



SPRING VALLEY FORMERLY USED DEFENSE SITE PROJECT
RAB Meeting

January 10, 2017
7:00 – 8:00 p.m.

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

Agenda

- 7:00 p.m. I. Administrative Items**
Co-Chair Updates
 ▪ Introductions, Announcements
Task Group Updates
- 7:05 p.m. II. USACE Program Updates**
Groundwater Study
Site-Wide Decision Document
Glenbrook Road
Pilot Project
- 7:30 p.m. III. Community Items**
- 7:40 p.m. IV. Open Discussion & Future RAB Agenda Development**
Upcoming Meeting Topics:
 ▪ (Suggestions?)

 *Next meeting: March 14, 2017
- 7:50 p.m. V. Public Comments**
- 8:00 p.m. VI. Adjourn**

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

SPRING VALLEY FORMERLY USED DEFENSE SITE

Restoration Advisory Board Meeting 10 January 2017

“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

USACE Updates

- Groundwater Study
- Site-Wide Decision Document
- Glenbrook Road
- Pilot Project

Community Items

Open Discussion & Future RAB Agenda Development

Public Comments





CO-CHAIR UPDATES

Introductions



CO-CHAIR UPDATES

Announcements

– Website Updates:

- November and December Monthly Site-Wide Project Updates
- Weekly 4825 Glenbrook Rd Project Updates with photos
- November RAB meeting minutes
- October Partner meeting minutes



TASK GROUP UPDATES



GROUNDWATER STUDY

USACE Updates



**US Army Corps
of Engineers**

GROUNDWATER FEASIBILITY STUDY

The Army Corps continues the internal review of the draft Groundwater Feasibility Study (FS). On January 5, the Army's Center of Expertise began their review.

Once the internal review of the FS is complete, the document will be sent to the regulatory Partners for review.

The purpose of the FS is to develop, screen, and provide a detailed analysis of remedial alternatives to mitigate potential risks identified in the Final Groundwater RI

As a reminder, the Groundwater RI is available to the public in the Information Repository at the Tenley-Friendship Library and on our project website here: <http://www.nab.usace.army.mil/Home/Spring-Valley/Groundwater/>



US Army Corps
of Engineers.

SITE-WIDE DECISION DOCUMENT

USACE Updates



SITE-WIDE DECISION DOCUMENT

The regulatory Partners, the Environmental Protection Agency, the Department of Energy & Environment, and our independent technical consultant Dr. Peter DeFur, continue their review of the Decision Document.



Once the Army Corps receives Partner concurrence, the Site-Wide Decision Document will be submitted to the Army Corps' Headquarters for final signature.



**US Army Corps
of Engineers.**

SITE-WIDE TENTATIVE SCHEDULE

Early 2017	Prepare and sign the Decision Document .
Winter/Spring 2017	Contract acquisition work. Begin Remedial Design .
~2017-2020	Conduct Remedial Action .



