



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

**May 8, 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: July 10, 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

8 May 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.”*



**US Army Corps  
of Engineers**

# 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:

- March and April Monthly Site-Wide Project Updates
- Weekly 4825 Glenbrook Rd Project Updates with photos
- March RAB meeting minutes

The screenshot shows the US Army Corps of Engineers Baltimore District website. The header includes the Corps logo, the text "US Army Corps of Engineers", and "BALTIMORE DISTRICT". A search bar is present. The navigation menu includes links for HOME, ABOUT, BUSINESS WITH US, MISSIONS, LOCATIONS, CAREERS, MEDIA, and CONTACT. Below the navigation, a breadcrumb trail reads "HOME > HOME > SPRING VALLEY".

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

**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.

To the right of the announcements is a photo gallery. The main photo shows a dark, irregular object (possibly a munition) on a white surface. Below it are three smaller thumbnail images. A "Caption" label is visible next to the main photo. Navigation arrows labeled "PREV" and "NEXT" are at the bottom of the gallery.

Below the announcements is a "Spring Valley Overview" section with a "Project Efforts" sidebar. The "Project Efforts" sidebar lists "Project Update", "4825 Glenbrook Road", "Site-Wide", and "Groundwater". The main text in the "Spring Valley Overview" section reads:

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

At the bottom of the page, there are two red buttons with white text: "Site-Wide" and "The Corps' pondent". Below these buttons is a "Project Documents" section.





# TASK GROUP UPDATES

## RAB Membership



# TASK GROUP UPDATES

The Tenley-Friendship Library has requested that we downsize our Information Repository.

## Alternative #1:

- Ensure all documents are digital.
- Keep CD binder at the Information Desk.
- Install a sign directing library users to the Information Desk, project information, and the Spring Valley outreach team.
- Direct link placed on library website to the SV project website homepage.
- Some hard copies of key documents will remain accessible in a smaller area in the library, such as the Glenbrook and Site-Wide Decision Documents, and the Groundwater RI.

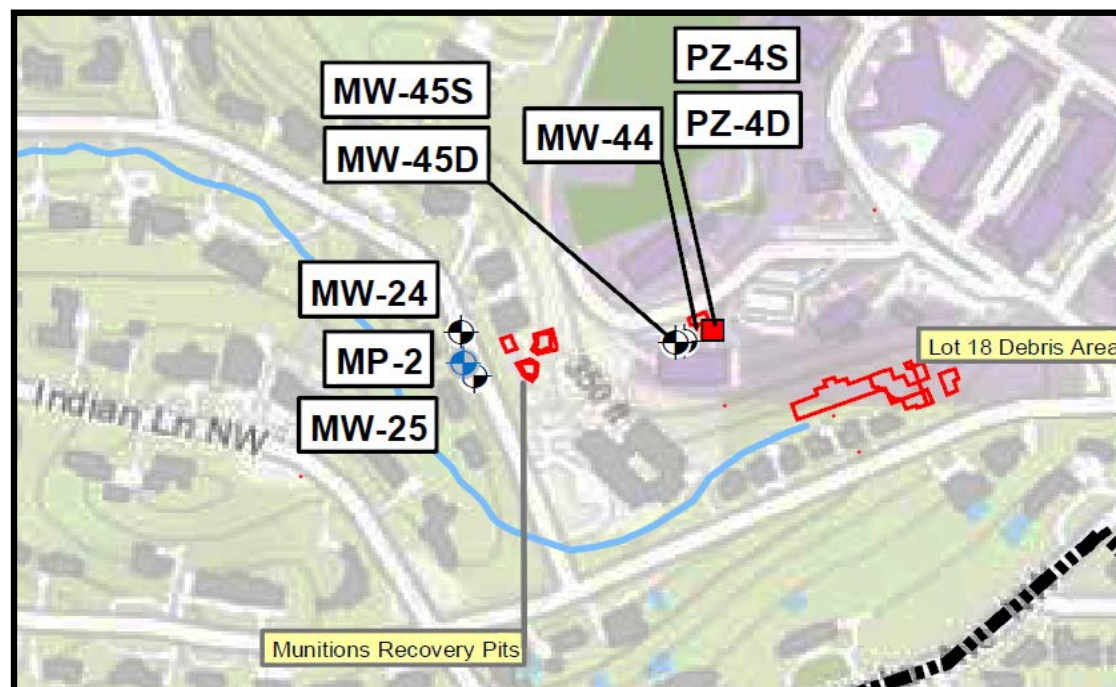


## Alternative #2:

- Ensure all documents are digital.
- Keep CD binder at the Information Desk.
- Install a sign directing library users to the Information Desk, project information, and the Spring Valley outreach team.
- Direct link placed on library website to the SV project website homepage.

# GROUNDWATER STUDY

## USACE Updates



US Army Corps  
of Engineers.



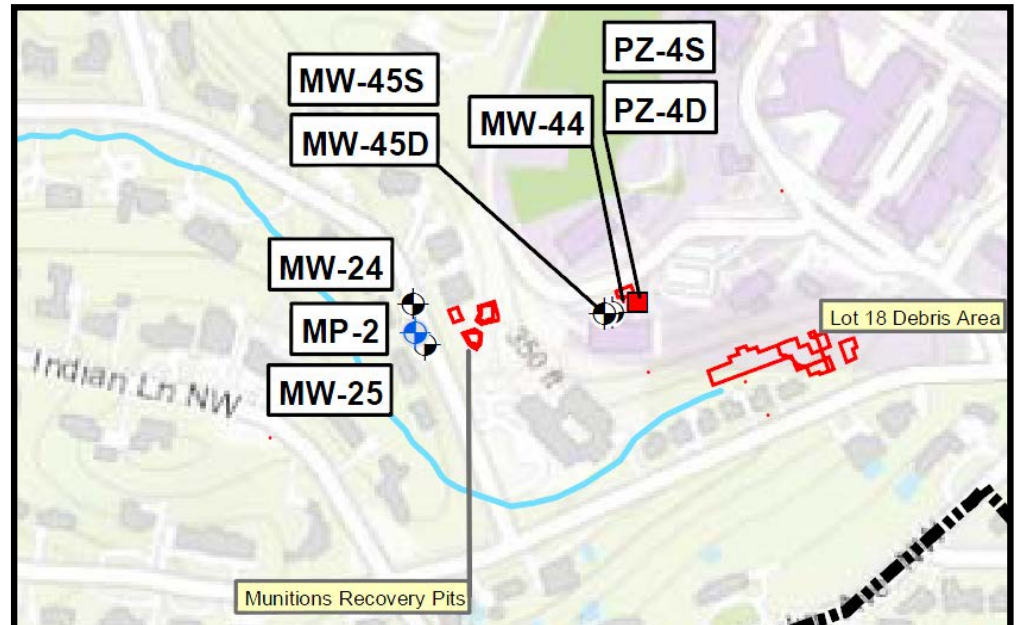
# GROUNDWATER FEASIBILITY STUDY (FS)

8

The Army Corps has completed modification of the Feasibility Study (by adding 'monitored natural attenuation' as a remediation alternative) and is resubmitting 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.

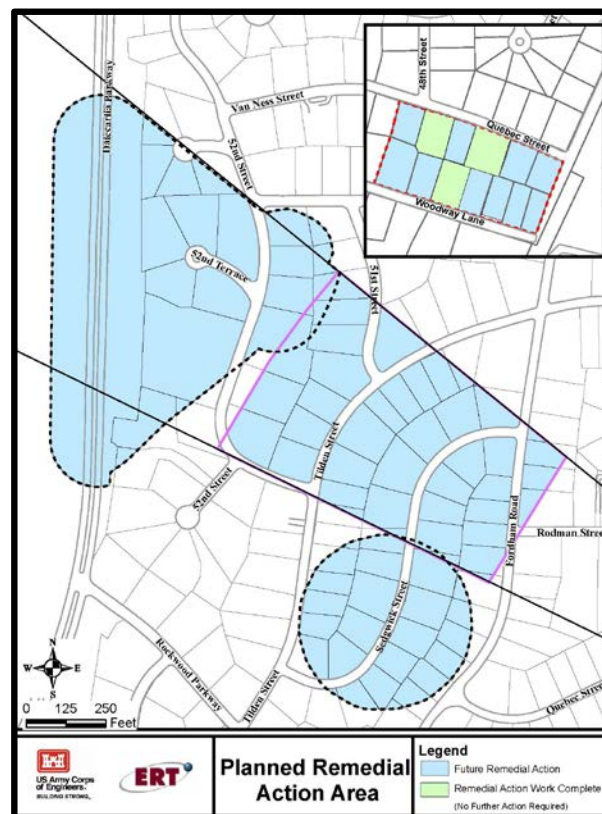


**Crew conducting monitoring well maintenance.**



# SITE-WIDE REMEDIAL ACTION (RA)

## USACE Updates



US Army Corps  
of Engineers

# SITE-WIDE REMEDIAL ACTION

Some planning documents for the Remedial Action field work are approved.

These plans will develop the details for carrying out the selected remedial actions:

- ✓ Health and Safety Plan for all work
- ✓ Conduct the final survey effort at 91 residential properties and 13 Federal/City Lots
- Prepare and Implement the Land Use Control Implementation Plan (LUCIP)
- Removal of contaminated soil at small areas in the southern portion of AU campus and at one residential property
- Excavate under the foundation of AU's former Public Safety Building



US Army Corps  
of Engineers.

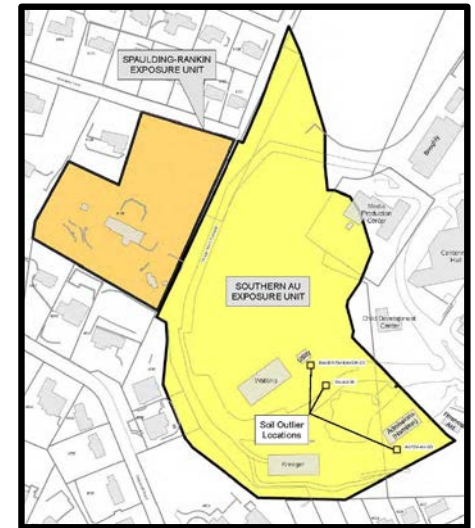






# SITE-WIDE REMEDIAL ACTION

- **Hot spot soil removal at one residential property and the Southern AU campus exposure units:**
  - Complete civil and landscape surveys, landscape plan & appraisal.
  - Conduct a Site walk with owners, document site conditions, review and receive approval of the landscape plan from owners.
  - Start field work (Summer 2018) – Begin with pre-excavation delineation soil sampling.
- **Excavate under the foundation of AU's former Public Safety Building (PSB):**
  - ✓ Complete civil survey, utility marking and document site conditions.
  - Set up construction site compound and facilities.
  - Shut off and temporarily relocate utility lines near PSB.
  - Start field work - Conduct sub-slab pre-characterization soil boring sampling (May).



