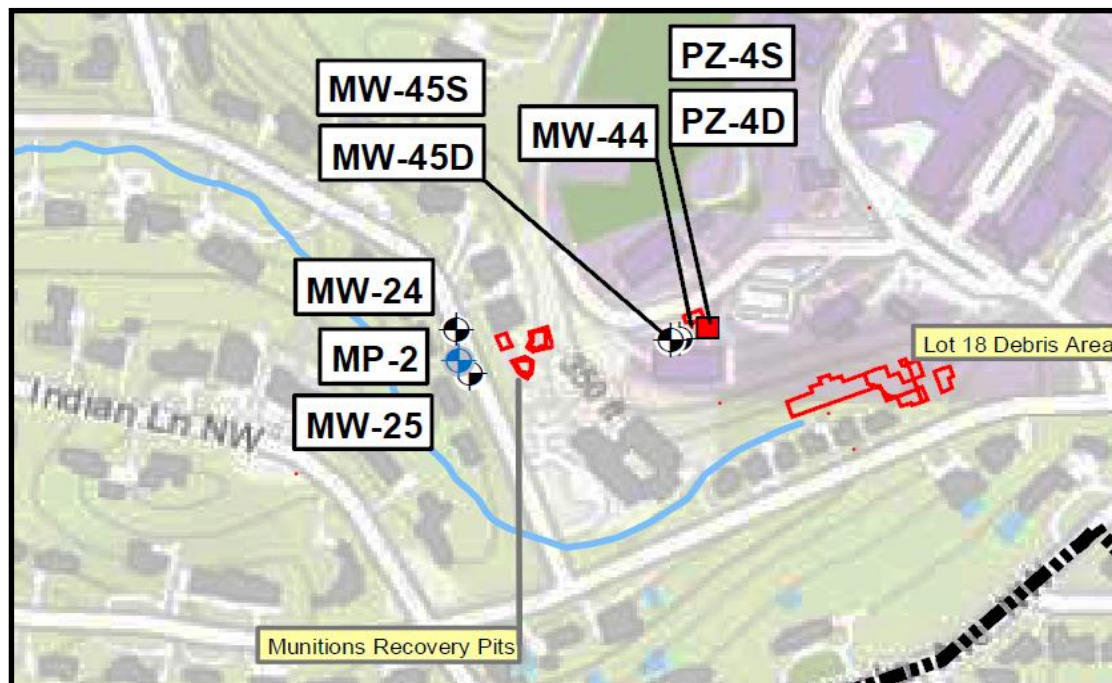
The items that came before the RAB in July form the basis for the remaining issues to be evaluated by a Technical Advisor to the RAB, with little modification.

The topics are:

- **Glenbrook Road remedial actions and evaluation.** The remedial work on 4825 Glenbrook Rd is not quite finished and requires some additional removal before the initial work can be completed. In addition, the remedial work at the property line with 4835 Glenbrook Rd was halted in summer of 2017 due to exposure issues at the excavation site. Continued technical discussions will take place, including data review and input to decisions as the work resumes and soil removal progresses. At 4835, important data evaluations and discussions will occur in the coming months as the latest results of soil and sub slab gas analysis are obtained and evaluated. At present, no agent (or breakdown products) have been identified in the soil, but trace levels have been reported in sub-slab gas sampling. Following soil removal of source materials, additional sampling will be conducted and the results evaluated.
- **Site -Wide remedial work:** including removal of contaminated soil; evaluation and remedial actions at the former Public Safety Building on AU campus; geophysical surveys and removal of MEC from 90+ properties centered on the range fan. The contaminated soil on the Woodway Lane property needs to be removed and sufficient soil needs to be removed to confirm that the risk level will be acceptable for residential property use. The site-wide work includes the completion of work at the Public Safety Building on AU campus. The work requires removal of the slab and any/all AU debris from the soil beneath the slab. This site is considered an extension of the Lot 18 debris field removal, an action that had its own unexpected turn of events.
- **Groundwater-** The Corps finished the Final Feasibility Study and is preparing the Draft Proposed Plan for public comment in the fall of 2018. The challenge in this case is that the 3 agencies have not been able to reach a consensus agreement on how to proceed with the groundwater remedial approach in the coming years. The questions center around the latest monitoring results, the monitoring effort, closing and decommissioning groundwater wells, and active or passive remedial actions.
- **On-going new discoveries.** The Corps team and partners have learned over the years that sites such as SV always bring new discoveries and new challenges. The next TAPP advisor to the RAB will encounter something new.

GROUNDWATER STUDY

USACE Updates



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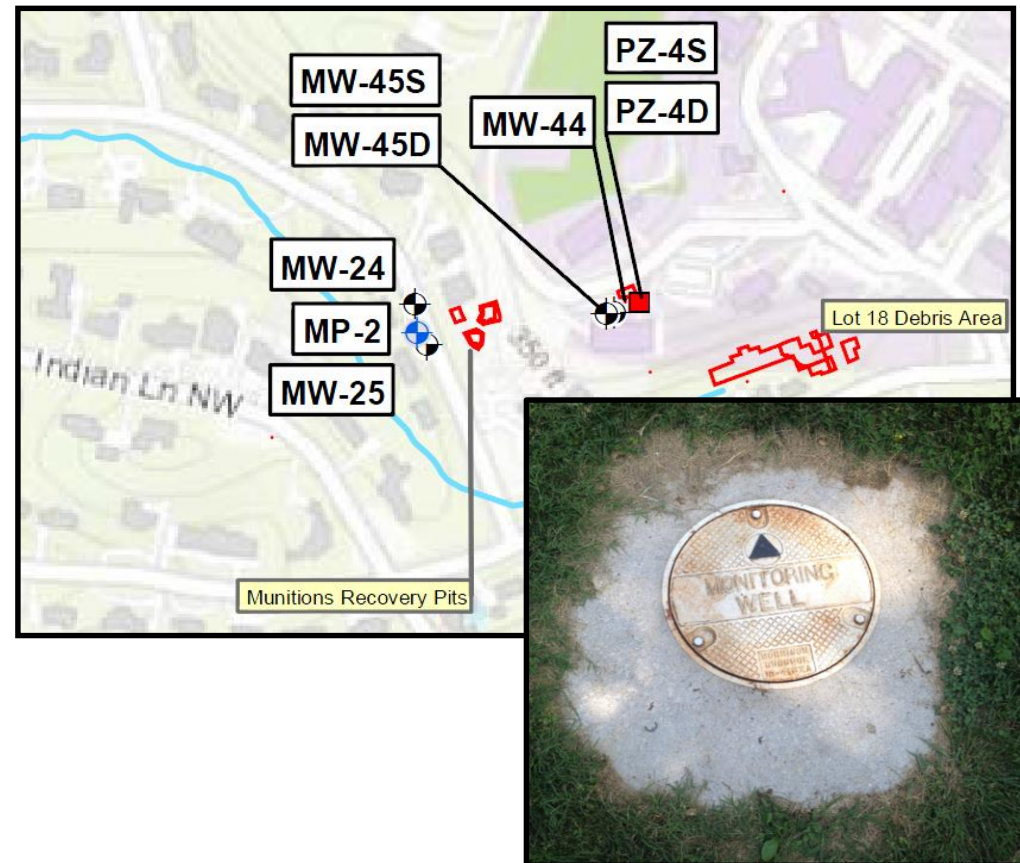
GROUNDWATER FEASIBILITY STUDY (FS)

7

The Army Corps has completed modification of the Feasibility Study (by adding 'monitored natural attenuation' as a remediation alternative) and has resubmitted to the Partners. The Army Corps will address any additional Partner comments.

In addition, the Army Corps will share the draft Proposed Plan with the Partners.

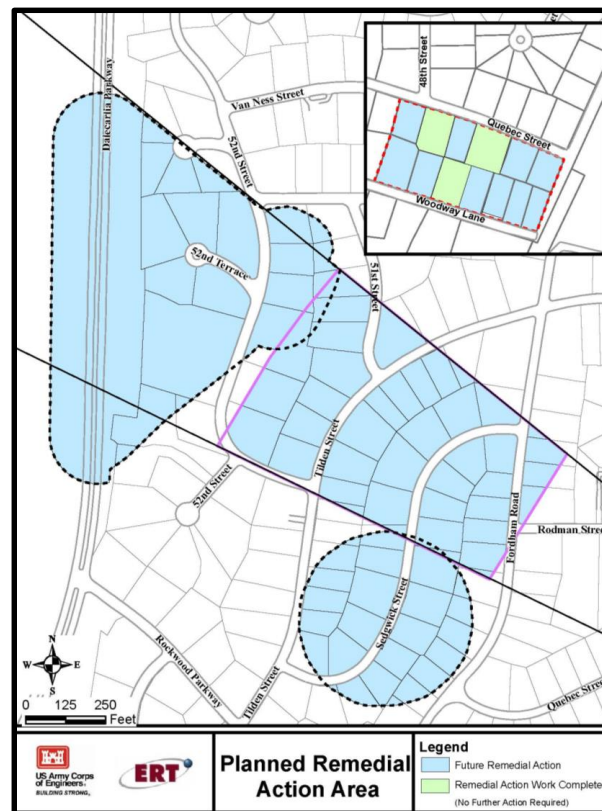
The Proposed Plan is schedule to be briefed to the RAB at the November 2018 meeting.



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SITE-WIDE REMEDIAL ACTION (RA)

USACE Updates



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SITE-WIDE REMEDIAL ACTION

Munition Education and Awareness (the 'Land Use Control Implementation Plan,' or LUCIP) entails continuing the 3Rs of the Explosive Safety Education Program (*Recognize, Retreat, Report*), and 5-year reviews to ensure that human health and the environment continue to be protected.

The team continues to prepare a FUDS information notice, along with a brochure about the 3Rs, to distribute to the community once the LUCIP is reviewed by the Spring Valley Partners and finalized. Initial distribution is anticipated this Fall.



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SITE-WIDE REMEDIAL ACTION

Activities at some of the 91 private properties



Geophysicists drafting initial vegetation removal plan

Arborists conducting landscape surveys



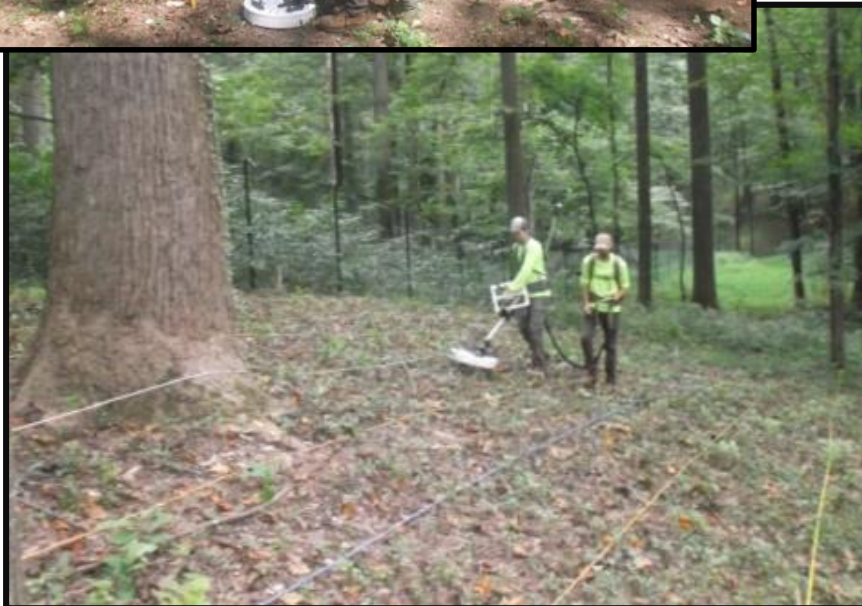
SITE-WIDE REMEDIAL ACTION

Advanced Geophysical Classification (AGC) survey efforts underway in Dalecarlia Woods