**US Army Corps
of Engineers**

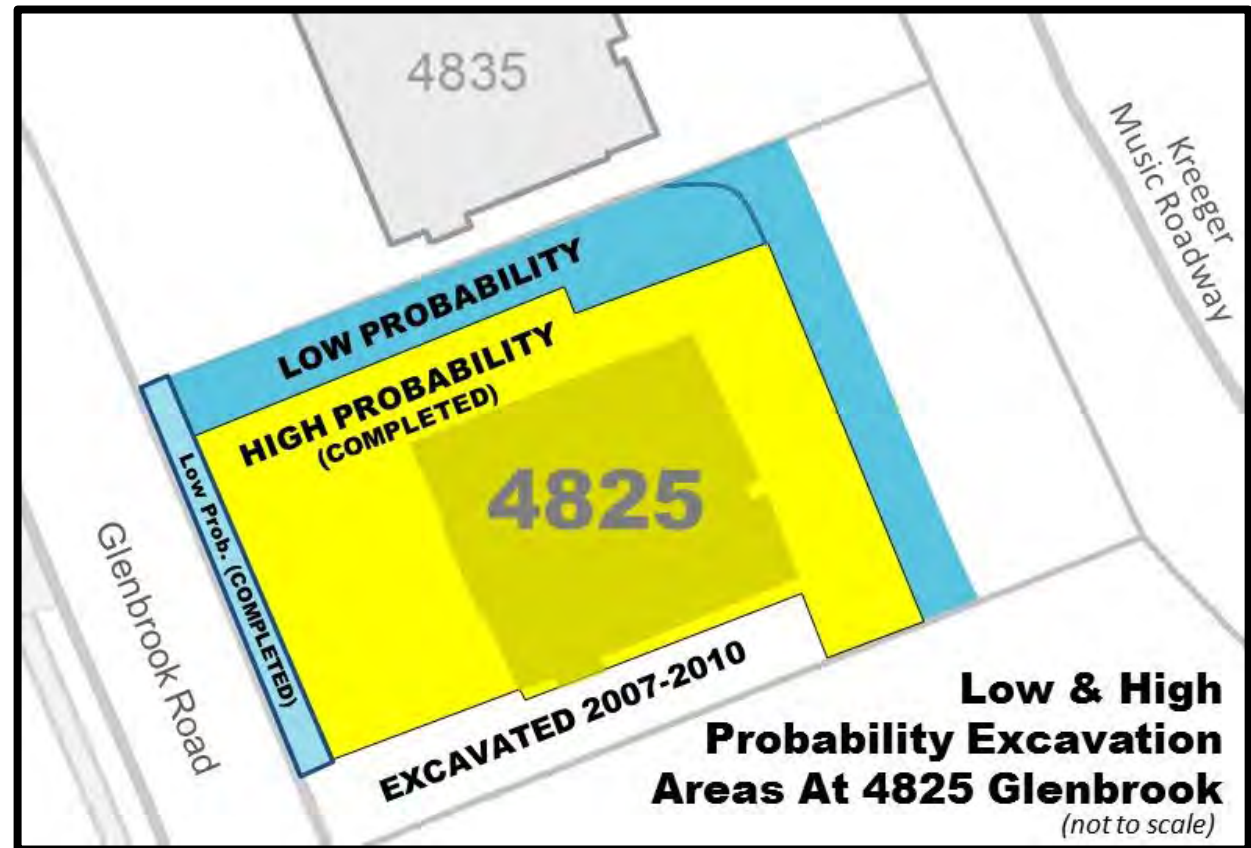
4825 GLENBROOK ROAD

USACE Updates



LOW PROBABILITY

Low probability remedial action operations have continued in the previously identified areas of potential concern for soil contamination.



US Army Corps
of Engineers.

LOW PROBABILITY

Crews continued low probability excavation efforts, excavating in the side yard along the shared property line with 4835 Glenbrook Road.

No AUES-related debris has been recovered in this area of the property during these recent excavations.



US Army Corps
of Engineers.

LOW PROBABILITY

Crews completed the characterization of the sewer line connections near the former driveway area, and began rerouting the sewer line during the deep excavation to saprolite in this area.



Digging sewer line trenches



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4825 GLENBROOK ROAD

Our crew conducted regular winterization, soil erosion control, and equipment maintenance.

Site operations were paused during the holidays, starting the week of December 19th, with a 24-hour guard on duty.

Work resumed on January 4th.



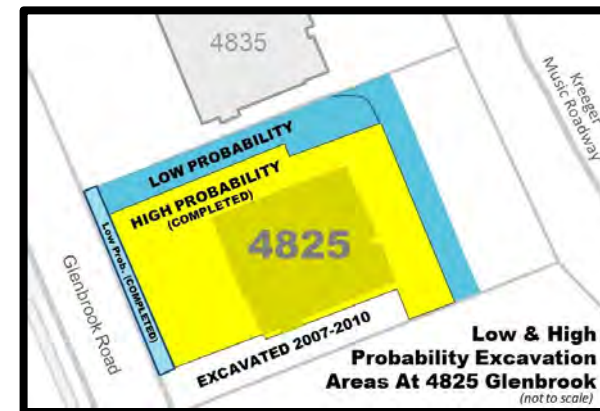
Winterizing the site for the holiday break



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TENTATIVE SCHEDULE

- ✓ December 2012 through May 2013
Site Preparation/ Initial Low Probability Work
- ✓ May 2013 through September 2013
ECS Set Up, High Probability training, & Pre-Operational Exercises
- ✓ September 2013 through June 2016
High Probability Excavation (Shelter-in-Place program ended May 27)
- ✓ Summer 2016
Tent Demobilization & Site Preparation for Final Low Probability Excavation
- ➡ September 2016 through Spring 2017
Final Low Probability Excavation
- Spring 2017 through Summer 2017
Site Restoration



