**Spring Valley Partnering Meeting**
**June 16, 2016**
**Spring Valley Project Federal Property Conference Room**

| **Name** | **Organization/Address** | |
|---|---|---|
| Sherri Anderson-Hudgins | USACE - Huntsville | |
| Thomas Bachovchin | ERT | **X** |
| Brenda Barber | USACE - Baltimore | **X** |
| Todd Beckwith | USACE - Baltimore | |
| Janelle Boncal | Parsons | |
| Bethany Bridgham | American University | **X** |
| Sean Buckley | Parsons | **X** |
| Paul Chrostowski | CPF Associates, American University Consultant | |
| Tom Colozza | USACE - Baltimore | **X** |
| Jennifer Conklin | DOEE | |
| Kathy Davies | EPA – Region III | |
| Dr. Peter deFur (represented by Laura Williams) | Environmental Stewardship Concepts/RAB TAPP Consultant | **X** |
| Diane Douglas | DOEE | |
| Bill Eaton | URS | |
| Chris Gardner | USACE – Corporate Communications Office | **X** |
| Alma Gates | RAB Member – Horace Mann Representative | |
| Elise Goggin | TetraTech | **X** |
| Steven Hirsh | EPA –Region III | **X** |
| Holly Hostetler | ERT | **X** |
| Dawn Iovan | EPA – Region III | |
| Carrie Johnston | ERT – Community Outreach Team | |
| Dr. Herb Nelson | ESTCP | **X** |
| Dan Noble | USACE - Baltimore | **X** |
| Cliff Opdyke | USACE - Baltimore | |

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|---|---|---|
| Randall Patrick | Parsons | **X** |
| Amy Rosenstein | ERT – Risk Assessor, Independent Consultant | |
| Lattie Smart | ERT - Community Outreach Team | |
| James Stuby | ERT – Geophysicist | **X** |
| Jim Sweeney | DOEE | **X** |
| Tenkasi Viswanathan | USACE – Washington Aqueduct | |
| Cheryl Webster | USACE - Baltimore | **X** |
| Ethan Weikel | USACE - Baltimore | |
| Nan Wells | ANC 3D Commissioner | **X** |
| Maya Werner | ERT | **X** |
| Kellie Williams | USACE - Huntsville | |
| Bruce Whisenant | USACE - Huntsville | **X** |
| Rebecca Yahiel | ERT – Community Outreach Team | **X** |
| Alex Zahl | USACE - Baltimore | **X** |

## Summary of 16 June 2016 Spring Valley Partnering Meeting

### Consensus Decisions

- None

### 16 June 2016 Action Items

- In response to a request from Environmental Protection Agency (EPA) Region III, USACE Corporate Communications Office will send a copy of the Northwest Current article concerning sampling by American University at 4835 Glenbrook Road to the Partners.

- Department of Energy and Environment (DOEE) will forward the email with comments on the Response to Comments (RTCs) for the Groundwater Remedial Investigation Report and questions about restrictions on permits from DOEE's hydrologist.
- Earth Resources Technology Inc. (ERT) emailed copies of the ESTCP presentation to all of the Partners.
- The Partners agreed to submit responses concerning the Institutional Analysis to USACE by July 11, 2016.

### Thursday 16 June 2016

### Check-in

The Partners conducted their normal check-in procedure.

### A. 4825 Glenbrook Road Remedial Action

**The goal of this segment of the meeting was to review the status of the remedial action at 4825 Glenbrook Road.**

**1. Recent Intrusive Investigation**

Parsons completed removing the footer and associated soil and began the final scrape to saprolite on May 6th. A U.S. Army Corps of Engineers, Baltimore District (CENAB) geologist confirmed that the team reached competent saprolite on May 17th. In total, Parsons has removed 336 cubic yards out of the 303 cubic yards of soil estimated at the beginning of the 3rd Engineering Control Structure (ECS) location.

Parsons collected confirmation samples from the centers of the floor grids on May 18th. No agent or agent breakdown products were detected in any of the confirmation samples, consistent with the work completed throughout the entire excavation. In addition, Parsons did not encounter any agent or agent breakdown products in any of the soil removed in the disposal characterization samples, and did not encounter any soil that failed the Toxicity Characteristic Leaching Procedure (TCLP), which are the samples that are taken for characterizing soil for disposal. No results indicated anything hazardous.

In response to a question from EPA Region III, Parsons explained that the plastic decontamination pad is located on the former driveway.

USACE added that the decontamination pad will be removed under low probability.

Parsons lined the excavation area with geotech and then backfilled the excavation area in order to build a decontamination sump. Speed shoring was used to build a 2-sided box. Parsons uses the box to spray water to decontaminate equipment and collect that water. Decontamination of equipment began on June 2nd. The last excavator was decontaminated June 15th. Parsons expects to run a Depot Area Air Monitoring System (DAAMS) when the temperature reaches 70 degrees. Once clear DAAMS confirmation is achieved, Parsons will secure the site from decontamination operations and begin shutting down the Chemical Agent Filtration System (CAFS) and other equipment.