Team conducting dynamic survey with MPV in Dalecarlia Woods



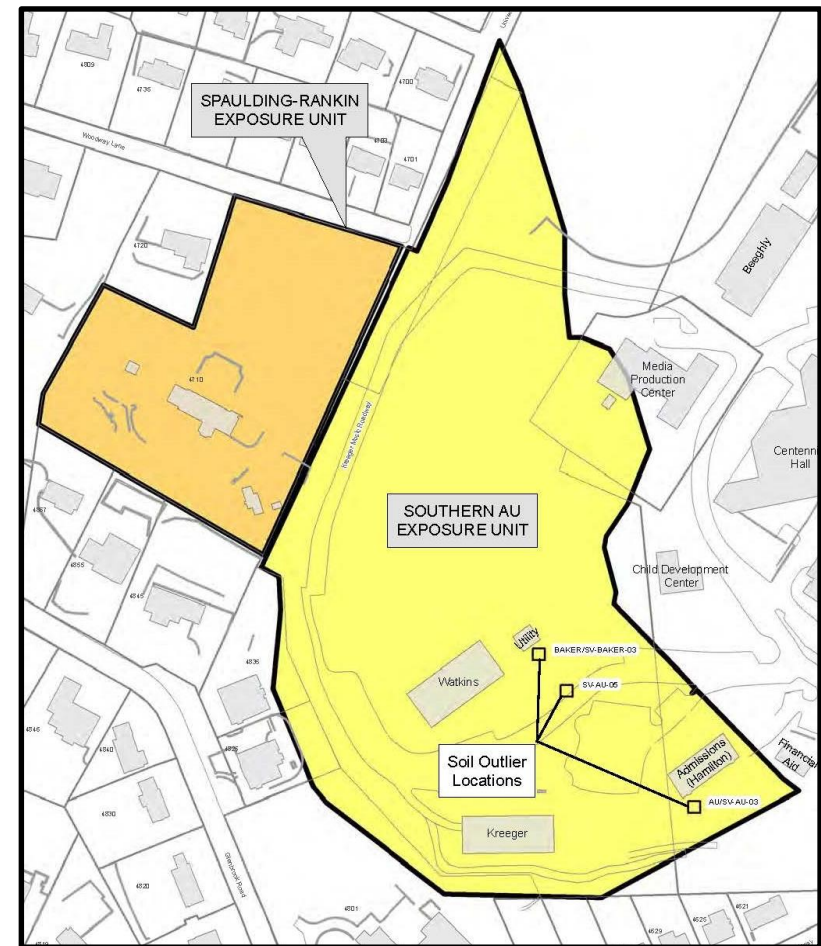
Geophysicists conducting dynamic survey with magnetometer (G-858) in Dalecarlia Woods



SITE-WIDE REMEDIAL ACTION

Hot spot soil removal at one residential property (Spaulding and Captain Rankin Area, or SCRA):

- ✓ Completed civil and landscape surveys, landscape plan & appraisal at SCRA.
- ✓ Conducted a site walk with SCRA homeowner, document site conditions, review and receive approval of the landscape plan from owners.
- ✓ Complete pre-excavation delineation soil sampling.
- ✓ Confirm soil excavation requirements.
- Perform soil removal and restoration anticipated in mid-September.
- Work at the Southern AU campus exposure units is projected begin later this year.



Soil Excavation Areas



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SITE-WIDE REMEDIAL ACTION

Activities at the SCRA property



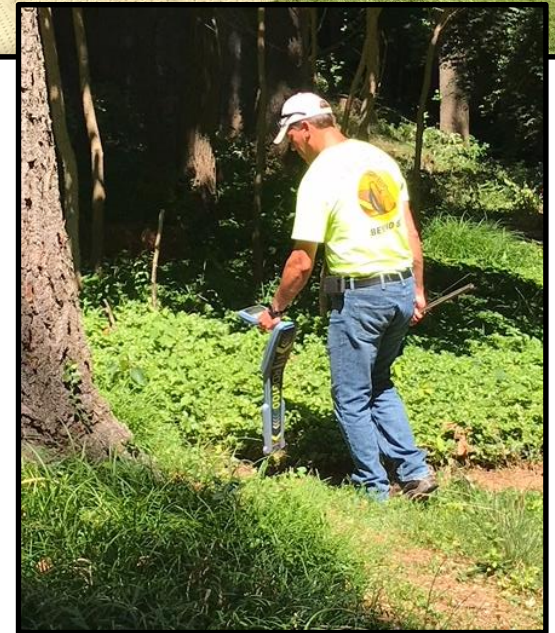
*Collecting
soil borings*



*Moving the mini-excavator
along mats to minimize lawn
damage*



*Collecting soil
samples for
lab analysis*



*Surveying for utilities before
soil boring sampling began*

Remedial Action - Tentative Schedule

*Right-of-Entry → Schedule civil survey & landscape appraisal → Geophysical surveying →
Data processing → Anomaly removal → Restoration*

Fall

Finalize plant removal plans for first group of homeowners; start geophysical surveys at first group of properties; begin soil removal and restoration at the Spaulding-Captain Rankin (SCRA) property.

Late-Fall

Finalize and distribute the Munitions Education and Awareness packet (first of future annual mailings).

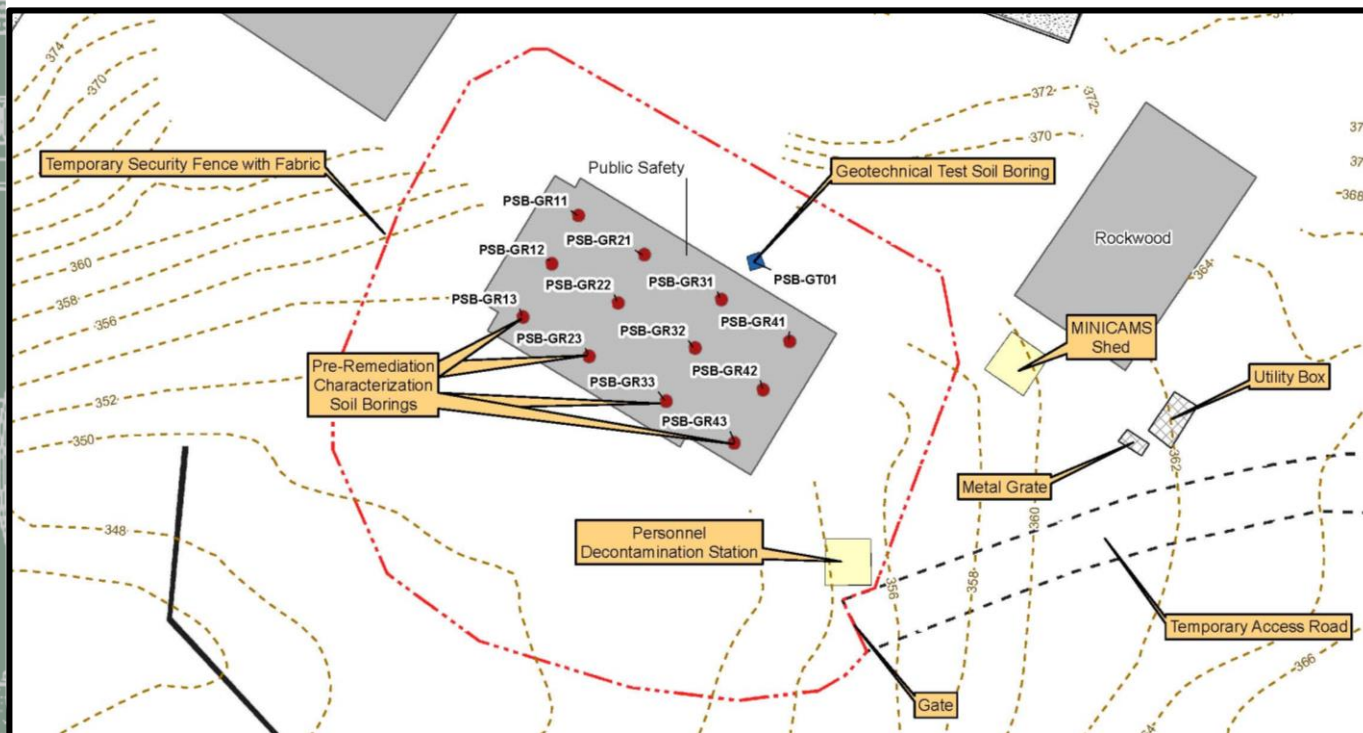
Winter

Continue finalizing plant removal plans with subsequent groups in preparation for geophysical surveys; begin to obtain Rights-of-Entry from the next group of homeowners. Begin soil removal preparations for the southern AU campus exposure unit.

FORMER PUBLIC SAFETY BUILDING

Excavate under the foundation of AU's former Public Safety Building (PSB):

- The geoprobe sub-slab pre-characterization soil boring sampling results were clear of chemical warfare agents/agent breakdown products. The basement slab and soil removal will remain a low-probability action.
- The team is working to shut off the gas line that passes along the edge of the PSB foundation and cinder block walls.
- Mobilization for slab and soil removal is tentatively scheduled to start in the Fall.



*Subsurface
soil sampling
locations*



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Former Public Safety Building - Remedial Action Tentative Schedule

Fall/Winter	Complete Rerouting of Gas Utility Line.
Fall/Winter	Remove Concrete Foundation Slab. Excavate Contaminated Soils Underneath Removed Foundation Slab.
Winter/Spring	Take Confirmation Samples.
Winter/Spring	Backfill With Clean Soil. Demobilization.



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GLENBROOK ROAD

USACE UPDATES



RECENT ACTIVITIES – 4825 GLENBROOK RD



Crews at the Glenbrook Road project area completed backfilling and compacting clean soil after the excavation of the last active arsenic-contaminated grid near 4801 Glenbrook Road.

Backfilling grids with clean soil



RECENT ACTIVITIES – 4825 GLENBROOK RD

Crews cleaned and performed maintenance on the equipment and machinery; repaired weather related damages to the site; and continued to prepare for our planned return to work.