GEOPHYSICAL PILOT PROJECT

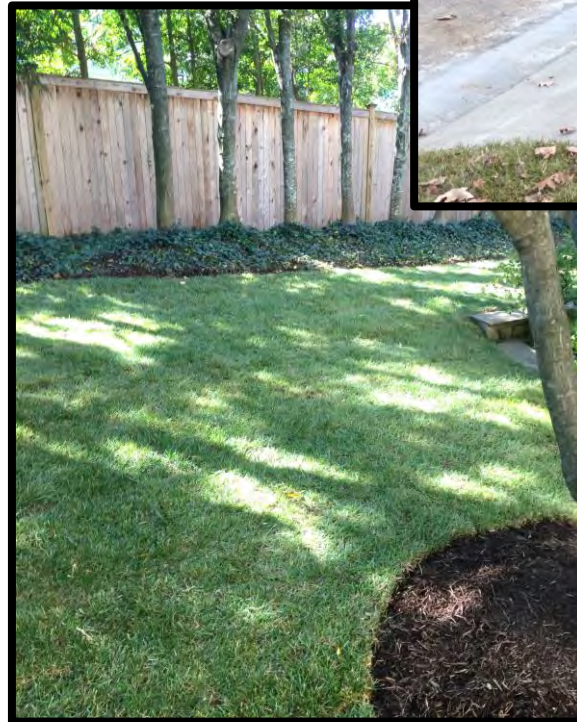
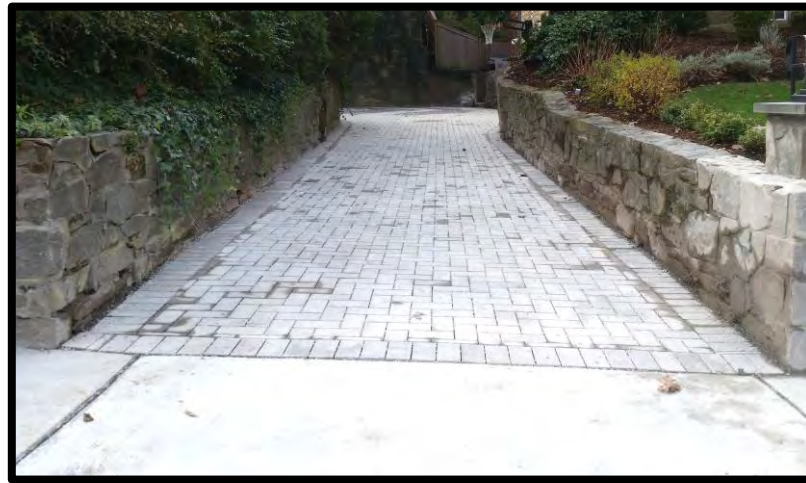
USACE Updates



**US Army Corps
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RESTORATION

The team completed restoration activities at the three properties who participated in the Pilot Project, including reinstalling transplants, planting new replacement plants, replacing sod, and restoring damaged sidewalk squares.



STOKES MORTAR

3-inch Stokes Mortar Found During Pilot Project (2016)

- Removed by an Army Explosive Ordinance Disposal team, per the Standard Operating Procedure.
- Determined to be unfused, practice round.
- Officially classified as Munitions Debris (MD).

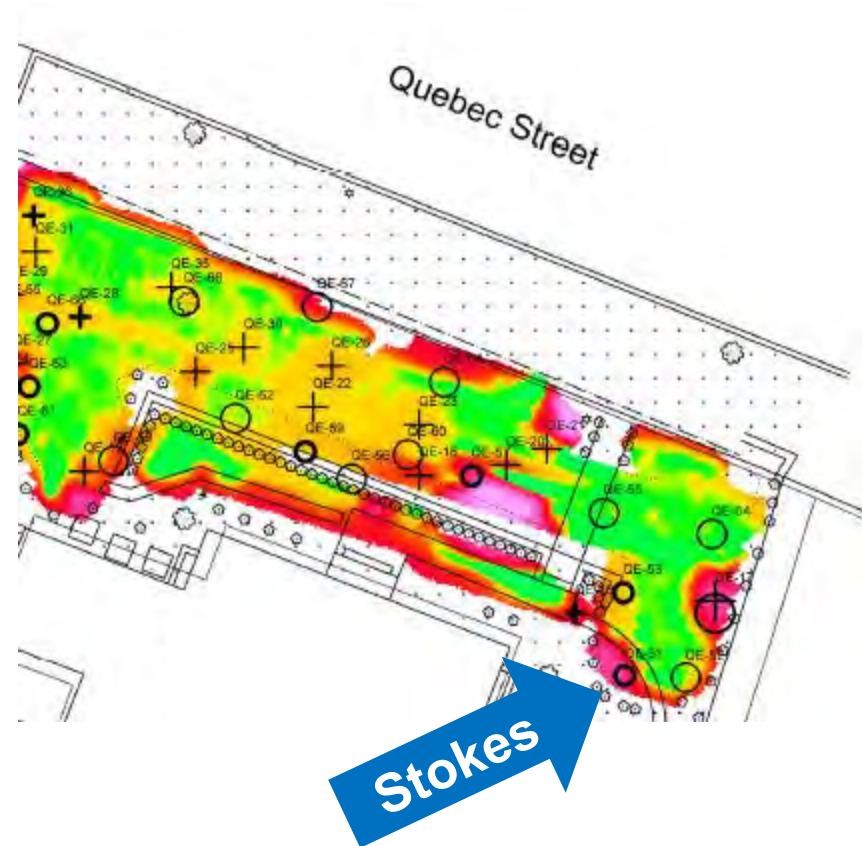


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of Engineers

STOKES MORTAR

Initial Geophysical Investigation (2010)

- The EM-61 signal was saturation near wall of the home, where the Stokes was located.
- Magnetic Anomalies shown as *circles (O)*.
- Anomalies detected by the EM-61 are shown as *crosses (+)*.
- The Stokes was not selected to be dug at this time.

