Spring Valley Partnering Meeting
March 25, 2008
Spring Valley Trailer Conference Room

Name	Organization/Address	Tues., Mar. 25
Jorge Abud	American University	
Richard Albright	DDOH	
Allyn Allison	CEHNC	**X**
Tom Bachovchin	Parsons	**X**
Mark Baker	CENAB-PL	**X**
Jim Baron	CENAB-EN	
Thad Bergling	CENAB-EN	
Deepak Bhinge	Parsons	**X**
Frank Bochnowicz	CENAB-EN	
Bethany Bridgham	American University	**X**
Jessica Bruland	ERT	**X**
Paul Chrostowski	CPF Associates, AU Consultant	
Tom Colozza	CENAB-EN	**X**
Joyce Conant	CENAB-PA	
Maya Courtney	ERT	**X**
Greg Daloisio	Weston Solutions, Inc.	**X**
Kathy Davies	US EPA Region 3	
Dr. Peter deFur	Environmental Stewardship Concepts/RAB TAPP Consultant	**X –** on telephone
Diane Douglas	DDOE	
Bill Eaton	URS	
Alma Gates	ANC3D Commissioner	**X**
John Gerhard	Weston Solutions, Inc.	**X**
Paul Greene	CENAB	**X**

Name	Organization/Address	Tues., Mar. 25
Steve Hirsh	US EPA Region 3	**X**
Demaree Hopkins	Weston Solutions, Inc.	**X**
Ed Hughes	CENAB-EN	**X**
Carrie Johnston	RCAI	**X**
Sarah Meyers	Parsons	**X**
Dan Noble	CENAB-EN	
Randall Patrick	Parsons	**X**
Lan Reeser	CENAB-EN	**X**
Mike Remhert	Tech Escort	
Billy Sanders	CENAB-EN	
Jennie Saxe	EPA Region 3	
Andy Schwartz	CEHNC	**X –** on telephone
Ann Spiesman	Washington Aqueduct	**X**
Tom Smith	ANC3D-02 Commissioner	**X**
Jim Sweeney	DDOE	**X**
Amy Walker	CEHNC	
Nan Wells	ANC3D-03 Commissioner	**X**
Bruce Whisenant	CEHNC	**X**
John Williams	Weston Solutions, Inc.	**X**

Consensus Decisions from March 25, 2008 Partnering Meeting

- The Partners approved the draft Prioritization Memorandum. The final Prioritization Memorandum will be prepared for signature in April.

Action Items:

A. Low Probability Investigations Update – 4825/4835 Glenbrook Road Test Pits and Arsenic Removal

- The initial and post-confirmation arsenic sampling results from the previous Glenbrook Road excavation in 2001 will be reviewed.

- Test Pit 101, located on the back patio of the Pit 3 property will be sampled for arsenic when it is excavated. If the results show a concentration over 20 ppm, the soil will be removed and the extent of contamination will be delineated.

B. 4835 Glenbrook Road Soil Sampling Plan

- Parsons will tabulate the results for a preliminary risk assessment for Partner review of the existing comparisons at the next meeting.

C. Update on 4825 Glenbrook Road High Probability Investigation Activities

- The Partners will review the sidewall and floor samples for arsenic levels in the extension before deciding on next steps.

D. Anomaly Review Board

- C. Johnston offered to work with A. Gates to obtain Miller's original planning maps before they developed the Spring Valley neighborhood area to assist with locating cultural items.
- Jim Sweeney offered to obtain sewer maps for the area.

E. Geophysical Investigations Update

- Survey data from 4801 Glenbrook Road will be presented at the April ARB meeting.

F. Public Safety Building Area, American University, Low Probability Phase II Investigation Update

- American University will make inquiries about entrance and exit from the shed at the back of the Public Safety Building.

G. Area of Interest Task Force (AOITF) Update

- The Partners agreed to schedule presentations of recommendations for AOIs 16, 17, 18, 23, and 27 over the next few Partnering meetings.
- M. Baker said he will prepare the final reports for AOIs 1, 5, and 7 for Partner signature.

Check-in

The Partners conducted their normal check-in procedure which includes introducing new attendees, completing personal check-ins, reviewing the Partnering meeting ground rules, and discussing lunch options.