In response to questions from the Partners, Parsons explained that the CAFS and Miniature Chemical Agent Monitoring System (MINICAMS) are still running to move the air inside the structure. The workers were not wearing any protection during and after decontamination operations because no contamination was encountered during excavation. The monitoring equipment is also still running as an abundance of caution. While Parsons continues to monitor the equipment, a false positive detection of chemicals will be treated as a positive result. Rather than have all of the equipment shut down, a measure of caution is still in place.

Question from EPA Region III – If an alarm goes off now and there are five workers in the area, what would you do? Would you assume they are exposed?

Parsons confirmed this, and explained that the potentially exposed workers would be stripped down and be decontaminated. The DAAMS results would be reviewed, and the workers would go to the hospital if necessary.

Comment from EPA Region III – That is fine. The risk is Parsons' risk, not the community.

**2. Future Activities**

Parsons expected to complete decontamination of equipment by June 16. High Probability site infrastructure teardown will begin on June 20th. The crane that will help remove the ECS will mobilize at the site on July 5th.

In response to a question from EPA Region III, Parsons explained that the crane will be a 4-wheel 49 or 50-ton all terrain crane. The crane will have to be brought in on a lowboy, since the crane does not self-transport. Parsons will take down the ECS first, and then move all equipment to Federal Property. The crane will then move closer to the CAFS and MINICAMS. The silencers and CAFS filters will be removed, followed by the MINICAMS shed.

**3. Schedule**

Demobilization of high probability operations is expected to be complete by mid-Sept. Low Probability Operations is expected to be complete by late March 2017. Complete restoration of 4825 Glenbrook Road is expected to be done by mid-summer 2017.

In response to a question from EPA Region III, USACE explained that although high probability operations finished six months early, USACE did not shift the schedule back because of anticipated challenges with the low probability operations.

In response to a question from DOEE, USACE believes that the Metropolitan Police Department (MPD) exited from the project site on June 20th, but would confirm.

In response to a question from USACE Baltimore, Parsons explained that the Edgewood Chemical Biological Center (ECBC) stake bed truck will move into the front yard.

**B. Open Issues**

**1. 4835 Glenbrook Road**

USACE reviewed the comments from the May Restoration Advisory Board (RAB) meeting concerning 4835 Glenbrook Road.

A few individuals came forward at the May RAB meeting to speak about concerns they had about 4835 Glenbrook Road. Those individuals did not identify themselves as the workers mentioned in the five interview transcripts associated with 4835 Glenbrook Road, but seemed to know a lot about the construction. No new information seemed apparent in addition to the transcripts.

In response to a question from EPA Region III, USACE explained that USACE is waiting for the Agency for Toxic Substances and Disease Registry (ATSDR) Health Consultation report public comment period to close to determine if anyone has had further discussions with the individuals.

In response to a question from EPA Region III, USACE Corporate Communications Office explained that ATSDR had not yet shared how many comments they had received and they are waiting until the end of the public comment period on June 20th. ATSDR noted that they have not been contacted by anyone, including the workers, with follow-up questions.

In response to a question from DOEE, USACE explained that USACE plans to stand by the finalized Risk Assessment for 4835 Glenbrook Road. USACE has not received any information that leads them to think that something was missed at 4835 Glenbrook Road.

EPA Region III and American University (AU) noted that test pits covered everything outside the footprint of the house at 4835 Glenbrook Road, in addition to a sample taken by drilling a hole through the basement slab.

USACE explained that according to the comments of the individuals at the RAB meeting, 4825 Glenbrook Road and 4835 Glenbrook Road are apparently exact mirror opposites of each other. At 4825 USACE found a lot of material around the house and absolutely nothing underneath the house. The individuals who spoke at the May RAB are claiming that everything will be under the house at 4835 Glenbrook Road and there are no disposals around the house.

EPA Region III noted that disposals were found at 4825 Glenbrook Road, and no disposal was ever found at 4835 Glenbrook Road. There were 110 test pits.

USACE explained that 110 test pits were laid out, but USACE did not excavate the ones where 16 feet of fill was found. USACE excavated 76-78 test pits. Geophysical surveying and arsenic removal were also performed.

USACE Huntsville and EPA Region III commented that USACE did not excavate a test pit under the water feature. Deep pilings would have been under the water feature since the rocks could not be set on the dirt, which would have resulted in large drilled holes.

In response to a question from AU, USACE explained that as the property goes up the hill in the backyard, the fill becomes greater than 12 feet. The deepest that USACE could excavate was 12 feet. USACE proposed that they would not excavate those test pits unless there appeared to be a good reason.

There are five transcripts from the site workers; three of which came from the year immediately after the houses were completed in the1992-1994 time frame. The two recent transcripts were completed in the last two or three years. In the first three transcripts, the workers that are being interviewed are asked several times where USACE should look for more AUES-related items. The workers repeatedly mention the retaining wall at 4825 Glenbrook Road, and no one mentions anything at 4835 Glenbrook Road. The workers do not mention 4835 Glenbrook Road until 20 years later.