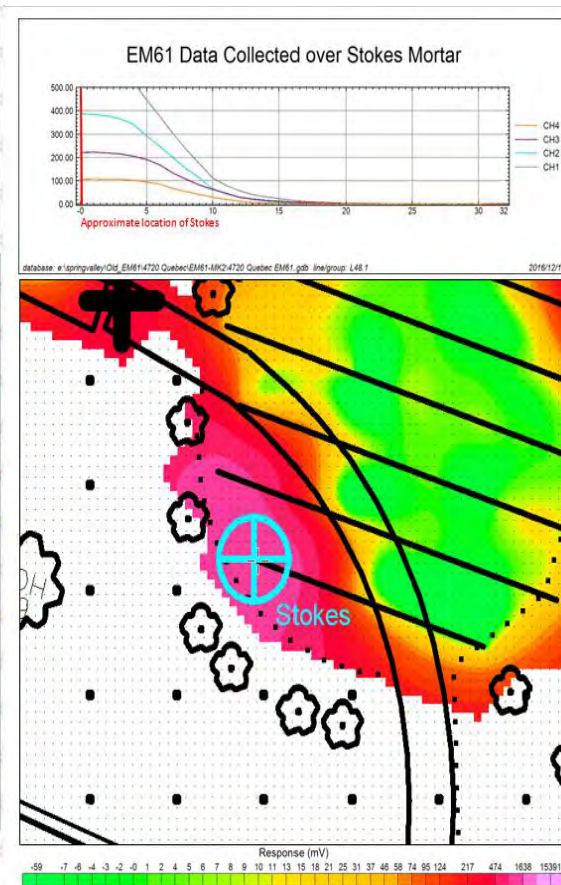
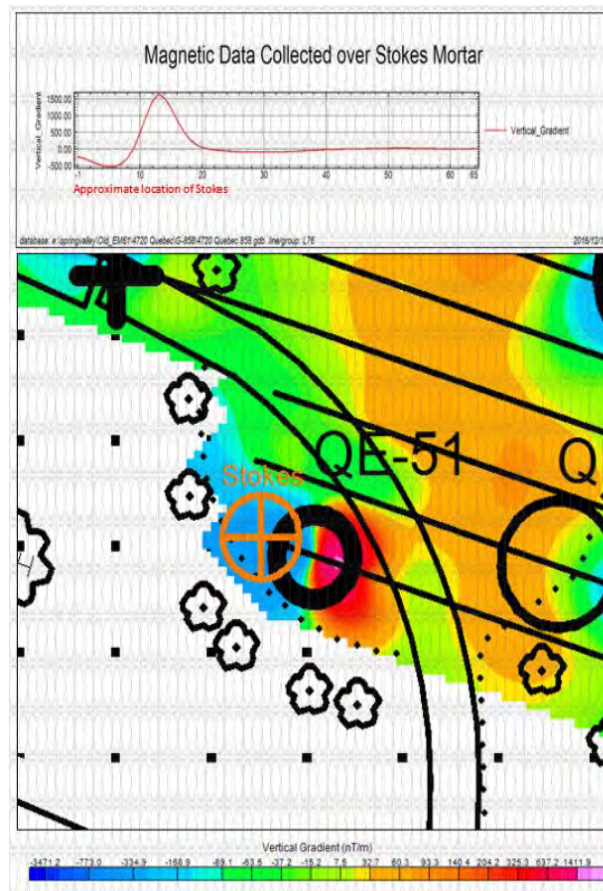


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STOKES MORTAR

Initial Munitions Investigation (2010)