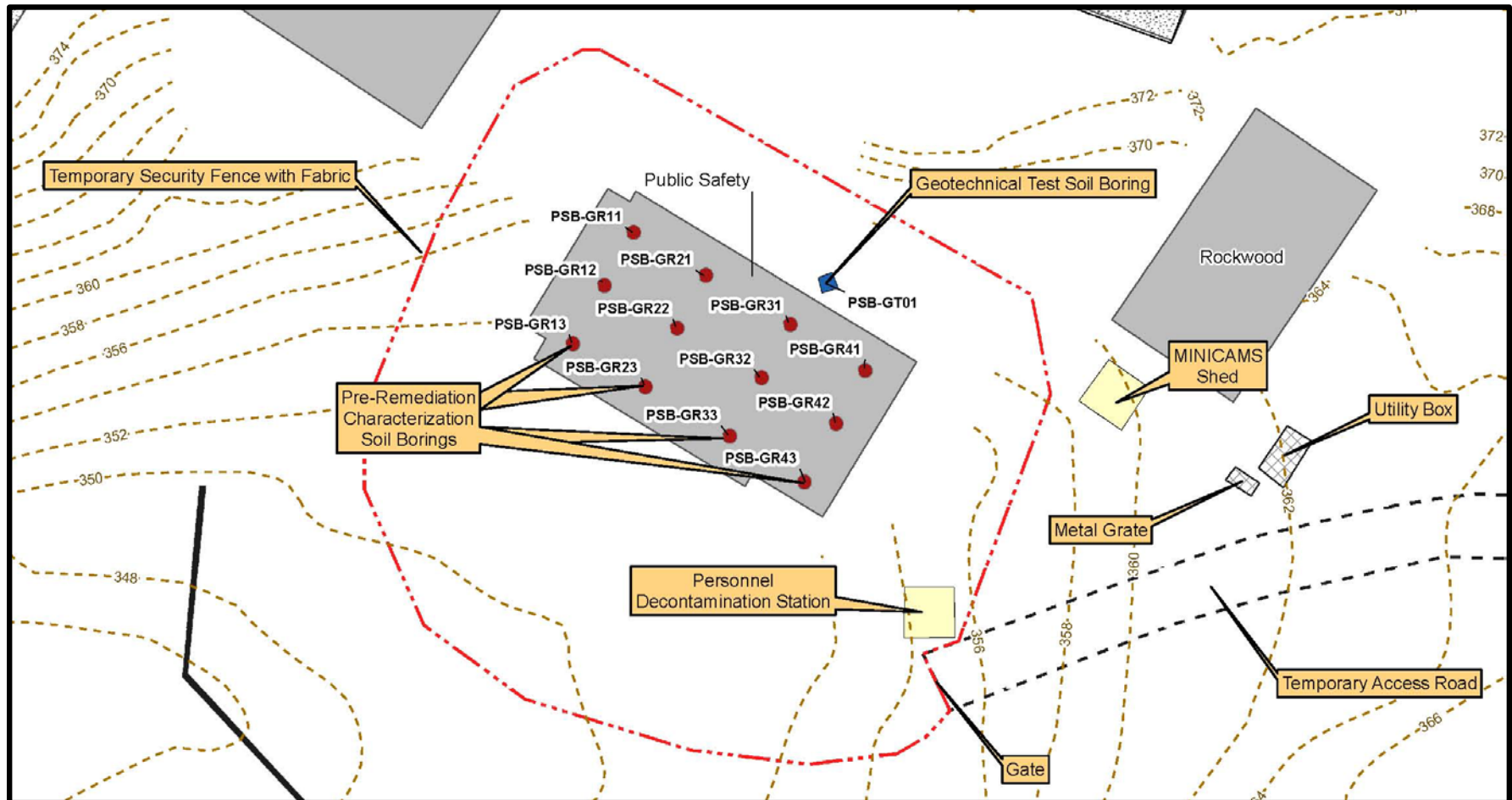
Soil Excavation Areas



Foundation slab of AU's former Public Safety Building

# FORMER PUBLIC SAFETY BUILDING

- Geoprobe sampling under the former Public Safety Building will begin at the end of May. This effort will take approximately 4-5 days.
- The concrete basement slab is tentatively scheduled to be removed in July. This effort will take approximately two months.



# SITE-WIDE REMEDIAL ACTION

## *Schedule*

<b>May 2018</b>	<b>Obtain Rights-of-Entry</b> from the first group of homeowners (first 18 ROEs sent); from AU for the former Public Safety Building and soil removals; and from the Spaulding-Captain Rankin property owner.
<b>May/June 2018</b>	Begin <b>Remedial Action</b> field work
<b>~ 2018-2020</b>	Continue Remedial Action through 2020. Distribute the Munitions Education and Awareness packet.



US Army Corps  
of Engineers.



# GLENBROOK ROAD

## USACE UPDATES



**4835 GLENBROOK ROAD - SAMPLING EFFORT**

**4825 GLENBROOK ROAD - RETURN TO WORK**





## RECENT ACTIVITIES – 4825 GLENBROOK RD

- In March, the team removed wood lagging, and installed cement lagging between the soldier piles along the retaining wall, near the 4801 Glenbrook Road property line.
- After removing the clean top soil used for staging the previous effort, the crew began excavating areas of metals contamination (mainly arsenic) in a few grids of saprolite near the 4801 Glenbrook Rd property line.



*Installing cement lagging*



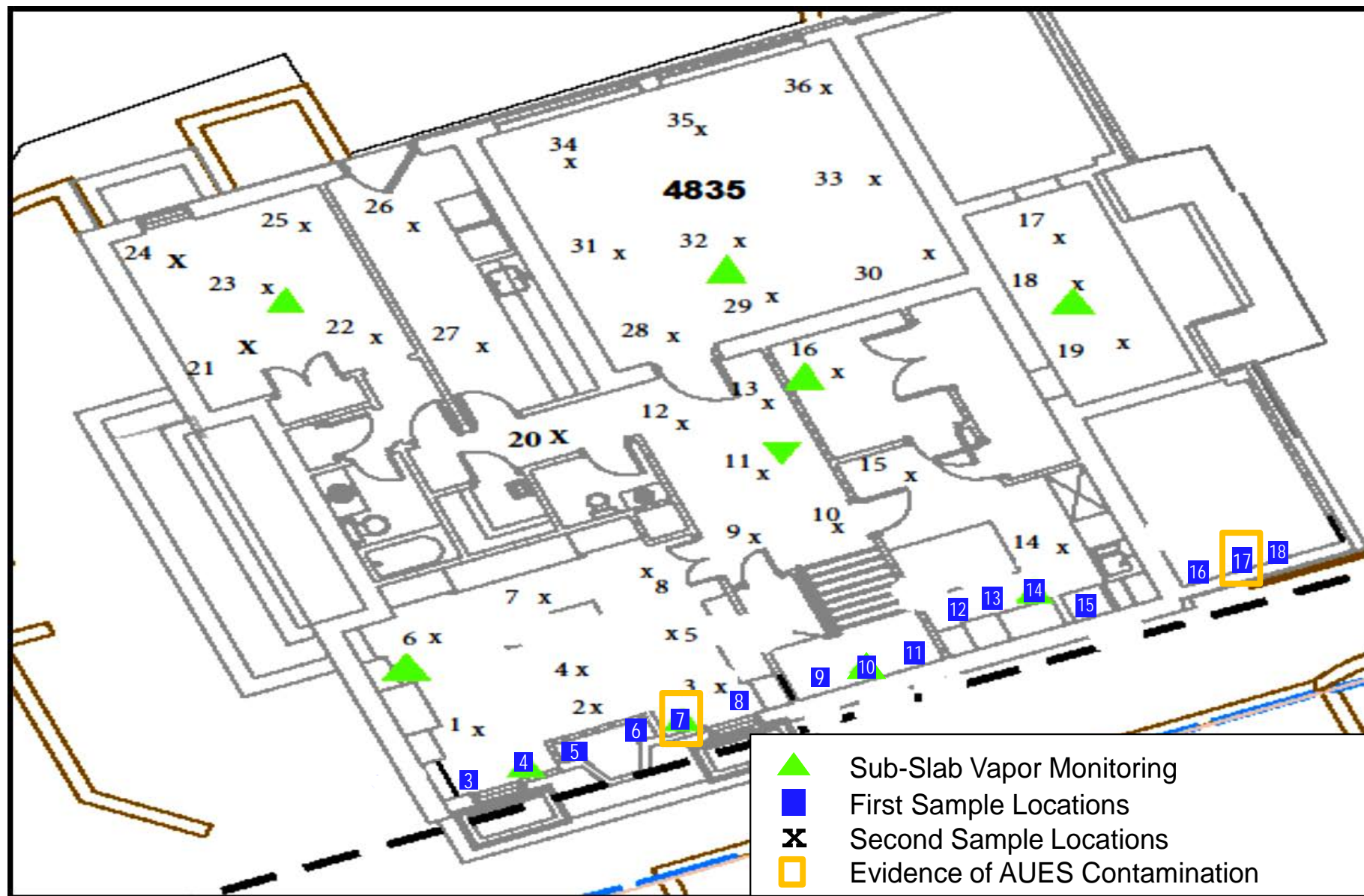
*Removing clean top soil, to access some contamination noted at the saprolite level.*



US Army Corps  
of Engineers.

# 4835 GLENBROOK SAMPLING LOCATIONS

17





# 4835 GLENBROOK SAMPLING RESULTS TO DATE

- In March and April, the team completed the second round of sampling through the 4835 basement slab in 36 locations. These locations were distributed across the basement and included the crawlspace.
- These 36 boreholes are in addition to the 16 boreholes sampled in the first round. These 36 were sampled by direct push sampling sleeves and resulted in the collection of 106 discrete soil samples.
- Between the first and second round of sampling, a total of 148 samples were collected under the basement floor of 4835 Glenbrook Rd.
- A total of 10 boreholes distributed throughout the basement area were prepared as soil gas sampling points. These are for a future sampling effort.
- 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**
- The 106 samples have been sent to commercial lab for additional AUES analysis, results pending.