Question from Environmental Stewardship Concepts (ESC)/RAB TAPP Consultant – What information or new evidence would compel some other action at 4835 Glenbrook Road?

USACE explained that when USACE received the first transcript from a community member and independent film maker, the official position was to wait and see what would be found under 4825 Glenbrook Road. No debris or AUES-related items were found in the crawlspace area or under the floor as indicated in the transcript.

In response to a question from ESC/RAB TAPP Consultant, USACE explained that they believed 4825 Glenbrook Road and 4835 Glenbrook Road were built at the same time.

In response to a question from DOEE, AU explained that the official position of AU is to move forward based on what is known from the results of the sampling and test pitting. Until information indicates otherwise, AU maintains the assumption that the comfort letter for 4835 Glenbrook Road is accurate and the home is appropriate for occupation.

Question from USACE Corporate Communications Office – A Northwest Current article mentioned that AU had done in-house air sampling at 4835 Glenbrook Road. Is that correct?

AU confirmed this.

In response to a request from EPA Region III, USACE Corporate Communications Office said he would send a copy of the Northwest Current article to the Partners.

There is a comment attributed to one of the workers in the Northwest Current that mentions items present at 4835 Glenbrook Road that could explode. However, in the most recent transcript when a worker is interviewed, he answered that the items were glass bottles with different colored liquids. When asked if there were other things made out of metal or that looked like munitions, he repeated there were only the glass bottles.

The comments may be from different people. One man at the RAB meeting said that the items were not munitions.

USACE Baltimore remains open to walking the site with the workers, if they wish. USACE believes touring the site could be helpful, because the workers might be misremembering which house is which and how the properties were laid out. If USACE and the workers walked around the site, USACE might be able to point out to the workers where USACE did find items. USACE offered a tour to the workers at the RAB meeting and asked them to speak with USACE. The presumed attorney in attendance stepped in and told the workers not to talk to USACE.

USACE understands the attorney met the workers the day of the May RAB meeting. The attorney was not officially representing them.

Comment from EPA Region III –The 5 year review will be an opportunity to review the information about 4835 Glenbrook Road. EPA Region III is in agreement with USACE that for right now there is no factual information that would compel USACE to go back and excavate under the house.

In response to a question from Environmental Stewardship Concepts/RAB TAPP Consultant, USACE explained that the only way to get under the house is to implement what was done at 4825 Glenbrook Road; the whole house would have to be removed. There is no structural way to get under the house and investigate where the workers say they left items.

In response to a question from EPA Region III, USACE confirmed a horizontal drill could be implemented. However, any time a 2 or 3 inch core is drilled, 9 times out of 10 the drill will push any items out of the way or items would be so small they would not be seen in the core. In order to have a definitive result, the method would have to be excavation.

Even with all the data evidence USACE had, there was pushback from headquarters at USACE and the Pentagon concerning funding for operations at 4825 Glenbrook Road. If USACE asked for funding for similar activities at 4835 Glenbrook Road, there would be very little chance of receiving that funding due to a lack of significant findings at 4835 from all the investigative work carried out.

USACE, EPA Region III, DOEE, and ESC/RAB TAPP Consultant agreed that while there was a great deal of evidence supporting excavation at 4825 Glenbrook Road, there is no evidence to support similar activities at 4835 Glenbrook Road.

In response to a question from EPA Region III, USACE explained that 4835 Glenbrook Road is not in the Proposed Plan (PP). The question of whether 4835 Glenbrook Road should be in the PP would be a comment for the PP.

EPA Region III noted that the Record of Decision (ROD) covers 4835 Glenbrook Road. The property at 4825 Glenbrook Road was carved out of the Site-Wide Remedial Investigation (RI), but 4835 Glenbrook Road was not.

USACE confirmed that if any action were to be taken at 4835 Glenbrook Road, it would be covered in the Site-wide PP.

**C. Agency for Toxic Substances and Disease Registry (ATSDR)**

**The goal of this segment of the meeting was to provide an update on the ATSDR's Report.**

The health consultation report for 4825 Glenbrook Road was released for public comment by ATSDR in mid-April.

ATSDR presented the health consultation report at the May 2016 RAB meeting. The public comment period on the document will end on June 20th.

Until the public comment period is over, ATSDR would not share any numbers or actual comments they receive, but indicated they have not been contacted by any of the workers or residents. After the RAB meeting, ATSDR attempted to ascertain any potential symptoms of the workers, however the presumptive attorney present would not allow the workers to talk with ATSDR any further.

**D. Groundwater Remedial Investigation (RI)**

**The purpose of this segment of the meeting was to review the status of the Groundwater RI report.**

USACE received the draft Groundwater Feasibility Study (FS) from the contractor. The FS was reviewed internally by USACE-Baltimore and will now be passed on to the Army's Environmental and Munitions Center of Expertise (EM/CX). The Draft Final FS should be available to the Partners in late summer.

In response to a question from EPA Region III, USACE explained that he does not expect pushback from EM/CX concerning the FS.

