

**Spring Valley Partnering Meeting  
August 30, 2018  
Spring Valley Project Federal Property Conference Room**

Name	Organization/Address	
Brenda Barber	USACE – Baltimore	<b>X</b>
Brian Barone	DOEE	<b>X</b>
Todd Beckwith	USACE – Baltimore	<b>X</b>
Tim Blades	ECBC	<b>X</b>
Bethany Bridgham	American University	<b>X</b>
Sean Buckley	Parsons	<b>X</b>
Paul Chrostowski	CPF Associates, American University Consultant	
Kim Ferris	USACE – Baltimore	<b>X</b>
Dr. Peter deFur	Environmental Stewardship Concepts/RAB TAPP Consultant	<b>X</b>
Chris Gardner	USACE – Corporate Communications Office	<b>X</b>
Alma Gates	RAB Member – Horace Mann Representative	
John Gerhard	Weston Solutions	
Whitney Gross	ERT – Community Outreach Team	<b>X</b>
Steven Hirsh	EPA –Region III	<b>X</b>
Holly Hostetler	ERT	<b>X</b>
Carrie Johnston	ERT – Community Outreach Team	
Carlos Lazo	USACE, Government Affairs Liaison	<b>X</b>
Todd Steelman	USACE – Site Operations Officer	
Chris Moran	Weston Solutions	<b>X</b>
Dan Noble	USACE – Baltimore	<b>X</b>
Steven Norman	ECBC	<b>X</b>
Randall Patrick	Parsons	<b>X</b>
Tom Rosso	ECBC	<b>X</b>

Dave Tomlinson	DOEE	<b>X</b>
Bruce Whisenant	USACE – Huntsville	<b>X</b>
Rebecca Yahiel	ERT – Community Outreach Team	<b>X</b>
Alex Zahl	USACE – Baltimore	<b>X</b>
Allyn Allison	USACE – Huntsville	
Michael Knudsen	ECBC	
Gabriel Rothman	Army Chemical Materials Activity (CMA)	
David Kline	ECBC	<b>X</b>

### Summary of 30 August 2018 Spring Valley Partnering Meeting

#### Consensus Decisions

- None

#### 30 August 2018 Action Items

- USACE Baltimore will invite EPA Region III and DOEE to the onsite refresher training exercises and coordinate possible dates for site visits.
- USACE will contact the U.S. Army Public Health Command (PHC) and ask if it is possible to translate the soil-based limits into an air standard that is safe for Dithiane and Thioxane.
- ECBC will contact Beacon Environmental for available options for active soil gas sampling, specifically for Dithiane and Thioxane.
- The Partners agreed to limit the target analyte list to Dithiane and Thioxane.
- T. Beckwith will revise the Groundwater FS and submit the document to the Partners for review.

#### Thursday 30 August 2018

##### 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 Activities

The site team excavated all planned hazardous and toxic waste (HTW) - grids except for a small number of grids that include a sewer line adjacent to the area to be excavated in Level B. All Level B areas will be excavated before finishing the HTW-only areas. In the former high probability areas, there were areas that exceeded screening values for cobalt (Co), vanadium (V), aluminum (Al), and arsenic (As). The team excavated until there were no exceedances for As. Based on preliminary data for V and Al, the team believes that the exposure unit cancer risk will be below risk levels, but the Co value will likely remain high. The team plans to excavate the Co hotspots in the same manner as the excavations conducted for the American University (AU) exposure units to reduce the Co exposure value to an acceptable level.

On July 2, the team noticed an odor similar to the odor encountered when excavating in chemical agent contaminated media (CACM). The odor detected was not the same odor detected during the exposure incident of August 2017. At the time the odor was noticed, the team was removing backfill placed in the

area by Parsons to excavate to competent saprolite for HTW removal. Work stopped, the team covered the roll-off, and then waited for a geologist to confirm that the excavation was in competent saprolite. The geologist confirmed that the excavation was not an area of AU Experiment Station (AUES) soil. The team was able to identify the location of the odor and sampled the soil. None of the workers exhibited ill effects; no respiratory issues, no signs of nausea. The area was covered with vapor barrier to delineate the excavation progress and then covered with clean backfill. The soil sample collected tested positive for 1,4-Thioxane and 1,4-Dithiane above the detection limit (DL). The grid will be completed as part of the low probability operations in the fall/winter.