Erosion and Sediment Controls



*Shoring Washing
Remedy*



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4825 GLENBROOK RETURN-TO-WORK PLAN OVERVIEW

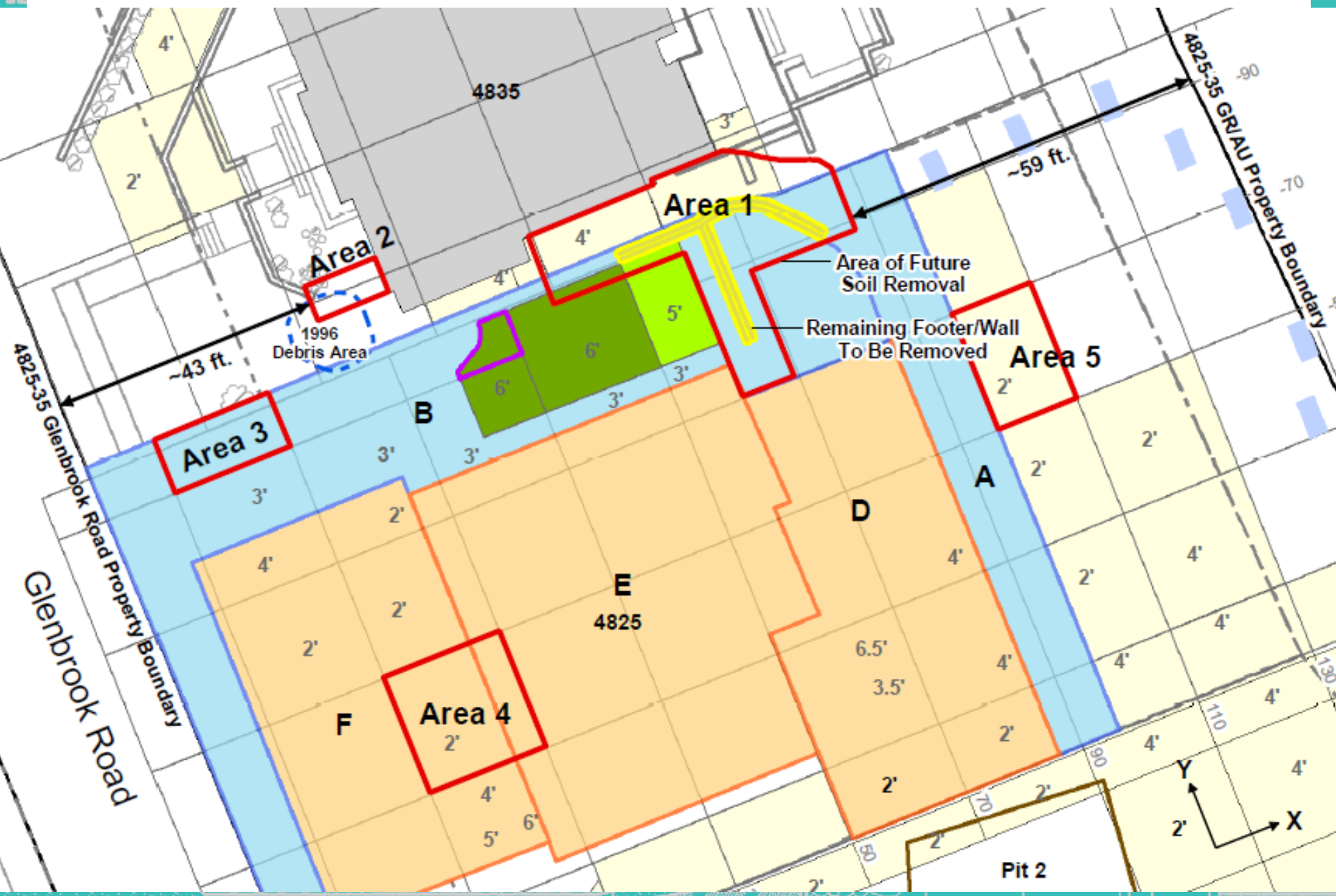
- Resume work with workers in Level B PPE.
- Air monitoring protocols to be enhanced, to include both MINICAMS and DAAMS, plus our industrial air monitoring.
- Weather related operational constraints, including temperature restrictions, would be added: work would only be performed at temperatures equal to or below 75 degrees F.
- Use of mechanical excavation to allow soils to be transferred from excavation area directly to drums, instead of hand digging to minimize soil handling and exposure.
- No additional engineering controls (open air excavation).



Level B Personal Protective Equipment (PPE)