A. Low Probability Investigations Update – 4825/4835 Glenbrook Road Test Pits and Arsenic Removal

The goal of this segment of the meeting was to present an update of the 4825/4835 Test Pit and Arsenic Removal activities.

The Scope of Work included 77 test pits planned at 4835 Glenbrook Road and 36 test pits at 4825 Glenbrook Road. The excavation of one test pit at 4835 Glenbrook Road will not need to be done due to limited space, proximity to the 4845 Glenbrook Road driveway, and discovery of active utility lines in this location. Four test pits at 4825 Glenbrook Road were resolved during the Pit 3 excavation.

To date, 61 test pits have been excavated and backfilled at 4835 Glenbrook Road. Potential American University Experimental Station (AUES) material was identified in 13 test pits and on the access route north of Test Pit 17. All potential AUES material and associated soil samples

have headspaced clear for mustard (HD) and Lewisite (L). There have been no confirmed air monitoring detects.

The excavation of the arsenic-contaminated soil is complete for three grids in the 4835 Glenbrook Road rear yard and the unpaved area in the 4835 Glenbrook Road side yard. Arsenic delineation was continued for the new grids in the 4835 Glenbrook Road driveway. The area was not previously grid sampled during the 2000-2001 investigation because it was under the driveway. Samples were collected on the boundary with 4845 Glenbrook Road. All were less than 20 milligrams/kilogram (mg/kg) arsenic. The northern sidewalls for three grids were sampled.

Amendment 1 to the Site-Specific Work Plan (SSWP) was approved March 18, 2008: It allows for the excavation of the test pits in the 4835 Glenbrook Road driveway once the arsenic depth is determined; excavation of a larger footprint in the arsenic interval to minimize soil falling from the sides into the deeper intervals; and removal of the arsenic contaminated soil after the associated test pits are resolved. There will be dust and volatile organic compound (VOC) monitoring for the arsenic soil removal.

A map of the **4825/4835 Glenbrook Road Test Pits – Confirmation Sampling Update** was presented.

As of March 21, 2008, 17.4 weeks of intrusive effort were completed. The current rate of completion is 3.5 test pits/week. The estimated duration of the activities at the current rate is 3 weeks. The estimated date of completion is May 30, 2008, which includes 7 weeks of arsenic grid removal.

USACE-Huntsville noted that the estimation may change because the arsenic grid removal is not under the Parsons contract at this time.

At 4825 Glenbrook Road, the estimated time needed for completion is 17 weeks, including 8 weeks of arsenic grid removal and backfill.

EPA asked whether arsenic samples were collected in the back of 4825 Glenbrook Road, near and under the patio. The Partners discussed previous sampling in the area and agreed that a strip of about 6 feet may not have been sampled. The initial and post-confirmation arsenic sampling results from the previous Glenbrook Road excavation in 2001 will be reviewed. Test Pit 101, located on the back patio, will be sampled for arsenic when it is excavated. If the results show a concentration over 20 ppm, the soil will be removed and the extent of contamination will be delineated.

Next Steps

The initial and post-confirmation arsenic sampling results from the previous Glenbrook Road excavation in 2001 will be reviewed.

Test Pit 101, located on the back patio, will be sampled for arsenic when it is excavated. If the results show a concentration over 20 ppm, the soil will be removed and the extent of contamination will be delineated.

B. 4835 Glenbrook Road Soil Sampling Plan

The goal of this segment of the meeting was to review the sampling plan for 4835 Glenbrook Road.

USACE introduced American University's request for follow-up soil sampling at 4835 Glenbrook Road, to address potential residual contamination from AUES-related debris found on the property. They have proposed that a tight sampling grid be used to show that the property is not contaminated.

Parsons presented a map showing the general extent of prior soil sampling data at 4835 Glenbrook Road. The map is a work-in-progress and provides a broad approximation of known data. The map will be updated as new test pit data become available, and additional data sources (such as recent soil gas data) may be added. The locations of 1918 buildings are marked on the map, including a toxic storage shed and two mustard storage sheds, all of which overlap areas that have been or will be excavated.

