

**Spring Valley Partnering Meeting
January 17, 2008
Spring Valley Trailer Conference Room**

| Name | Organization/Address | Thurs., Jan. 17 |
|------------------|--|-----------------|
| Jorge Abud | American University | |
| Richard Albright | DCDOH | |
| 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 |
| Paul Chrostowski | CPF Associates, AU Consultant | X |
| Tom Colozza | CENAB-EN | |
| Joyce Conant | CENAB-PA | |
| Maya Courtney | ERT | X |
| Kathy Davies | EPA | X |
| Dr. Peter deFur | Environmental Stewardship Concepts/RAB TAPP Consultant | X |
| Diane Douglas | DDOE | X |
| Bill Eaton | URS | X |
| Chris Evans | CENAB-EN | X |
| Alma Gates | ANC3D Commissioner | X |
| John Gerhard | Weston Solutions, Inc. | |
| Steve Hirsh | US EPA Region 3 | X |
| Demaree Hopkins | Weston Solutions, Inc. | X |

| Name | Organization/Address | Thurs., Jan. 17 |
|-----------------|------------------------|-----------------|
| Ed Hughes | CENAB-EN | X |
| Carrie Johnston | RCAI | X |
| Sarah Meyers | Parsons | X |
| Cherie Miller | USGS | X |
| Dan Noble | CENAB-EN | X |
| Aubrey O'Fallon | Parsons | X |
| Lan Reeser | CENAB-EN | X |
| Mike Rehmert | Tech Escort | |
| Billy Sanders | CENAB-EN | |
| Jennie Saxe | EPA Region 3 | |
| Andy Schwartz | CEHNC | |
| Ann Spiesman | Washington Aqueduct | X |
| Jim Sweeney | DDOE | X |
| Amy Walker | CEHNC | X |
| Nan Wells | ANC3D Commissioner | X |
| CPT Drew White | CENAB-EN | |
| Bruce Whisenant | CEHNC | X |
| John Williams | Weston Solutions, Inc. | |
| Doug Yeskis | USGS | X |

Summary of January 17, 2008 Partnering Meeting

Consensus Decisions

- The ARB unanimously recommended amending the ARB memorandum to state that all 66 anomalies on the 4800 corner of Glenbrook Road should be investigated. Some should be investigated using high probability removal protocols.

Groundwater Working Group Action Items

- In response to a request from DDOE, Bill Eaton agreed to review the comprehensive data table presented as Exhibit D, on which Exhibit A is based, investigate the basis for the hardness criteria, and make note of the assumptions used to derive the representative hardness screening values.

- B. Eaton agreed to review the data for every chemical detected and to investigate which data are not shaded because of the absence of a screening value.
- EPA offered to make recommendations about which values to use for the chemicals with no screening criteria.
- In response to a request from Peter deFur, B. Eaton agreed to review Exhibit D for chemicals that are B flagged.
- B. Eaton agreed to review the data quality report prepared as part of the third-party validation.
- B. Eaton will review some discrepancies noted by EPA between the data in Exhibits A and D.
- B. Eaton said he would double check with the validators that the B flag was appropriately placed, then check with the laboratory.
- The participants agreed that considering installing deep wells in the area might be of benefit in further delineating the true location of perchlorate contamination and investigating its source.
- EPA, DDOE, Washington Aqueduct and the USACE agreed to tentatively schedule a groundwater meeting for February 26, 2008.
- J. Sweeney will provide D. Douglas with a copy of the screening level ecological assessment work plan.

Other Action Items

- DDOE said he would look for a foreman's log from the Glenbrook Road installation in the 1940s timeframe.
- USACE-Baltimore said they would discuss the idea suggested by Nan Wells, of looking into ways to improve direct communication between site and storage security personnel and the District of Columbia Metropolitan Police Department (MPDC).

Check-in

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

A. Groundwater

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

Ed Hughes introduced the groundwater topic. In 2003 perchlorate was discovered in some areas of the project and the decision was made to investigate groundwater. The investigation was planned in 2004. In 2005, approximately 20 wells were installed near the reservoir to guard against and track anything potentially impacting the drinking water supply. Other wells were concentrated around the ordnance pits near Glenbrook Road. A few iterations of sampling have been conducted for a number of analytes. Perchlorate has been detected in the project area above the federal level of concern of 24 parts per billion (ppb).

Bill Eaton sent a packet of statistical data in December to aide in planning the next steps. URS has submitted a proposal for additional wells in the American University area where perchlorate levels are up to 140 ppb and further investigation is necessary.

The meeting was turned over to Bill Eaton. B. Eaton noted that the goal of the presentation was to present the findings from last summer's sampling and to provide some recommendations for the scope of the next round of sampling.

The following **Executive Summary of 2007 Findings** was presented:

There are elevated levels of perchlorate sampled in groundwater in the study area. The basic findings from the 2007 rounds of investigation are consistent with previous rounds of sampling. The elevated perchlorate levels have been found in the samples taken at the Lot 18 area near American University and near Sibley Hospital. Negligible levels of perchlorate detected east of the reservoir and are not a concern. Along East Creek, the surface water body drains near Lot 18 and flows westward around the reservoir. There have been detections of perchlorate in the stream. The perchlorate levels decreased in concentration nearer to the reservoir.

One of the objectives of the summer 2007 monitoring was to assess the perchlorate plume proximity to Lot 18, and any southward movement across Nebraska Avenue. A monitoring well was placed at the southern end of the project area along Nebraska Avenue and no perchlorate was observed in the well.

