



SPRING VALLEY FORMERLY USED DEFENSE SITE PROJECT
RAB Meeting

July 10, 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
 ▪ Information Repository
- 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: September 11, 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 10 July 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
- Information Repository

USACE Updates

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

Community Items

Open Discussion & Future RAB Agenda Development

Public Comments



CO-CHAIR UPDATES

Introductions



CO-CHAIR UPDATES

Announcements

Website Updates:

- May and June Monthly Site-Wide Project Updates
- Weekly 4825 Glenbrook Rd Project Updates with photos
- May RAB meeting minutes
- June 2018 Corps'pondent

The screenshot shows the US Army Corps of Engineers website for the Baltimore District. The header includes the Corps logo and navigation links: HOME, ABOUT, BUSINESS WITH US, MISSIONS, LOCATIONS, CAREERS, MEDIA, CONTACT. A search bar is also present.

The main content area features an "Announcements" section with the following items:

- Next Restoration Advisory Board Meeting - May 8, 2018**: The next RAB meeting is scheduled for Tuesday, May 8 at 7 pm. Meetings are open to the public and held at St. David's Episcopal Church.
- Final Site-Wide Decision Document Now Available**: The document is complete and available for download at the Information Repository.

Below the announcements is a "Spring Valley Overview" section with a "Project Efforts" table:

Spring Valley Overview	
<p>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</p>	Project Efforts
	Project Update
	4825 Glenbrook Road
	Site-Wide
	Groundwater

On the right side of the page, there are several image galleries:

- A photo of a sample in a container with a date stamp of 02/18/2015 14:34.
- A "Site-Wide" button with a background image of a plant.
- A "The Corps'pondent" button with a background image of a pond.
- A "Project Documents" section with a "PREV NEXT" navigation link.

TASK GROUP UPDATES

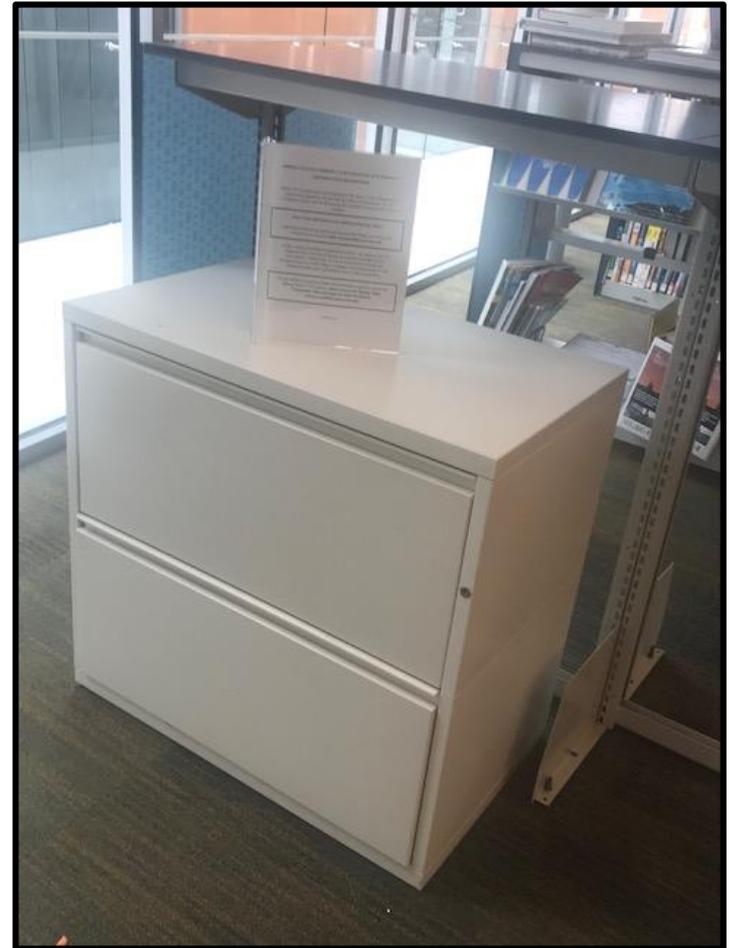
- RAB Membership
- TAPP Contractor Retiring



TASK GROUP UPDATES

The Information Repository at the Tenley-Friendship Library was downsized.

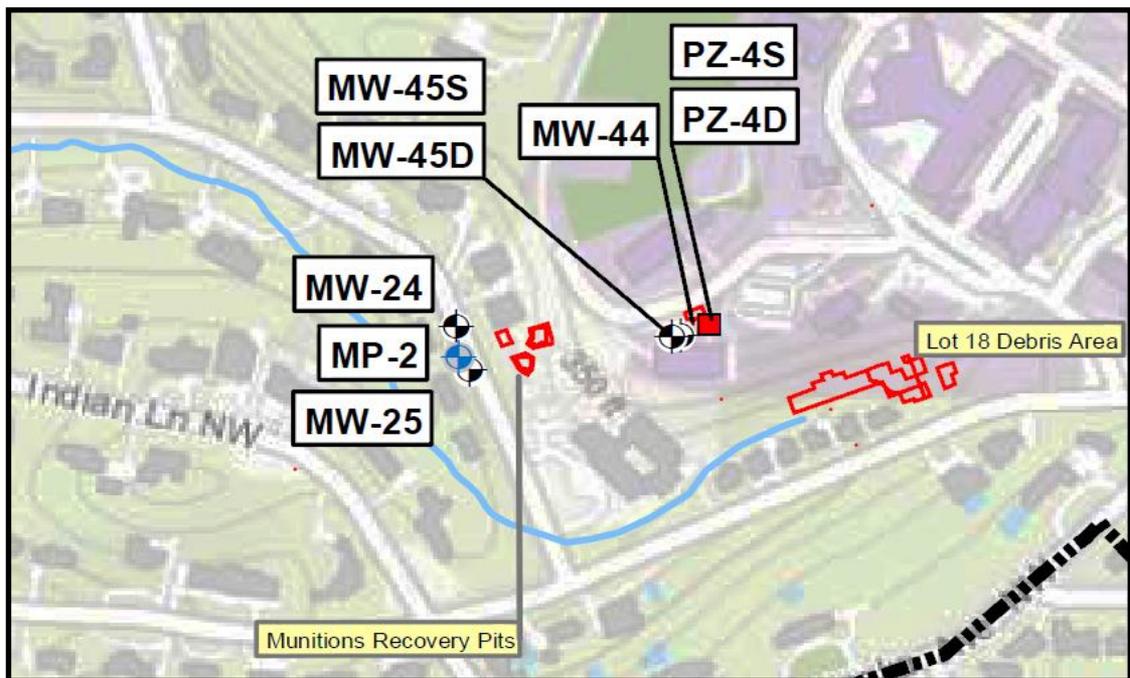
- ✓ CD binder remains accessible at the Information Desk.
- ✓ Installed a sign directing library users to the Information Desk, project information, and the Spring Valley outreach team.
- ✓ Some hard copies of key documents remain accessible in a filing cabinet (see photo) in the library, such as the Glenbrook and Site-Wide Decision Documents, and the Groundwater RI.
- Direct link to be placed on library website to the SV project website homepage.
- Ensuring all documents are digital.



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GROUNDWATER STUDY

USACE Updates

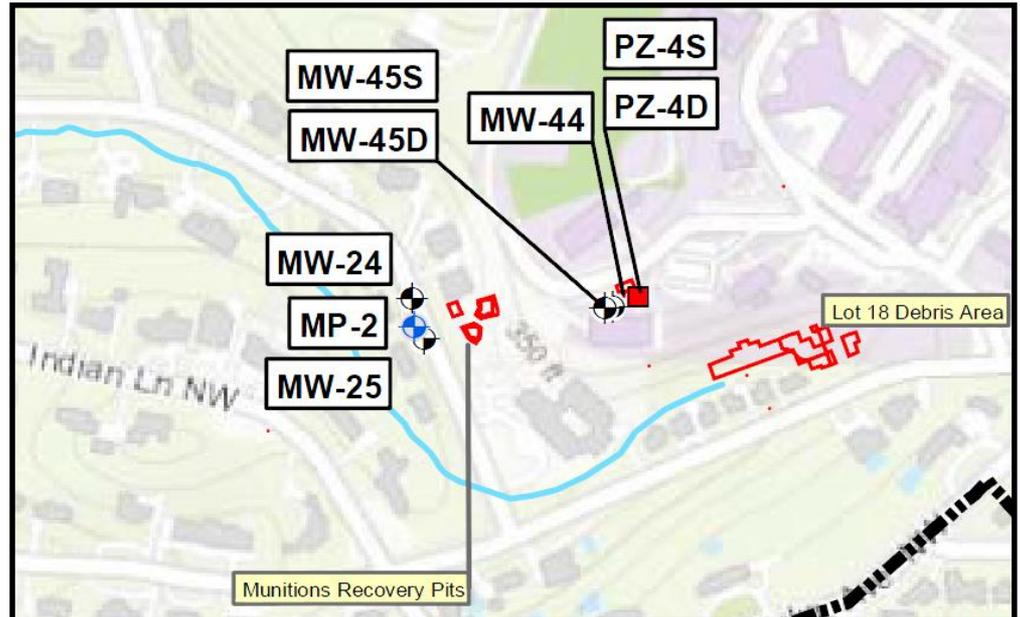


GROUNDWATER FEASIBILITY STUDY (FS)

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.

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

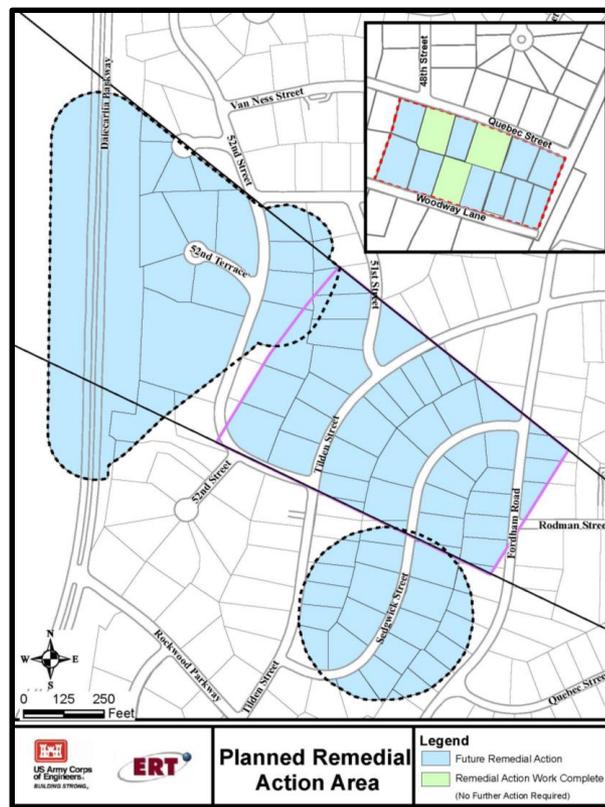
The team's coordination with the Army's HQ has been completed on these two documents.



Crew conducting monitoring well maintenance.