USACE has not finalized the Groundwater RI pending approval on the Response to Comments (RTCs) document from DOEE DC.

DOEE noted that he received an email from DOEE's hydrologist, Diane Douglas, and will forward the email to USACE-Baltimore. The email contains D. Douglas' comments on the RTCs and questions about restrictions on permits. D. Douglas has not written an official letter on that request but addresses it in one of her comments.

**E. Pilot Project**

**The goal of this segment of the meeting was to provide an update on Pilot Project.**

T. Bachovchin, ERT, introduced Jim Stuby, ERT geophysicist, to the Partners.

USACE-Baltimore District, ERT, and TetraTech provided a brief update on the status of the Pilot Project.

**1. Summary**

The Pilot Project will be conducted using Advance Classification (AC) geophysical equipment to perform the remediation required under the Proposed Plan. There are approximately 100 houses where some possibility of the presence of munition items exists.

During the Pilot Project, USACE plans to test two new technologies: the Time-domain Electromagnetic Multi-sensor Tower Array Detection System (TEMTADS) and the Man Portable Vector (MPV). These instruments seem well suited to the project, enabling better maneuverability around existing landscaping and residential buildings. The results will be compared to the data from traditional methods: the Electromagnetic (EM)-61 and the Geometrics (G)-858. AC is a new technique using geophysics to obtain a much better view of objects in the ground, thereby limiting excavation to targets of interest, such as munition items.

USACE-Baltimore selected 4 properties for the Pilot Project from a group of properties that have already undergone a geophysical survey. The properties were selected based on diverse geophysical properties such as power lines, rebar, and other objects that create a fair amount of interference effect. The object of the Pilot Project is to determine if the AC tools will work in a residential setting, while providing a complete munitions assessment of those properties. USACE will then be able to send the homeowners a comfort letter stating that their property has been remediated. If successful, the Pilot Project will allow implementation of the AC process, reducing the amount of private property impact to the remaining ~95 properties requiring remediation.

**2. Project Teams**

USACE recently awarded ERT a contract to conduct the Pilot Project. ERT will be working in conjunction with Navy Research Laboratory (NRL) and Environmental Security Technology Certification Program (ESTCP). Dr. Herb Nelson, ESTCP, runs that collaborative effort. ERT will be doing all of the site preparation, quality control and geophysics. H. Nelson has one team that will use the TEMTADS and another team that will use with MPV.

The USACE-Baltimore team consists of Primary Project Manager Alex Zahl and geophysicists Tom Colozza and Cheryl Webster; the ERT team includes T. Bachovchin, Project Manager, and geophysicist J. Stuby; and the sub team to ERT, TetraTech, includes Elise Goggin, senior geophysicist. USACE strives to confirm that all of the regulators and stakeholders understand the process and are satisfied that USACE is undertaking all procedures necessary to assure the four homeowners that their property has been remediated.

In response to a question from EPA Region III, USACE and H. Nelson explained that the Pilot Project would be considered unsuccessful if the new technologies do not locate items known to be in place; or if the new technologies are unable to discern munitions from other items, causing more excavation. USACE

will use at least 5 blind seeds on the Pilot Project houses and developed a particular target of interest to focus the efforts.

The Partners agreed that since it is not public information, discussion of the Pilot Project houses would be limited to general locations rather than the actual addresses.

**3. Project Preparation**

The four properties chosen for the Pilot Project are in the following locations: two houses are close to each other on Quebec Street; one is located on Woodway Lane, and one is located on Tilden Street. The four properties have been previously scanned using digital geophysical mapping (DGM) and have had the follow-on excavation of anomalies.

All but one of the previously detected anomalies were removed at the first Quebec Street property; 57 anomalies remain on the Tilden Street property; and a few anomalies remain on the other two properties. The properties were evaluated using the old classification system, which consisted of the Anomaly Review Board (ARB) reviewing and identifying items as A, B, C, or D. Items were intentionally left in the ground as innocuous. Some interesting finds at the properties include munitions debris (MD) fragments on the first Quebec Street property; and at the second property, a pipe with explosive residues in it, which classified it as Munitions and Explosives of Concern (MEC). Nothing of substance was found on the Woodway Lane property. A Livens projectile was recovered at the Tilden Street property, but was determined to be a Non-MEC MD item.

ERT is preparing the work plan, using a Uniform Federal Policy for Quality Assurance Project Plans (UFP-QAPP) template which was finalized in March. This format will serve as an umbrella work plan to contain all other applicable plans, such as Standard Operating Procedures (SOPs), MEC Intrusive Investigation Plan, Instrument Verification Strip (IVS) and Blind Seed Plan, Accident Prevention Plan/Site Safety and Health Plan (APP/SSHP), and other appropriate plans. The overall Site-Wide Work Plan that contains the Low Probability Contingency Plan is still in effect. ERT will submit the draft Site-Wide Work Plan to the client on June 17th and ultimately to the Partners for review.