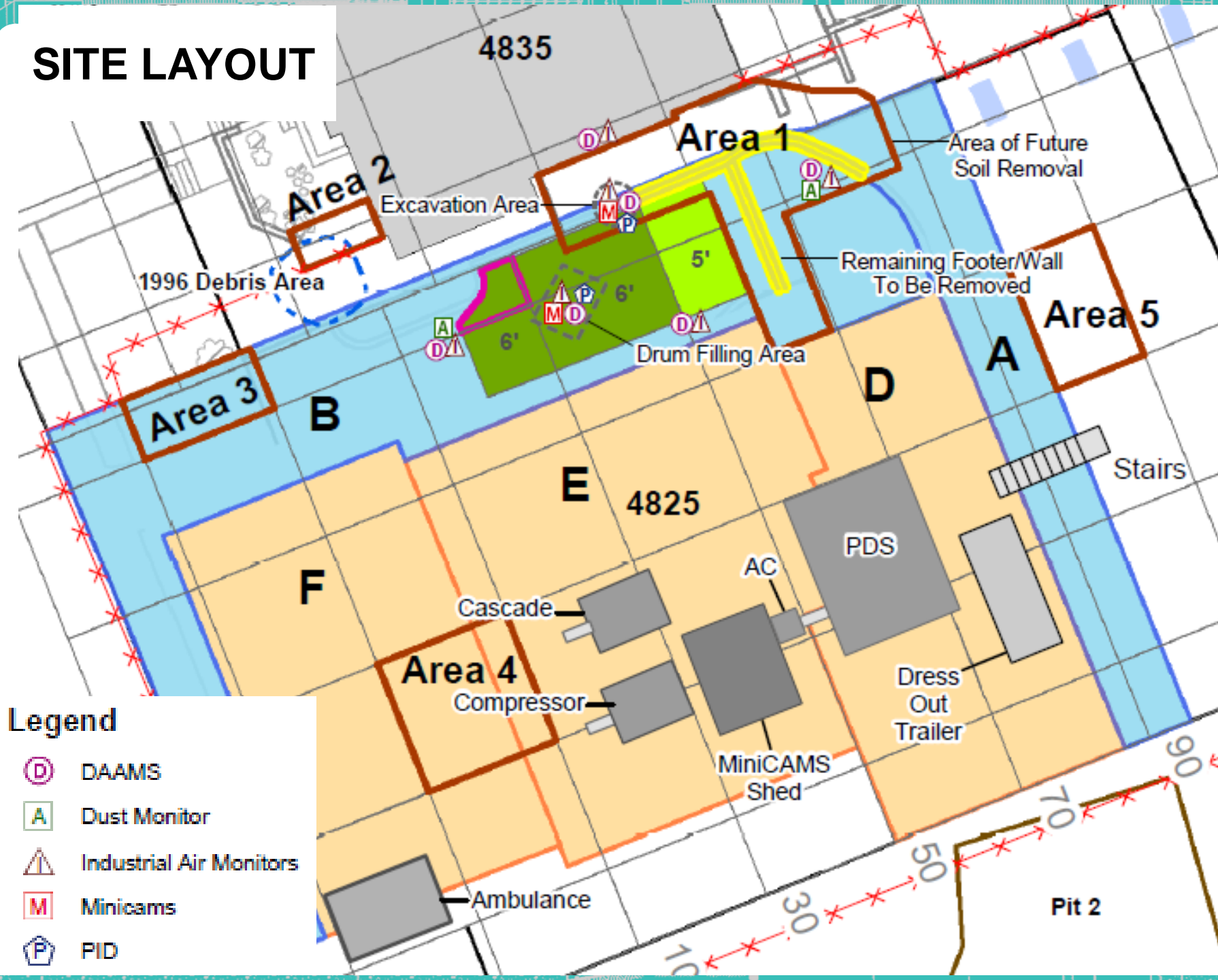


Mini-excavator placing soil into poly drums



SITE LAYOUT

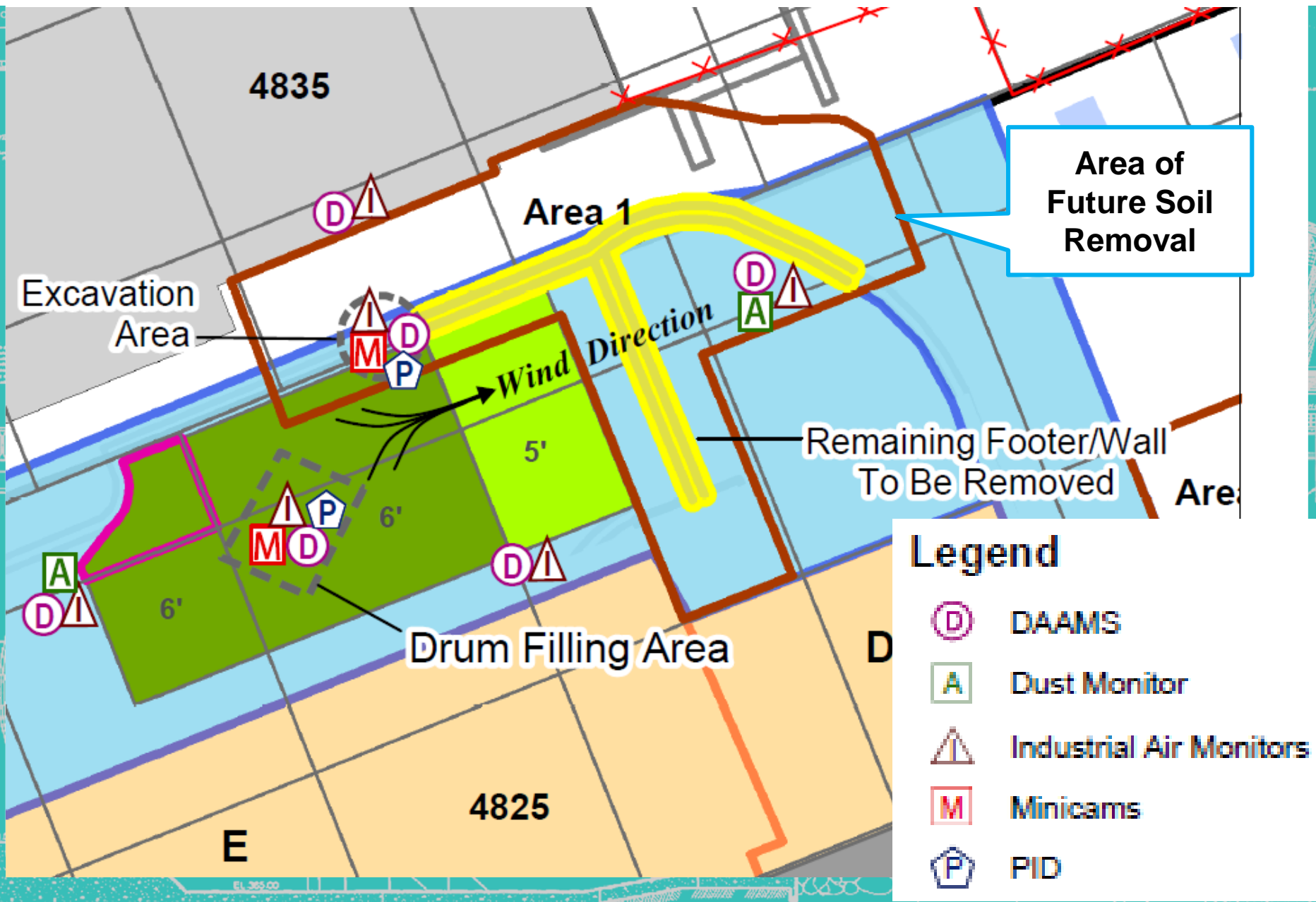
23



Legend

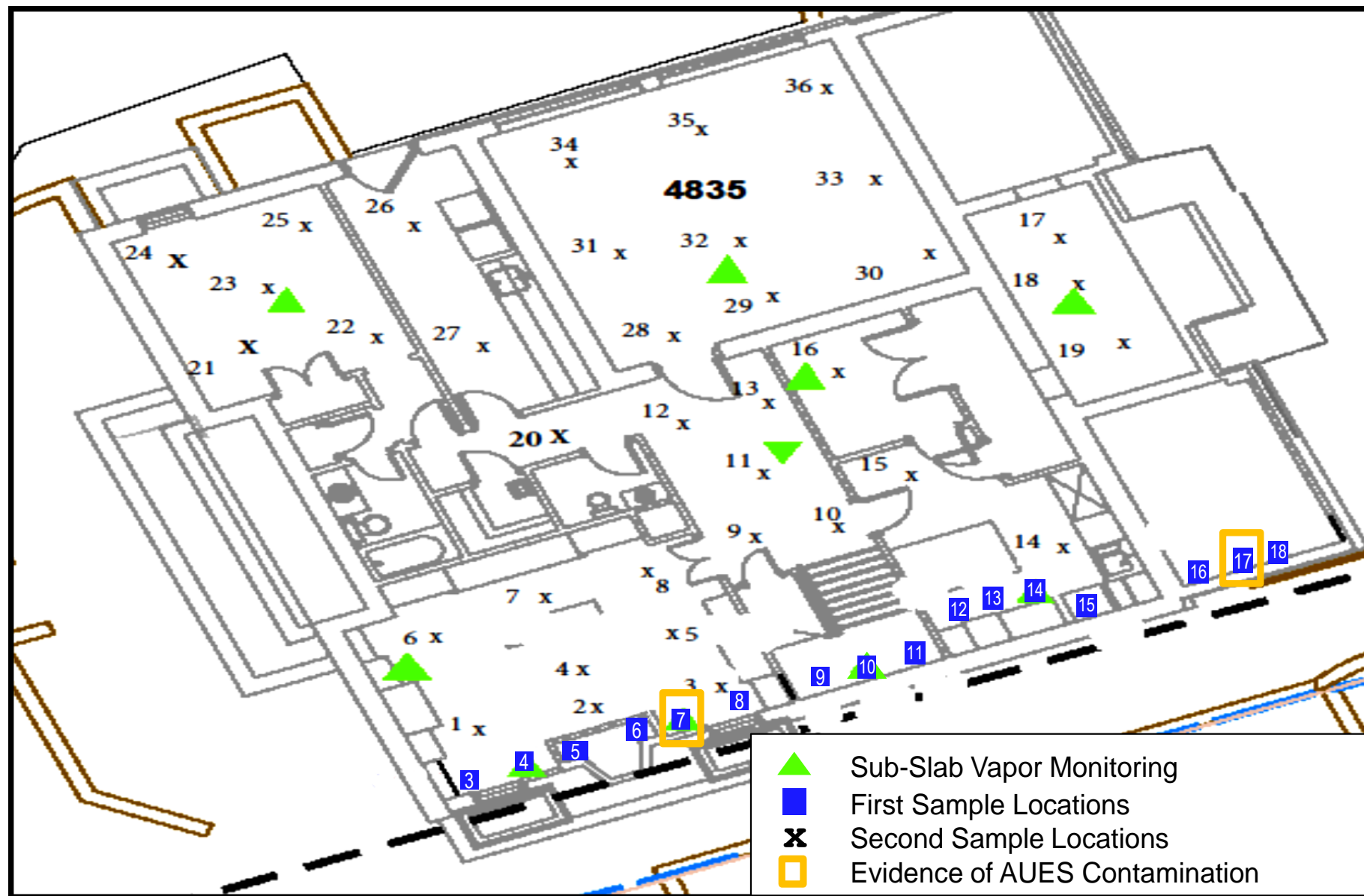
- DAAMS
- Dust Monitor
- Industrial Air Monitors
- Minicams
- PID

AIR MONITORING LOCATIONS



4835 GLENBROOK SAMPLING LOCATIONS

25

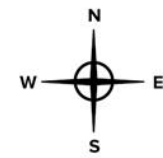


4835 GLENBROOK ROAD – PATH FORWARD

- At the May 2018 Partnering meeting, it was agreed that USACE would perform soil gas sampling at the ten (10) soil gas sampling points installed during the sampling effort
 - One round of soil gas sampling was performed in July and the analytical results have been received
 - ✓ Agent breakdown products were detected in 8 soil gas sampling locations. All detections were low level detections.
 - ✓ At a minimum, a second round of soil gas sampling will be performed after the Remedial Action at 4825 Glenbrook Road is complete (the remaining soils along the property line represent a possible source).
- At this time, the team continues to recommend no further actions at 4835 Glenbrook Road other than the soil gas sampling described above. Restoration of the sampling locations will be resolved after all soil gas sampling is complete.

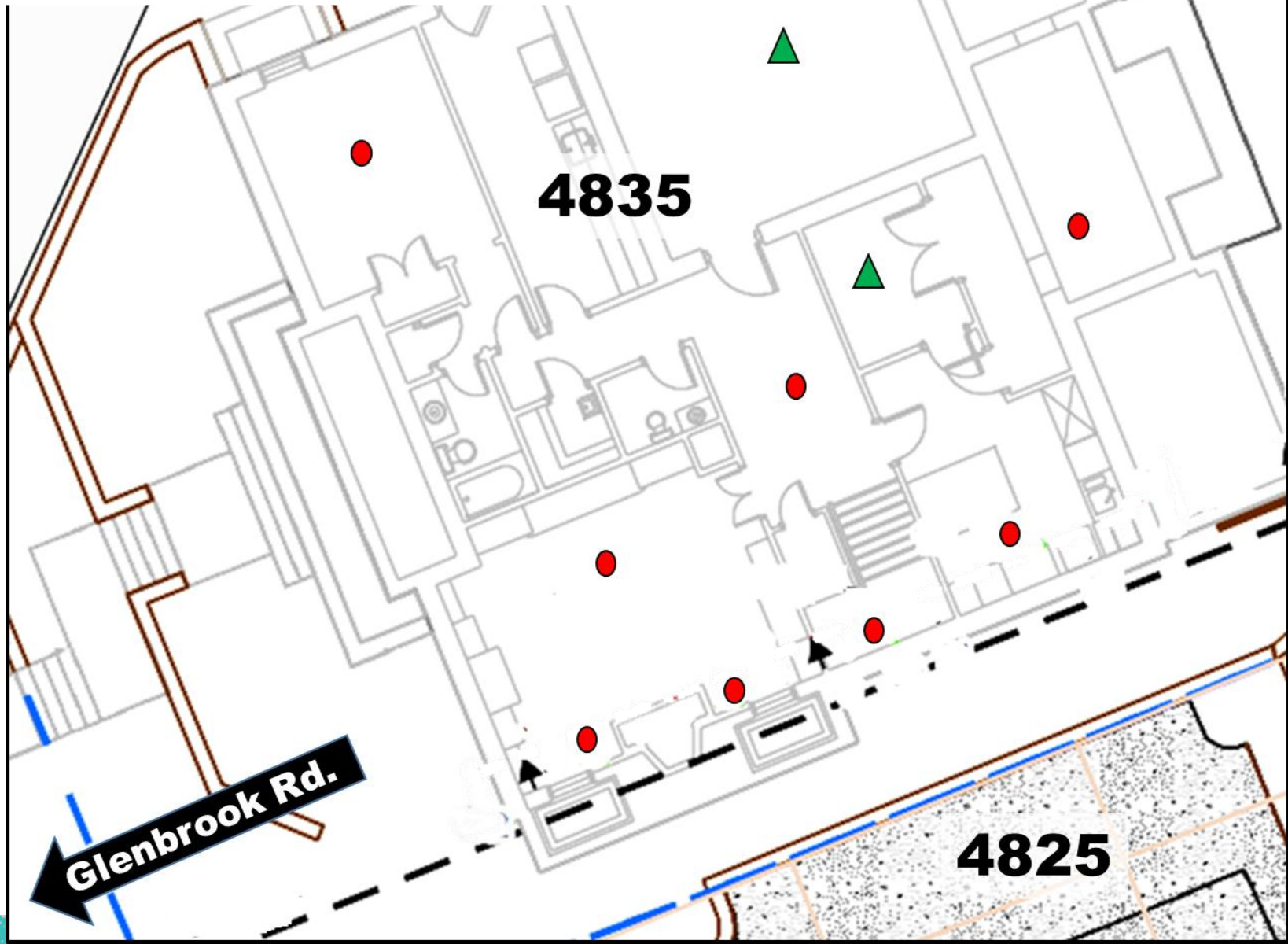


INITIAL SOIL GAS SAMPLING LOCATIONS



● Low level detections of agent breakdown products.

▲ No detections.



4835 GLENBROOK SOIL GAS SAMPLING RESULTS

- Initial soil gas samples were taken from 10 sampling points from under the basement floor of 4835 Glenbrook Rd, and sent to commercial lab for additional AUES analysis. The primary contaminants (VOCs and SVOCs) found by the commercial lab were:
 - Chloroform
 - Tetrachloroethene
 - Toluene
 - Vinyl Chloride
 - Trichloroethene
 - 1,2,4-Trimethylbenzene
- These chemicals are common in an urban environment. The Partners discussed these results, and their consensus was that these results are not of concern.
- As a reminder, all **148** soil samples were analyzed for low level agent analysis (Lewisite, Mustard, 1,4-Dithiane, 1,4-Thioxane)
 - **All soil samples were non-detect for low level agent**



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TENTATIVE SCHEDULE: GLENBROOK RD PROJECT AREA

September 2018	Present final update of work plans to the RAB and begin remobilization mid-September for returning to work.
Fall/Winter 2018/19	Resume the soil removal operation along the 4825/4835 Glenbrook Road property line, starting in early October.
Spring/Summer 2019	Potential completion of remedial activities at 4825 Glenbrook Road. Start of site restoration for Glenbrook Road sites – 4801, 4825, and 4835.



SPRING VALLEY FUDS RESTORATION ADVISORY BOARD

30

Community Items



SPRING VALLEY FUDS RESTORATION ADVISORY BOARD

Open Discussion:

Reminders:

- The next RAB meeting will be
Tuesday, **November 13th, 2018**
(Last meeting of 2018)



Upcoming Agenda Items:

- Policy issues between USACE, EPA, and the D.C. DOEE concerning Groundwater restoration at CERCLA sites.
- Suggestions?



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SPRING VALLEY FUDS RESTORATION ADVISORY BOARD AGENDA (continued...)

- **Public Comments**
- **Wrap-Up**



**U.S. Army Corps of Engineers
Spring Valley Restoration Advisory Board
St. David's Episcopal Church
Minutes of the September 2018 Meeting**

RESTORATION ADVISORY BOARD MEMBERS PRESENT AT THIS MEETING	
Dan Noble	Military Co-Chair/USACE, Spring Valley MMRP Manager
Greg Beumel	Community Co-Chair
Dr. Peter deFur	Environmental Stewardship Concepts/RAB TAPP Consultant
Alma Gates	At Large Representative - Horace Mann Elementary School
Andrew Huff	American University
George Vassiliou	Community Member
Mary Douglas	Community Member
Paul Bermingham	Community Member
William Krebs	Community Member
Malcolm Pritzker	Community Member
Lawrence Miller	Community Member
John Wheeler	Community Member
RESTORATION ADVISORY BOARD MEMBERS NOT PRESENT AT THIS MEETING	
Tom Smith	Community Member
Dave Tomlinson	Agency Representative - Department of Energy & Environment
Paul Dueffert	Community Member
Jennifer Baine	Community Member
Lee Monsein	Community Member
Mary Bresnahan	Community Member
Steve Hirsh	Agency Representative - Environmental Protection Agency (EPA) Region III
ATTENDING PROJECT PERSONNEL	
Brenda Barber	USACE, Spring Valley Project Manager
Alex Zahl	USACE, Spring Valley Technical Manager
Rebecca Yahiel	Spring Valley Community Outreach Program
Whitney Gross	Spring Valley Community Outreach Program

Holly Hostetler	ERT, Inc.
Carlos Lazo	USACE, Government Affairs Liaison
HANDOUTS FROM THE MEETING	
I. Final Agenda for the September 11, 2018 RAB Meeting II. Army Corps of Engineers Presentation III. August 2018 Monthly Project Summary IV. June 2018 Corps' pondent V. List of Issues Memo from Dr. Peter deFur, Environmental Stewardship Concepts/RAB TAPP	

AGENDA

Starting Time: The September 2018 Restoration Advisory Board (RAB) meeting began at 7:08 PM.