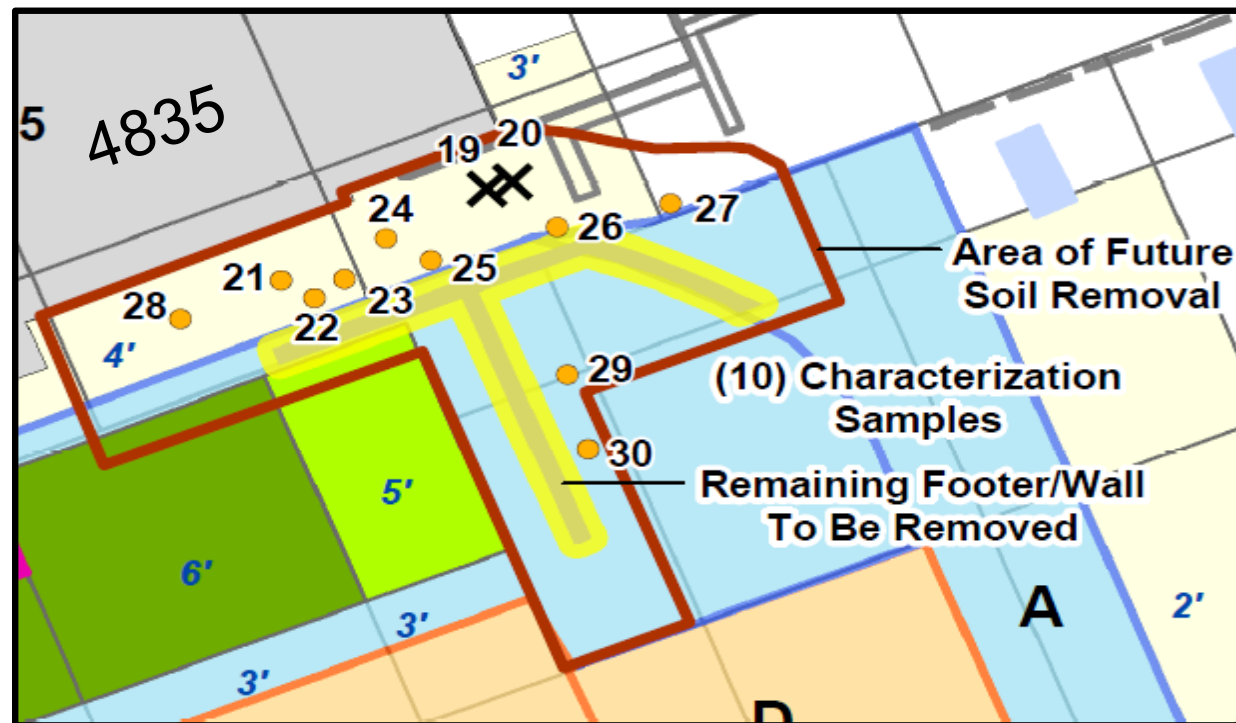
# 4825 GLENBROOK RETURN-TO-WORK PLANNING

19

At the May Partnering meeting, it was agreed that USACE would assemble all data related to the contaminated soil that still requires excavation. This data will be used to finalize the safety planning for our return-to-work.

After extensive laboratory analysis, the Partners agreed that mustard agent and related compounds are the primary safety concern.

No other compounds were detected at concentrations that would explain the exposure symptoms experienced on August 9th.

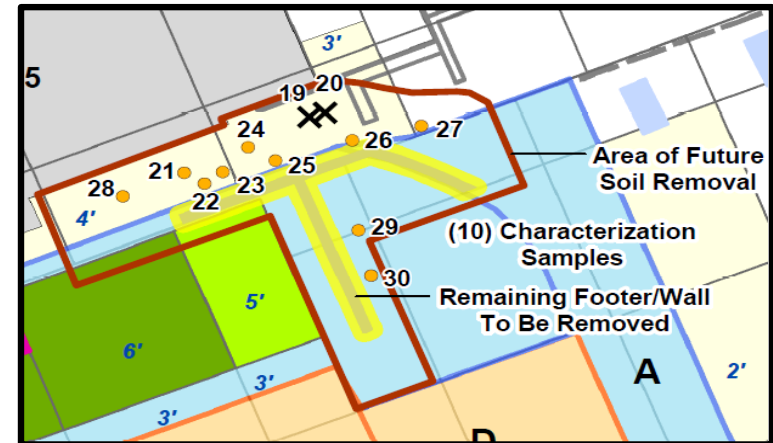




# OPTIONS TO RESUME WORK AT 4825 GLENBROOK RD

## Option #1

- Resume work with workers in Level B respiratory protection with no additional engineering controls (open air excavation).



## Option #2

- Resume work with workers in Level B respiratory protection and engineering controls, to include a tent and chemical agent filtration (CAFS) unit.



# 4825 GLENBROOK RETURN-TO-WORK PLANNING

21

At this time, the Partners are considering Option #1 as the appropriate approach to use.

Changes to our work plans would include:

- Workers to wear Level B PPE at all times.
- Air monitoring protocols to be enhanced, both MINICAMS and DAAMS.
- Weather related operational constraints, including temperature restrictions, would be added. USACE will use air models to establish exact temperature restriction.
- Use of mechanical excavation instead of hand digging to minimize soil handling and exposure.

*Level B Personal Protective Equipment (PPE)*

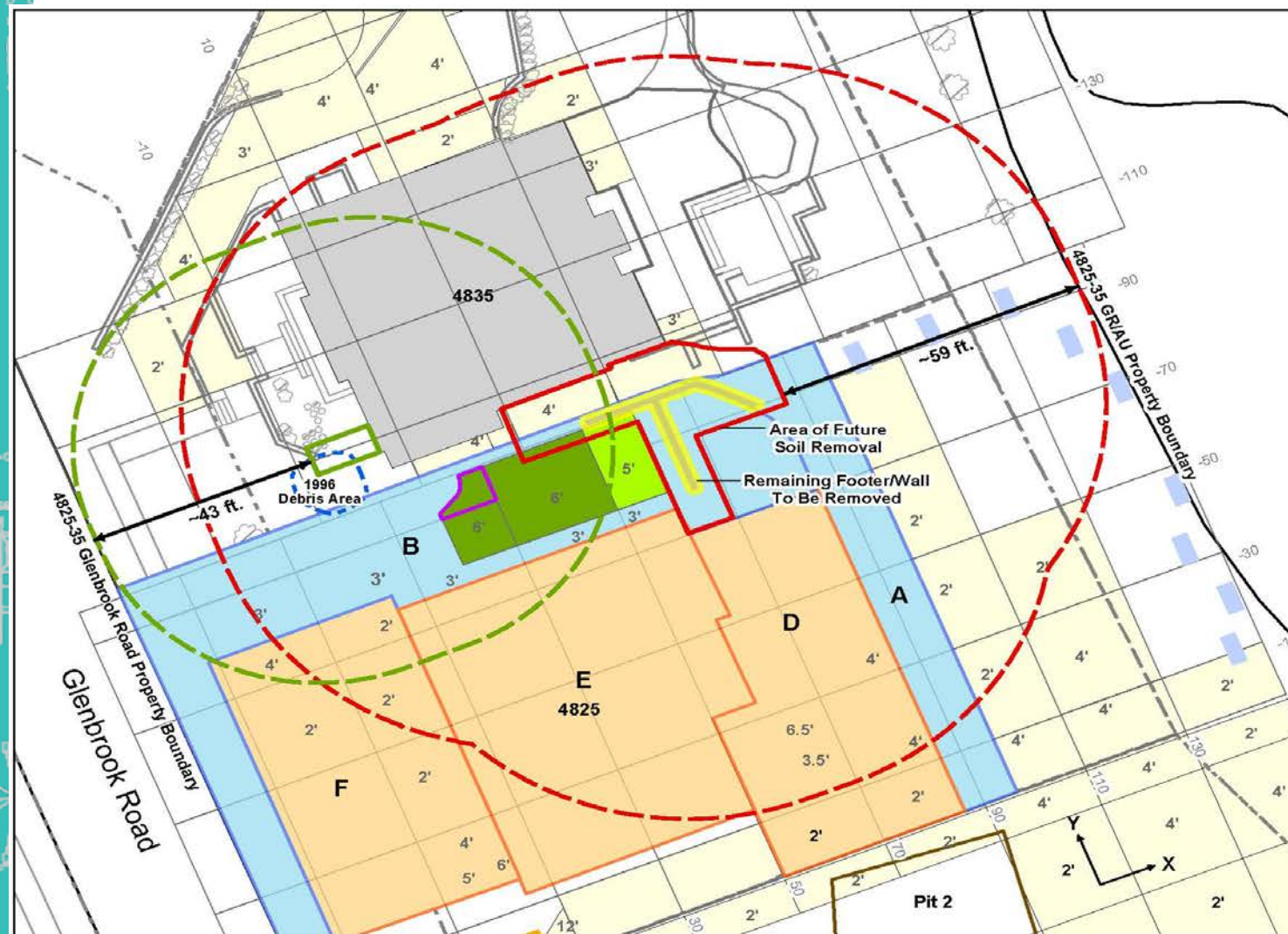


*Mini-excavator*



# OPTION #1 – AIR MODELING DISTANCES

22



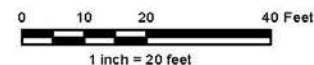
Distance to Property  
Boundaries  
4825-35 Glenbrook Road

Spring Valley  
Washington, D.C.

## Legend

- Buildings
- Property Boundaries
- Area of Future Soil Removal (Front Yard)
- Area of Future Soil Removal
- Arsenic Exceedance to be Further Excavated
- 20' Grid
- Additional Low Probability Investigation**
- Test Pits
- Arsenic Soil**
- Arsenic Grid Previously Removed [5] (2009)
- Arsenic Grid Previously Removed [6] (2009)
- 1996 APEX Tree Removal (Debris Area) Perimeter
- Previously Excavated Arsenic: Adjacent Properties
- Excavation Area**
- High-Probability
- Low-Probability

Note:  
Excavation depths shown from previous  
arsenic removal.



Scale: 1" = 20'  
Created By: Parsons  
File: 201802124825-35 Glenbrook Road Measurements.mxd  
Date: 2/12/2018  
Figure Number: -  
Page Number: -