Site preparation includes a separate site visit to assess, define, and document all accessible areas for the geophysical survey. Civil surveyors will visit the site to establish Global Positioning System (GPS) control and create base maps. An arborist will conduct a landscape survey. When the arborist evaluation is complete, ERT will schedule site visits to go to each of the properties and mutually agree on which plants to leave, trim or remove. The goal is to achieve the most coverage possible with the geophysical instruments. The first arborist visit to the properties will occur on June 21st.

The umbrella term for the IVS and Blind Seed Plan is Geophysical Systems Verification (GSV). ERT will use the Federal Property Geophysical Proveout (GPO) area east of the trailer used for Partnering Meetings. There are approximately 20 to 30 items including rebar, metal plates, and inert munitions buried in that area in different grid patterns. ERT plans to excavate many of the items and rebury them in a straight line to build the IVS. Excess items in good condition will then be used as blind seeds on the four properties.

In response to a question from EPA Region III, ERT confirmed that ERT will be installing the blind seeds.

ETSCP will be doing all the DGM work. ERT and TetraTech will be supporting that with E. Goggin as Quality Control (QC) geophysicist. ERT will be installing the IVS, burying the blind seeds on the properties, and conducting the anomaly excavations.

ESTCP will not know where the blind seeds are located.

**4. AC DGM Approach**

To accommodate the different schedules of teams involved, the following is the order of the survey work for each property:

- Dynamic Survey using the TEMTADS

- Dynamic Survey using the MPV
- Cued Survey using MPV
- Cued Survey using TEMTADS

ERT will take the data from the ESTCP surveys and create a final excavation list. Then ERT will conduct the intrusive investigation and excavate 100% of the anomalies.

In response to a question from EPA region III, ERT explained that after the overview was complete, ERT and E. Goggin would go into more detail about excavating 100% of the anomalies.

USACE and ERT have determined the smallest target of interest used to set the selection threshold for the Pilot Project. In this case the item is a MK-IV booster/fuze from a 75 mm buried up to 12 inches deep. The booster/fuze is a small item that could potentially pose an explosive hazard, and the smallest item included on a spreadsheet of all previous finds at the Spring Valley Formerly Used Defense Site (FUDS).

In response to a question from EPA Region III, USACE explained that the booster/fuze was not the same type of item found in a box buried at a Quebec Street property. The box contained multiple pencil-sized fuzes. USACE decided against using that fuze as the selection threshold because USACE never found that type of fuze individually, and that small of an item is unlikely to be detected by the technologies used.

The Partners discussed how different anomalies might be addressed. A buried box of unknown items would be excavated, and single unknown items of interest would be excavated.

**5. ESTCP Presentation**

ESTCP determines intrinsic properties of buried items and then uses that information to decide whether those items are hazardous unexploded ordnance (UXO) and need to be excavated or not.

Munitions response is very inefficient. Most items excavated are non-hazardous. Often far less than 1% of the items excavated are in fact UXO. ESTCP has developed many technologies in order to correctly identify 100% of UXO and often more than 80% of non-hazardous clutter. This cuts down on the number of wasted excavations, thereby saving funds.

The TEMTADS and MPV are two of the sensors that ESTCP proposes for use at the site. The old EM-61 instrument could only interact with one aspect of a target at a time. Several scans would have to be made, and then compiled to identify the target. The modern sensors have multiple antennas so a target may be scanned on all sides from one spot.

The information extracted from the two instruments can identify intrinsic curves. If an item has one big curve and two small curves, that indicates a cylindrical item such as an 81 mm mortar.

The sensors can also indicate the size, shape, and aspect ratio of items, which all inform an excavation decision by ESTCP. There are three methods for excavation decisions:

- There are a limited number of types of munitions. ESTCP has a library of approximately 250 response files. The computer can compare a target to the library very quickly.
- If there are many items that all look the same and do not match anything in the library, ETSCP will excavate those items. If the items turn out to be sprinkler heads, then that data will be entered in the library system to identify similar items to prevent future excavations. If the items are hazardous, then the locations of those items are known and can be excavated.
- If the item is cylindrical and big it will be excavated. The item may turn out to be a piece of drainage pipe, but ETSCP will excavate something that is large and could be a munition. The same with the aforementioned box of fuses.

Part of the Pilot Project test will be if ESTCP can recognize the items using the new technologies.

In response to a question from Parsons, ETSCP explained that even if a buried munition is deformed, the classification system can easily match the item. In past tests, the system had no trouble identifying munitions with a third of the item missing.

The technology is proven and ready to go. For the most part, ETSCP works on military ranges and encounters range scrap. The ranges do not have sprinkler heads, garden tools, and gas lines found in urban areas. The Pilot Project will be a valuable test for residential areas.

More information is available on the website www.serdp-estcp.org

USACE added that the AC tools are essentially as good if not better than the old process, with the added benefit that they can identify munitions and cut down on holes excavated in a residential neighborhood. From a Department of Defense (DoD) perspective, H. Nelson's team are the nation's experts. They are the foremost authorities on this technology, working with a number of contractors as the industry standard. Applying this technology at Spring Valley will provide all assurances necessary with less impact to homeowners while remediating all of the properties.