I. Administrative Items

A. Co-Chair Updates

Dan Noble, U. S. Army Corps of Engineers (USACE), Spring Valley Project Manager, welcomed everyone and opened the meeting.

1. Introductions

None

2. General Announcements

D. Noble reviewed website updates which included the July and August monthly project updates, weekly 4825 Glenbrook Road updates and photos, July RAB meeting minutes, June Partner meeting minutes, and scheduled October 18 Partner meeting date.

B. Task Group Updates

1. RAB Membership

Greg Beumel, Community Co-Chair, invited Malcolm Pritzker, Community Member to update the RAB on membership activities.

Comment from M. Pritzker, Community Member - The RAB Membership Orientation, which everybody is invited to. I took it many years ago. I cannot tell you that it made me an expert, but it certainly made me much more informed about what we are doing and what we are supposed to be doing.

Rebecca Yahiel, Spring Valley Community Outreach Program, pointed out that a new member was scheduled to be voted on at this meeting.

G. Beumel, Community Co-Chair, confirmed there was a quorum of RAB voting members and invited new member candidate Mary Kathryn Covert Steel to introduce herself.

Comment from Mary Kathryn Covert Steel, RAB Member Candidate - I am Mary Kathryn Covert Steel. I bought the home on 49th Street in November of 2017. My husband and I are long-time DC residents, we have lived here for about 10 years. My interest in the RAB is as a new

homeowner. We do not have children yet but plan to. It is to ensure that we made a wise investment, but also, having worked in the pharmaceutical industry, I have been intimately involved in the communications around different cleanups. I think it is very important that you communicate open and transparently and hope to bring those skills to the RAB if you will have me. So, thank you again for the opportunity and thank you to Whitney, Rebecca, Carrie, and Malcolm for entertaining my many emails with questions. I really appreciate it.

Comment from M. Pritzker, Community Member - I move that the RAB accept this new member as a good addition to our group.

Comment from George Vassiliou, Community Member - Second.

G. Beumel called on the RAB for all in favor of the motion. The motion carried.

Comment from G. Beumel, Community Co-Chair – Welcomed Mary Kathryn Covert Steel and thanked the Board

Comment from G. Beumel, Community Co-Chair - The next item is that Dr. Peter deFur, Environmental Stewardship Concepts/RAB Technical Assistance for Public Participation (TAPP) Consultant, has decided to retire. P. deFur would like to say a few words and present his final memo to the RAB.

Comment from P. deFur, RAB TAPP Consultant - Thank you very much. It has a good 16 years. It has been a rewarding and worthwhile effort. We can create a list of accomplishments done in the 16 years. One of the latest documents that I have recounts those in very summary form. 1,628 properties were surveyed, 170 some-odd removals of contaminated soil. Over 16 years it sounds like, 'well, you could have gone at a faster pace,' but you do not know from Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This has gone on pretty well and I am pleased to say that I have been a part of it. So, at the last RAB meeting the question came up about, 'what does the TAPP advisor got to do, what have we got left?' This memo summarizes it. Much of what is on the memo was on our agenda last time. We have some very important things that remain, and they are going to take some technical review. I had this conversation a number of years ago on another site, in which one of the leadership said, 'why do we need to spend this money on our own consultant when we have got the agencies doing it?' Well, the advantage to having your own technical advisor is because you want somebody who works for you, somebody who is going to give you their own unbiased, unfiltered, unadulterated professional opinion. There are several activities that are important that are coming up. Glenbrook Road, that we are going to hear about, still has some complicated things to go. We are still collecting data and finalizing decisions and making sure that the next level is being done properly and protectively, which is what everybody wants. Having your own voice in that discussion is really important. The next one is the site-wide remedial work. We have got two components to that. One of them is the removal of some contaminated soil that will be starting sooner than later. The second one is using one of the more advanced pieces of geophysical survey to look for anything left that could be within the range fan; not quite 100 properties. This project started to make sure that these efforts were going to get done, because nobody could be quite certain that those properties were as clear as everybody wanted them to be. Your independent consultant will have a role in that. The third one is the groundwater. There is a new Draft Final Proposed Plan out, the Feasibility Study is about to be finalized, and you will hear about that. That is an important technical component too, for reasons that we will talk about here in a little bit. As every current project manager on this site has said, 'it is not if, it is when and what the next new thing will be.'

There is going to be something else, there always is. You want to have that person ready to help answer, 'what do we do about this, where did this come from?' One of the things that you are going to have to face is the recognition that there are some questions we will never be able to answer. A technical advisor has to help with that. I do not think we will ever know the answer to the source of all the groundwater contamination. That is my professional opinion. When there are holes punched all over the place, there are soil samples collected everywhere, there are repeats, and every trick in the book was used to try and figure out what the source was. Every trick that I know of and every trick that a couple other people that I consulted. I think, that over the years, having an extra set of eyes and an extra person looking at the technical aspect has been helpful to USACE, to the Environmental Protection Agency (EPA), and to the cleanup. I can think of a couple times when my input caused things to go in a slightly different direction, and I think it was better. That is my report. Learning to get along with a lot of different people, and row in the same direction even when you are grabbing different ends of the oar.

Comment from G. Beumel, Community Co-Chair - Peter, I want to just take a moment and thank you for 16 years of work. I can remember in the early days when it was very different than it is today. We were investigating more than remediating; and now we are remediating more than investigating. Even though we still are not done with the investigating, at least we have started cleaning some things up. Thank you very much, and please, throughout the meeting we want to hear what you have to say about some of these reports that coming up from USACE.

Comment from Lawrence Miller, Community Member - I move more formally that the RAB resolve as follows: The Restoration Advisory Board commends Dr. Peter deFur for extraordinary service to the community, including consistent attention to detail, lucid and cogent explanations of complex technical matters, and provision of an independent view of great value to the Spring Valley and American University (AU) park.

Comment from William Krebs, Community Member - Second.

G. Beumel called on the RAB for all in favor of the motion. There were many 'ayes' and none opposed. The motion carried.

Comment from P. deFur, RAB TAPP Consultant - Thank you very much.

M. Pritzker called on the RAB for a round of applause.

Brenda Barber, USACE, Spring Valley Project Manager pointed out that at the last meeting the RAB agreed that after discussion of hiring a new TAPP Consultant, the RAB would conduct a vote so USACE may begin the recruitment process.

Comment from G. Beumel, Community Co-Chair - Peter has given his argument in favor of it. Does anyone have an alternate opinion or a concurring opinion?

Question from A. Hengst, Audience Member - Does he get a salary?

G. Beumel confirmed that the RAB TAPP Consultant signs a contract with USACE and is paid.

Question from A. Hengst, Audience Member - So the Army pays him?

G. Beumel confirmed this.

Question from A. Hengst, Audience Member - Is that public, the amount?

G. Vassiliou explained that it is a contract, so the amount is public.

Question from A. Hengst, Audience Member - So the RAB is essentially voting to have USACE...?

G. Beumel confirmed that the RAB is voting to have USACE hire someone.

Comment from P. deFur, RAB TAPP Consultant - Right. The way in which that administration works for a Formerly Used Defense Site (FUDS) project is that I am contracted directly with the Army, so I have a legally binding contract with USACE. I work for the RAB. G. Beumel will remember this, and maybe somebody else, that when I was first on contract there was an active sub-group, an active committee that I met with and worked with. That has dwindled away to the Chair. We had a toxicologist, chemist, geologist, and an anthropologist.

D. Noble explained that the TAPP program is a Department of Defense (DoD) program designed to meet the DoD's legal obligation to provide technical assistance and help promote the exchange of information with the communities impacted by the work. If there is a RAB established, the very next question is, 'does that RAB have a TAPP Consultant?' There is a statutory limit on the duration the TAPP Consultant may be hired, and USACE went past that limit for the Spring Valley RAB a long time ago. USACE Baltimore may request an extension of the authority to hire a new contractor every 2 years. USACE Baltimore has filed that extension every 2 years. There is no limit placed on how long the extension process may be applied.

Question from M. Pritzker, Community Member - Is there a staff of consultants on retainer at this point? How are they selected?

Comment from Alma Gates, At Large Representative - Horace Mann Elementary School - I think they were nominated by the RAB.

G. Beumel confirmed that P. deFur was nominated by the RAB and explained that the hiring process was started before G. Beumel joined the RAB. G. Beumel was not involved in selecting P. deFur, therefore he did not know how the RAB obtained the names of potential consultants.

P. deFur explained that there were two listservs for technical consultants. One focused on military sites and the other was focused on EPA non-military sites. Everyone that worked in a technical capacity as a consultant subscribed to one or both listservs. Ted Henry submitted an advertisement on both listservs.

B. Barber noted that for this case the hiring process will begin with Sources Sought. USACE Baltimore will present the respondents to the RAB for review. Then USACE Baltimore would submit a formal bid.

D. Noble pointed out that if P. deFur recommended someone, that person would be directed to formally respond to a notice in FedBizOpps.gov and be added to the list of respondents. The RAB has some influence on the selection of the candidate. The process may take months to hire a new contractor.

Comment from A. Gates, At Large Representative - Horace Mann Elementary School - I would just like to say, as someone who has attended many of the Partnering meetings, the importance of this position. Peter is our representative at those meetings. You certainly did an excellent job representing us and the concerns of the community. Thank you for that. What I am saying to the RAB is the importance of this position to us. It is not something we should take lightly. It should be considered moving forward.

Comment from L. Miller, Community Member - I move that the RAB request USACE to take

appropriate steps to recruit a replacement TAPP Consultant.

Comment from W. Krebs, Community Member - Second.

G. Beumel called on the RAB for all in favor of the motion. There were many 'ayes' and none opposed. The motion carried.

D. Noble confirmed that USACE Baltimore will begin the recruiting process and provide the RAB with more details at the November RAB meeting.

II. USACE Program Updates

A. Groundwater Feasibility Study

D. Noble provided a brief status update on the Groundwater Feasibility Study (FS).

At the last Partner meeting, Todd Beckwith, USACE briefed the Partners that USACE Baltimore is finalizing the Groundwater FS, after the modification of adding Monitored Natural Attenuation as a Remediation Alternative to be considered. USACE Baltimore will post the Groundwater FS on the website when complete. The RAB was briefed on the Groundwater FS previously, but T. Beckwith will attend the RAB meeting in November with the Groundwater contractor. USACE Baltimore will also present the draft Groundwater Proposed Plan (PP). T. Beckwith will discuss the schedule of public events that must accompany the Groundwater PP, including the formal public comment period. A public meeting separate from the RAB meeting will be held to provide more detail on the Groundwater PP.

Question from A. Hengst, Audience Member - Will the public be able to see the [Ed. Groundwater] FS before they comment on the [Ed. Groundwater] PP?

D. Noble confirmed this.

Question from A. Hengst, Audience Member - So, when will the [Ed. Groundwater] FS be public?

D. Noble explained that the Groundwater FS is expected to be made public in the next few days.

Question from P. deFur, RAB TAPP Consultant - That was part of my question about the steps in the scheduling process. For the [Ed. Groundwater] FS, you have gotten all the comments that you are going to get?

D. Noble confirmed this.

Question from P. deFur, RAB TAPP Consultant - So, that's done, and T. Beckwith sent the Partners the Draft Final Groundwater PP. That will be out for a few weeks?