**PARSONS**

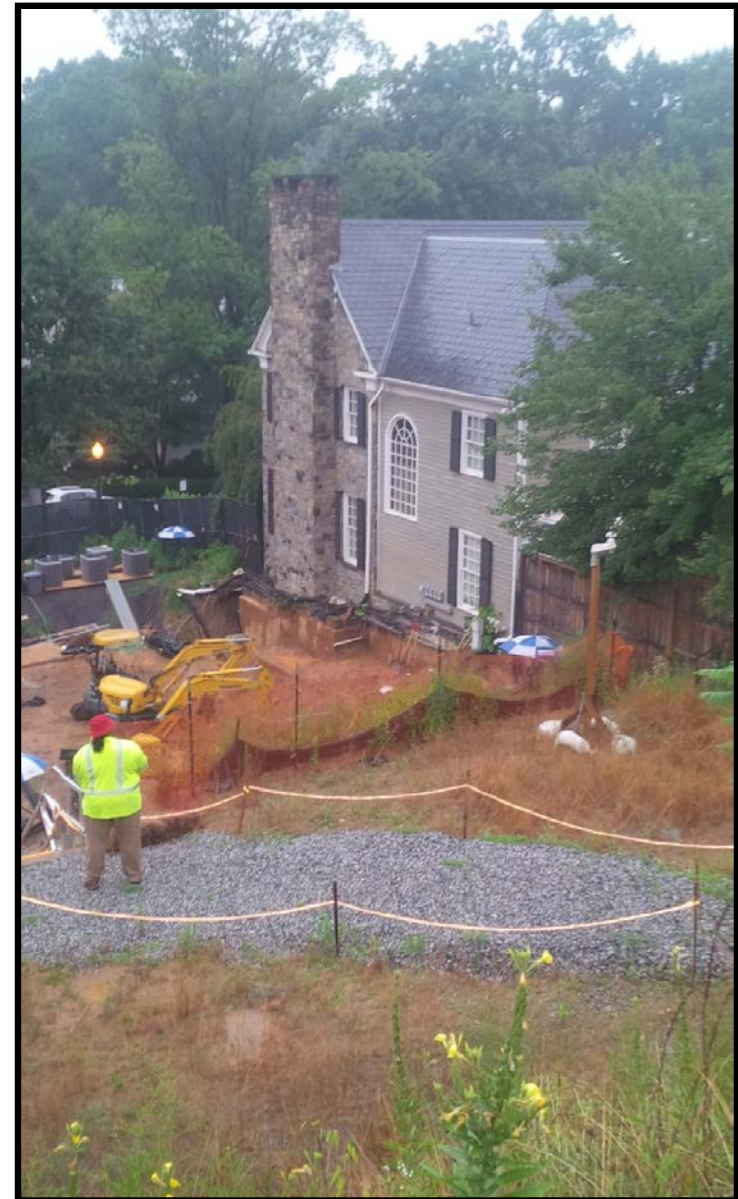


US Army Corps  
of Engineers

# 4825 GLENBROOK RETURN-TO-WORK PLANNING

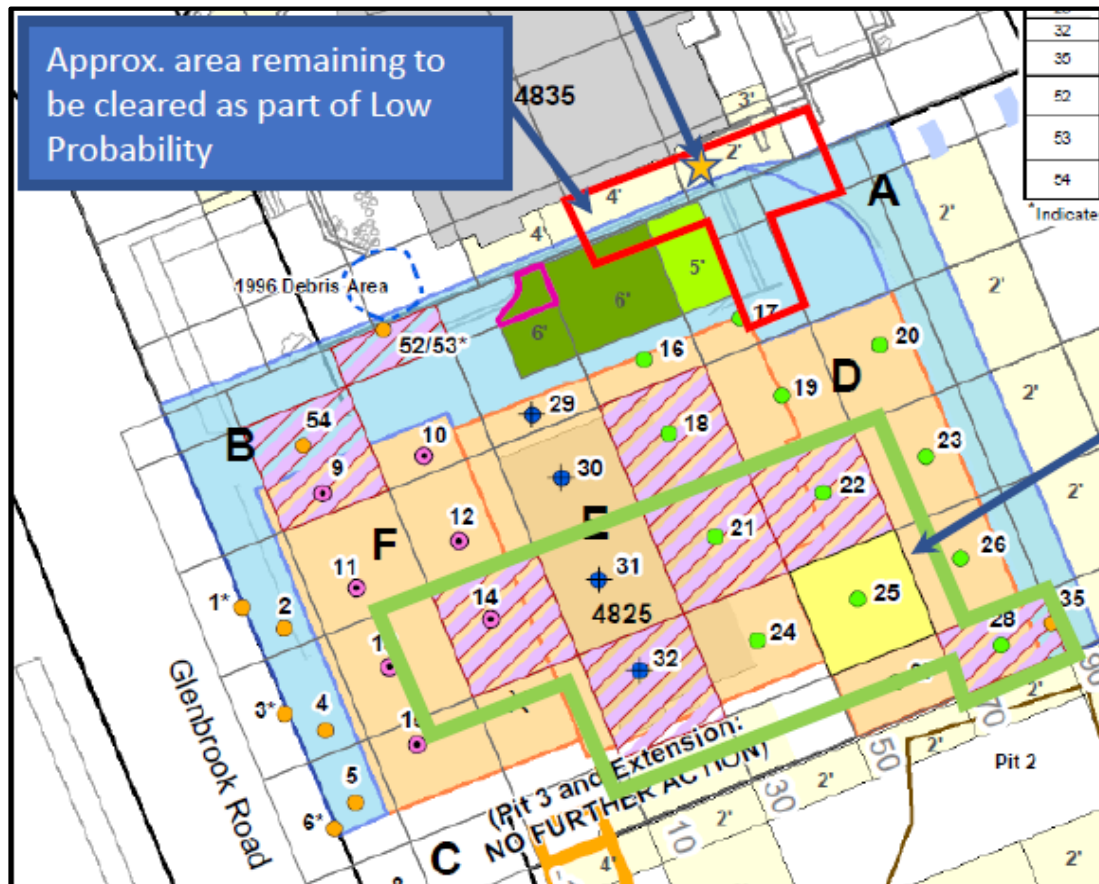
23

- USACE will continue to work with the Partners to adjust and modify these plans. The RAB will be fully briefed on these final plans.
- Assuming the Partners continue to support the implementation of Option #1, USACE hopes to return to work in the Fall/Winter 2018 timeframe.





# FUTURE ACTIVITIES – 4825 GLENBROOK RD



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

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



## TENTATIVE SCHEDULE: GLENBROOK RD PROJECT AREA

<b>Summer/Fall</b>	<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>
<b>July</b>	<p>Continue to update the RAB on progress on path forward.</p>
<b>September</b>	<p>Present final update of work plans to the RAB and announce actual start date for returning to work.</p>
<b>Fall/Winter</b>	<p>Resume the soil removal operation along the 4825/4835 Glenbrook Road property line.</p>

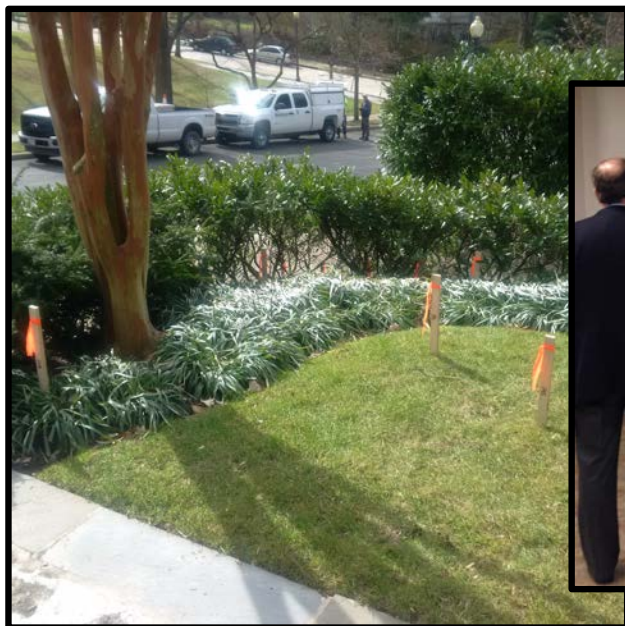


US Army Corps  
of Engineers.

# SPRING VALLEY FUDS RESTORATION ADVISORY BOARD

26

## *Community Items*





# SPRING VALLEY FUDS RESTORATION ADVISORY BOARD

## Open Discussion:

### Reminders:

- The next RAB meeting will be Tuesday, **July 10<sup>th</sup>, 2018**



### Upcoming Agenda Items:

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



# 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 May 2018 Meeting**

<b>RESTORATION ADVISORY BOARD MEMBERS PRESENT AT THIS MEETING</b>	
Greg Beumel	Community Co-Chair
Heather Murphy (for Dr. Peter deFur)	Environmental Stewardship Concepts/RAB TAPP Consultant
George Vassiliou	Community Member
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
Lee Monsein	Community Member
Mary Douglas	Community Member
Paul Dueffert	Community Member
Linda Argo	At Large Representative - American University
Kathleen Connell	Community Member
<b>RESTORATION ADVISORY BOARD MEMBERS NOT PRESENT AT THIS MEETING</b>	
John Wheeler	Community Member
Mary Bresnahan	Community Member
William Krebs	Community Member
Steve Hirsh	Agency Representative - Environmental Protection Agency (EPA) Region III
Lawrence Miller	Community Member
<b>ATTENDING PROJECT PERSONNEL</b>	
Alex Zahl	USACE, Spring Valley Technical Manager
Rebecca Yahiel	Spring Valley Community Outreach Program
Carrie Johnston	Spring Valley Community Outreach Program
Whitney Gross	Spring Valley Community Outreach Program
Holly Hostetler	ERT, Inc.



Chris Gardner	USACE, Corporate Communications Office
<b>HANDOUTS FROM THE MEETING</b>	
I. Final Agenda for the May 8, 2018 RAB Meeting	
II. Army Corps of Engineers Presentation	
III. April 2018 Monthly Project Summary	
IV. Spring Valley FUDS Timeline 1993-2018	

## **AGENDA**

**Starting Time:** The May 2018 Restoration Advisory Board (RAB) meeting began at 7:11 PM.

### **I. Administrative Items**

#### **A. Co-Chair Updates**

Dan Noble, Military Co-Chair/U. S. Army Corps of Engineers (USACE), Spring Valley MMRP Manager, welcomed everyone and opened the meeting. He invited James Sweeney, Agency Representative - Department of Energy & Environment (DOEE) to give an update on personnel changes in the DOEE.

Comment from J. Sweeney, DOEE - We are having a change of personnel. I am retiring at the end of June, so this will be my last RAB meeting. I was at the first RAB meeting in May of 2001. I think in 17 years of coming to these things I have missed 4 meetings in those 17 years, one was the last meeting, I think. It has been real interesting, though. There is a lot of people I am going to remember from this whole project. Ginny, were you at the first meeting? Right, so the two of us here who were at the first meeting and have been coming ever since. It has been interesting, a lot of people to remember, a lot of people to thank. Thank Environmental Protection Agency (EPA) people, Steve [Hirsh] especially. Other people from EPA, Frank Vavra and [ed. garbled], people that you guys do not know, but they were here before S. Hirsh. All the people from USACE, true professionals all, I thank you all for the work you have been doing over the years. Go back to Gary Schilling and Ed Hughes and Lan Reeser and people like that, they are really good people and worked real hard on this. You know when it all comes down to it, this has been important to all you people here, but in way this has just been a simple cleanup operation, as far as the government is concerned. We have gone through the Superfund process; it has been difficult at times, but that is all it has been, it is a clean-up, and it is still going on unfortunately. But it will get done and Spring Valley has been getting cleaner and cleaner and safer and safer as the years have gone by. That is a real good positive here. I remember one of the colonels over the years came in to a meeting and said, 'well you know, people are complaining because we found something,' and I said, 'wait a minute, that is what we are here for, to find something and then deal with it.' That has happened many times, 'oh, wait a minute. Something happened here,' but it has been fixed. It has been great, I have been with the DC government for 45 years. I have been in just about every different area of the environmental program that we have. When I started we were called the Bureau of Air and Water Pollution Control, and that was it. There must have been 20 of us. It was an interesting job then. I was in the Fisheries program. You want to buy a fishing license? That is my license. I designed that license. I got a call my first day on the job from Angus Phillips, all the people from DC-wide know him, the Washington Post outdoors reporter. He said, 'by the way, did you know you are required to have a fishing license program in effect by

March 1?’ I said, ‘no I do not know that.’ It was February 1st. In one month we designed the license, we got it printed, we designed the color brochure to be given out with the licenses, and set up a network of vendors. We sold our first license to Fletcher’s Boathouse on February 28. It was cool. I got sued for \$80 million once, some may remember the Georgetown University co-generator that they wanted to build 20 years ago. We got sued because we denied Dominion Energy their permit after 3 years of review, and we got sued for \$80 million. But then we found out they had committed fraud on something and we counter-sued for \$120 million and it all died in the courts, never heard another word about it, which was good. It has been an interesting 45 years. The last few years I have been in charge of the Land Remediation Program. We do all the clean-ups except for clean-ups of underground tanks, but we are writing regulations now where the underground tanks will be brought into my program now. We cleaned up around fields, and are in the process of coming up with, hopefully, some ways of cleaning up the Anacostia River, or continue to clean up the Anacostia River. That tunnel that DC Water just built recently will do a whole lot to help on that, but we have got to come up with something to keep other programs like Washington Gas is a responsible party, Pepco is a responsible party, all these companies that are along the Anacostia River are all responsible for the mess that the Anacostia River is in. The Washington Navy Yard is one of our big projects, in fact to us, legally, it is a bigger deal to us than the Spring Valley project. It has been going on almost as long, we have been doing that for 20 years. It is on the Superfund list, it is the only Superfund site in DC. We have been working on that and that program has been a lot more difficult than this one; always constant arguments about it. Hopefully that will get done sometime in the future. But I will stay in the area, so I will be around here. I want to thank all of you.