In response to a question from Environmental Protection Agency (EPA) Region III, Tim Blades, Director of Edgewood Chemical Biological Center (ECBC) confirmed that the chemicals that caused the odor encountered on July 2 are 1,4-Thioxane and 1,4-Dithiane, and that the odor is similar to the odor encountered when excavating in CACM.

Peter deFur, Environmental Stewardship Concepts/RAB TAPP Consultant, ECBC, EPA Region III, and Parsons discussed the characteristics of the CACM odor. CACM smells like old creosote; sometimes subtle but on a humid day it can be acrid.

Parsons reiterated that the team stopped work and reported the odor immediately in accordance with the new training protocols concerning the detection of odors.

In response to a question from EPA Region III, Parsons confirmed that the location of the contamination (Area 4) will be excavated in Level B personal protective equipment (PPE).

On August 2, the team completed backfilling and compacting Grid 90/-10. Except for the roll-off associated with Grid -10, -30, all other soil has been shipped offsite and the roll-offs demobilized. A baker tank of storm water runoff has been sampled, found negative for contamination, and will be sent to a facility for treatment rather than disposing of the stormwater in the sanitary sewer.

A small crew will remain onsite to maintain sediment and erosion control and prepare equipment for future activities. An unexploded ordnance (UXO) technician will visit the site periodically to assist with maintaining erosion controls. The Level B gear will be sent for maintenance and certification and necessary equipment will be ordered.

## **2. Future Activities**

- Minimal crew on-site to maintain and secure site.
- Month to a month-and-a-half break.
- Remobilize in mid-September.
- Begin low probability operations in October.

## **3. Proposed Plan for Completion of Low Probability Work at 4825 Glenbrook Road**

- Resume work with workers in Level B respiratory protection.
- No additional engineering controls.
- Intrusive work to be performed only at temperatures at or below 75°F.
- Additional monitoring locations.
- Mechanical excavation to allow soils to be transferred from excavation area directly into poly drums.

AU, P. deFur, and Parsons discussed site temperature monitoring. Parsons confirmed that the temperature will be continuously monitored and if the temperature reaches above 75°F, work will stop. Real-time temperature monitoring will be conducted by a Weatherpak station positioned next to the Site Safety Officer at the second tier on the hill to represent temperature at the site. Additionally, temperature is monitored by a Wet Bulb station at the excavation site.

#### 4. PPE Downgrade Criteria

PPE may be downgraded from Level B to Modified Level D as agreed to by the Project Delivery Team (PDT) unless any of the following conditions exist:

- Suspected recovered chemical warfare material (RCWM) and/or CACM is present.
- Air monitoring detects any potential chemical agent.
- Industrial air monitors detect arsine (SA), Hydrogen cyanide (HCN), or Hydrogen chloride (HCl).
- Volatile Organic Compounds (VOCs) are detected at equal to or greater than 10 parts per million (PPM).
- Dust monitors detect concentrations greater than or equal to 1mg/m<sup>3</sup>.
- Chemical agent and agent breakdown products (ABPs) are detected in soil samples via headspace and low-level analysis.
- A significant quantity of glass debris is present as determined by the PDT.

In response to questions from EPA Region III and Brian Barone, District Department of Energy and Environment (DOEE), Parsons and U.S. Army Corps of Engineers (USACE) Baltimore explained that the decision to downgrade PPE to Modified Level D will be made by the PDT after a review process. PPE level will not be changed from day to day but will remain Level B until the PDT and the Partners determine the site is clear.