SITE-WIDE REMEDIAL ACTION (RA)

USACE Updates



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 is currently preparing 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



Conducting civil surveys



Arborists conducting landscape surveys



Documenting existing conditions with HD video



Geophysicists drafting initial vegetation removal plan

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 test survey with magnetometer (G-858) at the Federal Property



Set up in Dalecarlia Woods

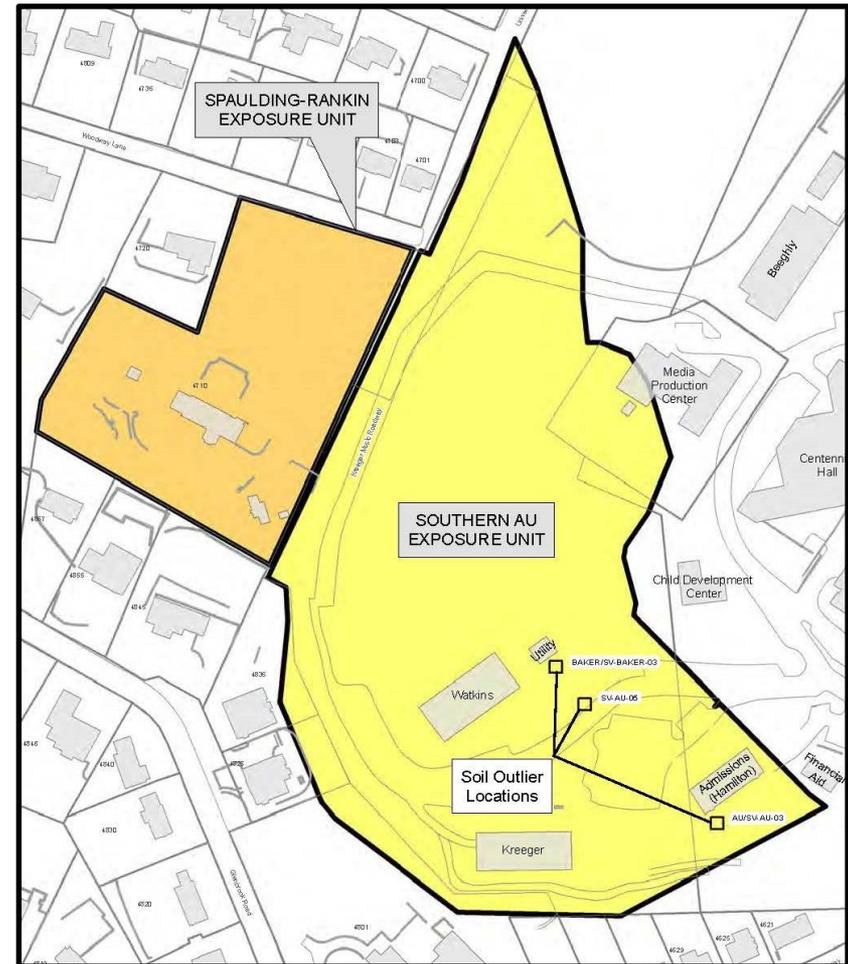


Geophysicists conducting quality control tests with MPV in Dalecarlia Woods

SITE-WIDE REMEDIAL ACTION

Hot spot soil removal at one residential property (*Spaulding and Captain Rankin Area, or SCRA*) and the Southern AU campus exposure units:

- ✓ 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.
- Start field work at SCRA: Begin with pre-excavation delineation soil sampling (July – *this week*).
- Confirm soil excavation requirements, perform soil removal and restoration anticipated in August/September.



Soil Excavation Areas



Remedial Action - Tentative Schedule

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

Summer

Obtain Rights-of-Entry from the third group of homeowners; finalize plant removal plans for first group of homeowners; complete sampling at the Spaulding-Captain Rankin (SCRA) property.

Late-Summer

Begin to obtain Rights-of-Entry from the next group of homeowners; start geophysical surveys at first group of properties; begin soil removal and restoration at SCRA property.

Fall

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



FORMER PUBLIC SAFETY BUILDING

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

- ✓ Started field work – Completed the geoprobe sub-slab pre-characterization soil boring sampling the week of June 25th.



MINICAMS Shed present for air monitoring at the former PSB during sub-slab soil sampling



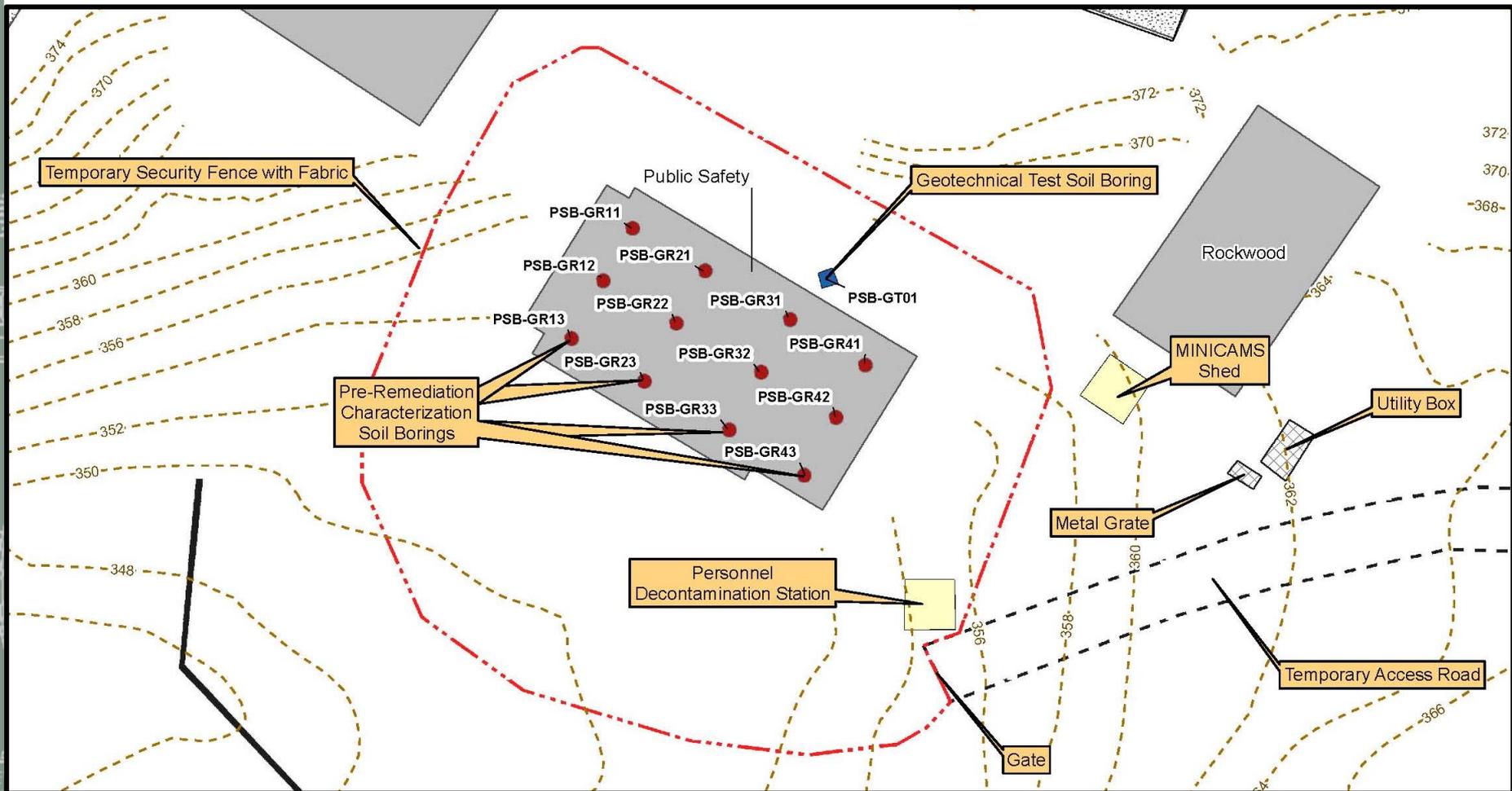
Geoprobe for subsurface soil sampling



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FORMER PUBLIC SAFETY BUILDING

A total of 79 samples were taken from 12 boreholes through the concrete slab of the former PSB. After the sampling results are received, the next phase is the **removal of the concrete basement slab**. This effort is tentatively scheduled for late summer.



FORMER PUBLIC SAFETY BUILDING



Geoprobe with auto-hammer operating geotechnical boring at AU's former Public Safety Building



Typical soil core in split spoon collection from boring



Former Public Safety Building - Remedial Action Tentative Schedule

July	Lab Analysis of Sub-slab soil samples.
August	Complete Civil Survey and Rerouting of Gas Utility Line.
September	Remove Concrete Foundation Slab.
October	Excavate Contaminated Soils Underneath Removed Foundation Slab.
November	Take Confirmation Samples.
December	Backfill With Clean Soil. Demobilization.

GLENBROOK ROAD

USACE UPDATES



**US Army Corps
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RECENT ACTIVITIES – 4825 GLENBROOK RD

Crews focused on excavating arsenic contaminated saprolite from grids on the 4801 GR side of the lot. Due to heavy rains, crews pumped over 6,000 gallons of rain water from the excavated grids, which was containerized and transferred to the Federal Property.