Question from D. Noble, Military Co-Chair - What is the DOEE’s plan as far as someone attending these meetings?

J. Sweeney explained that DOEE will be represented at the RAB meetings by J. Sweeney’s current boss, Dave Tomlinson, Associate Director for the Toxic Substances Division. That division has Land Remediation Development, and the hazardous waste, underground storage, and pesticide branches. Dave will be attending at least temporarily until DOEE decides who will be Branch Director. Brian Barone will be taking over the day-to-day operations for a while, but DOEE will still have to go through the usual government process of advertising for a vacancy. The vacancy may not be posted until J. Sweeney leaves and the position becomes available.

## **1. Introductions**

None

## **2. General Announcements**

D. Noble reviewed website updates which included the March and April monthly project updates, weekly 4825 Glenbrook Road updates and photos, and the March RAB meeting minutes.

## **B. Task Group Updates**

### **1. RAB Membership**

Comment from Greg Beumel, Community Co-chair - Malcolm Pritzker has been leading us on RAB membership. We tried this 2 months ago, and we will try it again. This time, at least, we appear to have a quorum.

Comment from Malcolm Pritzker, Community Member - I think we presented 2 people that we

recommended, and I think what we have to do is vote to both ratify them and add them to the committee. Then, in addition to J. Sweeny, we have other people who are current members of the RAB who are moving off the committee, so we will have to go back to the drawing board and come up with additional nominees. Maybe we can give the nomination committee a commission for finding people.

Question from G. Beumel, Community Co-Chair - M. Pritzker, do we have both members here tonight?

M. Pritzker confirmed this and invited the candidates to introduce themselves.

Comment from Jennifer Baine, RAB Member Candidate - I am Jennifer Baine, I moved into the neighborhood 2 years ago with my family, but it was my husband who grew up on Rodman Street, so we have been coming to Spring Valley for the last 20 years. We have 4 little kids; 5, 3, 2, and 6 months. I am an emergency physician and a sports medicine physician who now works from home as a physician advisor. I am interested in getting involved with the community and would love to lend my expertise on health to my intimate community.

Comment from Paul Dueffert Community Member - They live across the street from me. I enticed her to join and we live on Hillbrook Lane, right underneath the middle of the fan, basically. All that stuff was shot over your lot 70 or 80 years ago.

Comment from J. Baine, RAB Member Candidate - Nice to meet you guys.

Comment from Paul Bermingham, RAB Member Candidate - Hi, my name is Paul Bermingham and I have been living in Spring Valley for 19 years with my wife and our 3 sons. I worked at the World Bank for over 20 years. My last job I was the director for all operations risk management, which used to include environmental risk, so I am very interested in that area. I retired 5 years ago and after a spell, my wife and I spent 3 years in Asia; we just returned about 18 months ago. I am becoming involved in community activities. This is an activity that I have heard a lot about but did not know very much about, so I am very happy to come along and participate. Looking forward to getting to know you all and learning more about what is involved.

Comment from M. Pritzker, Community Member - Thank you. I make the motion that both of our nominees be approved as new members on the RAB.

Comment from Kathleen Connell, Community Member - I second it.

G. Beumel called for all those in favor and received several ayes. He called for all opposed and received none. The motion carried.

Comment from G. Beumel, Community Co-chair - Thank you, congratulations. Next, as M. Pritzker led us into, Kathleen, would you like to tell us what you are doing?

Comment from K. Connell, Community Member - Yes. I am resigning tonight as a member of the group. I want to thank M. Pritzker for bringing me into the group. I have found these meetings tremendously provocative and very interesting. I hope that we have added some value to the dialogue as it has moved along. I have enjoyed all of my fellow colleagues on the board and I admired and continue to admire the tremendous work that has been done by USACE in all of its various facets. I wish the community the best. I am spending a great deal of my time out of state now because I am the CEO of a company that has offices in TX and CA. I think it is only fair to deed my role on this committee to somebody who is in the community 24/7. I wish you all well. Thank you.



Comment from G. Beumel, Community Co-chair - And now Linda, our representative from American University (AU).

Comment from Linda Argo, At Large Representative - Yes. I will be retiring from the University on June 30 of this year after almost 8 long years of service. Someone will be replacing me on the board. I appreciate the opportunity to have been part of this and to contribute whatever way I can. This is obviously important to AU, so they will have a new representative here at the July meeting. Thanks everybody.

## **2. Information Repository**

The Tenley-Friendship Library has requested that the RAB downsize the Information Repository (IR) located at the library. The library has kept the IR secure, but the documents are no longer displayed on shelves in public view. There are two alternatives for downsizing the IR:

### **Alternative 1**

- Ensure all documents are digital.
- Keep CD binder at the Information Desk.
- Install a sign directing library users to the Information Desk, project information, and the Spring Valley outreach team.
- Direct link placed on library website to the SV project website homepage.
- Some hard copies of key reports and documents will remain available, such as decisions that have yet to be made, or relevant to decisions such as the Glenbrook and Site-Wide Decision Documents and the Groundwater Remedial Investigation.

### **Alternative 2**

- Ensure all documents are digital.
- Keep CD binder at the Information Desk.
- Install a sign directing library users to the Information Desk, project information, and the Spring Valley outreach team.
- Direct link placed on library website to the SV project website homepage.

Question from George Vassiliou, Community Member - Why do we need CDs at the library if there is an internet link, and I presume you can access the Web from the library computers?

D. Noble and Rebecca Yahiel, Spring Valley Community Outreach Program, explained that no password is required to access the online IR, and the web address is posted on the USACE Baltimore website as well. The online IR is organized by categories which can be selected to open more categories. If someone is still intimidated by the world-wide web, a DVD disc available at the library could be inserted into a library computer to view documents.

Comment from G. Vassiliou, Community Member - A single piece of paper that has the instructions on how to get on the web, if you put it on that desk think of all the space you will save.

Comment from Allen Hengst, Audience Member - I use it a lot. The CD copies are essential for being able to copy onto a USB drive; you open the disc, see the files that you want, click on them, and they transfer to USB drive. On the web, you would spend hours looking for the documents, and then they would be HTML. How do you put that document on a USB drive? My second comment and my request to Dan, I have a request that in addition to the binder with the CDs, you also keep at the desk the administrative record, which is a small white binder. It has every document that has ever been produced by your team since the beginning, and it is in numerical

order by date. That is essential for finding documents. Especially when you just know the approximate date. My other comment would be, I do not think you want to go all electronic, you want to keep some hard copies, just for the ease of looking at them. I worked in a law library, and law students have all kinds of electronic resources, but they still set the books out, because that is the easiest way to do your research, is to lay the stuff out and to look for it that way. Unless you have five or six computer screens. You just cannot do it well.

Comment from G. Vassiliou, Community Member - So the format is html or is it pdf?

Comment from A. Hengst, Audience Member - It is HTML. Some documents are attachments, but most of them are HTML. And that would not be easily copied. Especially a huge thing, like some of these studies, the Feasibility Study. But I would also like to see a few hard copies of the essential documents, like you mentioned a half-dozen, as well as that administrative binder.

D. Noble agreed that keeping the administrative binder at the information desk is a good suggestion.

Comment from A. Hengst, Audience Member - Yeah. Many of the things in the CD binder do not cover the paper records. I know your goal is to have everything digital, but you have got a long way to go.

Question from K. Connell, Community Member - Is the library likely to accept Alternative 1? Do they have space for the documents?

R. Yahiel explained that she discussed the Alternatives with the library branch manager. The branch manager suggested at that time that she could find a nook or a drawer to keep a handful of documents at the library. R. Yahiel told the branch manager that she would discuss the Alternatives with the RAB and relay the RAB's preference to the branch manager after this meeting. R. Yahiel's impression was that the library would accept storing a few documents but would need to confirm that is still the case.

Question from K. Connell, Community Member - Is it your intent to change the documents or would they remain core documents?

R. Yahiel explained that the documents will remain the same. For example, if the Groundwater Remedial Investigation (RI), current Decision Documents, or other documents are final and ready to be given to the public, those documents would be included. The administrative binder would be a good choice for documents to keep. There would be signs to let people know that they can go to the USACE Baltimore website or contact the Outreach Team to find documents that way. The smaller storage space would mean that the array of hard-copy documents would need to be more selective.

Comment from K. Connell, Community Member - I move for the acceptance of Alternative 1, with the amendment of having the administrative binder included as suggested.

Comment from Tom Smith, Community Member - I will second.

Several members raised hands in favor of the motion, there were none opposed.

Comment from G. Beumel, Community Co-chair - Ok, you can ask the library.

R. Yahiel agreed to relay the RAB's preference of Alternative with the administrative binder and to negotiate for space for selected documents.

## **II. USACE Program Updates**

### **A. Groundwater Feasibility Study**

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

Todd Beckwith, USACE Baltimore Groundwater Project Manager, has been successful in finalizing all the coordination of the Groundwater FS and Draft Groundwater Proposed Plan (PP) at USACE HQ. Either this week or next week USACE Baltimore will send out the revised Groundwater FS along with the Draft Groundwater PP to the Partners for review at the same time. Once the two documents are reviewed, USACE Baltimore will release the final Groundwater FS to the public as well as hold the required comment period and associated community meeting for the Draft Groundwater PP. USACE Baltimore expects the two documents will be available to the public by the next RAB meeting.

### **B. Site-Wide Remedial Design/Remedial Action**

D. Noble briefly reviewed the Site-Wide Remedial Design (RD)/Remedial Action (RA).

#### **1. Recent Activities**

Progress has been made on some of the planning documents that must be in place before remedial action field work may begin. The following documents have been approved:

- The Health and Safety Plan covers all aspects of the proposed work that was in the Site-Wide Decision Document (DD).
- The associated work plan will govern survey activities and potential munition removal efforts at the 91 residential properties and federal/city lots.

Documents still in progress:

- Land Use Control Implementation Plan (LUCIP) is very close to being finalized. Once approved, Weston will prepare a proposed packet to send out to everyone that lives within the Formerly Used Defense Site (FUDS).
- One final work plan will cover all of the soil removal at the former Public Safety Building (PSB), areas around the southern AU campus, and the Spaulding/Captain Rankin area, adjacent to campus.