#### 5. Areas to be Excavated

- Area 1 - Location of August 2017 exposure incident
- Area 2 - CACM encountered; still under discussion
- Area 3 - ABPs detected in wall confirmation sample from shared property line
- Area 4 - ABPs detected
- Area 5 - Glassware encountered after a rain event

#### 6. Excavation Process Overview

- Personnel will excavate with a small excavator in Level B PPE.
- The soil will be scraped in 6" lifts and raked with the teeth of the excavator with a UXO technician observing the operation. No large stockpiles of soil will be created.
- Collected soil will be placed directly into poly drums with a drum funnel, sifted through a screen by the UXO technician.
- Representative soils samples will be collected for disposal characterization.
- Drums will be sealed when filled and transported for storage at the Federal Property as appropriate.
- All soils will be assumed hazardous until no CACM or significant quantities of debris is encountered, and disposal characterization samples are cleared for agent and ABPs. All soils will be sent to the incinerator.

In response to questions from DOEE and ECBC, Parsons confirmed that the workers will be in Level B PPE and have air monitoring systems at the excavation and drum-loading sites. The soil samples represent a day's worth of soil excavations.

#### 7. Soil Sampling

Representative soil samples will be collected for disposal characterization and analyzed for:

- Mustard (HD), lewisite (L), thioxane, and dithiane
- Toxicity Characteristic Leaching Procedure (TCLP) VOCs, TCLP Semi-volatile Organic Compounds (SVOCs), TCLP metals, corrosivity, and ignitability.

Once competent saprolite is achieved, confirmation soil samples will be collected and analyzed for:

- HD, L, thioxane, and dithiane

- VOCs and Tentatively Identified Compound (TICs), SVFOCs and TICs, pesticides and polychlorinated biphenyls (PCBs), metals, explosives, cyanide, fluoride, and iodide.

A grab sample will be collected if there is a miniature chemical agent monitoring system (MINICAMS) alarm and analyzed for agent, ABPs, and TICs.

In response to a question from EPA Region III, ECBC confirmed that L breakdown products are analyzed along with L.

### **8. Air Monitoring Locations**

Excavation site and drum-loading area air monitoring will be comprised of MINICAMS, depot area air monitoring system (DAAMS), industrial monitors, and photoionization detectors (PIDs).

Perimeter monitoring will be comprised of DAAMS and industrial monitors. The industrial monitors will monitor for SA, HCl, and HCN, log results, and have an audible alarm. The monitor for SA and HCL has a red light on top of the device that activates during an alarm. Dust monitors will be placed upwind (to establish background) and downwind (to monitor site-generated results).

### **9. ECBC Air Monitoring**

DAAMS monitors will be located at the following locations:

- Excavation Areas (with MINICAMS and DAAMS) - HD, L, phosgene (CG), cyanogen chloride (CK), and chloropicrin (PS).
- Drum-loading Area (with MINICAMS and DAAMS) - HD, L, CG, CK, and PS.
- Medical Monitoring Tent (with MINICAMS) - HD and L; as needed; personnel can be monitored in the event of a chemical exposure associated with an injury.
- Headspace/Decontamination Verification (with MINICAMS) - HD and L.
- Interim Excavation location (with MINICAMS and DAAMS) - HD, L, CG, CK, and PS.
- 4 Perimeter DAAMS

In response to a question from EPA Region III, ECBC confirmed that there will be 7 MINICAMS locations.

In response to a question from DOEE, Parsons explained that if there is visible soil on the side of a filled drum, the drum will be wiped down with bleach and soapy water.

EPA Region III pointed out that the use of the excavator to fill the drums is to rapidly get the soil into drums and covered, to avoid extensive manipulation of the soil and possible volatilization of contaminants. The temperature limits further reduce the risk of volatilization.

### **10. Site Safety**

The PDT will conduct refresher training for the workers in mid-September. The standard operating procedure (SOP) will be briefed, and tabletop and scenario trainings will begin. Ken Shott (of the U.S. Army Engineering and Support Center in Huntsville) will also visit to conduct training scenarios. George Washington University (GW) Hospital is under contract and the onsite medics will be retrained. A core number of people will be returning to the project that worked at the site previously, including Bobby Nelms, USACE Huntsville Site Safety Officer.