USACE-Baltimore noted that extensive excavation and significant soil sampling have already been completed on the property. When AUES-related items were found in test pits, soil samples were taken and no significant contamination was found.

EPA requested that two or three arsenic samples be taken in the three partial grids behind, and along the south side of, 4825 Glenbrook Road. Parsons confirmed that no arsenic samples were taken in this area between the house and the retaining wall. USACE-Baltimore agreed that arsenic samples should be taken, and a decision will be made on whether the samples should be taken during or following the test pit investigation.

The Partners discussed the timing of production of the risk assessment, currently planned for about 2 years from now. Other preliminary options were discussed, such as developing a risk ratio report or front-end sampling plan for regulatory and Partner review or organizing the sample location and chemical concentration information and meeting to discuss it with the agency toxicologists before writing the preliminary document. Another option discussed was to tabulate the sampling results to see if any are above the risk concentrations, then determine the next steps. It was noted that in a cursory examination of the results, no compounds other than vanadium looked as if they were high.

The Partners discussed that if additional sampling were warranted, it would probably be a better approach to sample near the historic AUES building locations on the properties than in a random pattern.

Parsons, USACE-Baltimore, and EPA agreed that additional sampling may be required, and a review of previous sampling results is required to make a decision.

USACE-Baltimore asked Parsons whether they can produce a preliminary risk assessment to see whether sufficient data exist for a full risk assessment. Parsons said they can tabulate the results, and the Partners can look at the existing comparisons and decide what still needs to be done.

Next Steps

Parsons will tabulate the results for a preliminary risk assessment for Partner review of the existing comparisons at the next meeting.

C. Update on 4825 Glenbrook Road High Probability Investigation Activities

The goal of this segment of the meeting was to provide an update on the 4825 Glenbrook Road High Probability Activities.

Parsons presented a summary of the Burial Pit 3 intrusive effort, which was completed in the current ECS on March 10, 2008. A total of 891 drums of soil were removed, totaling about 173 cubic yards (CY). They were shipped off-site as non-hazardous waste. Non-munitions-related scrap items, munitions debris and closed cavity items were found and evaluated as necessary.

A current layout of the **4825 Glenbrook Road Burial Pit 3 Original Pit 3 with East Extension** was shown. The extension will be 17 ft x 16 ft. The structure will be slightly offset because of the position of a manhole that will be enclosed under the MACS.

Non-Munitions-Related Scrap Items found between February 23 and March 10, 2008 included: glass pieces, 55-gal drum remnants, an unknown chunk of white substance (possibly plaster), a piece of porcelain, and an empty glass bottle 2.5 inch long and ¾ inch diameter. All scrap items were headspaced clear.

No **Munitions Debris items were found between February 23 and March 10, 2008.** A total of 17 items were recovered during the Pit 3 excavation. All rounds have been headspaced clear. They are currently stored in a drum at the Federal Property Drum Holding area.

All **Closed Cavity Items Found as of March 10, 2008** were assessed by Technical Escort (TE) as closed cavity, and determined to be safe for transport and storage. The items were transported by TE to the Federal Property Interim Holding Facility (IHF) area for X-ray and Portable Isotopic Neutron Spectroscopy System (PINS) (as required).

Pit Characterization Samples Collected as of March 10, 2008 included two floor samples (one on the east end and the other on the west end) and four sidewall samples (two on the north wall and two on the south wall). All floor and sidewall samples were cleared for low level agent/ABPs. The east sample had 184 mg/kg of arsenic. HTW data are pending for the sidewall samples.

The Partners discussed options for addressing the location with the 184 mg/kg of arsenic. Additional excavation is continuing in the direction of the exceedance, so the Partners will monitor the sidewall and floor samples in the extension before deciding next steps.

Photographs were shown of **4825 Glenbrook Road Burial Pit 3: Scrap Items Found**, **Excavation, Vapor Containment Cover (VCC) Removal and Backfill, Backfill and Fabric Removal, and Retaining Wall Removal, and 4825 Glenbrook Road Burial Pit 3 Modular Aluminum Containment Structure (MACS) Extension**.