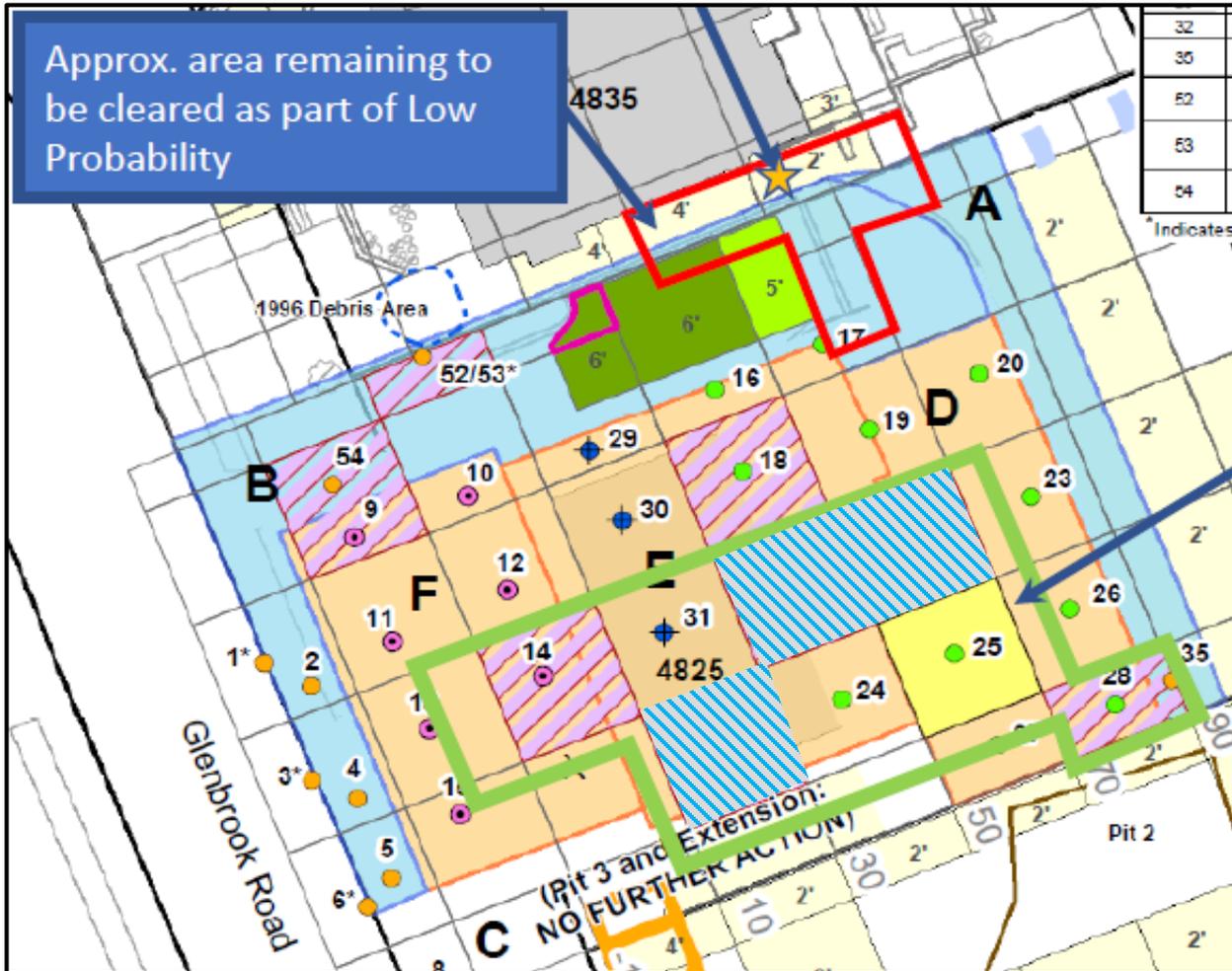
Removing excess rain water



Backfilling grids with clean soil



RECENT ACTIVITIES - 4825 GLENBROOK RD

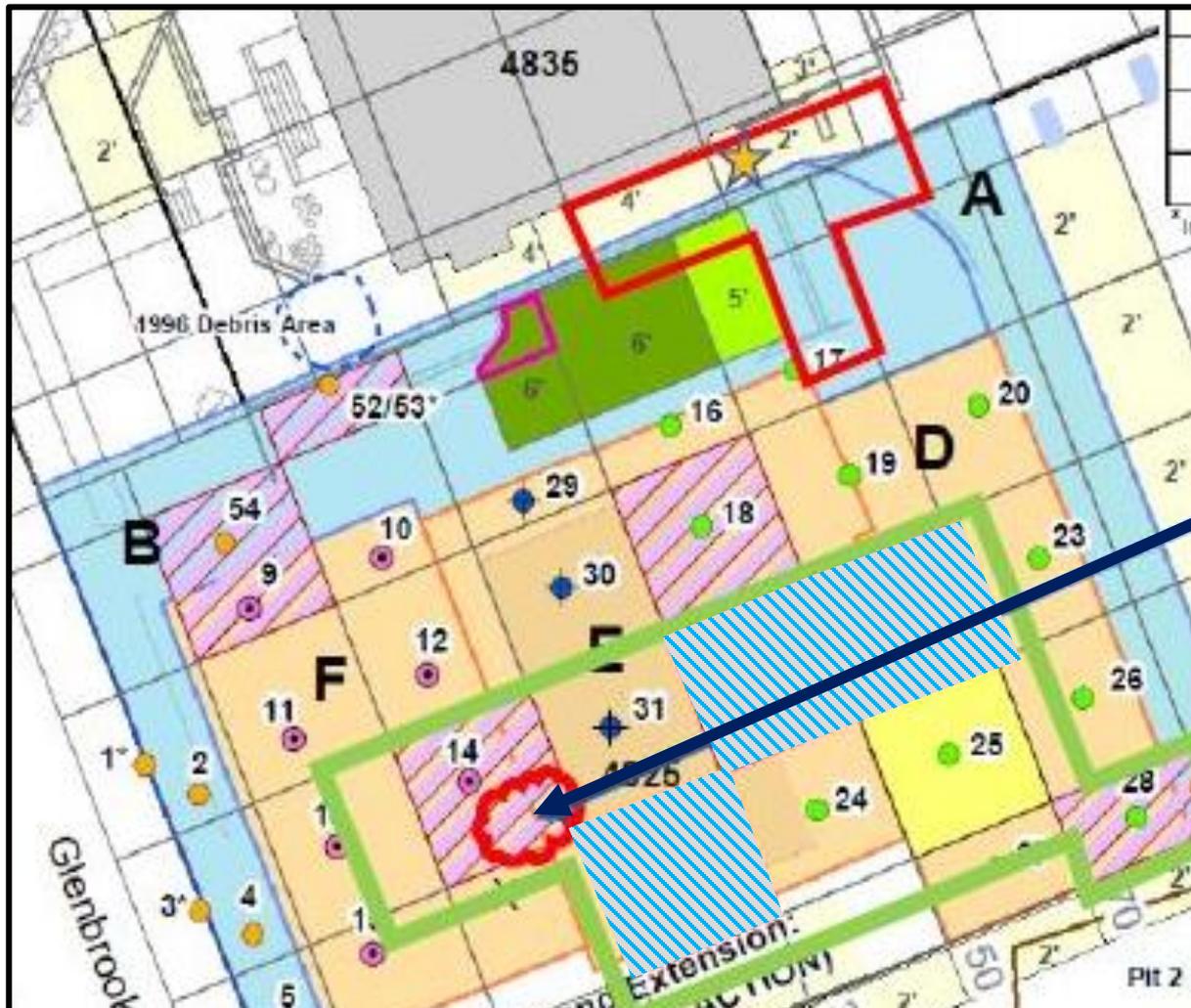


The current excavation of arsenic contaminated soil in the former high probability areas will be ongoing through July 2018.

 Grids completed

The remainder of the work is dependent on the **'return to work' plan.**

4825 GLENBROOK RD - RECENT ACTIVITIES



Approximate area of excavation when odor was encountered on 7/2/2018

 Grids completed

The grid where the odor was encountered will be further excavated with the other **low probability** areas under the **return to work protocols**. Additional **confirmation sampling** will be developed as well.

4825 GLENBROOK RETURN-TO-WORK PLANNING

After the June Partners meeting, the Partners are in agreement with the following return-to-work approach.

Changes to our work plans would include:

- Workers to wear Level B PPE at all times.
- 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 to drums, instead of hand digging to minimize soil handling and exposure.



Level B Personal Protective Equipment (PPE)



EXCAVATION PROCESS OVERVIEW FOR 4825 GLENBROOK ROAD

- The soil will be scraped in 6" lifts with UXO tech watching over the excavation
- Collected soil will then be placed directly into poly drums with a screen containing drum funnel
 - Soil again screened by UXO tech
- Representative soil samples will be collected for disposal characterization
- Drums will be sealed when filled and transported for storage at the Federal property as appropriate
- Soil will be assumed hazardous until:
 - No CACM is seen;
 - No significant quantity of debris is seen; and
 - Disposal characterization samples are clear for agent and ABPs

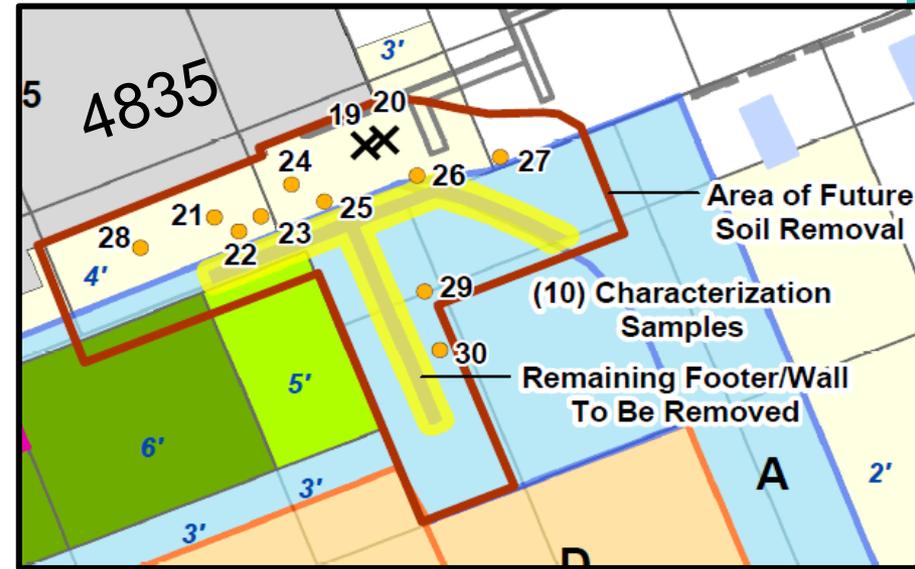


Mini-excavator placing soil into poly drums



SOIL SAMPLING

- Soil samples will be collected for disposal characterization and **analyzed** for the following:
 - Mustard (HD), Lewisite (L), thioxane and dithiane.
 - Toxicity Characteristic Leaching Procedure (TCLP) for Volatile Organic Compounds (VOCs) and Semi-VOCs (SVOCs), TCLP Metals, Corrosivity, and Ignitability.
- Once **competent saprolite** is achieved, **confirmation soil samples** will be collected and analyzed for the following:
 - HD, L, thioxane and dithiane.
 - VOCs and Tentatively Identified Compounds (TICs), SVOCs and TICs, Pesticides and polychlorinated biphenyl (PCBs), Metals, Explosives, Cyanide, Fluoride, and Iodide.
- The crews will collect a **grab sample** if there is a MINICAMS alarm.
 - Sample analyzed agent, agent breakdown products (ABPs), and TICs.



INDUSTRIAL AIR MONITORING ENHANCEMENTS

- The team will continue to monitor the air downwind and close to the excavation for the following compounds for public protection:
 - Arsine (SA)
 - Hydrogen chloride (HCl)
 - Hydrogen cyanide (HCN)
 - Volatile Organic Compounds (VOCs)
- The team will add additional Arsine and Hydrogen Chloride monitors at the all four perimeter locations, plus the drum loading area.