ESTCP noted that the TEMTADS is a research instrument used in the Naval Research Laboratory (NRL). However, the manufacturer Geometrics in San Jose, CA delivered the first commercial instrument this week. By the time the Pilot Project is finished, the TEMTADS will be available commercially.

In response to a question from EPA Region III, ESTCP explained that he believed the TEMTADS instrument would cost about $100K.

**6. Final Dig List**

TetraTech briefly explained the process for choosing final target excavations. TetraTech will incorporate all the different types of data available for each of the properties. There is existing EM-61 and G-858 data for the properties. Some of the targets were investigated, however some targets remain. Those remaining targets will also be incorporated into the Pilot Project. After the TEMTADS and MPV select their dynamic data on each site, there will be a TEMTADS target list and MPV target list. TetraTech will synthesize all target lists together and move forward into the cued phase. During the cued phase, each TEMTADS and MPV demonstrator will scan each of the targets on the synthesized target list and collect cued data. Cued data is static high quality data that identifies the shape and size of an object and can be matched to the AC library. This data will create a target list for each demonstrator at the inverted locations of the items in the ground. Where the computer program data models an item, and the second phase of synthesis will be using those locations to determine where to excavate.

Hypothetically, the targets may have a slight offset in relation to each other. TetraTech has developed rules that indicate procedure in each case. Targets will likely line up, but may be offset. In cases where the targets are offset, it will be important to identify which ones are too far offset and need to be separate targets and which ones should be combined. The recommended radius specifically for the TEMTADS to assure data quality is 0.3 meters from the center of the detector.

In summary, there will be 4 sets of data; the old EM-61 and G-858, TEMTADS, and MPV. The Tilden Street property had more than 50 anomalies remaining after the previous investigation. There has been recent construction and landscaping activities at the Tilden Street property that may have impacted the number of anomalies. Most of the other anomalies had been excavated.

**7. Schedule**

- The Draft Report Workplan will be submitted to USACE June 17, 2016.
- First arborist visit June 21, 2016.
- Prepare to perform the initial dynamic survey late July/early August.
- Anticipate dynamic and cued surveys to take 3 or 4 week period.

- Anticipate excavations to begin in September.
- Projected submission of Pilot Study Report December 20, 2016.

In response to a question from EPA Region III, ERT explained that the Draft Report Workplan includes all Pilot Project plans. ERT is following a new UFP/QAPP template, which is an umbrella document that contains as appendices all other ancillary plans. The massive Site-Wide Workplan is current. Some of the UFP/QAPP is a reference back to existing sections from the Site-Wide Workplan.

In response to a question from EPA Region III, USACE confirmed the USACE review of the QAPP should take approximately 2 weeks. The QAPP will then be available for the Partners to review.

EPA Region III noted that he is going to ask Doug Maddox, EPA Region III MMRP specialist, to review the QAPP, with particular interest in the AC selection criteria.

Question from Environmental Stewardship Concepts/RAB TAPP Consultant – How many individual events are going to be found in order to do an evaluation, if there are only 4 properties and on one property everything that was found was removed?

USACE and ERT explained that every item that is found on each property will be removed, including five items that will be seeds. In addition, there may be some new areas of DGM survey. Plants or sidewalks may be removed that were not disturbed during the previous investigation, revealing new territory.

ERT and ETSCP explained the saturation test/boundary definition study. When the instruments are brought close to the side of a house, the rebar in the foundation can cause a signal. Plants next to the side of the house within the boundary of that signal will not be disturbed, because of the saturation signal caused by the rebar. The purpose of the study was to ascertain how close the instruments could be to the side of a house without picking up the signal.

In response to a question from ANC 3D Commissioner, USACE confirmed that based on previous work, USACE forecasts remediation of all 100 houses to take 3 years. Once the Pilot Project is complete, USACE will have a much better idea of how long remediation will take for each property.

In response to a question from DOEE, USACE explained that while there are no Right of Entries (ROEs) in place at this time, USACE does have agreements with each of the homeowners. The real estate division sent ROEs to the homeowners June 15th. The homeowners understand there may be more disruption because all of the anomalies will be excavated, but they will be done with the program and will have a final comfort letter.

Question from EPA Region III – Even if the EM-61, TEMTADS, and MPV all identify an item as a horseshoe, you will excavate that item during the Pilot Study?

USACE confirmed this.

Question from USACE – A spreadsheet of MEC and MD found during the previous investigations lists all 72 items and has information about what the item was and at what depth it was found. USACE wants to ensure that we have some indication that these new instruments will perform at least as well as the old technology. Were you able to identify at what depth the smallest Target of Interest (TOI) and other typical items would be detected?

ESTCP explained that the geophysical response of an item is always the same; depth depends on the level of background noise. ESTCP does not know how deep items will be detected until the level of the background is established. The sensors were designed to detect items to depths of 2 to 3 feet.