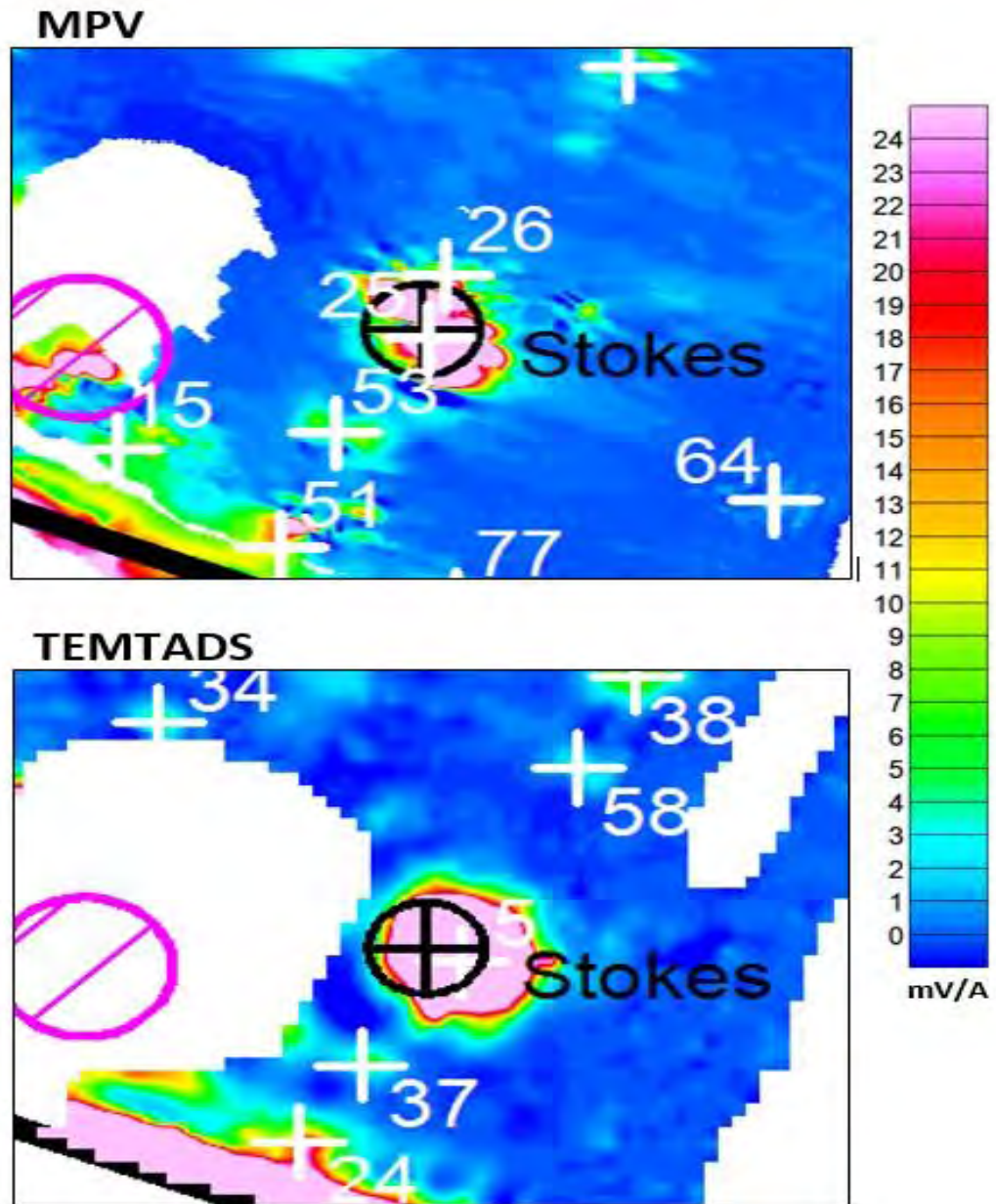
- Magnetometer detected the Stokes, near actual location.
- The EM-61's saturated signal was not conclusive.
- Thus, the Stokes was not dug at this time.



STOKES MORTAR

Pilot Project Results (2016)

- Both Advanced Classification (AC) instruments detected the Stokes.
- Both AC instruments correctly recognized it as a 'Target of Interest.'
- Both AC instruments located its position accurately.



PILOT PROJECT TENTATIVE SCHEDULE

Our team of geophysicists are currently comparing all of the data from the three instruments to see how well they identified the metallic objects detected under the soil in these Spring Valley yards.

This analysis will be included in the Final Pilot Project report, which will be available to the public in the Information Repository and on our project website.

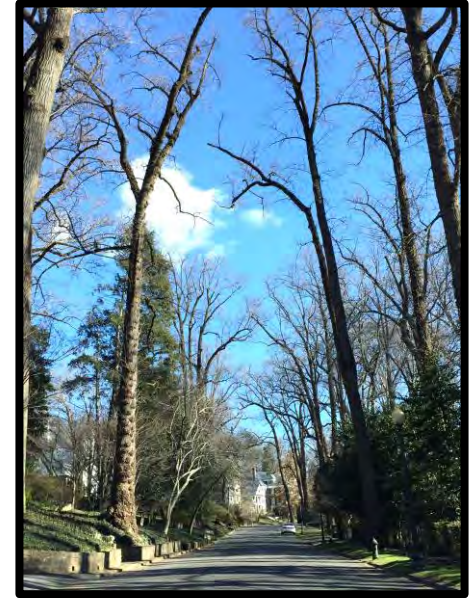
January 2017	Complete Data Evaluation.
February 2017	Finalize Pilot Test Report.



**US Army Corps
of Engineers.**

SPRING VALLEY FUDS RESTORATION ADVISORY BOARD

24



Community Items



SPRING VALLEY FUDS RESTORATION ADVISORY BOARD

Reminders:

- The next RAB meeting will be Tuesday, **March 14th**

Upcoming Agenda Items:

Suggestions?

- Groundwater Feasibility Study
- Pilot Project Report



SPRING VALLEY FUDS RESTORATION ADVISORY BOARD

26

Public Comments

Wrap-Up



**US Army Corps
of Engineers.**

**U.S. Army Corps of Engineers
Spring Valley Restoration Advisory Board
St. David's Episcopal Church
Minutes of the January 2017 Meeting**

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

HANDOUTS FROM THE MEETING
I. Final Agenda for the January 10, 2017 RAB Meeting
II. Army Corps of Engineers Presentation
III. September 2016 <i>Corps'pondent</i>
IV. December 2016 Monthly Project Summary

AGENDA

Starting Time: The January 2017 Restoration Advisory Board (RAB) meeting began at 7:06 PM.

I. Administrative Items

A. Co-Chair Updates

Dan Noble, Spring Valley Project Manager and Military Co-Chair, welcomed and wished everyone a happy new year, then opened the meeting. He noted that this month is the 24th anniversary of the beginning of the Spring Valley restoration project. He reviewed the agenda including the Groundwater Study, Site-Wide Decision Document, 4825 Glenbrook Road, and the Pilot Project.