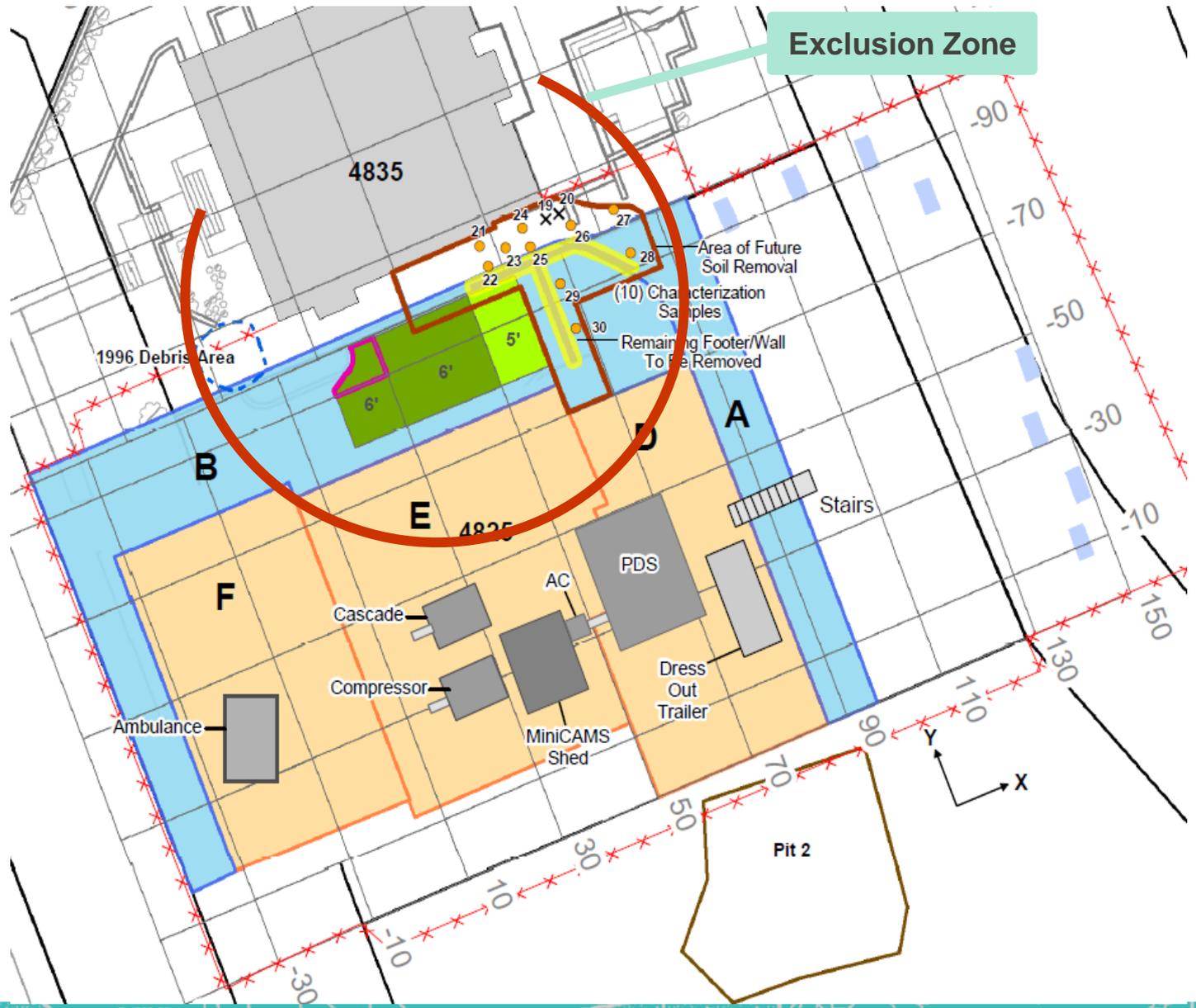


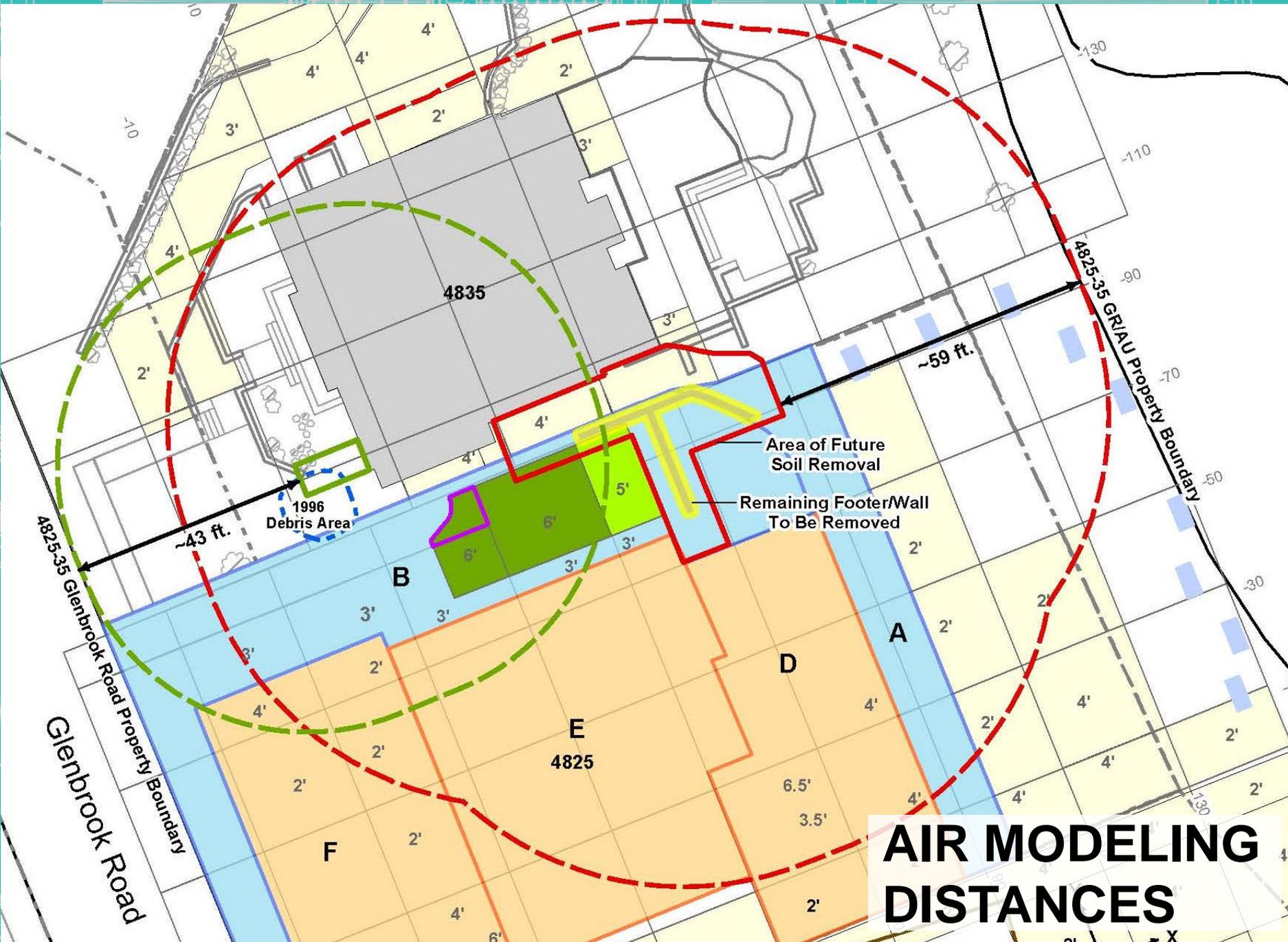
TEAM RECOMMENDATION REGARDING ECBC AIR MONITORING

- The team recommends implementing additional air monitoring locations using the existing air monitoring program that ECBC has implemented over the years at the site.
- **Additional** air monitoring locations recommended by the team are:
 - MINICAMS/DAAMS at the drum filling location
 - DAAMS at the midpoint between the excavation area and the current perimeter DAAMS
- We will continue to utilize the 4 DAAMS at the perimeter, plus the MINICAMS/DAAMS at the **excavation area**.



PRIMARY WORK ZONE – GLENBROOK ROAD





AIR MODELING DISTANCES

AIR MODELING DATA FOR RETURN TO WORK AT GLENBROOK ROAD

Maximum Concentrations of L, HD, 1,4-Dithiane and 1,4-Thioxane in Soil Samples to Date				
Sample ID	L (µg/kg)	HD (µg/kg)	1,4-Dithiane (µg/kg)	1,4-Thioxane (µg/kg)
RA-4825GR-Area B-Grab-03-031617	ND*	360	5000	180
RA-4825GR-Area B-Grab-05-040717	ND*	310	24000	120
RA-4825GR-Area B-06-072717	72	59	480	34
Maximum Concentrations:	72	360	24000	180

*ND = Not detected

Agent	Agent Soil Content (ug/kg)	Agent Mass (mg)	AEGL1/PAC1 Hazard Arc Dist. (ft.)	AEGL2 Hazard Arc Dist. (ft.)
Mustard	360	121.5	AEGL1: 9 ft.	1 ft.
Lewisite	72	24.3	PAC1: 22 ft.	6 ft.

Modeling was done for a temperature of 75 degrees and used the most conservative public exposure limits.



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RETURN TO WORK PLANS FOR 4825 GLENBROOK ROAD

- Team will prepare a stand alone procedure detailing all return to processes for remaining work.
- Team will review the procedure with the internal USACE team and the Partner's for concurrence.
- Document will reference all standard project plans.



Grid excavation



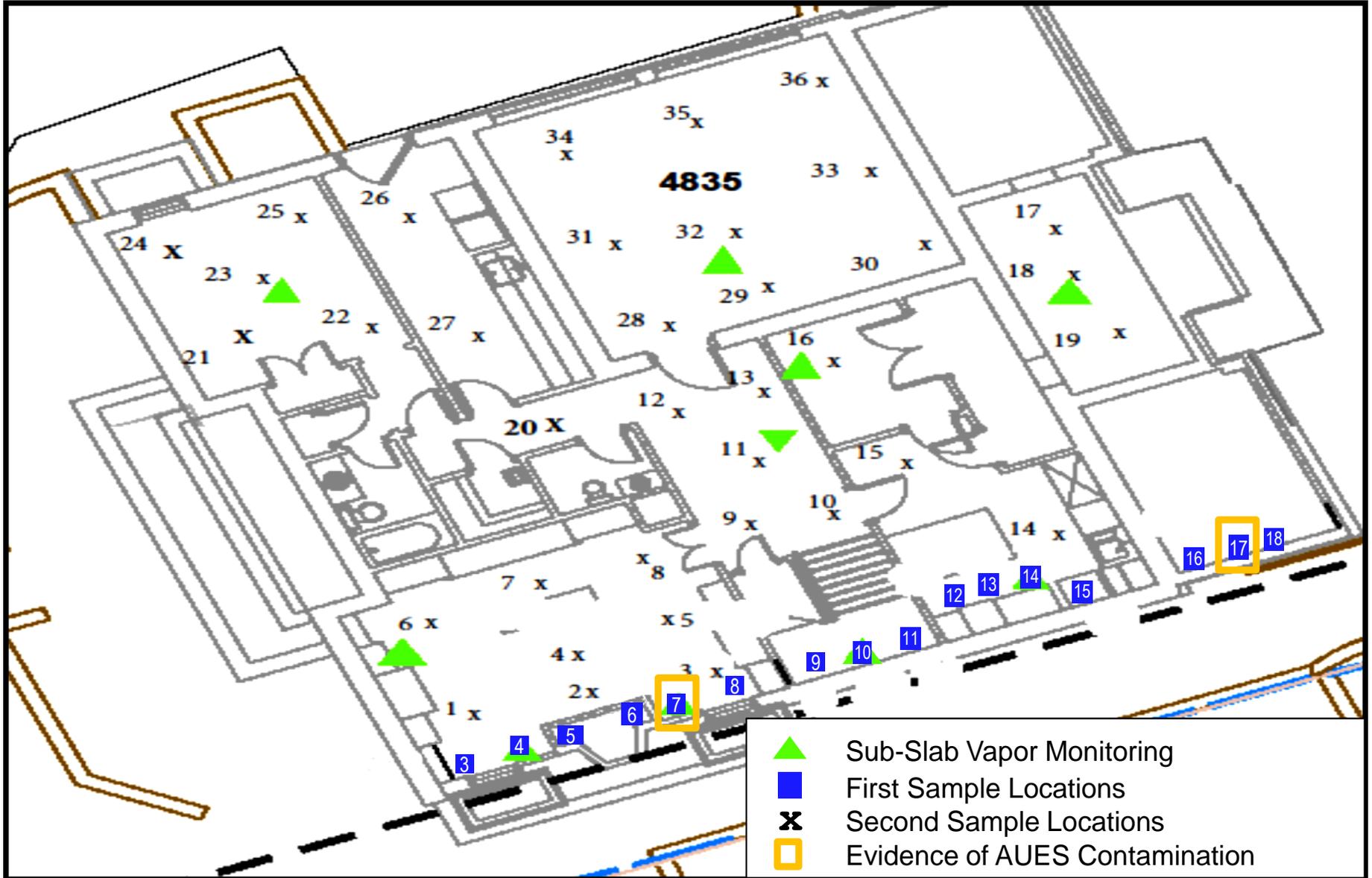
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4835 GLENBROOK ROAD – PATH FORWARD

- USACE will perform soil gas sampling at the ten (10) soil gas sampling points installed during the sampling effort.
 - One round of soil gas sampling will be performed by ECBC by mid-July
 - If there are detections during the first round of soil gas sampling, a second round of soil gas sampling would 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 does not recommend any 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.