In response to questions from DOEE, Parsons explained that the personnel decontamination procedures are conducted in the decontamination tent and include bleach, soapy water, and rinse water. After each excavation period, the workers' exterior gear is stripped off and drummed, air-packs stored onsite, and the workers' boots and hands are rinsed off. Full head-to-toe decontamination is available onsite if necessary but is not utilized unless there is contact with a contaminant.

Work is expected to begin in October, five days per week, five 10-hour shifts per day, if possible with temperature and weather considerations. Work will stop for excessive rain or lightning. An empty frac tank will be staged to store stormwater run-off if necessary.

In response to a question from ECBC, USACE Baltimore confirmed that the approved start-time for the excavator is 7:00 AM. The MINICAMS devices need an hour start-up, so the team will begin site preparations each day at 6:00 AM.

The SOP is under internal USACE Baltimore review and will be submitted to the Partners for review the week of September 3. USACE Baltimore seeks Partner comments/concurrence by mid-September. Parsons can begin training plans now, and the site team can conduct refresher training. Work may resume in late September once full Partner concurrence is obtained.

Excavations are expected to continue through winter 2018/2019 and site restoration expected to begin by June 2019.

In response to a suggestion from P. deFur, USACE Baltimore agreed to invite EPA Region III and DOEE to the onsite refresher training exercises and coordinate possible dates for site visits.

## **B. 4835 Glenbrook Road Sampling Effort, Execution by ECBC**

**The goal of this segment of the meeting was to review the status of the Sampling Effort at 4835 Glenbrook Road.**

### **1. Recent Activities**

In March and April, the team completed the second round of soil sampling through the basement slab in 36 locations. All soil boring locations were sampled by Parsons or ECBC. Between the first and second round of soil sampling, a total of 148 samples were collected under the basement floor of 4835 Glenbrook Road. All soil samples were analyzed for low level agent analysis (L, HD, 1,4-Dithiane, and 1,4-Thioxane). All soil samples were non-detect for low level agent. Glassware debris was found in Borehole (BH)-7 and BH-17, in the back-patio area, had a cyanide detection.

In response to questions from EPA Region III, ECBC explained that the soil sampling and soil gas sampling show the migration of gas through the soil vs. what is actually in the soil. The samples are collected in a relatively discrete section of a 2-ft sleeve in the soil. ECBC has confidence in both sampling systems. The same passive sampling system has been used previously for the same target chemicals world-wide. The samples are analyzed by the same laboratory contracted by ECBC.

At the May Partner meeting, it was agreed that USACE would perform soil gas sampling at the 10 soil gas sampling points installed during the sampling effort:

- One round of soil gas sampling was performed in July and the analytical results have been received.
- ABPs were detected in 8 soil gas sampling locations. All detections were low-level detections.
- At a minimum, a second round of soil gas sampling will be performed after the remedial action at 4825 Glenbrook Road is complete (the remaining soils along the property line represent a possible source).

There was one detection that was not J-qualified data. The other detections were J-qualified analytical results, indicating ABP. The 2 locations that did not show ABP detections were in the garage and in front of the ventilation closet.

### **2. Recommendations Regarding Initial Soil Gas Sampling**

- ECBC and Beacon Environmental reviewed the data and ensured all validation processes were followed.

- USACE Baltimore received the Beacon Environmental data 8/29/2018 and sent the information to the Partners. There were some VOC detections in the Beacon data.
- USACE Baltimore recommends additional rounds of soil gas sampling at the property.
- The Partners will need to agree on the timing of the soil gas sampling.
- It is likely that the soils remaining along the property line are a potential source for the sample results obtained.
- USACE, in conjunction with ECBC, will continue to evaluate the results and next steps to present to the Partners.

USACE Baltimore invited discussion about next steps.