1. Introductions

None

2. General Announcements

D. Noble reviewed website updates which included the November monthly project update, the weekly 4825 Glenbrook Road updates and photos, November RAB meeting minutes, October Partner Meeting Minutes, September 2016 *Corps'pondent*, Final Groundwater Remedial Investigation (RI) report, and a link to the Agency for Toxic Substance and Disease Registry (ATSDR) website for the health consultation on 4825 Glenbrook Road.

B. Task Group Updates

No task group updates were presented.

II. USACE Program Updates

A. Groundwater Study

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

The Groundwater project is at the Feasibility Study (FS) stage. The draft FS is being reviewed by the U.S. Army Corps of Engineers (USACE) Environmental and Munitions Center of Expertise (EMCX). The review is expected to take approximately 3 to 4 weeks, at which time the draft FS will be available to US Environmental Protection Agency (USEPA), District Department of Energy and Environment (DOEE), and Dr. Peter deFur, Environmental Stewardship Concepts/RAB TAPP Consultant for their review. The Groundwater FS is expected to be available to the Partners by the next RAB meeting in March.

Question from Allen Hengst, Audience Member - The EPA has signed a consent agreement with the National Resource Defense Council (NRDC) to promulgate perchlorate regulation by December 2019. Were you aware of that?

D. Noble stated that he had not heard of that agreement.

Question from A. Hengst, Audience Member - The EPA was sued last February because they were about two years late with their announcement; they were supposed to have a standard within a certain amount of time, I think 18 months. So NRDC sued EPA last February. I think 2 weeks ago a federal judge signed a consent agreement; a schedule which will end up with a federal perchlorate standard by December of 2019. My question is, how will that standard, if it is lower than 15 parts per billion (ppb) impact the Groundwater clean-up? Will you factor that in, because right now it is 15 ppb? If you are going to clean it up, I assume you are going to clean it up to 15 ppb, but if the EPA comes out with a lower standard, then it will not just be the southern American University (AU) campus and Glenbrook Road, but other areas as well that will have perchlorate.

D. Noble explained that yes, USACE would review the standard at the time the rule would be passed.

Question from A. Hengst, Audience Member - Could Todd Beckwith, USACE Baltimore Program manager address the standard at a future meeting?

D. Noble confirmed he would let T. Beckwith know about the question. T. Beckwith will visit the RAB in March to give a full briefing on the Groundwater FS, if the document has passed all reviews by that time.

Comment from A. Hengst, Audience Member - In California the standard is 1 ppb and I think in Massachusetts the standard is 2 ppb. So if you were going to go low like that, there would be a lot more groundwater to clean up.

Steve Hirsh, Agency Representative USEPA, Region III explained that generally what happens is that at the time of the Decision Document (DD) there are Applicable or Relevant and Appropriate Requirements (ARARs). The ARARs are where you get the clean-up numbers. In this case where we are right now, if the DOEE does not have another number they will probably pick 15 ppb, because that is the number now. If you are talking about 5 year reviews, that is generally where a review would look back to see if anything has changed.

A. Hengst replied that the standard will be coming out in December of 2019.

S. Hirsh noted that there may not be a Groundwater DD by that time.

Question from George Vassiliou, Community Member - By that time, everything will be done, right? Or you would have to come back?

D. Noble explained that the Groundwater project is trailing behind as the last major effort. The Groundwater project is only at the FS stage, which is a very early stage.

B. Site-Wide Decision Document

D. Noble briefly reviewed the Site-Wide Decision Document (DD).

The Site-Wide DD was submitted to EPA, DOEE, and Dr. deFur for review and concurrence. Once the regulatory agencies submit their concurrences, the Site-Wide DD is scheduled to be submitted to USACE Headquarters for signature. The 2 signatory authorities on the document will be a 2-star general at USACE Headquarters and Eugene Collins, Deputy Assistant Secretary of the Army (Environment, Safety and Occupational Health) or the DASA. Once signed at USACE Headquarters, the document will be forwarded to the office of the DASA at the Pentagon for final signature. The signature phase is expected to take 60 to 90 days.

In the meantime, the project team is beginning to work on the acquisition for the environmental services needed to enact what the document will require. Government procurement can take a while, so USACE is working on acquisition before the document is signed in order to be in a position to award a contract once the signatures are in place. USACE expects to begin work on the remedy before the end of calendar year 2017. At that time the project will be out of the administrative phase and actively in the Remedial Design (RD) and Remedial Action (RA) phase. USACE will keep the RAB informed on how the project is progressing throughout the year.

1. Site-Wide Tentative Schedule

- Early 2017 - Prepare and sign the Site-Wide DD.
- Winter/spring 2017 - Contract acquisition work. Begin Remedial Design.
- ~2017-2020 - Conduct Remedial Action.