The following **Recommendations** were made:

1. Perchlorate should continue to be monitored, particularly near Lot 18 and the Sibley Hospital area.
2. Additional monitoring wells should be placed in the area up gradient of Lot 18.
3. Full parameters should continue to be monitored in very select locations, such as near the known disposal areas.

Exhibit A - Results of full parameter sampling was presented:

Two parameter groups were sampled:

- Full parameter list – The full list of more than 200 chemicals of interest, including semivolatile organic compounds (SVOCs), volatile organic compounds (VOCs), and agent breakdown products (ABP).
- Indicator parameters – Four parameters – perchlorate, arsenic, bromide, and chloride – are also sampled.

B. Eaton explained that the sample results were compared against screening values. The screening included federal primary and secondary maximum contaminant levels (MCLs), risk-based concentrations (RBCs) and District of Columbia surface water standards.

Questions

In response to a request from DDOE, B. Eaton agreed to review the comprehensive data table presented as Exhibit D, on which Exhibit A is based, investigate the basis for the hardness criteria, and make note of the assumptions used to derive the representative hardness screening values.

B. Eaton noted the request from DDOE who recommended testing for hardness at non-surface water wells where flow direction of the contaminant was of concern. B. Eaton stated that most of the exceedance levels are driven by EPA RBC standards.

B. Eaton agreed to review the data for every chemical detected and ask which are not shaded because of the absence of a screening value in response to Paul Chrostowski's expressed concern that some of the chemicals detected in Spring Valley did not have screening criteria.

EPA offered to make recommendations about which values to use for the chemicals with no screening criteria. He stated that EPA can no longer develop provisional values.

In response to a request from Peter deFur, B. Eaton agreed to review Exhibit D for chemicals that are B flagged, indicating laboratory contamination.

P. deFur noted that the presence of chemicals, especially those with no natural source, is of concern even when they are at a low levels.

B. Eaton agreed to review the data quality report prepared as part of the third-party validation.

EPA stated that if the review shows a problem, EPA or USACE can review and validate the data.

USACE-Baltimore noted that the data have gone through the correct processes of validation and third party validation. B. Eaton reiterated that the issue is not a laboratory issue, but a data presentation issue.

DDOE noted that tetrachloroethylene (PERC, PCE) showed a B flag and the laboratory blank also contained tetrachloroethylene. She stated that it is not expected in a laboratory blank.

B. Eaton said he would double check with the validators that the B flag was appropriately placed then check with the laboratory about how it got into the laboratory sample.

A table of the **Four Indicator Parameters and Exhibit G – Mapped Arsenic** was shown:

The map highlighted three areas of elevated perchlorate in the study area: an area east of the reservoir, an area to the southwest near Sibley Hospital, and an area to the southeast near Lot 18.

The table displayed the arsenic and perchlorate values on a well-by-well basis from the summer 2007 sampling round. The chloride and bromide are not indicative of anything going on.

The following results were noted:

- Elevated perchlorate levels continue to be present in the area around Lot 18.
- PZ4S showed levels of 146 parts per billion (ppb). The piezometer location is upgradient of obvious sources and motivates the recommendation of installing three additional monitoring wells in the area to better understand the distribution of perchlorate in the location.
- The groundwater flow lines imply that the plume should follow the valley that Glenbrook Road flows along. The results show that the perchlorate has not passed the divide of Nebraska Avenue.

Diane Douglas noted if there are two systems, and if there is something in the deep flow system, the results are not necessarily meaningful. It would be interesting to look outside the area of the current investigation in the area south of Lot 18 because there is deep flow in that area.

B. Eaton stated that in the Lot 18 area there are two sampling points: one shallow and one deeper. In that area, except for any paired piezometers, the top of the groundwater is being monitored. It makes sense to be closest to the source. How deep the perchlorate extends into the water table is an interesting consideration.

The participants agreed that considering installing deep wells in the area might be of benefit in further delineating the true contamination concentration of perchlorate and investigating its source.

The following **Sibley Hospital Results** were presented: The main observation is persistent elevated perchlorate in the Sibley Hospital sump, but the level is lower for this round of sampling than previous values recorded. Initially it was anticipated that higher levels of perchlorate in the vicinity the monitoring well would be seen. The concern was that the perchlorate extended south.

The results do not indicate that. An underground drainage system associated with the Aqueduct exists there to lower the water table around the basins in the groundwater table. It would appear that the constructed groundwater system is drawing groundwater away from the basins and may be influencing the perchlorate plume.

Perchlorate Level Results in the Area East of the Reservoir were presented: The results of SW3 were 0.36 ppb. The water is actually a sample of Potomac River water after it has flowed through the Aqueduct and is consistent with Aqueduct water results. The results do not show elevated perchlorate levels in the area near the reservoir. Some exceptions might be SW2, with 2.2. Perchlorate is observed in East Creek and it tends to increase upstream toward Lot 18, probably from shallow water discharge near Lot 18.

Recommendations for Next Sampling Round was presented. The following activities were recommended: Resample the existing monitoring points, install three new wells up gradient of Lot 18 to try to better define the source of the perchlorate in that area, and develop Data Quality Objectives (DQOs) for the sampling. There are no recommendations currently for deep monitoring wells.

P. Chrostowski said American University will want to know details about the well construction and schedule because the proposed locations of the wells are next to buildings on campus.