USACE plans to send the (above) work plan to the Partners for review this week. By the next RAB meeting USACE expects to have the work plan finalized and be out in the field.

USACE expects to be in the field to begin preparation for the surveys of the potential removal of munitions at the 91 properties next week, May 22 at the latest. The contractor teams will be ready to go to the first houses and begin the pre-excavation activities.

Alex Zahl, USACE Baltimore Spring Valley Technical Manager explained that 18 priority property owners have asked to be placed on the priority list. The contractor will start on the first 9 of the 18 properties May 14 or May 21, depending on right-of-entries (ROEs), and then progress into the next 9 properties. The initial work will consist of land surveying, preparing for arborists to assess the properties, and determining how much vegetation needs to be removed. Intrusive work will likely not begin before June. At that time the team will conduct a series of surveys in coordination with DOE and EPA to ensure agreement on the findings and excavate as necessary. The team will work to minimize impact to the properties. USACE expects to be on each property for 3 months, from the initial survey through restoration. The 13 properties along the Dalecarlia



Parkway that are federal/city owned are expected to take less time than residential homes.

Question from K. Connell, Community Member - Do you have any properties that have resisted?

A. Zahl explained that no homeowners have indicated opposition so far to the remediation project at this time and that the first 18 homeowners have requested to be on the priority list. The full project of all 91 properties is expected to take 2 to 3 years to complete. As the project continues, USACE Baltimore will work with homeowners who may have reservations about the project.

Question from A. Hengst, Audience Member - When you talk about the 13 Dalecarlia Parkway properties, can you be a little bit more specific where that is? Is it on the north side or the south side?

A. Zahl explained that remediation will take place on both sides of Dalecarlia Parkway; and on the residential side, generally going to the fences. On the far side, the remediation goes to the fence by the park.

Question from A. Hengst, Audience Member - And it is about a mile or more long?

A. Zahl replied that the distance is less than a mile.

Question from A. Hengst, Audience Member - So it is not the whole Parkway?

A. Zahl confirmed this. The areas along the Dalecarlia Parkway are in the range fan.

Comment from A. Hengst, Audience Member - I see. Ok.

A. Zahl explained that the range fan covers the width. All the properties have already had geophysical surveys performed, so the inclusion of the properties is out of an abundance of caution.

Comment from A. Hengst, Audience Member - Kind of rough land there.

A. Zahl confirmed this.

Question from T. Smith, Community Member - For the remainder of the 91 properties, have you come up with criteria yet for determining the order?

D. Noble explained that the contractor has proposed grouping the properties by geographical location, and USACE has accepted that proposal. USACE Baltimore continues to receive inquiries from homeowners requesting to be prioritized, so USACE Baltimore is assembling a second group of properties to be remediated first. The first group of properties is full at 18, the most the teams can remediate at one time.

Question from T. Smith, Community Member - Is that how you are going to do this, in groups of 18?

D. Nobel and A. Zahl explained that the proposal consisted of six geographic groups. This plan may be modified to accommodate homeowners that have schedule conflicts, such as graduation parties. Those properties may be delayed until the next year. There are about ten homeowners that have indicated interest in being part of the second group of properties. The size of the groups of properties to be remediated after the second group is still being evaluated.

## **2. Public Safety Building (PSB)**

A civil surveyor and utility marking company visited the PSB property and conducted a detailed mark-out of the PSB. There is an active gas line that is very close to the excavation site. USACE will work with the gas company to assess options for dealing with the gas line. Before taking up

the slab and excavating underneath, a final round of samples will be collected through the slab. The RAB may recall that when the building was still in place, sampling was conducted underneath the PSB by horizontal drilling. The new samples will be collected underneath the slab by drilling directly down through the slab all the way to bedrock. This will enable sampling of all the soil layers in 12 locations beneath the slab down to bedrock. If there is a layer that is more contaminated than others, USACE expects to discover the location and extent of that contamination before excavation

Question from G. Vassiliou, Community Member - Where is the gas line with respect to the building, then?

D. Noble explained that the gas line comes in off Rockwood Parkway and runs to a corner of the former PSB building, where a pipe comes up out of the ground, where there used to be a meter . The pipe then goes back down into the ground and runs along the front of the building to provide service to other American University buildings. USACE will have to develop alternatives for the gas or plans for rerouting the entire gas line that runs along the upslope side of the foundation of the former PSB building.

Comment from G. Vassiliou, Community Member - Thank you.

Question from T. Smith, Community Member - Are you anticipating any traffic disruptions on Rockwood [Parkway] from any of this work?

D. Noble explained that he did not expect the sampling operation to cause any disruptions to traffic. Site operations will re-establish a temporary access road truck entrance that comes off Rockwood Parkway. A traffic control company will be onsite to ensure traffic flows as smooth as possible. Most of the necessary vehicles will be parked along the road during the workday. Some excavation equipment may be left onsite inside the operation fence-line but D. Noble does not anticipate that trucks will be left on AU campus overnight.

Question from T. Smith, Community Member - Where is the truck entrance?

D. Noble explained that from a position looking at the Fletcher Gate, just to the left there is an open area between the trees where vehicles may drive over the curb. USACE will install a gravel road down to the former PSB.

Question from A. Hengst, Audience Member - So when you say that the effort will take approximately two months, are you referring to removing the slab or the entire clean-up; because there is more to it than just removing the slab, right?

D. Noble confirmed that removing the slab will not take two months.

Comment from A. Hengst, Audience Member - Ok, so you are talking about the whole thing will be done.

D. Noble confirmed this.

Comment from A. Hengst, Audience Member - Assuming you do not find anything. But if you find anything, that is going to throw it off.

D. Noble explained that if the team encounters conditions that require alteration of the work plans or perhaps additional controls at the site, the operations would pause until those changes are in place.

Question from A. Hengst, Audience Member - And at the end of the two months you will turn it back to AU, or will you still have to do some landscaping?

D. Noble explained that the operation will bring in clean fill to bring the site back up to grade, plant grass, and then turn the property back over to AU.

Question from A. Hengst, Audience Member - Does AU have a plan for that space?

Comment from L. Argo, At Large Representative - Not currently.

### **3. Schedule**

- *May 2018* - Obtain ROEs from the first group of 18 homeowners.
- *May/June 2018* - Begin Remedial Action field work on the first 9 properties and sampling at the PSB.
- *~2018-2020* – Continue Remedial Action through 2020. Distribute the Munitions Education and Awareness packet. USACE will continue to inform the RAB on progress.

### **C. Glenbrook Road**

D. Noble provided a brief update on 4825 Glenbrook Road and 4835 Glenbrook Road.

#### **1. Board of Investigation (BOI)**

BOI president, Gary Schilling, USACE Baltimore and Brenda Barber, USACE Baltimore have pushed USACE HQ to understand what information can be released from the final BOI Report. There is an outstanding request from the RAB for the 14 findings and 14 specific recommendations. Unfortunately, that information will not be available. There is a lot of confidentiality built into the BOI process. USACE Baltimore is allowed to share with the RAB how the findings of the BOI Report will adjust activities onsite and explain what will be different going forward. The report or detailed sections of the report will not be released. The prepared summary slides shared at the last two RAB meetings describe all changes to procedures in response to the findings of the BOI report.

Question from A. Hengst, Audience Member - Did you say that someone had FOIA'd it?

D. Noble confirmed that there has been a Freedom of Information Act (FOIA) submitted.

Question from A. Hengst, Audience Member - I think I recall you saying that if it is released via FOIA then you will release it to us.

D. Noble explained that the individual that submitted the FOIA will receive the same response of 'no.' In the FOIA law there are 6 or 7 exceptions that may be cited; the exception for BOI reports is well-established.

#### **2. Recent Activities – 4825 Glenbrook Road**

- In March, the team removed wood lagging and installed permanent cement lagging between the soldier piles along the retaining wall, near the 4801 Glenbrook Road property line. There is a significant elevation difference between 4825 Glenbrook Road and 4801 Glenbrook Road. 4801 Glenbrook Road has a higher elevation and experienced ground shifting and settlement over the years, likely due to excavations along the slope between the two properties. The work plan has always included that the soldier pile wall would be left in place to stabilize that area of highest relief. The retaining wall will be buried and out of site when the team restores the natural slope to the property.



- There are some areas of metals contamination, mainly arsenic, in the former high probability areas. There are several grids in which the team is scraping saprolite down to competent bedrock that has been contaminated with arsenic. Excavation of the arsenic grids will likely continue from May through June. Operations at the site will be quiet in July or August as preparations are made for return-to-work in the low probability area that has contaminated soil yet to be removed.

### **3. 4835 Glenbrook Road Sampling**

Since contaminated soil was detected near to the southern foundation of 4835 Glenbrook Road, and former workers indicated the possibility of contamination, the team was concerned that soil contamination could be underneath the house. The team conducted an effort to determine if there was a contamination issue at the 4835 Glenbrook Road property.

The sampling effort consisted of two large sampling rounds:

- The first-round samples were collected along the southern foundation, inside the house. Those 16 borehole (BH) locations were cored through the basement slab to sample the soil directly underneath the house. BH locations 16, 17, and 18 are outside the foundation proper of the house, within a covered brick patio area. The soil was sampled through the brick patio in those three locations.
- In early March, the second round of sampling began. An additional 36 BHs were spread evenly throughout the basement of the house, including the garage. BH locations 17, 18, and 19 are in the crawlspace area of the house. When completed, the BHs were resealed, but several locations were left with a capped casing installed in the BH to facilitate soil vapor sampling later if necessary.

### **4. Summary of 4835 Glenbrook Road Sampling Results to Date**

- All 36 BHs have been completed in the second round of sampling. Out of the 36 BHs, 106 soil samples were collected.
- Out of the 16 BHs in the first round, 42 soil samples were collected.
- Out of the total 52 BHs, 148 soil samples were collected, averaging three samples per BH.
- All low-level chemical agent analysis has been completed for the 148 soil samples. The samples were analyzed for Lewisite (L), mustard (HD), 1,4-Dithiane, and 1,4-Thioxane; contaminants detected in the soil close to the southern foundation of the house.
- No detections were found for low level agent.
- All 148 samples have been shipped to commercial laboratories for additional American University Experiment Station (AUES) analysis for other compounds such as metals, pesticides, and volatile organic compounds (VOCs). Some of the first-round results have been received and others are pending.
- All results are expected to be received by the end of May/mid-June and USACE will summarize all the analytical results at the next RAB meeting.

So far, two BHs had evidence of AUES impact or contamination. Laboratory glass was found in BH-7, and in BH-17, under the covered patio, there was a hit for a high level of cyanide (CN). The commercial labs will test for CN in all the other samples of the second round.

Question from Ginny Durrin, Audience Member - How deep did you take the samples?

D. Noble explained that the samples were bored all the way to bedrock at each location. Samples were collected every two feet in each BH. In some cases where the bedrock was so close to the

slab that only one sample was collected. In other cases, the team was able to collect four samples, boring down to eight feet before hitting bedrock. The average for all of the BHs was three samples per BH.