D. Noble confirmed that the Partners will discuss the Draft Final Groundwater PP at the October Partner meeting. The Draft Final Groundwater PP will then be discussed at the November RAB meeting. T. Beckwith will present the schedule of public events at that meeting.

Question from P. deFur, RAB TAPP Consultant - When does the public get to see the Groundwater PP?

D. Noble explained that the Groundwater PP will be made public at the announcement of the public comment period.

Question from P. deFur, RAB TAPP Consultant - You do not know when that will be?

D. Noble explained that the Groundwater PP will be ready for the 30-day public comment period

in early December, which conflicts with the holidays. T. Beckwith may suggest beginning the Groundwater PP public comment period in the new calendar year. The Groundwater PP document will likely be available on the website before 2019. The formal release will be at the start of the 30-day public comment period.

Comment from P. deFur, RAB TAPP Consultant - Unless someone asks for an extension.

D. Noble confirmed this and explained that a requested extension will automatically be granted for 15 days. Public comment periods are typically open for 45 days. At some point during the 30-45-day public comment period, a public meeting will be held to present the Groundwater PP.

Question from W. Krebs, Community Member - What does a Monitored Natural Attenuation as a Remediation Alternative mean?

D. Noble explained that the idea is that the problem is fixing itself, because there is confidence that the contaminant release has occurred in its entirety and there is now only the remnant of a release. Usually there must be some sort of evidence through monitoring that the contamination levels are improving within a reasonable time-frame. If the monitored levels are not improving, then an alternative remedy must be proposed to more actively address the problem.

Comment from W. Krebs, Community Member - Thank you very much.

B. Site-Wide Remedial Design/Remedial Action

1. Land Use Control Implementation Plan (LUCIP)

Part of the Site-Wide Remedial Action (RA) process is the Land Use Control Implementation Plan (LUCIP). With concurrence from the Partners, USACE Baltimore is finalizing the LUCIP document and informational materials that will be mailed to the community on a routine basis. The mailings will remind the community that the Spring Valley area is a FUDS and will remain a FUDS. An initial mailing will be distributed this fall. The LUCIP directs USACE to distribute mailings annually, usually in the spring when residents are planning outdoor projects. The finalized 25-page LUCIP will be posted on the website and added to the RAB meeting agenda.

Question from Mary Douglas, Community Member - Are you distributing this just within this area of about 95 homes or all over?

D. Noble explained that the remedy called for the mailings to be sent to all ~1,250 property owners in Spring Valley and institutions within the FUDS boundary, including AU, Sibley Memorial Hospital, Washington Aqueduct, and Wesley Seminary.

Question from A. Hengst, Audience Member - When we discussed this at the July meeting with Alex [Ed. Zahl, USACE, Spring Valley Technical Manager], I asked how the brochure was going to be distributed at AU. He and Brenda [Ed. Barber] said they were going to give it to the AU rep, and it was up to the AU rep to pass that on to faculty, staff, and students. Now that we have a rep, can I ask Andrew [Ed. Huff, American University], are you familiar with this brochure, and is this going to be distributed on the campus?

Andrew Huff, American University explained that he had not received the brochure but was happy to distribute any such material.

Question from A. Hengst, Audience Member - How will you do that, you have got a lot of students, staff, faculty?

A. Huff explained that he will need to ascertain who the target audience is, and confirmed that AU is a large community, including students, faculty, staff, commuters, contract workers, and construction workers. AU will find a way to distribute the information.

Comment from A. Hengst, Audience Member - You know, you are new, but I just wanted you to know there is some history here and faculty, staff, and students have complained that they are not getting the information. I hope that they are going to start getting it.

A. Huff confirmed this.

Comment from P. deFur, RAB TAPP Consultant - I just want to add something about the importance of that. As time goes by, peoples' memories begin to fade. There are records, both in the Army's archives as well as local police and probably state police. Every once in a while, across the country, somebody finds some sort of military device and people get hurt and killed. I say that because that has happened down in the Richmond area. Somebody thought, 'oh, I found this really neat old armed...' and it blew them up on their front porch. These are not to be taken lightly.

Comment from John Wheeler, Community Member - That reminds me, I read something that, to me, is kind of counter-intuitive. The older the explosive devices are, and there has got to be a limit to this, if it is 50,000 years old it is probably not a problem, but relatively older, like World War II stuff, is more dangerous now when you find it, more likely to accidentally explode than it was right after it was dropped.

Comment from P. deFur, RAB TAPP Consultant - Yes, and it goes all the way back to the Civil War.

2. 91 Residential Properties and 13 Federal/City Lots

Alex Zahl, USACE, Spring Valley Technical Manager briefly reviewed the Site-Wide Remedial Design (RD)/Remedial Action (RA).

The Advanced Geophysical Classification (AGC) equipment used to survey the 91 Residential Properties and 13 Federal/City Lots include the man-portable vector (MPV), that can recognize and identify known munitions in the ground; and the G-858 magnetometer, a sophisticated metal detector, for deeper items. This equipment scans items to differentiate between military devices and normal metal debris, such as rebar or horseshoes, reducing the impact on residential areas.

The team is currently working on the west side of Dalecarlia Parkway and has cleared 6 of the 7 lots to begin the AGC surveys. The MPV is used to create the dynamic survey, and likely munition items from that survey are compiled into a cued survey. The cued list is surveyed again for a 3-dimensional view of the items, matched against the AGC library to create an excavation list.

Question from A. Hengst, Audience Member - I am glad you have that map up there. Remember the last meeting in July we were talking about Area of Interest 13? I just wanted to clarify something. There was a misunderstanding at the last meeting that we were talking about Point of Interest 2, which is on Fordham Road, that had been checked and was clear. What I am talking about is the possible disposal area, it is marked as a possible disposal area. If you read the Area of Interest Consensus Memo, on that area in the top right-hand corner, it is 13 properties, there is a trench there which is marked as a possible disposal area. When the report was last done in 2012, they mentioned that one of the property owners would not allow a geophysical survey on their property. I mentioned that I thought it was on Quebec Street. Well, I looked it up again, it turns out it is on the 4700 block of Woodway Lane that did not allow the geophysical survey the last

time this was done. So, I want to ask you again, are we going to get to survey this property? Has there been any communication with the property owner where there may be a disposal pit?

A. Zahl and R. Yahiel explained that they would check if the property is on the remediation list.

Question from A. Hengst, Audience Member - If you look at that little map there are green areas. This 4700 block of Woodway Lane property is to the left on the bottom row. The green areas are completed, the blue areas are not done. It has never been surveyed because the owner refused Right-of-Entry. What I want to know is, as part of this site-wide remedial action, are we going to get to investigate that property?

A. Zahl explained that if the property is on the target list in the Site-Wide Decision Document (DD), USACE Baltimore would approach the homeowners. USACE does not have the authority to enforce a survey, whether the homeowner gives permission or not. The homeowner has the right of refusal. USACE must obtain a Right-of-Entry (ROE) from every one of the properties to be surveyed. Several property owners have expressed interest in completing the process.

Comment from A. Hengst, Audience Member - Of all the 91 properties, none of them are marked as a possible disposal area except Area of Interest 13. That is the only one you have left.

A. Zahl confirmed that USACE Baltimore will follow due process and request a ROE for this property.

Comment from A. Hengst, Audience Member - Thank you.

Question from Davis Kennedy, Northwest Current Reporter - Is there a way if you suspect that there is something there? I am a property owner, and I say you do not have the right-of-entry. Can you go to court, can you do anything?

A. Zahl explained that if the EPA has grounds to suspect there is something hazardous to the community, EPA can require an investigation be performed.

Comment from J. Wheeler, Community Member - But they have to get a judge to agree with that and the Department of Justice to agree with that.

Comment from P. deFur, RAB TAPP Consultant - It is a high threshold.

A. Zahl confirmed this and explained that if a potential hazard warrants EPA's attention and a judge agrees, USACE will perform an investigation.

Comment from J. Wheeler, Community Member - I think it is a search warrant or something like that. It is the same concept.

A. Zahl confirmed that if there are sufficient grounds for investigation, EPA can gain access.

Property boundary lines are located for each property survey. An arborist then conducts a survey of the entire property to create an extensive list of type and value of all plants, shrubs, and trees. Next, geophysicists walk the property to determine which vegetation must be moved to allow equipment access. Typically, only trees that are 6" in diameter or less will be moved. The new equipment used for this project allows more flexibility to go around objects and trees. A landscaping plan is developed for the homeowner to approve. USACE Baltimore will either pay the homeowner for the value of the plants that will be removed, or replace the plants.

The G-858 can detect large metallic objects at depth. The MPV looks like an old-fashioned

minesweeper. Ropes are used for guidance in the dynamic mode to cover the whole area. There is a laser tracking system that can identify a munition and the munition's orientation in the ground. The MPV is operated by 2-person teams that walk the entire property. One lot in the Dalecarlia area produced 2,200 items in the dynamic mode. Of the 2,200 items, ~220 items were selected for further investigation and added to the cued list. The cued list items are reviewed to develop the excavation list.

Question from Paul Bermingham, Community Member - When you say items, what is an item? Is it big, is it small? 2,200 sounds like a lot.

A. Zahl explained that an item is any metallic anomaly in the ground that is detected by the equipment.

Question from P. Bermingham, Community Member - So, it could be a coin, it could be a spoon, it could be something bigger?

A. Zahl confirmed this.

Question from P. deFur, RAB TAPP Consultant - Iron rock?

A. Zahl confirmed this.

Question from P. deFur, RAB TAPP Consultant - This is all along the roadway, right? It is in Dalecarlia. When you say a lot, how large is the lot over on Dalecarlia? Those are large.

A. Zahl explained that the first lot on which the cued survey was performed was 220x80 ft. As a backup measure, the equipment is checked in the morning and afternoon at the Federal Property using an Instrument Verification Strip (IVS). Blind seeds are buried on every property to confirm the equipment is working properly. A team buries several industry standard objects (ISOs) that look like military items on the property and then survey the blind seed locations. A second team must find the blind seeds without knowing the locations of the blind seeds. Additionally, USACE buries a second set of blind seeds with undisclosed locations as a double-blind test.

Question from M. Douglas, Community Member - I thought the beauty of this new equipment was that it would distinguish between useless little things that were not posing a danger and things that were more dangerous?

A. Zahl confirmed that the new equipment can make that distinction.

Question from M. Douglas, Community Member - So, why are we picking up all these odd little things that are not dangerous?

A. Zahl and D. Noble explained that the lots on Dalecarlia are along a roadway. Over decades, trash thrown from passing vehicles creates a large amount of debris. The large number of items found in the dynamic survey was not unexpected; the dynamic survey compiles a list of all metallic items found. During the cued survey each item is reviewed to determine if the item is munition-related debris. The AGC system narrows the list down to a much smaller cued list of items that require further investigation. Currently the cued list is ~220 items. The cued items are then surveyed for a longer period of time to identify munitions. The team reviews the new surveys of the cued items to create the excavation list. The excavation list will be much lower in number than the initial dynamic survey list. It is reasonable to assume that the excavation list will be ~30-50 items. The team will excavate an additional 5-10 items for quality assurance.

Question from M. Douglas, Community Member - Are you starting there in Dalecarlia because

you are making assumptions that some of the things that you are going to find are going to go back into the residential part of the fan belt?

A. Zahl explained that clearing the lots along Dalecarlia to bring in equipment is much easier and does not require extra approvals. This provides a test area to refine the process before the project moves into the residential areas. The team will likely move forward with the 18 priority properties in late September/early October.

Question from A. Gates, At Large Representative - Horace Mann Elementary School - Is this the first time Dalecarlia has been surveyed?