In response to a question from EPA Region III, USACE explained that the deepest depth to the top of an item found previously was a 4.7 inch munition item found at 35 inches deep. Everything found deeper than 2 feet was fairly large or was several items together.

ESTCP noted that the detection depths are the most conservative possible. The depths are 100% detection probability for a thing in the worst possible configuration, which is completely flat.

**F. Site-Wide Proposed Plan (PP)**

**The purpose of this segment of the meeting was to provide an update on the Proposed Plan (PP).**

**1. Summary**

USACE briefly reviewed the status of the Site-Wide PP. Hard copies of the PP were distributed to the Partners. The public comment period for the PP started June 13th, 2016 and will be open for 45 days, ending on July 28th. USACE placed an announcement that the public comment period had begun in the Washington Post and The Northwest Current, sent out an email to the stakeholders, and posted an announcement at the library and on the project website.

A public meeting will be held two weeks before the end of the public comment period, on the evening of July 14th. The meeting will be at AU campus in the Butler Board Room. The ~100 impacted homeowners will receive a letter from USACE to inform them that the PP is available for public review and comment. The Community Outreach Team prepared fact sheets to go along with the letters. Copies of these fact sheets are available on the project website and will be available as handouts at the July 14th community meeting. USACE will mail a reminder postcard as a follow up to the letter to the same property owners before the public meeting.

The community meeting will begin with a 45 minute open house, followed by a formal presentation on the PP and the preferred alternatives and a Question and Answer session for 10-15 minutes. The meeting will finish with a continuation of the open house.

A side room will be available for people who want to make a verbal formal comment.

Public comments by email or regular mail must be postmarked by midnight on July 28th in order to be entered in the response summary document.

In response to a question from EPA Region III, USACE explained that the regulatory agencies are not expected to sign the PP, but USACE is asking for concurrence letters.

**2. Priority Scheme**

In the past, there was more attention and discussion on the boundaries of Munitions Response Sites (MRS). USACE intends to stay out of the areas not designated as areas of interest. For several properties, this means that there are areas of the property that USACE wants to investigate and areas not part of the investigation. Once USACE surveys any particular property and see where that line falls, a decision will be made on whether to pursue investigation at that property.

Question from EPA Region III – What do you plan to do for the properties where only a very small portion is in the area of interest? Will those homeowners have to wait 2 years?

Yes, the property owners may have to wait 4 years for USACE to get there and look at the property, but because of the small area involved, USACE will theoretically do less damage. USACE plans to make these decisions at each of the properties.

EPA Region III made the suggestion to address the properties with small areas of interest early, in order to possibly remediate several properties quickly.

Addressing the priority of properties became an issue at the last RAB meeting. USACE had not considered priority yet because quite a bit of time will pass before the Remedial Action begins. As expressed at the RAB meeting, USACE does not have a technical reason to go to anyone's property ahead of anyone else's property on the list of 100. However, the 50 properties not investigated yet could be a priority since there is no information as to what may be found there.

EPA Region III noted that from a risk perspective, the properties where most of the anomalies were excavated would be at a lower priority than properties where no investigation had been performed or where anomalies were left behind intentionally.

USACE, EPA Region III, and DOEE discussed the ideas of risk vs. expediency when deciding which properties to remediate first. There may be less risk associated with the small areas, which would lead to remediating the unknown areas first from a risk perspective. Many of the smaller areas are part of a buffer zone. Without the buffer zone, those small areas would not have been part of the 100 properties.

At the last RAB meeting, the members of the RAB asked USACE to outline how a priority list might be established, at the next RAB meeting. USACE asked the Partners to discuss any ideas that USACE may bring to the next RAB meeting. There was a suggestion at the last RAB meeting to create a questionnaire that the property owners might fill out.

USACE Corporate Communications Office suggested a first-come, first-serve method. Property owners that submit signed ROEs to USACE would be at the front of the line. At other projects ROEs are sometimes difficult to get back.

ANC 3D Commissioner agreed that idea would make sense, however people do not know why they were grouped into the 100 properties. They will want to go fast and so they ask how to speed the process up. One of the ways would be to cooperate with USACE and invite them onto the property with a ROE. ANC 3D Commissioner offered to talk with some of the people about what process for evaluation would make people feel comfortable.

USACE Corporate Communications Office suggested presenting to the RAB a reminder and explanation of the steps USACE has gone through to establish the 100 properties. Perhaps a brief explanation that the remediation zones are based on historical information and USACE does not have hard data at this time to prioritize the properties.

Question from Environmental Stewardship Concepts/RAB TAPP Consultant – Might there be a logistical reason for a certain pattern of remediation from the contractor who will do the work? Would it make sense to start at one end of a street and remediate all of the properties on the same street? That makes a difference because even though the mobilization is not nearly what it has been in the past, there is still mobilization.

USACE explained that the instruments used for this investigation will be the size of lawn mowers, so hopping around the neighborhood will be possible. In order to talk to the contractors USACE has to wait for contractors to be in place, which may be in 12 months; therefore USACE cannot say anything about the contractor's input at the next RAB meeting.