C. 4825 Glenbrook Road

D. Noble provided a brief review of 4825 Glenbrook Road.

Areas of completed Remedial Action include all of the high probability areas and the strip of low probability area that ran along Glenbrook Road. Areas that still needed to be addressed included a large retaining wall behind the house, a strip of low probability area behind that retaining wall, and an area of low probability that runs along the driveway. Before work paused for the holiday break in December, the team was able to excavate the retaining wall up to the area where the wall curved. The area still remaining to be excavated is at the base of the curved area of the retaining wall down to a lower retaining wall that runs along the boundary of the property next door.

One challenge the team dealt with was a sewer line from 4835 Glenbrook Road that was routed onto the 4825 Glenbrook Road property. The team dug a bypass trench in order to reroute the sewer line and to free up remaining portions of contaminated soil. As the team prepared the trench, the contaminated soil removed to expose the sewer line was set aside and clean soil was used to fill the area. Right before the holiday break, the team was successful in rerouting the sewer line.

1. Tentative Schedule

- September 2016 through Spring 2017 - The project is working in the final low probability excavation area of the driveway. As soon as that area is completed by spring of this year restoration will begin.
- Spring 2017 through Summer 2017 - Restoration is expected to be completed by mid-summer 2017.

Question from A. Hengst, Audience Member - Did the construction workers ever come to visit?

D. Noble explained that the construction workers have not visited yet. Brenda Barber, USACE Spring Valley Project Manager, is actively scheduling the visit with the workers. The site visit is expected to occur in the winter or spring of 2017.

Question from A. Hengst, Audience Member - So it is going to happen?

D. Noble confirmed this.

D. Pilot Project

Alex Zahl, Spring Valley Technical Manager, briefly reviewed the Geophysical Pilot Project.

The Pilot Project was designed to test 2 new geophysical scanning instruments for locating buried

Munitions and Explosives of Concern (MEC) items. USACE conducted surveys on 3 selected properties using the 2 instruments, the Time-domain Electromagnetic Multi-sensor Towed Array Detection System (TEMTADS) and Man Portable Vector (MPV). USACE elected to bring in the EM-61 instrument, which was used in previous investigations. The EM-61 was used to double check some of the readings from the TEMTADS and MPV, as well as finish scanning some areas on the properties that were not surveyed in the previous investigation.

The field work and restoration has been completed.

Restoration work included a new driveway, new sidewalk apron, installation of sod, and transplanted plants. USACE will return to check on the properties in the spring to assess the transplanted and new plants. If a transplanted plant died during the winter, USACE will reimburse the value or replace the plant for the homeowner.

Shortly before the last RAB meeting, a 3-inch Stokes mortar was excavated from one of the Pilot properties. All three properties had undergone previous geophysical investigations, and this item was not found in the previous investigations. The Army Explosive Ordnance Disposal Team removed and evaluated the item. The item was determined to be an unfuzed practice round, and therefore presented no chemical risk or munition hazard. The mortar was officially classified as a Munitions Debris (MD) item.

In previous investigations using the EM-61 device, the house on the property where the Stokes mortar was found caused saturation to the signal. Because of the saturation, the EM-61 magnetometer could not detect the Stokes and the object was not excavated.

Both the MPV and TEMTADS detected the Stokes mortar and recognized it as a 'Target of Interest.' The new instruments were positioned directly on top of the target, so the distance from the equipment to the target was closer than the old technologies. Both the MPV and TEMTADS located the position of the target accurately. These results suggest that the new technology is working well.

Question from John Wheeler, Community Member - Did it also identify what the target was?

A. Zahl explained that one instrument clearly identified the target as a 3-inch Stokes mortar and the other instrument identified the target as a munition item similar to a Stokes mortar. In either case, both devices indicated with 96% confidence to excavate the target.

Comment from J. Wheeler, Community Member - I just remember you said that the technology can identify many different items.

A. Zahl confirmed that the Advance Classification (AC) has an extensive library of possible targets.

D. Noble added that what is also interesting about the new technology is that it is the same technology as the EM-61 instrument that missed the target in previous investigations. The EM-61 missed the target because the target was too close to the house. These new instruments, because they are very focused on the ground immediately underneath the instruments, have very good resolution for what is directly underneath them. The new instruments were able to clearly see that there was an anomalous area using the exact same EM (electromagnetic) technology that formerly was blind in the same area. The Pilot Project is meant to look at things like that and to consider resurveying some of the properties that were previously surveyed using the original EM

instruments. It is probably worth it to resurvey the properties again with the new EM instruments in areas where the old instruments were blind.

The previous process was in a dynamic mode. The previous instrument was the size of a lawnmower and recorded GPS coordinates of targets for later review. The new technique includes the same dynamic scan, and when a target is located the team will go back and perform a cued investigation. The cued investigation is the second part of the survey in which the instrument is parked directly over the target for approximately 30 to 60 seconds. A tremendous amount of data calculations are created concerning decay constants of the target. This allows the precision of location and identification of the target, leading to a better excavation decision. This improvement in technology will allow USACE to excavate a much smaller amount, causing less intrusive action on private properties.