Next Steps

EPA, DDOE, Washington Aqueduct and USACE agreed to tentatively schedule a groundwater meeting for February 26, 2008 to discuss the need for deep wells and the best sampling locations.

USGS Summary of Sampling Results

Doug Yeskis outlined USGS activities:

- Stream discharge measurements were conducted monthly from March 2006 to May 2007 and bimonthly from July 2007 to present.
- Groundwater levels have been measured monthly, starting with 12 wells in March 2006 and increasing to the current 28 wells.
- Shallow monitoring wells were installed by East Creek in June 2006.
- Three temporary well points were installed in Dalecarlia Reservoir in July 2006 and three in October/November 2007.
- Continuous dataloggers were started at three locations in September 2006. The number has increased to the current nine.
- Water quality sampling for the major ions and nutrients has been completed.
- Technical Reviews have been completed.
- A Bathymetric Survey of the reservoir has been completed.
- USGS conducted a thermal infrared flyover.
- Wells have been repaired as required.

Limited groundwater sampling of wells east of the reservoir were performed. The wells that had saprolite were consistently lower in hydraulic conductivity than bedrock wells. This would strongly support the idea of needing more bedrock wells. There is a significant movement of water along the stream valleys when stormwater events occur.

Changes in the flow directions have been observed. They have not been reversals, but subtle changes on the east side of the reservoir.

Questions

D. Yeskis responded to a question from D. Douglas about the flow during storm water events, and said the preliminary data show a continual flow from most well points. One reverses on a regular basis. There were some problems with the absolute value of the continuous data.

The bathymetric survey revealed a number of things about the reservoir that impacted well placement. Understanding the hydraulics of the reservoir is a challenge because it is not a straightforward system. In the deeper parts there is softer clay on top of deeper clay, and trying to construct a well that could be removed easily is difficult. Most of the flow is through the sides of the reservoir consisting of riprap, and it is difficult to install wells through the riprap.

USGS tried to get different seasonal looks at the wells, but they do not have results back yet from the winter sampling. There is a lot of variation in the data.

B. Eaton asked about the groundwater flow direction at the time the dams were constructed and the new empty reservoir basin began to fill with water from the Potomac River and streams.

D. Yeskis said that groundwater was probably always flowing into the reservoir because the streams were also fed by groundwater. Part of the problem with confirming that, is that the flows in East Creek are so low that readings are right on the edge of the accuracy of the equipment. When there are storm events, however, there is a well point in the stream where the datalogger blows over and moves downstream. USGS is trying to measure responses in the unsaturated wells and monitoring wells that are right by the stream.

P. Chrostowski asked whether there is an official concentration for naturally occurring perchlorate in the local groundwater and surface water.

EPA replied that the agency is performing an extended study of perchlorate in the Potomac River. He said he does not believe there is any information available on perchlorate naturally occurring in groundwater.

B. Eaton noted that three of the background monitoring wells in the northern part of the project area are officially Spring Valley monitoring wells.

A discussion ensued regarding questions to be addressed by the next round of sampling, such as whether a single plume of perchlorate exists in the Lot 18 area, the date of the next groundwater meeting, and possible topics for the agenda.

P. deFur said there are a couple of questions that the Partners need to consider, such as the relationship of the wells upgradient of Lot 18 and what contamination is at the margins, which involves wells MW33 and MW38. Bill needs to have a suite of wells that would potentially address several items.

EPA stated that the Partners need to look at the budget and decide which well locations would provide the most information to attain the most important objectives.

USACE-Baltimore said that they had some reassurances from the Pentagon that they would have enough funds to complete the work at Glenbrook Road Pit 3. Good progress has been made in the groundwater study since 2005. There was a lot of concern about the reservoir and some of those concerns have been addressed. P. deFur mentioned issues about the two plumes. The Partners need to decide whether those questions have adequately been addressed.

D. Yeskis noted that if deep bedrock wells are to be installed, the Partners should consider performing advanced geophysical and packer testing so the screens are sited correctly.

P. deFur said his questions were, first, which wells have a number of contaminants with no natural origin, and second, what caused two wells to have much higher concentrations of chloride and major concentrations of strontium, barium, and other mineral compounds, when most of the results were 1 to 2 ppb.

Discussion followed on possible reasons for the high chloride concentrations, including road salt and the serious drought conditions that had occurred over the summer that could affect water levels and salt concentrations.

B. Eaton said he was not seeing levels of concern with these chemicals in the continuous recorders that monitor the areas. There are close-to-background levels of perchlorate in the study area, with the exception of the Lot 18 area.

D. Yeskis said USGS has seen seasonal elevation fluctuations near the reservoir. It is not known whether the fluctuations were due to a rainfall event or because the stream is so channelized below ground and providing such a strong conduit that there is no chance for change. There are three wells with continuous recorders and all three have completely different hydrographic responses.

B. Eaton noted that considering if it is necessary to do more datalogging is interesting academically, but there is no chemistry-driven reason to focus efforts on answering the question because the perchlorate levels are negligible.

P. Chrostowski agreed that American University was not interested in focusing on that area unless having shallow concentrations may mitigate concern. In shallow areas, one would expect to have lower concentrations. If contaminants are moving in that direction, they are probably moving at depth.

B. Eaton agreed but noted that the reservoir is not seeing perchlorate in their results.

P. Chrostowski said that in preparation for the meeting on 26th, it would be appreciated if the Partners could start thinking about where the investigation might go following the well installation.