ERT noted that one aspect that might impact the plan is the need for public space and construction permits for anomaly excavations. Even though only smaller shovel holes are involved, permits are still necessary and eventually expire. Grouping the properties geographically may be more efficient; a block of permits may be obtained together and will expire roughly at the same time.

USACE believed the way Sevenson Environmental Services, Inc. handled the issue was to put a list of all the properties on a permit and carried that permit around for 8 years, renewing it each year.

ERT explained that from the experience of the permitting process for the Pilot Project, he was not getting a sense that it is possible to complete the project by grouping properties. While grouping the properties would be more efficient for the Pilot Study, he was told everything has to be done individually.

In response to a question from USACE, ERT explained that permission has to be obtained for each property individually so there would be a separate piece of paper for each property. Because the permits have an expiration date, geography might become important when the 100 properties are being addressed, since activities will be in the same area in the same time window as opposed to jumping all over the site.

Parsons commented that another consideration would be a visit to the properties by Miss Utility. One area may be marked off at a time rather than moving around to different properties. One utility call for a property may result in marked utilities on the properties adjacent.

ANC 3D Commissioner agreed that grouping the properties would be less bothersome to the neighbors. If residents see trucks pulling in there may be questions, especially from people that own property that is not being investigated. Property owners may be bothered by four different weeks of activity rather than a couple days. Concern will also be raised about the possibility of dangerous chemicals or dangerous items.

The logistics and people's individual needs involved may prevent the remediation of a significant number of properties in a row. There is a possibility that not everyone will agree and be ready to go at the same time. There may be 5 out of 6 ROEs returned for a group of properties, with one person holding out because they have a party or vacation scheduled.

There will be multiple visits to a property for remediation. In order to bring equipment in for the geophysical survey, some plants will have to be removed. Once the geophysical survey is complete, the data is processed. An excavation list is created and the excavation is performed. Then the excavation holes are patched by the crew. The restoration plan then gives the homeowners the option of receiving a reimbursement check from USACE to restore their landscaping using their own contractors, or allowing a contractor hired by USACE to restore the property. For the Pilot Project, there is going to be more than one month of some disturbance to the property because USACE will be removing all of the anomalies. USACE is confident that the Pilot Project will prove that the technology is acceptable, and if so, instead of having 50 excavations there may only be 10.

In response to a question from ANC 3D Commissioner, USACE explained that all of the high probability points of interest have been addressed, and that there are no greater concerns about one property over another. USACE has selected areas of concern, but no one area is of more concern than another.

There are four areas of concern determined through the RI: two static test fire areas; the impact zone of the range fan; and AOI-13 which was an old storage area that may have been used to dispose of items.

EPA Region III suggested that the priority scheme presentation for the next RAB meeting might include how the boundaries were drawn and why the properties were included. The issues involved that will weigh in to a priority list are general, not specific and are not ready to roll out. A final list will depend on input from the contractor, which will not be on board until next year. If the homeowners have specific reasons for their property to be prioritized, they should inform USACE about those reasons.

The Partners agreed that some homeowners may have compelling reasons for wanting to have their properties remediated first, some homeowners may want to be first for no compelling reason, and some homeowners simply will not care if they are first or not. The Partners also agreed that the homeowners should be given an opportunity to voice their concerns and possible reasons for prioritization.

USACE suggested that perhaps instead of a questionnaire, property owners that have a specific need write a letter to USACE. USACE does not know how many property owner will write to request prioritization. Pending signed ROEs, about 30 properties would fill the first year of remedial action.

USACE will put some slides together for the next RAB meeting of how a priority decision might be made and how that decision might be affected by logistical aspects that USACE may or may not control.

In response to a question from USACE, AU confirmed receipt of the letter and had no concerns about the Public Safety Building. USACE indicated that the letter will become part of the Decision Document.

In response to a question from ANC 3D Commissioner, USACE explained that the earliest that remedial action may begin will be sometime in the summer of 2017. However, that projected date assumes USACE will receive the signed Decision Document by fall of 2016, funding is secured for FY17, a contractor is hired, and a remedial design is formulated.

**G. Institutional Analysis (IA)**

**The purpose of this segment of the meeting was to review the IA document.**

USACE sent the draft IA to the Partners 2 weeks ago. No date had been set for submitting responses to the document. The IA will be adjusted when the responses are received.

AU read the document, and is waiting to hear from Paul Chrostowski, CPF Associate, American University Consultant.

In response to a question from USACE, ERT explained that the focus of the IA is not meant to say exactly how educational controls would be implemented, that is the purpose of the Land Use Control Implementation Plan. The IA focuses on what institutions would potentially be affording implementation.

The Partners agreed to submit responses concerning the IA to USACE by July 11, 2016.

**H. Future Agenda Items**

1. Groundwater FS.

2. Updates on 4825 Glenbrook Road and the Pilot Project.

**I. Agenda Building**

The next meeting was scheduled for Thursday August 11, 2016.

**J. Adjourn**

The meeting was adjourned at 12:29.