USACE-Huntsville noted that a buried manhole was shown in the retaining wall removal photograph. A sewer line and water line also transect the property.

USACE-Baltimore observed that the house appears to be resting on saprolite.

The **4825 Glenbrook Road Burial Pit 3 Excavation Progress** Report as of March 10, 2008 was presented. The duration (since October 29, 2007) was 19.2 weeks. The intrusive effort was completed in 10.4 weeks. 8.8 weeks of shutdown occurred due to holidays, weather, MARB review, and other delays. The estimated volume of soil excavated was 173 CY. The average excavation rate was 17 CY/week.

Information was presented regarding the **4825 Glenbrook Road Burial Pit 3 Proposed Extensions.** Further investigation to the East of the ECS will be required. The objective is to clear the area between the 4825 Glenbrook Road building and the retaining wall, and under the footer. A 17-foot extension is being built onto the current ECS. Soil will be excavated and taken off-site (current procedures) for disposal.

Further investigation to the South of the ECS toward 4801 Glenbrook Road will be required. The objective is to clear the anomaly cluster adjacent to the ECS. Single Item anomaly resolution will occur using a Schonstedt instrument inside the ECS. If no AUES related items are found, the excavated soil will be backfilled. One exploratory trench is planned on the highest signature. Once the anomaly cluster near Pit 3 is cleared, a determination will be made of how to address the remaining anomalies along Glenbrook Road.

A map of the **4825 Glenbrook Road Burial Pit 3 Proposed East Extension** to the ECS was shown.

Test Pit 112 will be resolved as part of the east extension operation. The five test pits around the excavation area will be investigated as soon as the south extension is completed and before the ECS is dismantled.

Next Steps

The Partners will review the sidewall and floor samples for arsenic levels in the extension before deciding on next steps.

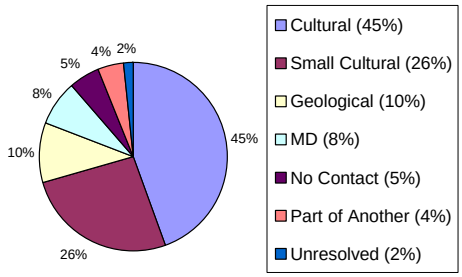
D. Anomaly Review Board

The goal of this segment of the meeting was to review the anomalies on three properties.

A USACE-Huntsville geophysics expert joined via telephone. USACE wants to finalize the Prioritization Memorandum regarding using an algorithm to sort single target anomalies into a priority order by size and needs Partner concurrence to be able to move forward with processing the anomalies. USACE-Huntsville reviewed the changes that have taken place to the memorandum since March. He reviewed the Anomaly Classification for the Spring Valley FUDS Geophysics Program. The goal of the presentation was to provide an understanding of the categorization scheme.

Anomaly Classification for the Spring Valley FUDS Geophysics Program

USACE-Huntsville presented the following **Anomaly Classification for the Spring Valley.** The goal of the presentation was to provide an understanding of the categorization scheme. A chart was presented showing the percentage of items found in each category. An assessment was made of what was taken from the ground and 26% of the recovered items were small cultural items. With the algorithm, the goal is to remove such items and other small items from the dig list.



To obtain a workable sorting mechanism, USACE-Baltimore and USACE-Huntsville looked at the characteristics of geophysical prove-out (GPO) anomalies associated with 75mm and Stokes Mortars from three different project test areas (Spring Valley, Seneca Army Depot and Tobyhanna Artillery Range). All the 75-mm or larger test items in the GPOs were detected (buried between -8” and -40”). There was less variability in anomaly characteristics when the item was buried shallower. The characteristics were more consistent when the items were buried at shallow depths (20” or shallower), but varied more when they were buried deeper (more than 26” or deeper). Based on the information, items buried 22” or shallower are defined as shallow anomalies and those buried deeper are considered deep.

The concept of **Categorizing Anomalies with Conservatism Built-in** was summarized as follows:

- Category A – All data over the anomaly suggest it could be the size of a 75 mm munition or larger.
- Category B – One characteristic suggests a shallow AUES munition-sized item and one does not, or all data suggest a deeper item the size of a 75 mm munition or larger.