In response to questions from EPA Region III, USACE Baltimore and USACE Huntsville clarified that the contaminated soil outside the footprint of the house is the potential source of the soil gas detections. Passive soil gas sample locations are not placed outside the footprint of the house because the soil is already known to be contaminated. One soil sampling BH in Area 1 had a detection for ABP.

In response to questions from P. deFur, USACE Baltimore explained that the sub-slab construction of the house is similar to the sub-slab construction of 4825 Glenbrook Road. The construction includes a vapor barrier and a poured-cement slab buried 6-8 inches deep over a sub-slab of gravel over soil. Depth to bedrock in the front of the house is 8-10 feet, 4-6 feet at the mid-line of the house, and 18 inches to 2 feet in the back of the house. The soil is native soil material. There is no passive air movement system under the house, only gravel.

The Partners discussed the gravel as a porous pathway for gasses, a potential conduit for vapors. The gravel is in communication with the areas of CACM and soils underneath the footer.

In response to questions from DOEE, Parsons confirmed that the Parsons sampling screens are in the gravel. The gasses may be pulled from anywhere under the house.

David Kline, ECBC pointed out that the ECBC screens went below the gravel into the soil. The gravel was sealed off from the sample tube with bentonite.

P. deFur pointed out that bentonite is not an airtight seal.

In response to a question from USACE Baltimore, Parsons explained that he would have to check the logs but believed that the three Parsons sampling locations were in communication with the gravel.

USACE Baltimore noted that the middle sample location that had validated (not J-qualified) data was built by ECBC. The Parsons locations are BH-4, BH-7, BH-10, and BH-14.

USACE Baltimore pointed out that if the vapor detection is coming from the outside of the house through the gravel layer, when the contamination is cleared that vapor detection will dissipate rapidly. If the vapor detection is coming through the clay below the gravel, that vapor detection may linger even when the contamination is gone.

USACE Baltimore reiterated the recommendation to, at minimum, remove the source contaminated soils and run at least 1 - 2, more rounds of soil gas sampling. USACE Baltimore is open to feedback and questions.

In response to a question from EPA Region III, ECBC explained that ECBC did not have experience with the EPA Portable High-Throughput Integrated Laboratory Identification System (PHILIS).

In response to a question from DOEE, USACE Huntsville explained that jackhammers were used in the past to cut sections of the retaining wall and footer outside of the home at 4835 Glenbrook Road. The jackhammers created vibrations against the home. The team switched to the use of a diamond-toothed chainsaw that allowed cutting of the retaining wall without producing vibration.

In response to questions from DOEE, USACE Baltimore confirmed that excavations will scrape up against the foundation wall of the house, and Parsons has a plan for where the excavations must stop to prevent undercutting the foundation of the house. The first row of sample points installed by Parsons are located about two feet from the foundation wall, several sample points installed by ECBC are scattered in the basement of the home, and three additional sample points are located in the crawlspace as the result of feedback from former workers that built the home.

### 3. Next Steps Discussion

The Partners discussed decisions that must be made concerning the specifics of the second round of gas sampling:

- Passive vs. active sampling
- Length of time to wait to conduct sampling after remediation soils
- Analyte target list
- Detection limits

USACE Baltimore pointed out that one round of passive soil gas sampling can take up to two months to complete; including set-up, three weeks for the sampling, and the analyzation of the results.

ECBC suggested that one way to speed up the sampling process is to narrow the analyte list to only Dithiane and Thioxane.

USACE plans to perform at least two more rounds of passive sampling, spread out at a to-be-determined interval. If the first or second round samples come back clear, USACE will consider the sampling results proof that the contamination source was successfully removed. If the two rounds of sampling are performed and there are still detections indicating an additional source, then USACE is faced with the problem of identifying the additional source. Extensive sampling has been conducted under the house with no source identified. There would be no benefit to additional sampling underneath the house. If there are still detections after the contaminated soils have been removed outside the house, there may be residual contamination that entered the clay layer under the soil. The contaminant would slowly work out of the clay, but it might take years. If that is the case, the question would be how to proceed from there. A venting system with periodic sampling could be installed to vent the soils until the contamination is gone.