A. Zahl explained that no, Dalecarlia was surveyed previously with older equipment. Many of the properties have already had some level of survey performed.

Comment from A. Hengst, Audience Member - The last time you did this, you found, was it a 75mm shell laying on top of the ground, that had lain there for almost 100 years? It was not even buried. Do you remember that?

A. Zahl explained that he was not on the project at that time.

P. deFur confirmed this and explained that the shell was in further.

Comment from A. Hengst, Audience Member - Laying on top of the ground.

P. deFur confirmed the item was under leaves.

Comment from A. Hengst, Audience Member - This is the impact area from the Livens gun battery that was firing munitions from AU toward the woods. Livens projectiles can go a mile.

3. Hotspot Soil Removal

USACE is conducting hotspot soil removal as part of the Site-Wide Decision Document (DD) in two areas, Southern AU campus and the Spaulding/Captain Rankin Area (SCRA) next to AU:

- Completed civil and landscape surveys, landscape plan and appraisal at SCRA.
- Conducted a site walk with SCRA homeowner to document site conditions, review and receive approval of the landscape plan from owners.
- Completed pre-excavation delineation soil sampling.
- Confirmed soil excavation requirements.
- Soil removal and restoration –mid-September; start date may be affected by weather events.
- Work at Southern AU campus exposure units is projected to begin later this year.

4. Tentative Schedule

- *Fall* - Finalize plant removal plans for the first group of 91 homes; start geophysical surveys at first group of properties; begin soil removal and restoration at the SCRA property.
- *Late Fall* - Finalize and distribute the Munitions Education and Awareness packet, the first of future annual mailings.
- *Winter* - Continue finalizing plant removal plans with subsequent groups in preparation for geophysical surveys; begin to obtain rights-of-entries from the next group of homeowners. Begin soil removal preparations for the Southern AU campus exposure unit.

5. Former Public Safety Building

Excavate under the foundation of AU's former Public Safety Building (PSB):

- The Geoprobe sub-slab pre-characterization soil boring sampling results were clear of chemical warfare agents (CWAs)/agent breakdown products (ABPs). The basement slab and soil removal will remain a low-probability action.
- The team is working to shut off and remove the gas line that passes along the edge of the PSB foundation and cinder block walls.
- Mobilization for slab and soil removal is tentatively scheduled to start in the fall.
- Although A. Huff is a new representative to the RAB, the Outreach team is actively developing a communications plan with AU.

Comment from A. Huff, American University - I did not want to imply that earlier. Just because I am not in the loop does not mean things are not happening. There are other staff in our General Counsel's Office and other places that are active as well.

6. PSB Schedule

- *Fall/Winter* - Waiting for the gas line to be shut off for removal as part of the excavation work. Remove the concrete foundation slab and excavate contaminated soils underneath.
- *Winter/Spring* - Collect confirmation samples. Backfill the excavation with clean soil. Demobilization.

Question from W. Krebs, Community Member - What are the contaminated soils if all your core samples have found nothing?

B. Barber explained that because there is still concern that there may potentially be a munition item in the soil. The site is considered a low probability operation for munitions and soil removal.

Question from W. Krebs, Community Member - Are you just going to take away the contaminated soils or are you going to take away all the soils under the assumption that the soils may be contaminated?

B. Barber explained that the team expects to remove ~8 ft. of soils from under the footprint of the former PSB. All the concrete floors and three walls that are still in place will be removed. The team will excavate a larger excavation footprint to safely remove all potentially contaminated soils to be shipped offsite and incinerated.

Comment from P. deFur, RAB TAPP Consultant - For the benefit of A. Huff and M. K. Covert Steel, previously there was a big disposal area that ended at the building. There was a building there that made it difficult to excavate underneath. That area, Lot 18, was a large, expansive area that had all sorts of debris and junk in it.

Question from M. K. Covert Steel, Community Member - Where is this on the AU campus?

B. Barber and G. Vassiliou explained that the former PSB is in a valley off Rockwood Parkway, before Nebraska [Ed. Avenue] to the left as you travel north.

Comment from A. Hengst, Audience Member - You cannot miss it because there is a bunch of equipment alongside Rockwood Parkway. I guess you are going to put a road through there?

B. Barber explained that the staged equipment belongs to AU for utility repairs on campus and DC Water for a repair operation. USACE has not mobilized in the area and USACE equipment is not onsite at this time. A small temporary roadway will be installed just past the Fletcher Gate as per agreement with AU to prevent disruption to AU traffic. The area will be secured.

Question from A. Gates, At Large Representative - Horace Mann Elementary School - When you

completely finish the work, is this just a vacant lot? An open lot?

B. Barber confirmed that the site will be an open portion of the AU campus, available for re-use.

C. Glenbrook Road

B. Barber provided a brief update on 4825 Glenbrook Road and 4835 Glenbrook Road.

1. Recent Activities – 4825 Glenbrook Road

Operations have not resumed since the incident on August 9, 2017. Crews performed limited removal in arsenic-contaminated grids along the shared property line with 4801 Glenbrook Road. All possible grid work is complete, and the areas backfilled with clean soil. The site team is implementing sediment and erosion controls and preparing the site for return-to-work.

2. Return-to-Work Plan

As presented at the last several RAB meetings, the Return-to-Work Plan was formulated, internally reviewed, submitted to the Partners for review, and achieved Partner consensus.

- Workers will resume work at the site with respiratory protection in Level B Personal Protective Equipment (PPE).
- Air monitoring protocols to be enhanced, to include near-real-time MINICAMS and Depot Area Air Monitoring System (DAAMS) monitoring for chemical agent, plus industrial air monitoring.
- Weather related operational constraints, including temperature restrictions, would be added: work would only be performed at temperatures equal to or below 75 degrees F.
- Use of mechanical excavation to allow soils to be transferred from excavation area to drums, instead of hand-excavation, to minimize soil handling and exposure for the workers and the public. No additional risk is posed to the workers and the community.
- No additional engineering controls (open air excavation).

Question from Christine Dieterich, Audience Member - You just told us that mechanical excavation, may I quote you, does not pose any additional risks for anyone. Could you please explain to me why you hand-excavated?

B. Barber explained that according to standard protocols and procedures established at the site, soils were hand-excavated when debris is encountered to minimize the breakage of potentially intact containers. Those procedures were followed for the duration of the project. Minimal amounts of broken debris were found; no intact containers have been found since excavations of the front of the property at the onset of the remedial action. The Project Delivery Team (PDT) discussed the plan with the Partners at length. The use of mechanical excavation of the soil, sifting all materials into drums, and not stockpiling materials onsite will minimize handling. All drummed soils will be removed from the site at the end of each business day. This method will be implemented to move through the site efficiently and minimize handling to finish the work.

Comment from C. Dieterich, Audience Member - Yeah, I do not find it plausible at all. I mean, that was release of agent in August last year. Now you are deciding to move ahead with machine excavation. I have a lot of sympathy that was necessary to protect the workers but you are still pretending that this is low probability, even though there was exposure to agent in August and you still do not know what it was. You are now moving to machine excavation and I have a lot of sympathy for your approach in order to protect your workers, but you know there was release of agent. You still do not know what it is. You now tell me that you have confidence in mechanical

excavation and there is no elevated risk of release of agent with the consequences for the community.

B. Barber explained that the findings of the Board of Investigation (BOI) was briefed at the last several RAB meetings and understood that C. Dieterich was not at the meetings.

Comment from C. Dieterich, Audience Member - Do not worry, I have read your stuff.

B. Barber explained that the BOI did not determine nor did the results show that the August 9 incident was a release of agent. The BOI found that this was a release of an unknown substance. USACE worked extensively with Edgewood Chemical Biological Center (ECBC) to perform the necessary air modeling for mustard (HD) and Lewisite (L) at the maximum concentrations encountered during high probability. The exposure zones have been calculated. HD and L do not leave the property in any case, at the maximum concentrations encountered at the site during high probability. The PDT believes very strongly that mechanical excavation is the right approach. USACE worked with the Partners for the last 6 – 12 months, since the BOI Report was provided to USACE, on how to move forward with the process. USACE solicited input and feedback on the process from the RAB several times. USACE understands C. Dieterich's concerns. P. deFur, Steve Hirsh, EPA Region III, and DOEE have been actively involved with the process.

Question from P. Bermingham, Community Member - Peter, do you feel there is a risk to mechanical excavation?

P. deFur explained that he believed the mechanical excavation is a better option in this case. The square footage of the area to be excavated would fit in the footprint of this building. There is a small area of limited amount of material that has been sampled many times. There is a good chemical characterization of what has to be removed. This is probably one of the better known and smallest areas that remains to be remediated. The area that has to be remediated and excavated is covered right now. The advantage to the mechanical means that once the area is uncovered, the team will be able to get the soil out much faster with less stockpiling, holding, and handling. Those activities are the opportunities for additional exposures or unexpected events to happen. The Partners discussed the process with the AU consultant and with USACE. S. Hirsh, EPA Region III checked back with EPA's toxicologist and DOEE reviewed the plan as well.

Question from M. K. Covert Steel, Community Member - To follow up on the question, if we do not know what the agent is [Ed. garbled]?

P. deFur explained that the Partners have reason to believe that the substance was a breakdown product of one of the agents that was used in WWI and not a completely unknown substance.

B. Barber explained that on the day of the incident, the team was hand-excavating within two feet of the exposed soils, there was no wind movement at the site, and the temperature was well above 80 degrees. The chemicals were able to volatilize. There were many contributing factors to the incident that day. As P. deFur indicated, there are ~300 cubic yards of soil left to be excavated in the primary area, Area 1. The team performed additional borings to depth in the area after the incident. One small detection of ABPs was found in 1 borehole (BH) and the rest of the BHs tested clean. B. Barber reiterated that the area has been appropriately sampled, the amount left to excavate is known, and USACE believes that mechanical excavation is the most efficient way to finish the project.

P. deFur clarified that agent breakdown products (ABPs) are chemicals that mustard (HD) gas breaks down into and degrade in air and water over time. The degradation does not have to take a

long time but does happen over time. ABPs are not intentionally created for any purpose. HD is created legally for analytical purposes. That means that ABPs are not commonly found in analytical laboratories. Analytical laboratories do not deal with ABPs on a regular basis, a specialty laboratory must be used. That makes it harder to distinguish and identify ABPs. Additionally, ABPs dissipate quickly in the air.

Comment from C. Dieterich, Audience Member - I feel a little bit reminded. I was here, it was shortly after this August event. I think it was Dan who gave the presentation about this area where this incident happened. Now this is an area where exactly the same stories were told, 'we have been digging in this area forever, that is why we declared it low probability.' But, I remember Dan even showed some pictures when stuff came out completely differently than what was expected, even though 'we have been digging in this area forever, all the test pits,' and all this stuff. You know, I mean you keep telling me again and again, 'we know what is down there.' Now we are being told again, 'well, we know what is down there and now we are going to do a different kind of excavation.' I just find it, again, very difficult to believe.

B. Barber explained that the key difference from tonight's presentation was that D. Noble presented the summary of all the prior work that was performed at 4835 Glenbrook Road.

Question from C. Dieterich, Audience Member - No, it was specifically about that area, right? That was specifically about this area.

B. Barber explained that the RAB specifically asked that D. Noble summarize all prior work at 4835 Glenbrook Road, to include the shared property line. As D. Noble indicated in that presentation, there were test pits performed along the shared property line. Unfortunately, when that operation took place, if there was no visual sign of agent or staining and no air monitoring detection, the team did not pull soil samples. Those efforts took place in December, the weather conditions were appropriate for the mustard (HD) and agent to not be detected in the air. The visual staining was not seen at that time. That is part of why the team is back in the area again and performing additional due diligence.