- Category C – One characteristic suggests a deep item the size of a 75 mm munition or larger and one does not.
- Category D – All data over the anomaly suggest it is something small.

If the item is within an Area of Interest (AOI), Point of Interest (POI), Ground Scar or Range Fan, suffix with "1" (e.g., A1, B1, C1). If the item is not associated with any of above, suffix with "2" (e.g., A2, B2, C2).

USACE-Baltimore stated that because a Category D is not the size of an AUES munition, in future dig lists, USACE would not recommend any Category Ds to be dug. The Partners need to concur that Category Ds are not munition-like and should not be dug.

USACE-Huntsville noted that in the past, when a site had a large number of anomalies, the USACE has recommended digging a certain percentage of the items and has chosen to dig all of the munition-sized ones. This method formalizes that process. He said that a colleague of USACE-Huntsville had put together a memorandum showing the ranking of ordnance and explosives (OE) fragment (frag) items found. If the items had been intact, their signatures would have been even larger. The way the Partners choose anomalies has not changed. A pit or trench will be handled separately, as it is now. This new analysis tool is meant to better identify single point anomalies and assist the ARB with choosing which subset should be dug on a particular property.

The Partners discussed the implementation possibilities of this new data analysis tool for MEC delineation.

WESTON provided a handout and presented results of analyzing 95 targets geophysically located on the property across the street from Pit 3. Two other properties on Glenbrook Road were similarly analyzed.

A map was displayed showing items identified by the geophysical instruments on the property and overlaid with symbols representing the various categories. A table in the handout showed the Mag, EM, EM and Mag square footage, Factor 2 (historical data criteria), and the results of the analysis. Of the 95 targets, 8 were Category A2, 21 were Category B2, 32 were Category C2, and the remaining 34 were Category D. The software analysis tool removes about 30% of the targets that were initially included for excavation.

The Partners approved the draft Prioritization Memorandum. They agreed that the analysis tool will be added to the current anomaly sorting process to remove Category Ds from the target list. The ARB will continue to have responsibility for deciding which items should be put on the dig list, including the option to add items that were deselected during the electronic analysis.

USACE-Baltimore said it will prepare the final Prioritization Memorandum for signature and plans to have Recommendation Memoranda for the properties that will be reviewed by the ARB in April.

WESTON reiterated that the software tool was helping the geophysicists build a higher confidence level. Seeing the signatures and footprints in the GPOs gave a pretty good baseline of several 75 mm items.

Next Steps

C. Johnston offered to work with Alma Gates to obtain Miller's original planning maps before they developed the Spring Valley neighborhood area to assist with locating cultural items.

Jim Sweeney offered to obtain the sewer maps for the area.

E. Geophysical Investigations Update

The goal of this segment of the meeting was to present an update on progress at the 4801 property.

USACE-Baltimore showed an aerial map of the 4801property with green shading indicating the areas covered by the geophysical survey which was completed last week.

USACE-Baltimore stated that arsenic also will need to be removed on the property, which is around 300 ppm in some areas.

USACE-Baltimore commented that property owner wanted to delay the start of the activities after the crew had already performed extensive preliminary work and was mobilized to the site. C. Johnston was instrumental in explaining all the preliminary work and coordination done, and was able to obtain permission to continue with the planned work.

Next Steps

Survey data from 4801 will be presented at the April ARB meeting.

F. Public Safety Building Area, American University, Low Probability Phase II Investigation Update

The goal of this segment of the meeting was to present an update on the work plan development activities and discussion of possible mini-cams monitoring.

The goal of the investigation is to follow the debris trail and remove debris that is found. The Scope states that all efforts will be conducted under standard low probability investigation protocols. A Photoionization Detector (PID) (for VOCs) will be used for air monitoring. Dust monitoring will be performed for the back patio debris area and utility trench area. USACE-Huntsville noted that no dust particulate sampling will be performed for arsenic because the general dust levels would be detected at hazardous levels before any arsenic levels would be exceeded.