B. Anomaly Review Board

The goal of this segment of the meeting is to discuss the anomalies found and decide which warrant further investigation.

Amy Walker from Huntsville joined the meeting by telephone.

Chris Evans gave presentations on the Glenbrook Road anomalies and an update on the 2007 geophysical plan.

2007 Geophysical Plan

Nine properties and three areas in Dalecarlia Woods were completed in September. Three more were completed in December. There are only two properties left from the 2007 list for which an ROE could not be obtained. In the next month, at least four geophysical reports should be finished.

Revisiting Glenbrook Road Area Anomaly Review Board (ARB)

C. Evans provided a background of the Glenbrook Road anomalies. In February 2007, an ARB meeting was held to discuss additional data collected along the 4800 block of Glenbrook Road and data gaps outside the fence at the property at the Glenbrook/Rockwood intersection. The

purpose was to make sure USACE does not miss other disposal areas similar to Pits 1, 2 and 3. WESTON identified 66 single item anomalies, some of which fell into anomaly clusters, but no other pits or trenches. USACE recommended at the ARB that 12 of the anomalies be dug because they were detected by both magnetometer and electromagnetic instruments. Parsons provided additional information on the locations of utility lines, so three of the anomalies were dropped in March. The plan was to investigate the nine remaining anomalies, most of which are outside the 1918 Fence Line in a low-level probability intrusive investigation.

When Parsons began digging in Pit 3 and was just getting down to the level of the pit, not yet to the elevation of where stacked munitions items were found previously, they cleared four anomalies. They correlated with shallow munitions finds. It appears that in the process of putting in utilities and building the homes, that the munitions that had been deliberately stacked, were scattered.

C. Evans stated that goal of this ARB is to look back at the ARB decision, and try to make a determination about whether the approach should change. USACE determined that it should recommend to the ARB that all 66 anomalies originally identified in the WESTON report be cleared to be sure everything is removed. The high probability dig being conducted next door is a factor to consider. It is possible, that when the work is finished inside the current structure additional high probability excavation may still be necessary. The plan is not to move forward with the additional anomalies until the area is cleared around historic Pit 3.

USACE-Huntsville said the ARB wants input on which anomalies should be investigated and which shouldn't. Phasing of the investigation is a separate discussion. There are indications that there has been some scattering and disturbance of the stacked rounds.

P. deFur asked if it was possible that the unstacked items were not from Pit 3.

USACE-Huntsville said the ones found are similar to those in the stack and there were some specific disturbances in that area, such as the installation of the retaining wall, sewer wall and water lines.

USACE-Baltimore added that prior to finding the four items, only three items had ever been found as single item anomalies. The fact that we found four separate items, apparently from the stack almost immediately, suggests that they were disturbed.

EPA noted that if they got full geophysical coverage and they take them all out, it doesn't really matter where they came from.

P. Chrostowski stated that the University should know as soon as possible if there is going to be continued work under high probability conditions. USACE-Baltimore agreed.

EPA noted that the new element is that USACE will remove all 66 anomalies, whether they are high or low probability. It is difficult to determine to dig it high or low level until the Pit 3 work is finished.

EPA noted that a decision-maker in USACE will have to decide whether the investigation should be conducted as high or low probability.

USACE-Baltimore said there has already been discussion about how that might be resolved.

P. Chrostowski asked about the timeframe for the additional work.

USACE-Baltimore said the Project Management team has begun to discuss the budget and funding support if high probability activities continue beyond the footprint of the current Pit 3 investigation.

C. Johnston emphasized that for planning purposes and for community dialogue, there needs to be as much clarity as possible.

P. Chrostowski stated that the four items found were something of significance. That means there is a higher probability of finding munitions materials.

All the Partners agreed. The ARB memorandum will be amended.

P. Chrostowski stated that American University would appreciate that decisions be made quickly about the anomalies so they can plan contingencies.

USACE-Huntsville agreed. USACE has to follow what is being recovered and they don't know what that is going to be yet. There are a couple of different approaches and USACE is trying to come up with plans as quickly as possible.

USACE-Huntsville and USACE-Baltimore responded to Nan Well's question asking if Glenbrook Road would be affected. USACE-Huntsville said Glenbrook Road would most likely not be impacted because there was such an extensive cut associated with the installation of the road. There are no indications now that anything would go under the road, but if it appeared to run under the road, that would need to be addressed. USACE-Baltimore said there were attempts to geophysically survey the road but no targets were identified because of the utilities.

DDOE will look for a foreman's log from the 1940s timeframe to address P. deFur's question of whether there were any records in existence on the installation of Glenbrook Road.

USACE-Baltimore asked whether American University had made a decision about digging test pits near the Chemistry Building.

American University is waiting for a response from the President. Part of the uncertainty is that the University is hoping that the work is going to finish up soon and our requests are not pointing in that direction.

USACE-Huntsville and USACE-Baltimore responded and said it is not as high a priority as some of the other areas under discussion, but wanted it added to the schedule. Adequate geophysics of the area could not be obtained because of existing structures and the radio antenna, so test pits through the ground scar area are recommended.

Next Steps

DDOE will look for a foreman's log from the Glenbrook Road installation in the 1940s timeframe.

C. Glenbrook Road Pit 3 Progress Update

The goal of this segment of the meeting was to present an update of the Pit 3 activities.

USACE-Huntsville said there was a stoppage in the operation. The situation was discussed with Army and DOD safety personnel. DOD had not provided a revised memorandum by the meeting, but they are expecting it soon.