4835 GLENBROOK SAMPLING LOCATIONS



4835 GLENBROOK SAMPLING RESULTS TO DATE

- The 106 discrete soil samples collected during the second round of sampling from under the basement floor of 4835 Glenbrook Rd were sent to commercial lab for additional AUES analysis. The primary contaminants (metals, VOCs, SVOCs, and PAHs) found by the commercial lab were:
 - Acetone
 - Arsenic
 - 2-Butanone (MEK)
 - 1,2-Dicloroethene
 - Cis-1,2-Dicloroethene
 - Naphthalene
 - Mercury
 - Chloroform
 - Phenanthrene
 - Pyrene
 - Methylene Chloride
 - Benzyl alcohol
 - Carbon disulfide
 - Bis(2-ethylhexyl) phthalate
 - Phenol
 - Toluene
 - 3 & 4 Methylphenol
 - Butyl benzyl phthalate
 - Diethyl phthalate
 - 1,2,4-Trichlorobenzene
 - Acenaphthene
 - Styrene
 - 2-Chloronaphthalene
- As a reminder, all 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**

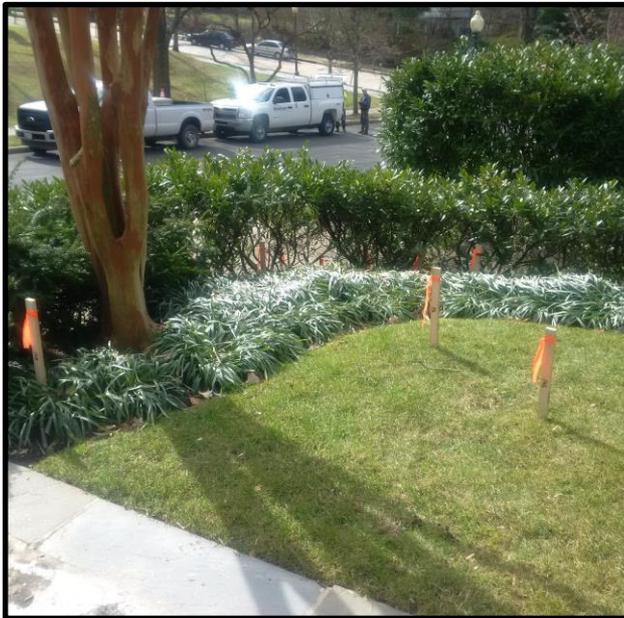


TENTATIVE SCHEDULE: GLENBROOK RD PROJECT AREA

<p>Summer/Fall 2018</p>	<p>Collect soil gas samples at 10 locations, distributed throughout the basement area of 4835 Glenbrook Road.</p> <p>Reach consensus on the path forward for removing the remaining contaminated soil along the 4825/4835 Glenbrook Road property line.</p>
<p>July</p>	<p>Continue to update the RAB on progress on path forward.</p>
<p>September</p>	<p>Present final update of work plans to the RAB and announce actual start date for returning to work.</p>
<p>Fall/Winter</p>	<p>Resume the soil removal operation along the 4825/4835 Glenbrook Road property line.</p>
<p>Spring/Summer 2019</p>	<p>Potential completion of remedial activities at 4825 Glenbrook Road.</p> <p>Start of site restoration for Glenbrook Road sites – 4801, 4825, and 4835.</p>

SPRING VALLEY FUDS RESTORATION ADVISORY BOARD

Community Items



SPRING VALLEY FUDS RESTORATION ADVISORY BOARD

Open Discussion:

Reminders:

- The next RAB meeting will be Tuesday, **September 11th, 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 July 2018 Meeting**

RESTORATION ADVISORY BOARD MEMBERS PRESENT AT THIS MEETING	
Brenda Barber	Served as Military Co-Chair/USACE, Spring Valley Project Manager
Dr. Peter deFur	Environmental Stewardship Concepts/RAB TAPP Consultant
George Vassiliou	Community Member
Lee Monsein	Community Member
Mary Douglas	Community Member
Paul Dueffert	Community Member
Jennifer Baine	Community Member
Paul Bermingham	Community Member
Mary Bresnahan	Community Member
William Krebs	Community Member
Steve Hirsh	Agency Representative - Environmental Protection Agency (EPA) Region III
Dave Tomlinson	Agency Representative - Department of Energy & Environment
Lawrence Miller	Community Member
RESTORATION ADVISORY BOARD MEMBERS NOT PRESENT AT THIS MEETING	
Greg Beumel	Community Co-Chair
Dan Noble	Military Co-Chair/USACE, Spring Valley MMRP Manager
Malcolm Pritzker	Community Member
Alma Gates	At Large Representative - Horace Mann Elementary School
James Sweeney	Agency Representative - Department of Energy & Environment
Tom Smith	Community Member
John Wheeler	Community Member
ATTENDING PROJECT PERSONNEL	
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.
Chris Gardner	USACE, Corporate Communications Office
Carlos Lazo	USACE, Government Affairs Liaison
HANDOUTS FROM THE MEETING	
I. Final Agenda for the July 10, 2018 RAB Meeting	
II. Army Corps of Engineers Presentation	
III. June 2018 Monthly Project Summary	
IV. June 2018 Corps' pondent	

AGENDA

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

I. Administrative Items

A. Co-Chair Updates

Brenda Barber, Acting Military Co-Chair/U. S. Army Corps of Engineers (USACE), Spring Valley Project Manager, welcomed everyone and opened the meeting.

1. Introductions

B. Barber introduced Dave Tomlinson, Associate Director for the Toxic Substances Division, new RAB Agency Representative - Department of Energy & Environment (DOEE).

Question from Allen Hengst, Audience Member - Are you the permanent DOEE or just temporary?

D. Tomlinson confirmed that he is the permanent DOEE representative to the RAB. He will hire a Branch Chief to replace Jim Sweeney. Depending on the person selected, that person may replace D. Tomlinson as RAB representative; but there are no immediate plans for that replacement.

Question from A. Hengst, Audience Member - Are you the one that goes to the Partner meetings?

D. Tomlinson confirmed this.

B. Barber introduced Portia Boone, Legislative Assistant, Office of Congresswoman Eleanor Holmes Norton at U.S. House of Representatives.

2. General Announcements

B. Barber reviewed website updates which included the May and June monthly project updates, weekly 4825 Glenbrook Road updates and photos, May RAB meeting minutes, and the June Corps' pondent.

Question from A. Hengst, Audience Member - I looked over the Partner meetings for the past couple years and it looks like you are having 6 meetings a year on the even numbered months. So, is it correct to assume that you had meetings this year in February, April, and June?

B. Barber confirmed this.

Question from A. Hengst, Audience Member - Has the policy of USACE changed, because you have not posted any minutes of the Partner meetings since last year? We have not seen the minutes

for February, we have not seen the minutes for April, and not surprisingly, we have not seen them for June. Are you no longer going to post the Partner meeting minutes in a timely manner?

B. Barber explained that she was not aware of a change in policy and would look into why the updates were not posted.

Rebecca Yahiel, Spring Valley Community Outreach Program confirmed that she would check the website for the updates.

Question from A. Hengst, Audience Member - So, assuming it was a mistake, that means the public will not get to see what you were talking about in February until after this meeting, which means we will not be able to ask you about what was discussed at the February and April Partnering meetings until September.

B. Barber explained that the Partner meetings are held prior to the RAB meetings so USACE may present in a public forum what was discussed at the Partner meetings, albeit an abridged version. The information from the February and April Partner meetings has been brought to the RAB in a timely fashion. She reiterated that the minutes from the February, April, and June meetings will be posted.

Question from A. Hengst, Audience Member - I would like you to change your policy. Right now, if you look at the USACE website, what you see under Partners are meetings from 2017 and before. So, even though you have not posted the meetings or the minutes, could you at least put when you had the meetings? Like, I would like to be able to look at the USACE site and see, 'oh, they had a meeting in February, and they had a meeting in April, and they had a meeting in June.' But normally we do not even see that you have had the meeting until the meeting minutes go up. Would it be possible for you to just put down as a placeholder, 2018 the February Partnering meeting, even though you do not have the minutes, like you did for the RAB?

B. Barber confirmed that USACE can post the dates of meetings held so far and meetings to be held a few months out. Each Partner meeting date is determined at the previous Partner meeting.

Comment from A. Hengst, Audience Member - So, I would like to see that you had a meeting in February, April, and June, and then later you can put up the minutes.

B. Barber confirmed this and noted that the date of the next Partner meeting is known and can be posted now.

Comment from A. Hengst, Audience Member - Great, thank you.

B. Task Group Updates

1. RAB Membership

One spot remains open for a new RAB member. If the members of the RAB know of any interested community residents, please contact B. Barber, R. Yahiel, or Whitney Gross, Spring Valley Community Outreach Program. If a new member is found, USACE proposes to hold a full new-member briefing in the fall.

Question from A. Hengst, Audience Member - Quick question about the institutional rep for AU [Ed. American University]. Linda Argo is going?

B. Barber confirmed that USACE understands that Linda Argo has retired.

Question from A. Hengst, Audience Member - So, do they have a replacement?

B. Barber explained that USACE understands there will be a replacement and has requested that American University (AU) notify USACE of L. Argo's replacement. No further information is known.

Dr. Peter deFur, Environmental Stewardship Concepts/RAB Technical Assistance for Public Participation (TAPP) Consultant, has decided to retire. The RAB will need to determine whether to continue the TAPP position to provide technical expertise and guidance to the RAB. If the RAB decides to continue with a TAPP consultant, USACE will need to prepare a contract for a new TAPP representative.

Question from Mary Bresnahan, Community Member - So, when is Peter retiring?

P. deFur explained that his contract ends September 25.

Comment from Lawrence Miller, Community Member - We can vote on this.

Question from M. Bresnahan, Community Member - How did we locate Peter to begin with? What are the procedures?

P. deFur explained that he has been doing this for 16 years. He started August or September 2002, likely September since that was the contract date. There were different people involved in the project, not only RAB members but also Outreach members. It is a small circle of people that participate in this sort of activity. The position was posted on a military clean-up listserv and other listservs.

B. Barber explained that USACE would need to prepare a scope of work (SOW) that details the services that P. deFur has provided to the RAB. USACE would likely post a solicitation to invite bidders to participate. That would be a lengthy process for USACE. With September quickly approaching, USACE would begin that process as soon as possible if the RAB decides to go ahead with a TAPP consultant.

Question from Paul Dueffert, Community Member - I am not sure how I evaluate whether that is something we want to continue to have available, unless P. deFur himself makes a recommendation as to what is kind of coming down the road that he would think we would need assistance with. I do not know if that is part of what you are contemplating but I certainly would welcome input. Is this your last meeting?

P. deFur explained that he will attend the Partner meeting in August and the RAB meeting in September.

Question from P. Dueffert, Community Member - You will be here?