Twelve single-point anomalies (in three anomaly clusters) will be investigated. The two anomalous areas will be investigated using three proposed exploratory trenches in each anomalous area. An interceptor trench will be used to pump off water in the area. The debris area behind the Public Safety Building will be investigated. No excavation will be conducted under the building. Soil under the footer will not be displaced. Trench shields will prevent displacement of any soil. Building monitoring will be performed. Each trench will be backfilled and compacted (95% within 5 feet from the building, otherwise 90%) prior to excavating the next trench.

USACE-Huntsville and Parsons noted that the purpose of the building monitoring is to monitor the actual structure, looking for cracks or settlement and surveying some points then resurveying them to see if there has been any change in those points. It is to assure that as digging progresses next to the building and the footer, and at an elevation below the footer, it is not causing any structural damage to the building. Digging the trenches 6 ft wide and to a maximum depth of 10 ft is a very conservative approach to prevent any impact to the building.

Public Safety Building Area Phase II – Debris Area Excavation Approach: The approach is to move from west to east following the debris trail. The purpose of the excavation is to remove debris. If intact containers or munitions items are recovered, they will be removed. Within 8 feet of the building, digging in 6-ft x 8-ft trench boxes is proposed. Beyond 8 feet, proposed trench boxes are 8-ft wide x 10-ft long, based on the soil pressures. Beyond 16 feet, 10-ft x 10-ft trench boxes are proposed. At any one time, only 6 feet of the footer will be exposed.

When the first AUES item is found, the Project Delivery Team (PDT) will be informed and excavation will continue in Exception Mode (as was done previously). They expect to find debris and broken glassware there based on information from the previous investigation. The Exception

Mode does not apply for intact containers or munitions-related items. If these items are found, PDT will be notified. Excavation may continue at another location with PDT approval.

The **Public Safety Building Area Phase II Proposed Back Patio Sampling Approach:** Sampling is not planned for the single point anomalies and anomalous areas unless AUES items are found. Pit characterization samples, debris grab samples, soil grab samples and other samples will be taken in the debris area, as required. Confirmation samples for metals will be collected at 5-foot intervals to delineate the extent of HTW contamination in the utility area.

EPA asked whether broken glassware would trigger sampling, and USACE-Huntsville responded that if it were AUES – related, sampling would certainly occur.

Parsons noted that before an excavation can be refilled, the USACE-Baltimore Site Safety Officer and Huntsville Safety personnel have to concur.

The **Public Safety Building Area Phase II Interceptor Trench Proposed Design** cross-section view was shown. The graphic depicted a side view of the trench. It showed the 18-inch pipe at the bottom of the trench. The bottom of the trench will be filled with gravel. The top 6 to 7 feet will be filled with clean fill. The pump will be placed on a riser.

American University will make inquiries about entrance and exit access from the shed at the back of the Public Safety Building.

Parsons stated a fence will surround the work site for the debris area. Excavated soil will be loaded into roll-offs and taken offsite. Trucks entering and leaving the area will be coordinated during non-standard work hours.

Parsons and USACE-Huntsville responded to EPA's question regarding the use of a shaker table to sort through mud and broken glass like the one used at Lot 18. This was not proposed because the soil will likely be wet, and the small grids will create a slow excavation process (only a small surface area will be exposed at any given time). The soil material will probably have to be broken through physically.

USACE-Huntsville answered N. Well's question regarding the minimal work proposed for in front of the building. Geophysical investigations were already completed and no areas of concern were identified in front of the building, aside from the existing single point anomalies and anomalous areas.

Parsons stated that four parking spots will be reserved for USACE's use on Rockwood Parkway, in response to N. Well's concern about reduced parking on Rockwood Parkway for both residents and AU students. AU noted that summer parking will not be an issue due to the less-populated summer session.

The Partners are currently reviewing the work plan and the schedule. The current schedule is based on a duration of 18 weeks, with a start date of May 19, 2008 and extending through September 2008.

Parsons and USACE-Huntsville noted that the planned 18-week duration may be extended to a 25-week timeframe after taking details of the work plan into consideration.. Parsons stated that 25 trenches are likely to be dug at the rate of approximately 1 trench per week. Additional trenches may be needed. The 12 single-point anomalies will take approximately 2-3 days to remove. The 6 anomalous area trenches could take approximatley 1 day per trench. The single-point anomalies located in the anomalous areas may take 2 weeks of effort.