USACE-Baltimore stated that the planning is assuming that the language from the draft will be signed. Plans are in motion to go back to work next week.

USACE-Huntsville said mobilization is expected on the 22nd. The intention is to go back to the intrusive investigation on the 23rd or 24th.

USACE-Baltimore stated that written notification will be sent to American University by the end of the week. The Partners will be notified of the start date and will be able to voice remaining

concerns. Outreach effort is planned for the weekend to communicate the schedule to the residents.

USACE-Baltimore responded to Alma Gates' request that an effort be made to reach the woman at the Community Meeting who apparently had never heard of shelter-in-place. It was noted that C. Johnston did speak with her at the meeting, and she was not in the Pit 3 Shelter-in-Place zone.

Parsons presented the following information about site progress.

Glenbrook Road Burial Pit 3 Summary of Intrusive Effort

The **Intrusive Effort** started on October 29, as planned. Intrusive effort was suspended on December 5, 2007. The MARB report indicated that one closed cavity round is liquid filled (contains arsine) and has a burster. The intrusive effort was suspended until January 22, 2008.

As of December 5, 2007, 330 drums (approx. 66 CY) of soil were excavated from the pit. All drum samples were cleared for on-site headspace and low level extraction for agent/ABP and ricin and then taken to GPL for TCLP analysis. TCLP data were received on all 330 drums and all were non hazardous. Five roll-off containers (300 drums) were shipped off-site. All drums were unloaded into roll-offs.

As of December 5, 2007, the following **Non-Munitions-Related Scrap Items** were found: two glass stoppers, a chunk of black tar/asphalt, a glass fragment and glass stopper, and a pipe with one end cap. All items head spaced clear and are being stored in a drum at the Federal Property Drum Holding area.

As of December 5, 2007, 13 **Munitions Debris Items** had been found, all open cavity 75-mm rounds. These items were assessed by Parsons intrusive UXO team as open cavity items, and all items head spaced clear. The items are currently being stored in a drum at the Federal Property Drum Holding Area.

As of December 5, 2007, several **Closed Cavity Items** had been found. These items were assessed by TE as closed cavity, and determined to be safe for transport and storage. The items were transported by TE to the Federal Property IHF bunker area for X-ray and PINS (as required). The items are in various stages of assessment. They are currently stored at the Federal property.

Glenbrook Road Burial Pit 3 Excavation Rate

- The **Planned Rate of Excavation** is 28 CY/week. The estimated volume of soil to be excavated is 392 CY. The estimated duration of the intrusive effort is 22 weeks. The estimated duration includes 8 weeks of shutdown.
- The **Current Progress** (as of January 18, 2008) is 16 CY/week. The number of weeks of intrusive effort completed is 4.2 weeks. The estimated volume of soil excavated is 66 CY. The estimated duration at the current rate is 33 weeks. The additional duration is 11 weeks. The estimated completion date at the current rate is June 13, 2008.

USACE-Huntsville replied to P. deFur's question regarding what would cause another work stoppage. Severe weather conditions, national emergencies, or finding any item not consistent with the current work plan and CSS would mean a pause for re-evaluation.

N. Wells asked for clarification regarding whether the cause of the shut down was the storage or the shell itself.

USACE-Baltimore and USACE-Huntsville responded that the actual cause of the stoppage was the item found, specifically the burster part of the item, which led to other considerations. In a situation like that, every part of the operation is re-evaluated. The main concern as a result of this

item is whether there was adequate protection in the storage operations. That aspect was discussed with the Army safety personnel to determine what was appropriate and what actions were recommended. USACE-Baltimore stated that the condition of the round was not a concern.

N. Wells noted that one of aspects that causes concern and makes people feel they are not being told the whole story is that the public is told the item is not dangerous, but it can't be put on the road without armed escorts or be moved out of the District. The public wants to be clear about why certain things can't be done. She stated it was important for her to understand so when people ask questions, she is able to provide a reasonable response to them.

USACE-Baltimore and USACE-Huntsville addressed N. Well's comment. The over-precautions that are taken make the items look more dangerous than they are. Recovered munitions could be transported over state lines safely with a convoy, but regulations and red tape do not allow it.

USACE-Huntsville reviewed the security systems and procedures at the work site and storage facility in response to questions from the Partners.

N. Wells suggested improving direct communication between site and storage security personnel and the District of Columbia Metropolitan Police Department (MPDC).

USACE-Baltimore said they could discuss the idea with MPDC.

USACE-Huntsville said there would be no changes to the AEGL distances at any of the excavation locations, in response to a question from P. Chrostowski who asked whether the AEGL's had changed. There were no changes at the storage area in terms of distances.

A Chart of the Cumulative Actual Excavation Rate versus the Planned Excavation Rate was shown.

USACE-Huntsville noted that the original estimate was based on the estimated number of cubic feet of soil to be removed, not munition removal.

The Glenbrook Road Burial Pit 3 Work Plan Schedule was presented.

USACE-Baltimore stated that PM Nonstockpile will visit the site tomorrow to look at the layout and begin to discuss disposal options, particularly the Explosive Destruction System (EDS). The EDS is the system that was used to destroy the chemical munitions in 2003.

EPA noted that USACE needs to keep the RAB informed as they evaluate the munitions destruction options and USACE-Huntsville agreed.