In response to questions from ECBC and DOEE, USACE Baltimore explained that at this time there are no toxicity-based detection limits for soil gas. Decisions are based on detect or non-detect for contaminants. USACE has soil-based detection limit numbers from the Public Health Command (PHC) that the PHC considers safe.

ECBC and P. deFur pointed out that the homeowner must be satisfied with the result and consider the house inhabitable.

DOEE pointed out that the current vapor sampling effort is not an indoor inhalation study. If there are lingering levels after the two additional rounds of sampling, a reasonable indoor inhalation number must be calculated for screening purposes. If the detections do not dissipate, DOEE believes an indoor inhalation study should be performed for the building that is based on vapor probes and using the standard methodology. The current soil gas sampling is not the standard methodology. Half of the dry-wells have been constructed differently from the others.

USACE Baltimore inquired if ECBC can perform a standard indoor inhalation study on a property that has suspected agent or ABPs. A commercial laboratory will not perform any type of vapor intrusion study in the home if there is any suspected presence of agent or agent ABPs.

ECBC reiterated that if the analyte list is limited to just Dithiane and Thioxane then there are other types of sampling that may be performed.



DOEE, P. deFur, and EPA Region III agreed that limiting the analyte list is a reasonable approach. EPA Region III suggested looking into available options for the limited analyte list, including active soil-gas sampling.

USACE will contact the PHC and ask if it is possible to translate the soil-based limits into an air standard that is safe for Dithiane and Thioxane.

ECBC will contact Beacon Environmental for available options for active soil gas sampling, specifically for Dithiane and Thioxane.

In response to a question from USACE Baltimore, AU explained that she sent Paul Chrostowski, CPF Associates, American University Consultant all the Beacon Environmental data sent by USACE Baltimore. P. Chrostowski, CPF Associates is out of office and will return after Labor Day.

The Partners agreed to limit the target analyte list to Dithiane and Thioxane.

DOEE and EPA Region III suggested that a concurrent passive sample location be set up to monitor background ambient air levels.

#### **4. Schedule**

- Summer/Fall
  - Collect soil gas samples at 10 locations, distributed throughout the basement area of 4835 Glenbrook Road.
  - Reach consensus on the path forward for removing the remaining contaminated soil along the 4825 Glenbrook Road/4835 Glenbrook Road property line.
- July
  - Continue to update the Restoration Advisory Board (RAB) on progress of the path forward. Work towards concurrence from the RAB at the September meeting.
- September
  - Present final update of workplans to the RAB and announce actual start date for returning to work.
- Fall/Winter
  - Resume the soil removal operation along the 4825 Glenbrook Road/4835 Glenbrook Road property line.
- Spring/Summer
  - Potential completion of remedial activities at 4825 Glenbrook Road. Start of site restoration for Glenbrook Road sites; 4801 Glenbrook Road, 4825 Glenbrook Road, and 4835 Glenbrook Road.

#### **C. Groundwater Feasibility Study (FS)**

**The goal of this segment of the meeting was to review the status of the Groundwater Feasibility Study.**

Todd Beckwith, USACE Baltimore provided a brief update on the Groundwater Feasibility Study (FS).

T. Beckwith sent out a revised Groundwater FS in response to comments from the Partners. The technical comments from the Partners have been addressed, but the policy disagreement issue concerning Alternative #2: Land Use Control (LUC) Long-term Management (LTM) remains. After USACE Baltimore submitted the Draft Groundwater FS to USACE Headquarters (HQ) and the Department of the Army, USACE Baltimore pointed out to USACE HQ that a policy disagreement exists between USACE HQ, EPA, and DOEE concerning Alternative #2 as a potential remedy. USACE HQ reviewed the Draft Groundwater FS and stated that USACE HQ understands there is a disagreement and a non-concurrence but believes it is appropriate to proceed with the LUC/LTM. The Groundwater Proposed Plan (PP) will reflect this directive from USACE HQ. T. Beckwith sought a response from the Partners to update the status of the disagreement and acknowledged that the response may be 'see previous comments.' USACE Baltimore is ready to send

the Draft Groundwater PP to the Partners but wanted to give the Partners the opportunity to review the Groundwater FS first.