P. deFur confirmed this and offered to prepare a memo.

Comment from P. Dueffert, Community Member - I would welcome your thoughts as to what steps the board could take, or no steps. I am not into throwing money away if there is no real good purpose and this has cost a lot. On the other hand, if there is a real use to having a replacement, then I would love to hear your thoughts as to what that person could do.

The RAB concurred with this and P. deFur agreed to prepare a memo with his recommendations.

B. Barber introduced Officer Tony McElwee of the District of Columbia Metropolitan Police Department (MPD) 2nd District. Officer T. McElwee offered to answer any questions or address any concerns of the RAB. He noted that MPD does perform vacation checks and invited anyone in the community to reach

out for that service to Anthony.mcelwee@dc.gov. He noted that he will attend the September 11 RAB meeting.

Comment from P. deFur, Environmental Stewardship Concepts/RAB TAPP Consultant - I do not know if the new members are aware of how you interact with the operations, once things are moving along. That is a good thing for them to know, because you do have a very active role.

Officer McElwee explained that the MPD 2nd District special operations division works closely with B. Barber. The MPD 2nd District provides patrol and calls for service in the area if something should happen such as a shelter-in-place or traffic management for medical, law enforcement, or fire response. Years ago, the MPD 2nd District practiced Shelter-in-Place drills with the residents within the Spring Valley community. B. Barber and the Outreach team also visit the MPD 2nd District to brief the officers on response to USACE activities in the area.

Question from Jennifer Baine, Community Member - What is that shelter drill?

Officer McElwee and B. Barber explained that if something happens, Shelter-in-Place means that the residents would be directed to stay in their homes until the area is clear. The MPD 2nd District would be onsite to manage traffic in the event of an evacuation or work with fire department personnel if necessary. USACE uses Shelter-in-Place specific to this project primarily during High Probability operations; any type of operation where there is a high confidence level that chemical agent, buried intact containers, or munition items may be encountered. USACE then works with emergency services to develop a Shelter-in-Place and evacuation zone. USACE would ask the residents that live in the impacted zone to Shelter-in-Place. Alarm systems would be connected to the MPD 2nd District. There is no active Shelter-in-Place occurring at this time. During the ~3 years of High Probability operations at Glenbrook Road, an officer from MPD 2nd District special operations division was posted at the site for immediate reach-back for any necessary assistance from any of the emergency services in D.C.

Question from George Vassiliou, Community Member - Have you been briefed by the D.C. Water about the situation that will occur with them replacing the pipes in Rockwood? They sent us a letter that there are 3 phases of the project, and one is in Rockwood; and then they are going to go around and so forth. They gave a window from just about now to a month forward. Do you actually have a firm date from them when they are going to start digging? How extensively are they going to block part of the street, for example?

B. Barber explained that D.C. Water indicated to USACE that D.C. Water has some type of connection to fix on Rockwood and then will conduct an open excavation on the Rockwood section first. USACE expects there will significant lane restrictions that may last weeks or months, depending on how well the project progresses. The project will then transition to Glenbrook Road, which will be a slip-line with specific trenches opened, and then on to the rest of the replacement. USACE understands the project start date has a 1 to 2-month window.

2. Information Repository

The Information Repository (IR) located at the Tenley-Friendship Library has been significantly downsized. USACE continues to maintain a CD binder at the library information desk. There is a small sign that directs library users to the Information Desk, project information, and the Spring Valley outreach team. Select key documents are kept at the IR as hard-copy; primarily decision documents and major Groundwater Remedial Investigation (RI) documents. All other documents are only available on CD or online through a direct link to the Spring Valley Project website

homepage.

II. USACE Program Updates

A. Groundwater Feasibility Study

B. Barber provided a brief status update on the Groundwater Feasibility Study (FS).

Modifications to the Groundwater FS are complete with the addition of Monitored Natural Attenuation as a Remediation Alternative. The Groundwater FS has been re-submitted to the Partners for review and additional comment. The Draft Groundwater Proposed Plan (PP) has been finalized, consistent with the contents of the Groundwater FS. The Draft Groundwater PP will be submitted to the Partners when USACE Baltimore receives the additional feedback on the Groundwater FS. USACE Baltimore continues to coordinate with USACE Headquarters (HQ) on the Groundwater documents.

Question from A. Hengst, Audience Member - I have a question for Steve [Ed. Hirsh] and maybe for Dave [Ed. Tomlinson]. Steve, in March when we were talking about the Groundwater FS, which has been out now for a year and a half, I asked you if EPA would, it would be okay with EPA, if they selected Monitored Natural Attenuation, and at that time you said you did not know because you had not seen the Groundwater FS. So, now that you have seen it, what do you think of that as an alternative for cleaning up the groundwater?

S. Hirsh explained that Monitored Natural Attenuation is not the Selected Alternative, so the addition of Monitored Natural Attenuation does not change the outcome.

Question from A. Hengst, Audience Member - And Dave, when Jim [Ed. Sweeney] was here he said that DOEE would go along with what EPA said. Is that still the position of DOEE?

D. Tomlinson explained that the position of the DOEE is not necessarily the same, but he did not have a problem with EPA.

S. Hirsh explained that the issue is that EPA has a groundwater Beneficial Use Policy. Unless there is a state or local plan for groundwater use that states the groundwater is not available as a drinking water source (a complicated document called a Treatability Study Work Plan (TSWP); typically state-wide, the only state in Region III that has a TSWP is Delaware) EPA's assumption is that the groundwater could be used as a drinking water source. EPA believes a remedy is needed that will eventually remediate the groundwater to drinking water level. That creates a disagreement with USACE. USACE's position is that the groundwater will be monitored but no one is drinking the groundwater at this time. If the public should start drinking the groundwater, then USACE will address a new plan.

Question from M. Bresnahan, Community Member - Steve [Ed. Hirsh], is there any sense of how long it would take to go back to healthful levels if it were just attenuating?

S. Hirsh explained that a calculation is performed and may have been performed in the past at Spring Valley. Typically, a level is calculated that is within a reasonable time-frame. In some circumstances, a reasonable time-frame might be 100 years. For remote sites, such as select sites in West Virginia, where there is no current or anticipated future use and there are no people using the groundwater, 100 years might be considered acceptable. If the site is an area where people are consistently drinking the groundwater, such as most communities in Philadelphia, then 100 years would likely not be acceptable. There is flexibility in the interpretation of reasonable time-frame. For this project, the reasonable time-frame must be determined. If USACE were to propose to

select Monitored Natural Attenuation and show that the process is attenuating the chemicals to drinking water levels over a period of 50 years, that might be acceptable, but he did not believe the Monitored Natural Attenuation Alternative will be selected.

Question from A. Hengst, Audience Member - Has the position of the EPA on cleaning up groundwater changed within the last 2 years?

S. Hirsh confirmed that the position of EPA on cleaning up groundwater has not changed within the last 2 years, but there is a task force recommendation that is reviewing EPA's policies. Part of that review includes the Beneficial Use Policy, giving states tools that may be used to better characterize the uses of the groundwater in a smaller area. Right now, the policy encompasses an entire state, making remediation projects much bigger than necessary when an issue may be in only one county. EPA is reviewing current EPA groundwater policy, but no changes have been made at this time.

Question from A. Hengst, Audience Member - Is this something that has been created in the last 18 months?

S. Hirsh explained that the task force was implemented by former EPA Administrator Scott Pruitt, and the task force remains after S. Pruitt's resignation. EPA policy has not changed.

B. Barber added that the Groundwater FS will continue to be discussed at the Partners meetings.

Comment from A. Hengst, Audience Member - That is why I am eager to see the minutes.

B. Barber explained that the Groundwater FS has not been discussed at length at any of the Partner meetings to date. USACE Baltimore is awaiting feedback on the revisions to the Groundwater FS from the Partners and then a lengthy Partners meeting will be held specifically for the Groundwater FS.

B. Site-Wide Remedial Design/Remedial Action

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

1. Recent Activities

Part of the Site-Wide Remedial Action (RA) process is the Land Use Control Implementation Plan (LUCIP) that has been approved by the Partners. The team is creating a 3-fold brochure to describing the 3Rs of the Explosive Safety Education Program (Recognize, Retreat, Report) to raise community awareness the Spring Valley Formerly Used Defense Site (FUDS) was an active military site 100 years ago. If an object is found, the 3Rs describe how to handle the situation safely. A FUDS information notice will be sent with the brochure and both documents will be submitted to the Partners for review. Once finalized, the first mailing is expected to be sent out to all 1,600 recipients in the entire FUDS community in fall 2018.

Question from A. Hengst, Audience Member - What about the students and faculty and staff at AU?

A. Zahl and B. Barber explained that, according to the arrangement between USACE Baltimore and AU, USACE Baltimore provides the information to AU and then AU handles risk communication dissemination to AU students and staff. If USACE Baltimore is called upon to interact with AU, USACE Baltimore will do so, but AU's primary request is for USACE Baltimore to provide information to AU only.

Question from M. Bresnahan, Community Member - I am just curious. Is this a program that you have actually done before?

A. Zahl confirmed this.

Question from M. Bresnahan, Community Member - Ok. So, obviously it has probably been helpful, that is why you are doing it here?

A. Zahl explained that the 3Rs program is implemented out of an abundance of caution. If a homeowner is performing improvements on their property and encounter an object, the 3Rs program raises awareness and provides guidance for safety and resources for reporting the object.

Question from M. Bresnahan, Community Member - I think it is great. I know that we are in a FUDS in Spring Valley, but is not part of AU in the FUDS?

A. Zahl confirmed this.

Question from M. Bresnahan, Community Member - So, would they be involved in this also? Not the school, American University Park.

B. Barber confirmed that the information will be sent to American University Park if it is in the original FUDS boundary.

Question from M. Bresnahan, Community Member - I do not think they were in the original one. Because I really think they would appreciate it.

B. Barber confirmed she would discuss the suggestion with Dan Noble, Military Co-Chair/USACE, Spring Valley MMRP Manager.

Question from P. Dueffert, Community Member - Mary [Ed. Bresnahan], you are a real estate agent, right?

M. Bresnahan confirmed this.

Question from P. Dueffert, Community Member - Does this pose any issues for property values or anything?

Comment from M. Bresnahan, Community Member - Actually, it does. It depends on the person and their mentality. Now, I am more than just a real estate agent. Because as most of you know I have a background in energy. I asked a question a long time ago when a presentation was done at our Long and Foster office in Georgetown. I asked about the state of the soil in Spring Valley compared to all of Washington D.C. I had a very, very positive answer, therefore I asked it publicly. Because I knew it would generate questions. That is leading into what you are saying right now. There are real estate agents in Washington D.C. that will not show any property in Spring Valley, period, and in parts of AU. But I think if they really had the knowledge and foresight and to see how much work has been done, how much attention has been provided, and the support work and the activity, they would realize it is pretty blessed clean. If something is found, they will clean it up and take care of it. I happen to think it is wonderful, as a real estate agent. Some people feel that it does affect the values, other people say no it does not. I know there are people in here that get my mailings that come out every other month that give the details of what it was listed for and what it sold for.

Question from Mary Douglas, Community Member - It does not change the system of comfort letters and this property if there is a prospective buyer. Do you not still work with the Army to

kind of fashion a comfort letter saying that the particular property has been adequately reviewed and monitored?