EPA stated that everyone, including the community members, would understand that the shorter period of time the munitions are here, the less risk issues and MRC issues there are. People would like to hear that the Partners are exploring the options, even if nothing is definitive.

USACE-Baltimore said that munitions destruction activities would be a main topic at the February 12th RAB meeting. EDS looks like the best way of getting the munitions out of here.

USACE-Huntsville noted that the EDS would be used to destroy only the chemical rounds. Other discussions will be needed regarding the rest of the munitions.

Next Steps

USACE-Baltimore said they could discuss the idea suggested by Nan Wells of improving direct communication between site and storage security personnel and the District of Columbia Metropolitan Police Department (MPDC).

D. Low-Probability Investigation – Glenbrook Road Test Pit Activities, Arsenic Removal and Public Safety Building

The goal of this segment of the meeting was to present an update on test pit, arsenic removal, and Public Safety Building activities.

Parsons presented the following information:

Glenbrook Road Test Pits and Arsenic Removal Activities

Scope: 77 test pits are planned at the first property, directly north of the Pit 3 location, and 37 test pits are planned at the second property (the Pit 3 property on Glenbrook Road).

Test Pit Intrusive Investigations: The intrusive test pit investigations began October 11. Thirty-one (31) test pits in the rear of the first property were excavated and backfilled as of January 11. The test pits ranged in depth from 8 to 12.5 feet below ground surface (bgs). Potential AUES glassware was identified in 12 test pits and the access route north of Test Pit 17. All glassware and soil samples collected around the glassware headspaced clear for mustard (HD) and Lewisite (L) by the DAAMS tubes. No air monitoring detects were confirmed from the DAAMS or photoionization detectors (PIDs).

A **Test Pit Location Map** of the **Glenbrook Road Test Pits** completed was shown. The crew has completed all grids in the backyard that are not related to arsenic. This week the side yard was excavated. Two test pits remain near the arsenic grids. They will be excavated together at the end of the project.

Summary of Glenbrook Road Test Pits Tracking Update (progress since December 17, 2007): Excavation resumed at test pit 40 from the existing 5 to 7 foot depth that had been excavated previously. There were no findings to a final depth of 11 feet bgs. Glassware was found in test pits 43 and 46. It all headspaced clear and excavation was completed in exception mode. The soil sample collected around the Livens projectile remains in test pit 49 was cleared for headspace (later analyzed for arsenic: 2.1 ppm). TE X-rayed the item on 12/18 and certified that the item is "inert and/or free of explosives." On 12/18 the PDT approved returning to the test pit to clear the remaining debris under the exception mode. On 12/18 crew removed a 5-6' long x 12" round metal tubular item from the east sidewall, which cleared for headspace.

Glenbrook Road Test Pits Confirmation Sampling Update: Additional confirmation samples were collected on 1/1/08 from the northern extension of the grid to complete the delineation and from the southern extension of the grid to delineate the extent. Additional delineation samples for other grids will be collected at a later date. Additional arsenic grid samples were collected in the patio area, as requested by EPA. Soil samples were collected from the surface at test pits 43 and 53. Both were less than 20 parts per million (ppm) arsenic.

Glenbrook Road Test Pits Completion Rate: Planned Rate: The planned rate of completion is 5 test pits per week, including excavation and backfill/compaction. The total number of test pits planned is 114, which includes test pits at both properties. The planned duration of the intrusive effort is 26 weeks, including 3 weeks of shutdown.

Current Progress (as of January 11, 2008): The current rate of completion is 2.7 test pits/week. The number of weeks of intrusive effort completed is 11.4 weeks. The number of test pits completed is 31. The estimated project duration at the current rate is 44 weeks.

As of January 3, the schedule changed to five 10-hour days per week. USACE-Huntsville noted that the production rate has improved as the work has moved down the hill because the holes are not as deep.

Parsons showed a **Chart of the Cumulative Planned Test Pits versus Actual Completed.**

The **Glenbrook Road Test Pits Revised Field Schedule** was shown.

The Partners discussed various options for completing the work at the first property.

Parsons said that two arsenic grids would remain at the first property until the work at Pit 3 is completed. The three test pits near the minicams trailer will also be left until Pit 3 is finished. The intent is to complete the operation at the first property before May 16th to May 19th, and move to the Public Safety Building.

USACE-Baltimore stated that the USACE met with Dr. Kerwin on January 4 and discussed the anticipated schedule. It was the USACE's hope that USACE could complete the work at the first property even if there was work to complete around Pit 3.

Parsons noted that the August 25th schedule date is based on Pit 3 being completed and there not being any high probability extensions from Pit 3. If the high probability dig is extended, that date will also extend. The plan is to move the crew from the first test pit property to the Public Safety Building for a May 19th start date.

USACE-Huntsville said work should be done further around Pit 3 to see if the adjacent anomalies are connected to Pit 3. The items 150 feet away may not be connected to the project.

Public Safety Building Area Phase II Background

Background information and an overview of the proposed work scope were presented. All effort will be conducted under standard low probability investigation protocols. Twelve (12) single-point anomalies in three anomaly clusters will be investigated. Three exploratory trenches in each of the two (2) anomalous areas are proposed to be excavated. The debris area behind the Public Safety Building will be investigated. The utility trench area will be cleared for debris.

A map of the **Public Safety Building Area Phase II Background** was shown.

A **Photograph** was shown of the **Back Patio Area Public Safety Building Area Phase II**.

Photographs were shown of the West Side and East Side of Public Safety Building Area looking east.