Question from A. Gates, At Large Representative - Horace Mann Elementary School - Are these breakdown products unique to this area or have we seen them elsewhere?

P. deFur confirmed that the ABPs occur in other places where HD has been found. The ABPs have also been found at other sites across the country. These are known breakdown products of HD.

Question from P. deFur, RAB TAPP Consultant - I am trying to remember if we found them in Lot 18?

D. Noble confirmed that ABPs were found in intact containers, not in soil, at Lot 18. The properties at 4825 Glenbrook Road and 4835 Glenbrook Road are the areas where HD, L, and the HD-specific ABPs have been found. Traces of ABPs have been found at one or two properties in the neighborhood.

Comment from C. Dieterich, Audience Member - I find what you are telling me, you know, as little convincing that you know what is down there and that is why you feel confident in moving ahead with this method. I find it as reassuring as I found it again and again when I heard it. I do not find it convincing at all. So yet again, because I know that you are refusing any consideration of mitigating the effect on our family, I will be left with the option of looking for a private option to get my children out of the house while you are digging over there. It will be again on my expense, but we all know of course that at the end, the health of my children and me being able to

sleep well is more important.

3. Areas to be Excavated at 4825 Glenbrook Road

- Area 1 - Primary area where the bulk of the excavation work needs to take place. Areas 2, 3, 4, and 5 are small discreet areas where debris has been encountered.
- Area 2 - Need to confirm all debris has been removed.
- Area 3 - During confirmation sampling, one confirmation sample failed for ABPs. An additional 1 ft. of soil will be excavated, and more confirmation samples will be collected.
- Area 4 - Location of one of the arsenic grids where an odor was encountered. Work was stopped in that area and the area mitigated. Work in that area will be completed as part of the continuing effort.
- Area 5 - Exposed soil face with stairs down into the site. After summer rain events small fragments of glassware were found. The soil face will be scraped to confirm there is no debris left behind.

The return-to-work site layout will include a Personnel Decontamination Station (PDS), since work will resume in Level B personal protective equipment (PPE), an upgraded MINICAMS shed to support additional air monitoring, and an air Cascade System and Compressor to supply air to the workers.

4. Air Monitoring Locations

There are DAAMS tubes at all four perimeter locations. Industrial air monitors will be added to each of the four locations. MINICAMS and DAAMS monitors will be added at the drum-filling location and at the mid-point between the excavation and the perimeter as an additional layer of air monitoring. The air monitoring locations will shift with each new excavation location.

Question from M. K. Covert Steel, Community Member - Do these take place concurrently or sequentially?

B. Barber confirmed that the areas will be excavated sequentially. Since Area 1 represents the bulk of the excavation work, that will allow the team to backfill and restore the shared property line. Area 2 will be completed next, and then Area 3, where air conditioning units have been relocated temporarily. The air conditioning units will be moved back to their permanent location in Area 1. Work will then move into Areas 4 and 5, which will require resetting the site slightly.

4. 4835 Glenbrook Road

The 36 soil borings were installed throughout the basement and crawlspace of 4835 Glenbrook Road. Some of these locations were also soil gas sampling locations. Some anomalies were detected. A small amount of glassware debris was encountered in borehole (BH)-7. A high hit for cyanide was detected in BH-17 in the back patio.

Question from P. Bermingham, Community Member - What does AUES mean?

B. Barber explained that AUES is the acronym for American University Experiment Station.

After the soil sampling, there were no detections of agent or ABPs. The results were discussed with the Partners at the May Partnering meeting, and it was agreed that USACE would perform soil gas sampling in the basement at 10 soil gas sampling ports. One round of soil gas sampling was performed in July and the analytical results have been received. ABPs were detected in eight soil gas sampling locations at low levels. At a minimum, a second round of soil gas sampling will

be conducted after the Remedial Action at 4825 Glenbrook Road is complete. The remaining soils to be excavated are likely the source of the detections in the soil gas sampling. The team continues to recommend no further action at 4835 Glenbrook Road, other than the soil gas sampling.

Question from P. Bermingham, Community Member - Could you say a little bit more about the ABPs that were detected? Were they mustard (HD) or Lewisite?

B. Barber explained that the only detection that was validated was in the middle of the basement. The rest of the detections were reported at the detection limit of the equipment and therefore are not validated results. Since the detections were at the detection limit of the equipment, USACE elected to share that information as the same as J-qualified results at the detection limit.

Question from P. Bermingham, Community Member - When you say validated result as opposed to the other, what is the test of validation?

B. Barber explained that the single detection was at 16 parts per billion (ppb) for HD. The others were right at the detection limit, at ~5 to 5.6 ppb.

Question from M. Douglas, Community Member - What about the cyanide?

B. Barber explained that the soil gas sampling was not testing for cyanide. The hit for cyanide was in a soil sample in the back patio, not a soil gas sample. The soil gas is tested with a passive gas sampler that is installed into the sampling port, left in place for 21 days, and then analyzed.

Question from P. Bermingham, Community Member - The threshold of 5ppb is seen as being safe, but from a health point of view, does it pose a risk? Is it a technical threshold or a health threshold?

B. Barber and D. Noble explained that the 5ppb is the detection limit. The 5ppb and 16ppb are analytical standards, a weight measure. The numbers are not a concentration, and the detection limit only indicates a compound is present or not present. At this time, there is no way to convert the amount to a concentration that may be addressed as a health effect.

Question from P. Bermingham, Community Member - So, we do not know what, if any impact on health, we just do not know. You have a technical detection?

D. Noble explained that the data says that the detection is in the soil gas under the house. That does not mean that the detection is in the house. There has been no gas sampling in the house.

Question from G. Vassiliou, Community Member - Remind me, how deep was the drilling there?

B. Barber explained that all drilling was performed to refusal, to bedrock. In the front of the house the depth was 8-10 ft., in the middle of the house the depth was 4-6 ft., and in the back portion of the house the depth ranged 18 inches to 2 ft., based on the sub-surface topography.

Comment from P. deFur, RAB TAPP Consultant - There is a lot more conversation around that, because when they put the hole down there, they basically put a stick down there that absorbs chemicals. Then any air that passes into that space is sampled. The reason we cannot get a concentration is because we do not know how much air was passing through there over the course of 21 days. We cannot guarantee where the air came from, what space the air was flowing through. We are fairly confident, because the foundation was built on gravel. Thank goodness. At least there was one thing normal about it. We know that the air will go through the gravel space and also through some of the other spaces. We also know that in those same boreholes that took soil samples they measured no breakdown products in the soil. One logical conclusion that we talked about at the Partners meeting was there is gas coming in from somewhere and we know over there

at the border of the house between 4825 [Ed. Glenbrook Road] and 4835 [Ed. Glenbrook Road] there was a larger slug of soil and now there is a small slug of soil, at least, that has some of these breakdown products. That would seem to be the source. That is the operating hypothesis.

Question from G. Vassiliou, Community Member - And the theory is, that soil is older soil as opposed to the soil under the house that was shuffled out and disposed of?

P. deFur confirmed this.

Question from A. Hengst, Audience Member - I think what you are saying is, you have those four samples that are away from the border line that are kind of in the middle of the house, and you think the soil gas that came up with the breakdown products was actually emanating from the property line, which is why you are going to wait until you excavate the property line before you sample again. Correct?

B. Barber confirmed this.

Question from A. Hengst, Audience Member - Ok. Here is my question. What if, I mean, you might go back and get negative results and say, 'oh, it must be coming from the border line.' But, what if you go back and you get positive results? What does that mean and what will you do? Do you have an idea?

B. Barber explained that USACE and the Partners have begun to discuss that question and do not have an answer yet.

Question from A. Hengst, Audience Member - Well, what could you possibly do if it is still positive after you remove the soil, short of digging it up? What can you do?

B. Barber reiterated that the Partners and USACE have not decided that question yet.

Question from A. Hengst, Audience Member - When will we get to remove that area and test it again?

B. Barber explained that the schedule will be presented on the next slide.

ECBC conducted the soil gas sampling in partnership with Beacon Environmental. Additional analysis was performed on the soil gas passive samplers. Small amounts volatile organic compounds (VOCs) and semi volatile organic compounds (SVOCs) were detected. The team discussed the results with the Partners and the consensus was that these results are not of significant concern. As P. deFur indicated, 148 sub-surface soil samples were collected. None of the soil samples resulted in detections of agent or ABPs.

The team will remove the soils and then go back to perform the first round of soil gas sampling after the removal. Further discussion with the Partners will be conducted. The team has suggested other potential options for the site, including active soil gas sampling. No official options have been determined. USACE is sharing the new information to keep the RAB updated.

5. Tentative schedule

- *September 2018* - Present final update of work plans to the RAB and begin remobilization mid-September for returning to work.
- *Fall/Winter 2018/19* - Resume the soil removal operation along the 4825/4835 Glenbrook Road property line, starting in early October.
- *Spring/Summer 2019* - Potential completion of remedial activities at 4825 Glenbrook Road.

Start of site restoration for Glenbrook Road sites – 4801, 4825, and 4835.

Question from W. Krebs, Community Member - In relation to each other, when were the two houses built?

B. Barber confirmed that the houses were built concurrently.

Question from W. Krebs, Community Member - They were built concurrently. So, presumably, the fill samples could come from anyplace, commonly?

B. Barber explained that from conversations with former workers at the site, the understanding is that the foundations for both properties were excavated one at a time. It is unknown which foundation was excavated first. Material left onsite was used to backfill and perform other activities on the site. Both properties were built concurrently, and soil was going back and forth between the properties.

III. Community Items

IV. Open Discussion and Future RAB Agenda Development

A. Upcoming Meeting Topics

- Groundwater FS Study/Policy Issues between USACE, EPA, and DOEE
- Site-Wide RD/RA
- 4825 Glenbrook Road/4835 Glenbrook Road

B. Next RAB Meeting:

Tuesday, November 13, 2018

C. Open Discussion

V. Public Comments

Comment from J. Wheeler, Community Member - Tonight's meeting reminded me of the night that Larry and I became members of the RAB. Instead of it being the first item on the agenda, it was the last item on the agenda, and it was after 10:00 at night. It looked like we were not even going to get to that item. If that had happened I probably would not have come back.

G. Beumel explained that is why the membership voting is moved up to the beginning of the meetings.

Question from A. Hengst, Audience Member - Will we have the June Partnering meeting minutes posted on the website before the November RAB meeting? This is the June 28 Partnering meeting minutes.

D. Noble confirmed that the June Partnering meeting minutes are posted.

Question from A. Hengst, Audience Member - The June ones are there, I am sorry. The next meeting is in October?

D. Noble confirmed the next Partner meeting is in October.

Question from A. Hengst, Audience Member - And we will not get those until next year. I am not sure why it takes so long.

D. Noble explained that the minutes are usually posted before the next Partner meeting.

Question from A. Hengst, Audience Member - So, if you have a Partner meeting in February, the October minutes will probably be posted in January. But will it be before the January RAB meeting? That is my question. The minutes, so we can read the minutes before we come to the public meeting in January.

D. Noble confirmed that the October Partner meeting minutes will be posted sometime in December.

Comment from A. Hengst, Audience Member - Thank you. Christmas.

D. Noble confirmed that the minutes may be posted in late November.

G. Beumel called for any other future meeting topic suggestions.

Comment from P. deFur, RAB TAPP Consultant - Maybe not in November, but before too many meetings pass by, you will want to talk about the 5-year review, what it is. That might be a good one for January.

G. Beumel confirmed this.

VI. Adjourn

The meeting was adjourned at 8:38 PM.