Question from M. Bresnahan, Community Member - You mean the actual testing letter that gives you the test results?

Question from M. Douglas, Community Member - I am not sure what it is called, but I thought real estate agents have sort of clean bill of health letters for prospective buyers?

B. Barber explained that for the 177 properties where USACE performed arsenic removal, USACE provided assurance letters to the homeowners stating that remediation was complete or letters stating that arsenic testing was performed and nothing above the threshold was encountered. Once the 91 properties are remediated, the homeowners at the 91 properties will all receive assurance letters as well.

Question from M. Bresnahan, Community Member - There is a standard disclosure that is required by all real estate agents and companies here in D.C. for Spring Valley. If you list a property in Spring Valley you have to have a certain disclosure saying that it is a FUDS and so on and so forth, and that the information will be provided to them. I have referred people to your office many a time asking for those reports that come out that give the status of the survey that was done on the property because that is a definite requirement.

Question from M. Douglas, Community Member - And that covers munitions outside the 91 and arsenic?

A. Zahl confirmed this.

Chris Gardner, USACE, Corporate Communications Office noted that for the mailings it is essential that USACE has investigated the same locations that have received the Corps' pondent newsletter 2 to 4 times a year for many years. The remediation activities should not come as a surprise to residents of the FUDS.

Question from M. Bresnahan, Community Member - But do you know something, Mary [Ed. Douglas]? Something that we have encountered is that people will ask us if there is something coming up in Spring Valley for sale. They will take advantage of the fact that they think they can get it cheaper because there is a feeling that people do not want to buy or live there because rumors go around and people talk. It truly is amazing the questions you get asked when you talk to people in Spring Valley. They are great questions and they are entitled to ask them. I will tell you because just recently some properties have been on the market at what I considered a low price and I was in shock. They sold instantly at that low price. I think that they thought they might get multiple offers or something. If they did, it did not show in the sale price. I was in shock that they priced it that low.

Question from G. Vassiliou, Community Member - How much lower by percent?

Question from M. Bresnahan, Community Member - In my opinion, \$200,000 lower, at least.

Question from G. Vassiliou, Community Member - Were the properties worth 5 million or what?

Question from M. Bresnahan, Community Member - No, no, no, no. Properties that were worth 1.5, 1.6. They listed them substantially lower and got that price. Substantially lower.

2. Final Survey Effort at 91 Residential Properties and 13 Federal/City Lots

- Finalized the quality assurance and safety plans.
- Right-of-Entries (ROEs) received from 19 residential properties.
- Property boundary and arborist surveys completed at over 15 properties.
- Geophysical clearing walkthroughs completed at 8 properties.
- Preparing Vegetation Removal Plans for property owner approval.
- Clearing completed and initial man-portable vector (MPV) and G-858 magnetometer surveys ongoing at 2 Federal/City lots off Dalecarlia Parkway; clearing of other lots ongoing.

The Advanced Geophysical Classification (AGC) equipment is being used to survey areas in Dalecarlia Woods. The MPV can recognize and identify known munitions in the ground.

Question from J. Baine, Community Member - How deep?

A. Zahl explained that the MPV can detect and identify items up to 2.5 feet deep in the ground. The G-858 magnetometer can detect items that are deeper but cannot identify the items. If a large anomaly is detected that anomaly will be excavated.

Question from J. Baine, Community Member - Can properties request remediation? So, say you are not one of those 91, are there neighbors? I know there is a worry about people that do not want it, but there could be neighbors that are next to the border that might be worried?

A. Zahl explained that based on a review of historical photos and other information USACE delineated the boundaries of the FUDS and added a buffer.

Question from J. Baine, Community Member - Ok, so no one is requesting that?

A. Zahl explained that if an owner of a property located a large distance away requested remediation, that request would likely be declined. If a property on the border only has a section inside the zone and the property owner requests that the whole property be remediated, that entire property will be remediated.

3. Hotspot Soil Removal

USACE is conducting hotspot soil removal as part of the Site-Wide Decision Document (DD). Delineation sampling for cobalt hotspot removal will be performed at the Spaulding/Capta in Rankin area next to AU. The delineation sampling will help determine how much soil will need to be removed to achieve regulatory standards.

Question from Davis Kennedy, Northwest Current Reporter - What is delineation?

A. Zahl explained that delineation is sampling a 3 to 5-foot perimeter from a borehole with above standard-level contamination to determine how far the contamination extends. Then the contaminated soil will be removed but not the soil beyond the delineation.

Question from A. Hengst, Audience Member - Is the property vacant? I know the gentleman died a couple years ago.

A. Zahl confirmed the property is not vacant.

Question from A. Hengst, Audience Member - So, were these his relatives or new people?

A. Zahl explained that the property is actively occupied, and a lot of landscaping has been performed on the property. USACE put down mats to protect the property as equipment is brought in for the remediation effort.

Question from A. Hengst, Audience Member - I guess I can look this up, but did the family sell

the property?

B. Barber explained that USACE does not discuss specific property owners.

Question from Gerry Barton, Audience Member - Where is this?

A. Zahl explained that the Spaulding/Captain Rankin property is off Woodway Lane, adjacent to the AU campus.

Comment from A. Hengst, Audience Member - The sign in front of the property used to say Hickory Hill. I do not know if it is still called Hickory Hill.

A. Zahl explained that USACE refers to the property as the Spaulding/Captain Rankin area.

Question from William Krebs, Community Member - With the Dalecarlia Parkway, there is no reason to believe there are any dumps? The contamination would have come from artillery and mortars?

A. Zahl confirmed that the contamination would be from munitions on the range fan. Preliminary investigations have already been performed in those areas, this remediation is back-checking for munitions. According to the Site-Wide DD, this work is performed to ensure thorough remediation for the safety of the public.

Question from W. Krebs, Community Member - And that is why 2.5 feet deep? Nothing that was buried, just something that landed?

A. Zahl confirmed this.

4. Tentative Schedule

- Summer - Obtain ROEs from the third group of homeowners; finalize plant removal plans for first group of homeowners; delineation sampling to be completed at Spaulding/Captain Rankin property.
- Late Summer - Begin to obtain ROEs from the next group of homeowners; begin geophysical surveys at first group of properties; begin soil removal and restoration at Spaulding/Captain Rankin property.
- Fall – Finalize and distribute the Munitions Education and Awareness packet (first of future annual mailings).

Question from P. deFur, Environmental Stewardship Concepts/RAB TAPP Consultant - Are there any seasonal limitations to some of these steps? The surveys or the removal?

A. Zahl confirmed that for the plant removal, USACE Baltimore will work with the homeowners as the project progresses.

Question from P. deFur, Environmental Stewardship Concepts/RAB TAPP Consultant - And the restoration clearly is better at some times a season, but I am thinking about the geophysical and the removal?

A. Zahl explained that the seasons do not affect the geophysical testing or the removal. If a homeowner wants the team to begin work in the fall, the team can perform the removals in the fall and then conduct the restoration in the spring. The only limitations are from the landscaping perspective; removing and restoring vegetation. Plants cannot be replaced in December.

Question from D. Kennedy, Northwest Current Reporter - Have you ever had any people who say, ‘no you cannot come to our property’?

A. Zahl confirmed this.

Question from D. Kennedy, Northwest Current Reporter - How many of them, would you say?

A. Zahl explained that a few homeowners in the past have refused access to their property. Some homeowners believe that USACE Baltimore is being overly cautious. USACE does not have the authority to enforce access for remediation. There is a possibility that some homeowners out of the 91 properties may refuse.

Question from D. Kennedy, Northwest Current Reporter - You have had a couple people say no?

R. Yahiel explained that at this point USACE Baltimore is working with people that have asked to be prioritized into the first group of properties to be remediated. Some of those homeowners have asked to be deferred to later this year or next year, but for the most part the team is working with homeowners that want the remediation to be conducted sooner rather than later.

Comment from A. Hengst, Audience Member - One of the memorable 'nos' came from Area of Interest 13, where there is a possible burial pit. I forgot the exact address right now.

B. Barber explained that there is USACE policy and process for handling homeowner refusal. USACE Baltimore approached the homeowner several times. If the homeowner officially says no on several occasions, USACE Baltimore puts together a letter and a packet which is routed up to USACE Division and USACE HQ to put staff on notice that there is a property that USACE Baltimore believes needs some type of action and the homeowner has refused access. USACE Baltimore then works with the Partners to determine if the Partners are going to allow the property owner to continue to say no. If there is an imminent health and safety risk, there are other options to explore. In that particular case, the homeowner eventually came around.

Question from A. Hengst, Audience Member - Oh, this one in Area of Interest 13?

Comment from M. Bresnahan, Community Member - It was on Fordham Road.

Question from A. Hengst, Audience Member - No, that one was done. That is Point of Interest 2. This is the block that is next to Wesley Seminary. It is a block of properties.

B. Barber reiterated that the process is still the same.

Question from A. Hengst, Audience Member - So, you have not approached that person and the first time they said no a couple years ago?

B. Barber was not sure if that homeowner has been approached since that time.

Question from A. Hengst, Audience Member - I think it might be on Quebec Street.

B. Barber reiterated that there is a formal process for working with property owners that say no.

Question from Paul Bermingham, Community Member - My question was along those lines. Does the property owner have the final word? Can he or she refuse, and if doing so it poses a risk to the neighborhood or neighbors, is there recourse that the neighbors could have, or would they even know?

B. Barber explained that if there is imminent danger, USACE would work with EPA and other authorities, because USACE does not have the authority to enter a property.

S. Hirsh confirmed that EPA has the authority to gain access and explained that the circumstances must be evaluated, if there is a danger to other people. Homeowners have property rights and

make decisions about their own life. If there is a leaking drum and the contamination is leaving the property, potentially affecting other people, that is when the federal government would step in. It is a big deal for the federal government to say, 'out of the way, we are coming on to your property and dig something up' or do something that the homeowner does not want done on the property. There is an opportunity and a way to move forward that is more than merely a search warrant.

Comment from Lee Monsein, Community Member - Every few years we have had the same subject. We even brought in the attorneys, and the answer was always that there is not enough risk, that there is no imminent danger for other people in order to do that. The bar was pretty high.

Question from P. Bermingham, Community Member - But as of now, are we aware of any owner that is refusing?

A. Zahl confirmed that at this time no one is refusing remediation.

L. Monsein explained that over the years people have refused various things such as clean-ups, arsenic removal, and munitions investigations, and the homeowners were pushed. There is an orderly way of sending it up the chain of command.

Question from P. Bermingham, Community Member - So, whatever may have been there may still be there in those cases where people said no?

P. Dueffert, W. Krebs, and L. Miller explained that the homeowners eventually said yes. The RAB has always worked it out, the homeowners have ultimately been reasonable and allowed access. Sometimes that process took years to accomplish, or the homeowner decided to sell their house and changed their mind.

Comment from A. Hengst, Audience Member - In my humble opinion, I think what made the difference was when the address was published in the Northwest Current. So, that kind of publicity is the pressure that they responded to.

B. Barber explained that is not a tactic USACE utilizes, since there is a formal process to handle any rejections of access.

5. Public Safety Building (PSB)

AU demolished the former Public Safety Building (PSB), and in accordance with a stipulation in the Site-Wide DD if the building was removed, USACE will complete any necessary remediation under the foundation of the PSB. USACE conducted geotechnical and sub-slab sampling the week of June 25 to verify prior investigative data for soils under the foundation. A fence and near real-time miniature chemical agent monitoring system (MINICAMS) air monitoring was installed and a Geoprobe was brought in for soil sampling.