12 Single Point Anomalies: The ARB selected 12 single point anomalies in three clusters for further investigation. The anomalies will be reacquired, and the digging will be accomplished with hand excavation. The goal is to resolve to 90% or identify the source. The excavated soil will be used for backfilling. No arsenic grids are present in any cluster and no air monitoring is required.

Public Safety Building Area Phase II Anomalous Areas PS-P1 and PS-P2: Three (3) exploratory trenches are proposed at the maximum geophysical readings for each anomalous area. Each trench is about 2 feet wide (typically one excavator bucket width) and 8 to 10 feet long. The depth will depend on the trench location, but will be about 6 feet deep. The intent is to resolve the high readings and determine if any debris is present. If no AUES-related debris is identified, excavated material will be placed back in the trench and compacted to 85%.

If AUES-related debris is identified in these trenches, an additional debris removal effort will be needed in the entire anomalous area. Excavated material will be disposed off-site. The excavated area will be backfilled and compacted. One tree is present in the southeast corner of the anomalous area PS-P1 that may need to be removed if excavation is required near it. One 20-ft by 20-ft arsenic grid was previously removed in part of the anomalous area PS-P2 to a depth of 4 feet. One proposed trench overlaps the previously excavated arsenic grid location. It is recommended that the trench in this area be dug more than 4 feet deep.

Debris Area in Back Patio- Background: A 15-ft by 20-ft area was excavated to 4 feet deep. The debris was going deeper and toward Public Safety Building Area and to the east. Soil samples taken from the floor at 4 feet were high in metals. One empty 75-mm projectile was found during over excavation. The grid was backfilled to 5 feet. It will be re-excavated in Public Safety Building Area Phase II.

Three test pits were installed and three sumps placed to pump water in 2006. The CENAB geotechnical study recommended maintaining a 6-ft lateral distance from the building, with either no building monitoring and a slope, or a 3-ft lateral distance with building monitoring and a slope. Narrow trenches could be excavated up to the building as long as one was backfilled before beginning on the next one.

USACE-Baltimore noted that the geotechnical person recommended not doing any digging under the building.

A Map of Public Safety Building Area Phase II Sample Data in Back Patio area was shown.

Public Safety Building Area Phase II Debris Area in Back Patio – Approach: No excavation will be conducted within the footprint or under of the building. Building monitoring may be conducted during the investigation. The depth of excavation proposed is 8 feet below ground surface. The excavation will be conducted in narrow trenches (4-ft wide) perpendicular to the building and aluminum shoring may be used in the excavation area. Excavated soil will be taken off-site for disposal. Each trench will be backfilled and compacted prior to excavating the next trench. Floor samples and side wall samples will be collected in locations that were previously not sampled. Water will be pumped continuously from the sumps during the excavation. An interceptor trench will be installed to 10 feet deep and backfilled with gravel to collect all the water coming into this area. Further trenches will be excavated if debris extends into those areas. A meeting is scheduled with American University to discuss whether they would have to excavate in some areas, such as an area that has a generator.

A Map of Public Safety Building Area Phase II Debris Area in Back was shown.

USACE-Huntsville noted that an access road will also be removed from the area.

In response to a question from P. de Fur the Partners discussed various sampling schemes.

Parsons said they are working on the risk assessment to determine the best locations for the sampling. Parsons may take 1 or 2 samples as representative soil samples.

P. deFur suggested sampling in the middle of the depth of the debris field as it appears to be when the building is reached and maybe taking other samples at two or three depths, in case there is a higher occurrence of metals.

American University said that leaving contaminated soil beneath the building is unacceptable to the University, and reiterated that institutional controls are not acceptable.

Parsons stated that the low probability protocols include the exception mode, which provides for batching and headspacing at the end of the day. There is provision for collection of a lot of samples under that protocol. Samples of any debris moving toward the building or below 8 feet will probably need to be taken.

USACE-Huntsville said USACE will look at the sampling more as the work plan is structured. USACE does not think the debris will go below 8 feet. Soil borings can be taken to learn more information about the soil at depth.

A Photograph of the Excavation Approach at Clear Debris Area Behind the Public Safety Building Public Safety Building Area Phase II Debris Area was shown.

Public Safety Building Area Phase II Utility Trench Area- Background: An American University contractor installed new utilities between the Public Safety Building and Rockwood Building in 2005-2006. Parsons cleared the utility trench area for glass and debris. The excavation extended about 4 feet deep and samples were collected, which resulted in showing metals present above comparison standards. The American University contractor installed new utilities and backfilled the area with approved fill (provided by Parsons).

A **Map of the Public Safety Building Area Phase II Post – Excavation Sample Data** was presented.

Public Safety Building Area Phase II Utility Trench Area Proposed Approach: Clear the utility trench area for any additional debris. Additional excavation will be conducted at the two side wall locations to confirm that no debris is present, and pre-excavation samples may be collected to delineate the extent of excavation.

Parsons asked American University if there was a cut-off date for the work.

American University said there was a lot of activity on the campus during the summer and access to the building would be a priority.

Next Steps

USACE will continue to develop the Public Safety Building Work Plan and will review the proposed sampling plan.

E. Arsenic Soil Removal

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

Sevenson is working at a property in the 4000 block of 52nd Street. They found a small bottle on January 4th. Edgewood Tech Escort was called in to pick up the bottle. It was 2 to 3 inches high, and barely an inch in diameter. It contained some kind of clear liquid. ECBC tested the contents for ABPs and CWM. Contents came back negative for ABP and CWM, and are being tested for VOCs. There are plans to have an archeologist look at the bottle to date it.