1. Tentative Schedule

- January 2017 - Complete Data Evaluation
- February 2017 - Finalize Pilot Project Report

Question from A. Hengst, Audience Member - Will you be writing a report and posting it to the website or at the library? When will that be available?

A. Zahl confirmed that USACE plans to complete the internal review of the Pilot Project Report by the end of January. At that time the report will be submitted for review by the regulators. USACE expects the report to be available for publication by late February.

Question from A. Hengst, Audience Member - This project is relevant here but it is also relevant everywhere, right?

A. Zahl explained that the main reason for the Pilot Project is to prepare for the full scale remediation using tools and techniques that are known to work well. This gives the opportunity to know the best way to implement the technology in advance.

Question from A. Hengst, Audience Member - Actually I meant broader; nationally and globally, has this ever been done before?

S. Hirsh confirmed that this technology has been used in a lot of places but not in a residential scenario.

A. Zahl further explained that USACE is partnering with Navy Research Laboratory (NRL) because the Pilot Project has national implications.

Question from A. Hengst, Audience Member - Are there other Formerly Used Defense Sites (FUDS) in residential areas?

D. Noble confirmed there was a Pilot Project in a residential neighborhood in Hawaii using the same type of technology, so there have been 1 or 2 other similar demonstrations of the technology in residential areas. In that case, data was not available to compare old instruments with the new instruments.

Question from A. Hengst, Audience Member - Will you do a press release about the Pilot Project?

D. Noble explained that USACE probably will not perform a press release, but will not stand in the way of NRL if they choose to publicize the project or the resulting report. USACE will publish a public report about the whole Pilot Project.

Question from Lawrence Miller, Community Member - What was the depth of the mortar?

A. Zahl explained that the depth was fairly shallow, less than 6 inches.

Question from L. Miller, Community Member - Does the new technique look any deeper than the old technique?

A. Zahl explained that the depth is about the same.

III. Community Items

No community items were presented.

IV. Open Discussion and Future RAB Agenda Development

A. Upcoming Meeting Topics

- Groundwater Feasibility Study
- Site-Wide Prioritization Scheme
- Pilot Project Report, possible visit by a geophysicist

B. Next RAB Meeting:

Tuesday, March 14, 2017

C. Open Discussion

Question from Alma Gates, At Large Representative-Horace Mann Elementary School - Have you reached any agreement on prioritizing the schedule for residents?

D. Noble explained that there is no decision beyond actively maintaining a roster of property owners that have contacted USACE expressing interest in being included in the first group. In the next 6 to 8 months USACE will send a letter to all of the property owners notifying them when remediation is scheduled to begin and that there is no technical reason to investigate and remediate any property before another. At that time if a homeowner has a preference USACE would be interested to hear from the homeowner.

Question from A. Gates, At Large Representative-Horace Mann Elementary School - Would you not put someone ahead of the line if the results of the testing indicated something?

D. Noble explained that when USACE goes out to undertake the action, the data will be collected immediately before excavation. The survey and excavation will be completed at each property as quickly as possible. There will not be an opportunity to compare data from all 93 properties before excavation begins.

Question from A. Gates, At Large Representative-Horace Mann Elementary School - Do you not have some of the data from the previous investigations that might indicate to review some properties first?

D. Noble confirmed that USACE has data on 50 properties. However, anything that appeared to be a target of interest at that time was excavated. Based on the old data, USACE does not think there is much of interest left at those properties. That there were so few items found at that time indicates there is no particular portion of the neighborhood that stands out as a better area to find a munition than another.

Question from Rob Liberatore, Audience Member - You said you were going to wait 6 to 8 months to set up a system of prioritization. That would include letting everybody know the order of

prioritization? You have a list of about 15 residents, correct?

D. Noble confirmed that there are 14 to 15 residents on the prioritization list at this time. The 6 to 8 month timeline is based on having to get the DD signed and planning the effort. The DD has to be signed before USACE may hire a contractor to carry out the work. Then USACE and the contractor must plan the effort. USACE expects to begin the Remedial Action by the end of the calendar year if very good progress is made.

Question from A. Hengst, Audience Member - I am still interested in the fate of the Public Safety Building on the AU campus. It looks like AU might be finished with the East Campus on schedule and the police or Public Safety Office are supposed to vacate that building and move to the East Campus. Is that the time to come up with a plan for the Public Safety Building?

D. Noble explained that the DD contemplates the situation currently with respect that the risk is ok if the Public Safety Building remains in place; but if the Public Safety Building were to come down in the next couple years, the document states that USACE would then delineate and excavate the American University Experiment Station (AUES) debris and any contaminated soil that might be underneath the building.

Question from A. Hengst, Audience Member - Do you not think that is what AU wants? Do you not think AU wants you to do that?

D. Noble confirmed this. The DD indicates USACE will conduct that remediation if necessary. The DD includes a time limit of three years. If three years goes by after the DD is signed and the Public Safety Building is still in place, the document states that USACE reserves the right to go back through the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) process at the site to choose the best alternative at that time.

V. Public Comments

No public comments were presented.

VI. Adjourn

The meeting was adjourned at 7:44 PM.