A total of 79 samples were taken from 12 borehole locations through the concrete slab of the former PSB. Each borehole collected samples in 2-foot sleeves all the way to bedrock. Results were received today (July 10). No agent or agent breakdown products (ABPs) were found in any of samples taken under the PSB. The team will continue to review work plan comments from the Partners and implement this work in a timely fashion.

6. PSB Schedule

July - Received lab analysis of the soil samples. Results will be shared with the RAB.

August - Complete Civil Survey and re-routing of gas utility line for site safety.

September - Remove concrete foundation slab.

October - Excavate contaminated soils underneath removed foundation slab.

November - Take confirmation samples.

December - Backfill with clean soil, demobilization.

Question from G. Barton, Audience Member - But you said it was not contaminated?

B. Barber confirmed that no chemical agent or ABPs were found in the 79 soil samples taken. Even though there is high confidence that no contaminants will be found, USACE has a contingency plan in place to handle any items or contamination that might be encountered.

Question from P. deFur, Environmental Stewardship Concepts/RAB TAPP Consultant - Did the analysis include other things than agent?

B. Barber explained that the samples were only tested for agent and ABPs. USACE had enough commercial laboratory data so there was no need to send the samples off-site.

Question from W. Krebs, Community Member - Was not one of the questions about that building perchlorate?

B. Barber explained that the perchlorate was found in the groundwater closer to Kreeger Hall.

Question from W. Krebs, Community Member - Down from there?

B. Barber confirmed this.

C. Glenbrook Road

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

1. Recent Activities – 4825 Glenbrook Road

- Crews focused on excavating arsenic contaminated saprolite from grids on the 4801 Glenbrook Road side of the lot. Due to heavy rains, the crews spent a great amount time conducting site maintenance and pumping water from the site to minimize any off-site impact.
- The team completed three arsenic-contaminated grids, indicated on presentation slide 21 by blue hatching. There are two partial grids to be completed in the far-right corner, indicated on presentation slide 21 by purple hatching. The team will continue to excavate the partial grids.
- The grid with borehole (BH)-14 had an arsenic test failure, so the team moved into that area July 2. As the team was excavating in that grid, the team began to smell an odor consistent with odors previously encountered along the shared property line. The team had undergone extensive odor recognition training because of the incident last fall, so took immediate steps to stop work and mitigate. The area was properly covered and sealed off. Soil samples were taken just prior to mitigation and analyzed. Small amounts of ABPs associated with mustard (HD) were found in the soil samples. USACE has informed the team that work will not resume in that area. On July 10 the area was backfilled and covered with steel plates so the property may continue to be accessed for other work. The grid with BH-14 and the other remaining grids highlighted in purple hatching will be addressed under the Return-to-Work protocols agreed upon with the Partners.

2. 4825 Glenbrook Road Return-to-Work Planning

After the June Partners meeting, the Partners agree with the following Return-to-Work approach. Changes to the work plans include:

- 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.
- Implement weather-related operational constraints. The higher the temperature, the higher the likelihood that chemicals may volatilize. Work will not be conducted onsite in temperatures over 75 degrees, a lower temperature restriction than in previous work plans.
- 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. All soils will be transported to an incinerator.

3. Excavation Process for 4825 Glenbrook Road

- Soil excavation will be performed in 6-inch lifts, monitored for munitions or intact containers by unexploded ordnance (UXO) technicians.
- All soils will be sifted directly into drums and sealed for transport to federal property. Drums will be stored at the federal property until enough drums are collected for disposal at the incinerator.
- The team will continue to collect representative soil samples for disposal characterization.

Soil will be assumed hazardous until:

- No chemical agent contaminated media (CACM) is encountered;
- No significant quantity of debris is encountered; and
- Disposal characterization samples are clear for agent and ABPs.

Question from A. Hengst, Audience Member - You are getting a lot of drums with water and soil on the federal property. Is there a plan to move this, how will that work?

B. Barber explained that the water is collected in frac tanks, big storage tanks. As soon as the tanks are filled, a truck is called to transport the tanks to the incinerator. The drums are stored at the federal property until the 88 to 90 drums needed to fill a truck have been collected. The drums are then transported to Port Arthur, Texas for incineration.

Question from A. Hengst, Audience Member - Is the incinerator for the water in D.C. or is that also Port Arthur?

B. Barber confirmed that all soil drums and water tanks go to Port Arthur, Texas for incineration.

4. Soil Sampling

- The same soil sampling processes used previously will be continued at the site. Samples will continue to be analyzed for HD, Lewisite (L), and associated ABPs.
- Waste characterization sampling will continue, consistent with previous efforts.
- Confirmation soil sampling will also continue, consistent with previous efforts. Samples will be analyzed for agent, ABPs, and associated chemicals
- One modification to the soil sampling protocol is that if there are any ring-offs on the MINICAMS, the team will immediately mitigate and collect soil grab samples because the soil samples yield better validated data than the DAAMS tube.

5. Industrial Air Monitoring

For public protection, the team will continue to monitor the air downwind and close to the excavation with hand-held monitoring equipment for the following compounds:

- Arsine (SA)
- Hydrogen chloride (HCl)
- Hydrogen cyanide (HCN)
- Volatile Organic Compounds (VOCs)

Additional SA and HCl monitors will be added at all four perimeter locations, plus the drum-loading area. USACE is investigating if there is equipment that will log the data or if the monitors will need to be checked manually at intervals.

6. Edgewood Chemical Biological Center (ECBC) Air Monitoring

The team recommends implementing additional air monitoring locations using the existing air monitoring program (MINICAMS and DAAMS) that ECBC has implemented over the years at the site.

Additional air monitoring locations recommended:

- MINICAMS/DAAMS at the drum-filling location
- DAAMS tubes at the midpoint between the excavation area and the current perimeter DAAMS

The team will continue to utilize the 4 DAAMS tubes at the perimeter, plus the MINICAMS/DAAMS at the excavation area.

The Primary Exclusion Zone will encompass a large portion of 4835 Glenbrook Road and 4825 Glenbrook Road. Project support equipment will continue to be located outside of the Exclusion Zone. A personnel decontamination station, cascade unit to provide supplied air to the excavation teams, and an ambulance will be stationed onsite since the excavation teams will be conducting work in Level B PPE.

7. Air Modeling

The team reassessed the air modeling information. There is the 43-foot distance from the small location of excavation in the front yard of 4835 Glenbrook Road to the front property line along Glenbrook Road. There is also the 59-foot distance from the back portion of the excavation to the parking lot area of AU campus, because AU visitors walk adjacent to the property line to gain access to the athletic fields.

The team reviewed all the sampling data from the entire effort at Glenbrook Road and evaluated the maximum concentrations encountered for L, HD, and ABPs. The primary subject of Partner discussion was the concern for HD and HD-associated breakdown products, so the team focused efforts on HD and L. The maximum concentrations encountered to date were 360 micrograms/kg for HD and 72 micrograms/kg for L. The team then modeled the distances at 75 degrees if there were a release, using the lowest, most conservative public exposure limits. Acute exposure guideline level (AEGH)-1 was used for HD, and protective Action Criteria for Chemical (PAC)-1 was used for L, the most conservative public exposure limits available. At these concentrations, there is a 9-foot hazard arc for HD and a 22-foot hazard arc for L. These distances are well within the 43-foot distance set out by the team to protect the public. The team has confidence that open air operations can be conducted without any impact to the community. Workers will be protected

while conducting activities within the zone in the event of a release.

8. Return-to-Work Plans for 4825 Glenbrook Road

- The team will prepare a stand-alone work plan for this effort detailing processes for Return-to-Work. The processes will reference some of the site-wide documents used at the site.
- The team will review the procedure with the internal USACE team and the Partners for concurrence.
- Work is expected to resume with Partner concurrence.

Question from P. Bermingham, Community Member - There are not many days now that are below 75 degrees. What happens?

B. Barber explained that after plans are prepared and reviewed by the Partners, and the RAB is briefed and comfortable with the approach, USACE anticipates that work will likely begin in October. Cooler weather is expected in November, and the use of mechanical excavation will drastically minimize the amount of time necessary to excavate. USACE expects excavation to be completed by January, before temperature becomes a constricting concern.

9. 4835 Glenbrook Road Sampling

Soil sampling at 4835 Glenbrook Road is complete. USACE will perform soil gas sampling in the 10 locations previously installed during the soil sampling effort. One round of sampling will be performed beginning the week of July 16. The process consists of equipment installation, the equipment stays in place for 14 days, ECBC will remove the equipment, perform the analysis, and report the results to USACE. If there are detections in the soil gas sampling, USACE will perform a second round of soil gas sampling. The second round of sampling would occur after activities at 4825 Glenbrook Road have been completed, because the soil remaining along the property line may be a source of soil gas issues. Dependent upon the results of the soil gas sampling, the team does not recommend any further action at 4835 Glenbrook Road.

Question from M. Douglas, Community Member - So, at that point would the AU president move in to the place?

B. Barber explained that she did not know if the president of AU is planning to return to that home or not. USACE will need to maintain rights to 4835 Glenbrook Road to finish activities at 4825 Glenbrook Road, so there will be a period of time that no-one may access the house. Once both properties are complete, the president of AU may resume living in the house at her discretion.

Question from G. Vassiliou, Community Member - You do not have any gas data right now?

B. Barber confirmed this, only soil sampling data has been obtained to date.

The 106 discreet soil samples collected during the second round of sampling from under the basement floor of 4835 Glenbrook Road were sent to a commercial laboratory for additional American University Experiment Station (AUES) analysis. All detections were at the parts/billion level, and the primary contaminants were metals, SA, mercury (Hg), VOCs, semi volatile organic compounds (SVOCs), and polycyclic aromatic hydrocarbons (PAHs). None of the soil samples tested positive for any chemical agent or ABPs.

10. Schedule

- Summer/Fall 2018 - Conduct soil gas sampling. Reach consensus on the Return-to-Work plans by fall.

- July - Continue to update the RAB on progress of path forward.
- September - Present final update of work plans to the RAB and announce actual start date for Return-to-Work.
- Fall/Winter - Resume soil removal operation along the shared property line of 4825 Glenbrook Road and 4835 Glenbrook Road.
- Spring/Summer - Potential completion of remedial activities at 4825 Glenbrook Road. Start of site restoration for Glenbrook Road sites; 4801 Glenbrook Road, 4825 Glenbrook Road, and 4835 Glenbrook Road.

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, September 11, 2018

C. Open Discussion

V. Public Comments

Question from A. Hengst, Audience Member - After seeing this future agenda topic [Ed. Groundwater FS Study/Policy Issues between USACE, EPA, and DOEE] at every meeting this year, I am wondering, when are we finally going to have that topic discussed?

B. Barber explained that the goal is that USACE needs to discuss the issue with the Partners one more time, review additional Partner feedback through USACE chain of command, obtain USACE's official position on the matter, and then present the issue as a discussion topic for the RAB.

Question from A. Hengst, Audience Member - So, it is too much to hope for it to be in September?

S. Hirsh explained that he will not be attending in September, so the September RAB is not a good choice for that discussion.

Question from A. Hengst, Audience Member - November?

S. Hirsh confirmed November is a good choice.

B. Barber confirmed that USACE can target November for the Groundwater FS discussion.

VI. Adjourn

The meeting was adjourned at 8:22 PM.