Next Steps

American University will make inquiries about the entrance and exit access from the shed at the back of the Public Safety Building.

G. Arsenic Soil Removal Update

The goal of this segment of the meeting is to provide an update on the arsenic removal activities.

USACE-Baltimore stated that Sevenson is completing the project's 77th property, starting the count from the summer of 2002. They are currently placing backfill at the Indian Lane property. The homeowners used the 43 ppm of arsenic standard to save some trees. Another property on Verplanck is almost completed. Sevenson will soon begin working on a Quebec Street property, Property #78. They have 12 grids. The homeowner had refused access in 2005. Sevenson has already performed preliminary sampling. Some contamination extends onto the neighboring property. USACE-Baltimore's goal is to complete all remaining residential properties by the end of 2008. Annual update letters will be sent to the owners of the remaining residential properties.

H. Phytoremediation

The goal of this segment of the meeting is to provide an update on the 2008 Phytoremediation program.

USACE-Baltimore stated that some limited testing will be done this year. The spacing of the ferns will be tightened to see if better arsenic removal can be achieved. A proposal from Edenspace is being reviewed. USACE-Baltimore is working with a counsel representative on an ongoing process to incorporate phytoremediation into the appropriate documents.

EPA requested that the schedule for fern planting and other activities be provided to the Partners. USACE-Baltimore said that planting will probably take place in early to mid-May. The ferns can get sunburned if planting takes place later in May, due to increasing levels of sunlight.

C. Johnston asked whether phytoremediation can be used in areas at a property with 300 ppm arsenic to save a neighbors' tree.

EPA said that would be fine as long as the homeowners agreed, but arsenic removal by the ferns is not consistently working well with high levels of arsenic. An evaluation is needed to determine the best effort to save the tree, as the tree's roots extend in all directions, and 30 percent of the roots on a lawn tree can be safely removed. Soil will need to be removed to clear the high arsenic concentration. Phytoremediation may have been effective if the process had started years ago.

I. Groundwater Update

The goal of this segment of the meeting was to provide an update on activities.

USACE-Baltimore stated they are currently working in-house on a draft groundwater plan to submit to the Partners by mid-April.

Approach to Deep Wells

USACE-Baltimore reported that the USACE-Baltimore hydro-geologist would prefer rock coring and flute liner technology over packers and geophysics.

EPA stated that the EPA and District of Columbia Department of the Environment (DDOE) hydro-geologists felt that installation of at least three deep wells should be considered. If less than three deep wells are planned, the Partners should discuss it before the draft plan is submitted.

USACE-Baltimore said that deep wells are planned to be installed at some point, and the question is about timing and priority planning. He noted that Peter deFur had sent an email suggesting that the Partners consider putting in more shallow wells on the American University campus before putting in deep wells. The USACE-Baltimore hydro-geologist said the work plan being developed currently includes plans for installing at least three, or maybe four deep wells, with multiports on all of them in the area of PZ-4 on the American University campus.

The USACE-Baltimore responded to American University's inquiry regarding where wells will be installed. Their hydro-geologist said that the goal of the groundwater investigation is to delineate the different flow systems in the area of PZ-4. If there are issues, the specific well locations can be adjusted. The working group wants to make sure that most of the perchlorate is in the upper flow system. The EPA and DDOE hydrogeologists discussed putting two deep wells in the center of the project area at the last groundwater meeting. The priority for this year is to help delineate the flow and contamination extent in the PZ-4 area.

Access to 52nd Court

USACE-Baltimore stated that efforts are continuing on working to gain right-of-way to install a monitoring well on the original primary location in the 52nd Court cul-de-sac, although alternate locations had been discussed at the February meeting. EPA and USACE have been talking and also talking with their Office of Counsel representatives.

J. Area of Interest Task Force (AOITF) Update

The goal of this segment of the meeting was to review the status of outstanding AOIs.

Mark Baker thanked the Partners for signing the memorandums closing out the Dog Wallows and the Camp Leach trenches AOIs, which were recommended as No Further Action by the AOITF.