The previous property was in the 3600 block of Fordham, a phytoremediation property. Some grids with ferns were cleared but two more grids were needing treatment. The homeowners wanted to save the boxwood. Sevenson sampled near the boxwood and was able to save the boxwood.

A property in the 4900 block of Glenbrook Road was completed in the fall. Sevenson found a metal object, but D. Feary of the RAB suggested it was probably a property marker.

Sevenson has arranged to remediate a property in the 3800 block of 49th Street next.

USACE's goal is to have Sevenson work more quickly. USACE wants to complete as many as houses as possible in 2008. Sevenson has hired two additional workers to increase the rate. Some property owners have been waiting several years to have their properties remediated.

F. Area of Interest Task Force (AOITF)

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

Mark Baker presented a summary of the status of the AOI as of the end of the work group. The Partners signed a memorandum stating that the AOITF work in this phase is completed. The AOITF completed 23 AOIs and has 5 still in draft form. The Partners agreed to review the

documentation for AOIs 23, 16, and 17, with a view toward closing them out. Members of the former AOITF are planning to attend future Partnering meetings to present their dissenting opinions regarding the outstanding AOIs.

M. Baker explained what he was able to find out about the railroad sidings on the Washington Aqueduct property related to AOI 23. To the best of his knowledge, the sidings were built in the 1920s or 1930s. The sidings don't show up on maps until the 1940s.

An **Aerial Photograph** from approximately 1937 was shown of a railroad siding that shows up on a Washington Aqueduct 1944 map. The railroad bed on the second ridge is visible in the photograph.

M. Baker and P. deFur recommended that AOI 23, Railroad Sidings, should be closed on the basis that the sidings were not in existence during WWI.

The Partners discussed whether the AOI should be closed.

DDOE will discuss the closeout with R. Albright before concurring.

M. Baker stated that at the last meeting, the Partners had discussed closing out AOI 16, the Westmoreland Circles Impact Area, and 17, Hopeless Hollow Burial Site. If the Partners are in agreement, the closeout document could be prepared for signature at the next meeting. During the discussion at the last meeting, there seemed to be agreement that the AOI 17 is in the area where investigations and removals are going on now.

P. deFur said his contention is that there is no evidence that there is any specific place to look for the burial site.

M. Baker noted that the AOITF members had not been able to agree to close out the site.

USACE-Huntsville recommended scheduling pro and con discussions at the Partnering meetings regarding the outstanding issues causing the AOITF to be unable to finalize the last five AOIs. The Partnering group will then come to some resolution on each.

P. deFur noted that for Major Tolman's field, AOI 18, a suggestion was made at the last meeting that another piece of GIS analysis might provide insight into it. He said he did not know where another unresolved AOI, the Third Circular Trench, AOI 27, was located.

M. Baker said he and E. Hughes had worked on that. It is in Maryland, immediately to the west of the Capital Crescent trailway, what used to be the B & O railroad tracks. EPA EPIC did a study in 2002 of historic photographs of the C&O canal. They did not identify any features at all. R. Albright thought there was a third trench that they built that they tested chemicals in. The two trenches they built for certain are shown in pictures, and they kept the trenches away from communication routes. The proposed location for AOI 27 is right next to the railroad tracks. It makes no sense that they would construct trenches to conduct chemical warfare testing right next to active railroad line tracks. The AOI report says there are 1915 maps that show the property was owned by the government. R. Albright has not sent copies of the maps. A Washington Aqueduct map shows the original property from when the tract was laid out in the 1850s, and it is not on federal property.

In response to a question from Alma Gates, M. Baker said the Aqueduct personnel were unable to find documents that told when the existing railroad siding was built. The railroad right-of-way was pre-existing from when the Aqueduct was built.

Next Steps

Members of the former AOITF will attend future Partnering meetings to present their differing opinions regarding the outstanding AOIs.

G. Document Tracking Matrix for Military Munitions Response Program/Hazardous Toxic Waste (MMRP/HTW)

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

H. 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.

USACE-Baltimore asked about the XRF report and what the next step for phytoremediation should be.

EPA said that a comparison of the XRF results to the phytoremediation results should show if the XRF is functioning well enough to be useful.

USACE-Baltimore agreed that Edenspace could create a comparison table.

EPA stated that the data should be really close, and if not, it would assume that the XRF is at fault and will not be useful.

USACE-Baltimore said planning would continue for another round of phytoremediation, whether or not the XRF will be used for sampling. Last year's results were the most unfavorable of the study years, but one bad year should not unduly influence continuation of the study. The time for arsenic removal on sites is drawing to a close where phytoremediation is an option. The carryover property owners will be contacted and it would fine if another property owner wants to try the phytoremediation.

EPA stated that the most recent comfort letter should have arrived today. He is working on another closeout letter. Six other comfort letters are ready except for verification of the action memorandum date.

USACE-Baltimore will provide verification of the memorandum date.

Next Steps

Items will be placed on future agendas.

I. Taskers Tracking

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

The taskers were reviewed and updated.

I. Agenda Building

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

The next meeting will be held on Monday, February 25 and Tuesday, February 26, 2008. The March meeting will be held on Tuesday, March 25, 2008.

J. Adjourn

The meeting was adjourned at 3:40 p.m.