Question from G. Durrin, Audience Member - So they were not composite samples?

D. Noble confirmed this and explained that the samples were discrete samples.

### **5. 4825 Glenbrook Road Return-to-Work Planning**

There is a small area where contaminated soil has yet to be excavated down to bedrock to complete the remediation action at 4825 Glenbrook Road. Samples have been collected from the remaining soil since August. At the May Partnering meeting, it was agreed that USACE would assemble all analytical data related to the contaminated soil that still requires excavation. This data will be used to finalize the safety planning for the return-to-work.

B. Barber described in detail the two options for return-to-work at the last RAB meeting. Through discussions at the May Partner meeting, D. Noble believes that the Partners agree with USACE's preference of Option 1. Dr. Peter deFur, Environmental Stewardship Concepts/RAB TAPP Consultant also agreed that Option 1 seems to be the appropriate choice for return-to-work.

- Option 1 - Resume work with workers in Level B personal protective equipment (PPE) at all times with no engineering controls (open air excavation).
- Option 2 – Resume work with workers in Level B PPE and engineering controls, to include a tent and chemical agent filtration system (CAFS) unit.

### **6. Changes to Work plan for Operations Under Option 1**

At this time, the Partners are considering Option 1 as the appropriate approach to use.

- Workers to wear Level B PPE at all times.
- USACE, the Partners, and Edgewood Chemical Biological Center (ECBC) will discuss ways to make the air sampling protocols more robust, such as adding real-time sampling locations as well as more sampling locations for Depot Area Air Monitoring System (DAAMS) tubes and MINICAMS, which specifically monitor for chemical agent.
- USACE plans to use some of the air modeling that B. Barber described at the last RAB meeting. Weather-related operational constraints, including temperature restrictions, would be added for a higher degree of safety. Many of the chemical agents are volatile organic compounds, therefore excavating at lower temperatures will result in less of a chance that the chemical agents in the soil would volatilize. USACE will use air modeling to establish an exact temperature restriction and share that restriction with the Partners at the end of June and with the RAB by September. The goal is to resume work by October and with the return of cooler weather, so the temperature restrictions would not affect operations in a significant way. If work resumes by October, by December or January the excavation will be complete and the remaining contaminated soil will be removed from the site. Working during the cold months will help enhance safety at the site.
- Use of mechanical excavation instead of hand-excavation to minimize soil handling and exposure. Hand excavating small amounts of soil at a time takes longer and allows for a greater duration of exposure to compounds that may be released into the air. Mechanical excavation enables the team to move larger volumes of soil at a time. The soil will be mechanically moved directly into drums, and the drums will be sealed when full. This will minimize exposure of excavated soil. Hand excavation was utilized in the past to prevent the possibility of breaking

intact glass containers that might be encountered in these areas. No intact containers have been found in this area of the site to date, only glass fragments and stained contaminated soil. Mechanically excavating the soil will allow the team to work as quickly and efficiently as possible.

Question from K. Connell, Community Member - We are obviously not privy to the report that has been done on the situation which occurred. Can we assume that you have incorporated into this back-to-work planning the necessary precautions that would probably have been recommended in the report?

D. Noble confirmed this and explained that at the January and March RAB meetings USACE summarized what USACE would have to do to incorporate the BOI's recommendations on a slide with 4 bullets.

Question from K. Connell, Community Member - I do not mean our board, I am talking about the report that we are not going to be seeing. Obviously, they drilled down and came out with much more specific instructions as to how to avoid this situation again in the future. What I am asking is, were those specific directions included in this planning document? I am not asking for clarification of what they were, but I am just assuming that they are in there?

D. Noble confirmed this and explained that James Sweeney, DOEE and Steve Hirsh, EPA Region III were both on the BOI and can verify that the work plan changes address the BOI's concerns.

Question from Mara Miller, Audience Member - It is my understanding that when chemicals like arsenic come in contact with anaerobic bacteria, the anaerobic bacteria, the kind of bacteria that do not require air to survive, emit arsine gas or whatever as a way of surviving. This would have nothing to do with temperature or anything else but there would be a risk for those who remediate, that they would be exposed to this in the course of their efforts.

D. Noble confirmed that the generation of arsine from arsenic requires anaerobic bacteria and explained that generation of arsine also requires other conditions. Several years ago, USACE invited an investigator to look into the conditions of the site at the Glenbrook Road area. The investigator indicated at that time that those types of conditions and bacteria were not present. The Level B PPE would protect the workers from exposure to the soil. Any anaerobic conditions that might be in the soil would be turned aerobic as the soil is excavated and exposed to the air.

Question from Davis Kennedy, Northwest Current Reporter - Would you tell us what Level B PPE stands for?

D. Noble explained that PPE stands for personal protective equipment. Level A, B, C, and D are different levels of protection defined by the Occupational Safety and Health Administration (OSHA). Operations are typically conducted between Level D and Level B at Spring Valley. Most of the work occurs in Level D, and Level B has mostly been reserved for high probability areas. In this case the team is proposing to conduct operations in Level B in a low probability area, simply because the soil is known to contain low levels of chemical agent.

Question from A. Hengst, Audience Member - I may have a question about the air modeling distances, but it is the next slide. Are you going to talk about that?

D. Noble confirmed this and explained that on presentation slide 22 the small red area indicates remaining soil to be removed, and the small blue circle indicates a small area of dithiane contamination in the soil on 4835 Glenbrook Road. The return-to-work plans will be designed to



keep any hazard within the two boundaries indicated by the large red circle and the large green circle on presentation slide 22.

Question from A. Hengst, Audience Member - My question would then be, if it is windy, you are not going to (work), it is going to go off the edge of the dotted line. Like you have got a strong wind from the west, that is going to change the red line, right?

D. Noble explained that wind decreases the hazard distance. The windier it gets, the hazard distance comes in. Windy conditions will not be an issue.

Question from A. Hengst, Audience Member - I just noticed it is right at the AU property line. What conditions would mean that it would cross that line and when you stop digging there?

D. Noble explained that it is all a function of how much contaminant is present and how quickly can that contaminant release itself into the atmosphere. That sets the down-range hazard distance. Conservative assumptions have to be made about how much contaminant will be present in the soil to be excavated. The amount of soil handled at a time defines an amount of contaminant being handled. The question is if somehow that contaminant in that amount of soil can get itself up into the atmosphere, how long would that take and what would be the means of release? Those variables can be modeled to determine the distance of the down-range hazard.

Comment from A. Hengst, Audience Member - So you are basically saying that wind has nothing to do with it.

D. Noble explained that windy conditions are good, causing the hazard distance to be shorter. Very still conditions can generate a hazard further down-range, because if there is a contaminant that gets into the air it stays together as it slowly drifts. The contaminant may then stay the same concentration 100 meters away, if the contaminant drifted very slowly in a stable atmosphere. A windy day would mix the volatilized contaminant with air, which would dissipate within a few meters.

Question from A. Hengst, Audience Member - So the wind does not affect it, the rain does not affect it, it is just the temperature.

D. Noble confirmed that temperature has an effect because it has to do with how a volatile compound could come out of the soil and get into the air. That is why temperature restrictions are proposed, to slow the volatilization rate as much as possible when working with the soil. The colder the temperatures, the safer conditions will be, especially with AUES chemical agents.

Question from J. Baine, Community Member - When B. Barber presented at the last meeting, I believe these are based on the acute exposure guideline level (AEGL)-2 levels, is that right? Do you know what they would look like if she put in the AEGL-1 concentration? What property would be encompassed?

D. Noble explained that if there is an AEGL-1 value available for modeling, the result is a greater hazard distance than the same set of given conditions would model at AEGL-2. The AEGL-1 is usually a lower concentration, so the lower concentration would be seen further from the area of release.

Question from J. Baine, Community Member - That is what I would expect, and should we know what that looks like? Because at that level that still could affect maybe AU or the residents?

D. Noble explained that the plan is to set absolute distances, that the planning cannot exceed those

distances at all. Modeling larger distances is not going to be the answer, because the distance will be cut off. The modeling will not work if a hazardous condition can be generated beyond those distances. USACE's proposal right now is based on using an AEGL-2 standard to the distance lines if that standard is available. If an AEGL-2 is not available, the temporary emergency exposure limit (TEEL)-1 level is used, because those standards are not as well-researched, and they do not have the foundation of data to support them compared to the AEGL standards. USACE does not feel comfortable using the TEEL-2 because there is less certainty about that number, so the TEEL-1 is used to be more conservative. A selection of six (6) or eight (8) very hazardous chemicals that are known to have been at the AUES site are chosen and the TEEL and AEGL values are reviewed. Then the modeling based on those AEGL values determine if operations can be conducted in a way that the hazards from those chemicals would stay within the lines. If those chemicals represented a group that would stay within the lines, then any other chemicals that might be in the ground should also stay within the lines.

Question from J. Baine, Community Member - You mean stay within those lines at the AEGL-2 level?

D. Noble confirmed the AEGL-2 level would be used or the TEEL-1 level for each of the chemicals.

Question from J. Baine, Community Member - Which opens up the possibility of the AEGL-1 level being across the street or down the block?

D. Noble confirmed this.

A. Zahl explained the differences with the previous modeling presented at the last RAB meeting and the new conclusions of the Partners meeting. Previously, the variables considered included concentrations at the level of the worst contamination found at Spring Valley, a still day with no wind, with a 95-degree temperature. The conclusion of the Partners meeting was the idea to model concentrations based on samples of the remaining soil, rather than a worst case scenario. Even though the model directs using the 95-degree variable for the model, why not limit the model to say no work conducted above 70 degrees? Would we achieve AEGL-1 or AEGL-2 within the boundaries? This approach is much more practical and was suggested by EPA Region III. USACE is also proposing mechanical excavation, which will limit the time of any potential exposure. It seems to make more sense to model the 300 cubic yards that is left to excavate. Of the total amount of contaminated soil, 80% has already been removed, so only 20 % is left to remove. The team will use sample data from the remaining 300 cubic yards of soil to model and determine a temperature limit to minimize risk.

Question from J. Baine, Community Member - It sounds like it, because also it was hand-digging last time. Are there just going to be new models presented next time?

D. Noble explained that different parameters will be inputted into the model, but the theory of what B. Barber presented at the last RAB meeting will remain the same. The idea is to set the distances that will not be exceeded and adjust the temperature on the modeling to make sure that there is a safe level at all of the boundaries under all conditions. There is still a bit of contention among the Partners concerning the use of AEGL-2 or AEGL-1. USACE believes there is sufficient documentation in the emergency response community that the use of AEGL-2 is the proper level to protect the public if that value is present in an unintended emergency situation. USACE is still discussing with DOEE and EPA which value to use. D. Noble expects to have those details in

place in order to present USACE's proposal in July or September.

## 7. Schedule

*Summer/Fall 2018* – USACE will present details of the Return-to-Work plan to the RAB in July or September.

*Fall/Winter 2018* – Return to work in fall or early winter to take advantage of the full cooler-weather season.