He reviewed the previous process for closing out AOIs on which the members split their vote, which entailed inviting the task force members to present their respective recommendations to the Partners. He suggested retaining the same process for those remaining AOIs which would have resulted in a split vote had the task force been able to bring them to a final form prior to its third member leaving.

The Partners agreed to schedule presentations for the recommendations over the next few Partnering meetings to carefully assess if AOIs 16, 17, 18, 23, and 27 warrant further action or if they can be closed out.

M. Baker asked the Partners to begin to consider whether additional work needs to be done at AOIs 1, 3, 5, 7, 8, 26, and 28. He presented the summary of the field work completed on the seven.

- AOI 1: X-feature – Soil sampling has been completed on all 14 properties. An arsenic grid has been delineated, and soil removal has been completed for 1 property. Geophysical surveys were completed for 7 properties. Intrusive investigations of anomalies have not revealed any items of concern.
- AOI 3: Gunpowder Magazine Area – The Partners were prepared to close this AOI three years ago, but progress was stalled due to concern regarding a potential stockpile of gunpowder explosives. Current groundwater data does not support this concern. Nine of the 10 properties were sampled for arsenic; one required arsenic remediation. Five were geophysically surveyed; one property was recommended for digging. No AUES items were recovered.
- AOI 5: 4825/4835 Glenbrook Road – Work on these two properties is currently in progress, and EPA expressed the opinion that once the planned field work is finished, this AOI can be probably be considered complete.
- AOI 7: Rockwood 6 – All but 1 property have been remediated for arsenic. The backyard sections affected by Lot 18 have been cleaned up. Geophysical work did not reveal any munitions items outside of Lot 18.
- AOI 8: POI 12 Possible Graded Area – Soil sampling was completed twice in 1993, and all properties received bore samples for arsenic. The Partners had signed a sheet that

identified potential future work. Comprehensive soil sampling may need to be done on one or two properties. Four of the five properties were geophysically surveyed, and one was recommended for anomaly removal. No munitions scrap items were found.

- AOI 26: Glenbrook Road Pit – Additional geophysics have been completed. The necessity for future work will be determined when the data are analyzed.
- AOL 28: Hamilton Hall Burial Pit – Geophysics was completed in the AU bamboo area at the back of the property. The front of the building was not considered to be a concern. This property is considered to be completed. DDOE noted that the results of the geophysics in the back of the property may be enough to close out the AOI.

M. Baker stated that the Partners can decide if they agree that any of the 7 AOIs are done. For the ones the Partners agree are complete, he will prepare a concurrence sheet for signature for the next meeting.

EPA suggested that AOI 1, 5, and 7 are completed, and the other Partners agreed.

USACE-Huntsville and EPA agreed that depending on where the AOI is, AOI 28 – Hamilton Hall may have been addressed previously. They would have to look at a map and data on the AOI before signing.

Next Steps

The Partners agreed to schedule presentations for the recommendations for AOIs 16, 17, 18, 23, and 27 over the next few Partnering meetings.

M. Baker said he will prepare the final reports for AOIs 1, 5, and 7 for Partner signature.

K. Document Tracking Document Tracking Matrix for Hazardous Toxic Waste (HTW)

The goal of this segment of the meeting was to review the comment due dates on the HTW reports and the status of the documents.

Next Steps

Comments will be provided as requested.

L. Document Tracking Matrix for Military Munitions Response Program (MMRP)

The goal of this segment of the meeting was to review the comment due dates on MMRP reports and the status of the documents.

Next Steps

Comments will be provided as requested.

M. Open Issues and New Data

The goal of this segment of the meeting was to share issues not on the agenda for possible placement on a future agenda and share any new data that have become available since the last Partnering meeting.

DDOE stated that the DDOE budget had nothing in it for a $750,000 health study. The mayor plans to attend the April 8th RAB meeting.

N. Taskers Tracking

The goal of this segment of the meeting is to review and update the taskers.

The taskers were reviewed and were updated.

O. Agenda Building

The goal of this segment of the meeting was to develop an agenda for the next Partnering meeting.

Future Partnering meetings will be held Tuesday and Wednesday, April 29 and 30; Thursday, May 29; and Tuesday, June 24.

The meeting was adjourned at 2:45 p.m.