Question from G. Vassiliou, Community Member - So if the vapor testing that you do next door returns positive results of finding things, what is the plan after that? Are you going to stay on 4825 [Glenbrook Road] and use that as a platform to dig further?

D. Noble explained that at the last Partner meeting, the Partners discussed the contingency of finding agent in the soil vapor sampling. The Partners are very close to deciding to go ahead with the soil gas sampling. USACE will bring in a specialty company to collect the samples. The samples will then be turned over to the ECBC laboratory for agent analysis. Soil vapor samples would be collected at each of the areas indicated by a green triangle. USACE and the Partners discussed what it would mean if chemical agent is found in the soil vapor after not seeing agent in the soil underneath the house. That would be a conflicting return of results. The Partners agreed to collect vapor samples now, as soon as can be organized, and review the results. If all the results come back clean, then those results agree with the soil sampling. If the samples come back and are positive for chemical agent in certain areas, the team will pay very close attention to the BH location where those samples were collected. For example, it is known that an area of dithiane contamination exists in one location. If dithiane is detected in the soil vapor in the two adjoining sampling locations, perhaps that detection is not such a surprise. The house is unoccupied but is still being properly maintained with heating and cooling, so the house operates at a slightly negative pressure to the normal atmosphere. A normal heating, ventilation, and air conditioning (HVAC) system creates a slight amount of negative pressure inside the house. There would be tendency for soil gas to be drawn towards the house, so perhaps it would not be surprising to detect dithiane in those locations. If HD, L, dithiane, or Thioxane is detected in any of the property line locations, those contaminants are known to be in the soil along the property line. Some of that contamination is still in place. With the contamination in place and the house HVAC system running, if contamination is detected in the soil vapor BHs along the property line, the negative pressure of the house may be pulling contamination in from outside the house to underneath and up into the house. In that case, the team will make sure to remove all the contamination and potential sources and run the vapor samples again to see if the contamination is removed. If positive results occur in the outer areas, far from the other areas of known contamination, that may indicate another unknown area of contamination. At this point so much sampling has occurred under the house that the team does not believe there is an area of chemical area contamination under the house.

## III. Community Items

Comment from M. Miller, Audience Member - I just was going to elaborate on what I shared last week, or last month, or two months ago. My name is Mara Miller, I grew up on Rodman Street, a block and a half from American University Avenue. Multiple kids we grew up with have died young, between the ages of 32 and 55. I was just counting to myself; 2 by brain tumor, 1 by rare kidney disease, at least 4 with heart attacks, others with cancer. Some of them have left children



behind; some 2, some 3, some 1. I myself have 2 rare diseases and other incurable chronic diseases. As I have tried to make sense of my own diagnoses and the frustration with even getting help at all on a medical level. I wondered if some of my friends would not have died if they had gotten help in a timelier manner, which is why I am speaking up. Last week I was explaining how arsenic, which arsenic was the number 1 chemical in the mass production of all these chemical warfare weapons. I think there were 72 compounds they experimented with, 1600 chemicals they started with, but 72 of those compounds included arsenic. So, given that there was arsenic on our lot, I just figured, 'well I will start there.' I found most of the information on arsenic on the internet to be extremely outdated, like maybe WWII era, and did not include the latest research done by Joshua W. Hamilton, Ph.D., the senior scientist at the Josephine Bay Paul Center Marine Biological Laboratory, Woods Hole, Massachusetts; Professor of Pathology and Laboratory Medicine, Brown University, Providence, Rhode Island; project leader, Dartmouth Toxic Metals Superfund Research Program, Hanover, New Hampshire. He did a research project entitled 'Mouse Models of Human *In Utero* and Adult Exposures to Low-Dose Arsenic in Drinking Water.' He identified that arsenic was a causative agent in human disease, and it is sub-acute doses, I mean, not very much exposure to inorganic arsenic has been linked to increased risk of cancers, especially lung, skin, bladder, and also liver, kidney, and other malignancies. One of our friends did die of a rare kidney disease. Diabetes, especially Type-2 non-insulin dependent adult onset, one of our neighbors did not inherit that but he got it. Vascular and cardio-vascular disease, I myself have suffered from really weird things in that regard; reproductive and developmental problems, multiple miscarriages around where we live; neurological problems, I have a hard time feeling the outside of my legs and my feet, my mother has the same problem. Neither one of us are diabetic. He summarized that arsenic is an endocrine disruptor, so it affects all 5 steroid hormone receptors; estrogen, progesterone, androgen (which includes testosterone), glucocorticoid (cortisol), mineralocorticoid (aldosterone), and that one really affected me badly; retinoic acid receptors, thyroid hormone receptors, and I do not know very many people whose thyroids are not messed up in Spring Valley; and peroxisome proliferator-activated receptors (PPARs), and I am not really sure what that is. Arsenic exposures are associated with increased risk of lung cancer, bronchiectasis (I need the doctor over there to read this), chronic obstructive pulmonary disease (COPD), emphysema, chronic lung infections. It also is associated with changes in serum cholesterol and triglycerides, development of Type-2 diabetes and other metabolic disorders, lower than normal birth weights, decreases in body weight and growth during early childhood, and vascular and cardio-vascular disease. I say this because, in my own life, aldosterone, it is an adrenal gland hormone, mine was measured at 127.4 in 2012. My blood pressure was extremely erratic and very difficult to control with medication. I did not really have a history of too much blood pressure problems, but when I got exposed to whatever I got exposed to, I wound up gaining a lot of weight really quickly and had just such a range of symptoms it is difficult to describe. The bottom line was, if your blood pressure goes too high, you can have a stroke, and if you waste potassium, which is what happens when your aldosterone is too high, you can have a fatal heart arrhythmia, a type of kalemia, which is low potassium. I started understanding this is really dangerous and one time I went to the emergency room at Sibley Memorial Hospital and my nephrologist showed up and he said, 'you saved your life today by coming in.' Normal for aldosterone, just so you know, was 0 to 30, and mine was 127.4. I would wake up in the middle of the night sweating, my blood pressure would be over 180, and I would be like, 'what the hell is happening to me,' you know. I had no idea, and there was not anyone who knew, there was not anyone who understood. In the medical model, a problem like that, they

would normally think, 'oh, she must have, like, rogue adrenal gland cells somewhere in her body overproducing the hormone, or a tumor on her adrenal gland or something.' They did all the diagnostic tests, including radioactive isotopes, searching for those things and they could not find them. Then I stumbled across, finally, arsenic is one of those endocrine disruptors that will affect your aldosterone level. Since some of my friends have died of heart attacks young, I know that if I had not been persistent, if I did not have, like, friends, who, like Ken Schuster, who was the first EPA investigator, telling me, 'look, Mara, you are not nuts, this has been happening for a while.' I had come back to the area after 26 years I had been gone, and all of a sudden, I had got re-exposed again, and that is when a lot of these things began to happen.

Question from G. Beumel, Community Co-Chair - My question is what do you want? What is our to-do? We believe we have evidence that there was arsenic contamination in the neighborhood. Everyone here agrees to that. We also know that USACE has gone to every property in Spring Valley and parts of AU Park and sampled for arsenic. In those cases where it was above the level that was determined to be background, they removed it. So, knowing that, now what do we do, what do you want us to do for our next step, because you seem to be implying that remediation was not sufficient?

Comment from M. Miller, Audience Member - Well, I would agree it is not. To test the four corners of a yard, 3 or 4 inches down, definitely is not sufficient. I think that what USACE is counting on is feedback from Spring Valley citizens in terms of disease clusters. Where are they? Where did people die young? Where is there a lot of disease? In my part of the neighborhood, there is like a big blank. People do not report. I have got a rare connective tissue disease. I have got a rare immune deficiency. I know the girl next door had a rare blood disease. The bottom line is, and I am one of 9 children. My siblings are not sick like that, alright? I wound up getting my exposure who knows where, but I got it. Our house was on a cut, so it was not because our land was polluted; they took, like, 4 feet off the front, 6 feet off the back when they put the road in. I think that we have a systemic problem and I am not willing to say nothing is happening. Yes, they have done a lot, but they are also depending on Spring Valley residents to speak up, and I am doing that, and I hope others will follow my example.

Comment from G. Beumel, Community Co-Chair - Ok, thank you.

Comment from M. Pritzker, Community Member - Nobody in this room wants anybody to be sick. Nobody who has ever sat in this room wants anybody to be sick. On three separate occasions, as I recall, we commissioned Johns Hopkins University to come in and study the community and compare it to other communities. The results, I am sure, are in the papers. I do not have them with me, they are at home. Obviously, people get sick, but the community that we have, in the opinion of the researchers at Johns Hopkins, as I recall, has better than average health and that we compare very favorably, as I recall, to Potomac. I do not know what, beyond that, we can do.

Comment from M. Miller, Audience Member - I have got to speak to that one because I know a lot about the study. It was not a scientific study. There were no soil tests, no water tests, no air tests. They threw out every bit of health information that was reported to them except for cancers that were reported to the cancer registry while people lived in Spring Valley. No premature deaths were included in those results, no diseases, none of my diseases were included in those results. It was basically a graduate school student's glorified homework assignment. She got her degree. It was an improper model, and I was not around when it was chosen, so, no, I am just going to say it was not an appropriate home study model for a FUDS. I think it was Lee, maybe, who actually

pointed that out when this whole thing was in process. I read something that he had said this thing is going to be worthless and it is. There is absolutely no bearing on reality. Those health study things are so unscientific. I question why the D.C. Department of Education, they were not peer-reviewed, there was not anything about it that was credible. It is not reality. Reality is what I am telling you. Reality is there are people I know who died between 32 and 55 we grew up with. I know there are people who are getting sick with cancer as far back as 2012 who had just rented for 14 months in our neighborhood. There is disease on every block. Why do I know that? Because I am an insider. Why do I know that? Because I am not going to tell anyone what people tell me.

Question from M. Pritzker, Community Member - Can I repeat Greg's question? What is it that you want us to do that we have not done?

Comment from M. Miller, Audience Member - I think that we need to work on encouraging people to report because they need to identify where the pathway of exposure is coming from. There is obviously a big one. There are three brain tumors I know of just within 3 blocks downhill of [garbled], if you cut through Cory Place, down through my block. I know 4 women who died of the same kind of leukemia; 2 lived in the same block, but just several blocks apart. As far as kids go, the kids that die of heart attacks. I know my parents did not go there and buy a house there, thinking, 'my kid is going to wind up with multiple diseases.' That is just not, that was not their intent. They want the best. Because my children have been affected, my grandchildren have been affected, and because many other people have been affected, I am speaking up. There is a problem on my side or where I formally lived. There is a problem on that side, and you do not have any of the data yet.

Comment from G. Beumel, Community Co-Chair - Ok, thank you. I will talk to you after the meeting is over. I just wanted to make sure that we got an action.

Comment from M. Miller, Audience Member - Yes, I would love an action. I would love it, yes.

#### **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, July 10, 2018

##### **C. Open Discussion**

##### **V. Public Comments**

##### **VI. Adjourn**

The meeting was adjourned at 8:46 PM.