In response to a question from EPA Region III, T. Beckwith confirmed that if USACE Baltimore receives the Partners' review/comments on the Groundwater FS by September 14, the document may be finalized. The Draft Groundwater PP may then be reviewed, commented on, and presented at the November RAB meeting. A separate public meeting for the Groundwater PP will be held in the winter during the public comment period.

EPA Region III noted that he will be at the November RAB meeting and suggested that T. Beckwith write a section in the Groundwater FS that describes the disagreement and explains that the disagreement is a policy issue and not a technical issue.

In response to a question from DOEE, T. Beckwith explained that the documentation process for a disagreement in a Formerly Used Defense Site (FUDS) program is a public comment period. In this case, a public comment period will be held for the Groundwater PP and a responsiveness summary will be included in the Final Groundwater Decision Document (DD). Non-concurrence comments from DOEE or EPA may be added during the public comment period and will be documented in the Final Groundwater DD.

The last groundwater sampling occurred three years ago, and at that time the concentrations were approaching drinking water standards.

In response to a question from EPA Region III and P. deFur, T. Beckwith confirmed that sampling will occur again after the Groundwater DD is finalized. The previous study was performed to collect the data necessary to complete the Groundwater Remedial Investigation (RI).

In response to questions from DOEE and EPA Region III, T. Beckwith confirmed that once the Groundwater DD is finalized, USACE Baltimore will develop a long-term groundwater monitoring plan that will outline how frequently periodic groundwater sampling would occur, and how to define when the groundwater standard has been achieved.

In response to a question from P. deFur, USACE Baltimore confirmed that there will be a 5-Year Review for both the site-wide and groundwater efforts.

The Partners discussed what may be considered the official start date of the Site-Wide Remedial Action (RA) in relation to the 5-Year Review. The Partners agreed the tentative official start date of the 5-Year Review clock is the beginning of the Remedial Action in May 2018.

In response to a question from USACE Baltimore, P. deFur confirmed that a 5-Year Review may be conducted before the completion of the Site-Wide Remedial Action.

In response to a question from T. Beckwith, the Partners requested that he send the Groundwater FS for comments now instead of waiting for the Groundwater PP.

T. Beckwith will revise the Groundwater PP based on EPA Region III's suggestion and submit the document to the Partners for review.

#### **D. Site-Wide Remedial Action (RA)**

**The goal of this segment of the meeting was to review the status of the Site-Wide Remedial Action.**

Weston Solutions provided a brief update on the Site-Wide Remedial Action (RA).

#### **1. Planning Documents**

- Final Land Use Control Implementation Plan (LUCIP) – Weston Solutions has received comments with approvals from DOEE and EPA Region III, and sought any additional comments before moving forward with the LUCIP.

AU noted that she will contact Paul Chrostowski, CPF Associates for any additional comments.

- Draft Community Outreach Package - a draft final letter and brochure based on comments from USACE is being prepared for residents and institutions.
- Draft Final Uniform Federal Policy for Quality Assurance Project Plans (UFP-QAPP) for soil remediation at the Public Safety Building (PSB), Spaulding-Rankin Area, and Southern AU - waiting on final comments from DOEE and EPA for the draft final UFP-QAPP.

In response to a question from EPA Region III, Weston Solutions confirmed that Weston Solutions received EPA Region III's approval for all activities at the Spaulding-Rankin Area.

EPA Region III noted that he will have comments and/or approval for the PSB in a week or two.

In response to a question from USACE Baltimore, the Partners approved sending the first outreach letter and brochure in late fall in addition to a spring-2019 letter and brochure.

## 2. Residential Properties

The team is performing Advanced Geophysical Classification (AGC) surveys in the Dalecarlia Woods. There are two advanced geo-classification survey phases:

- Dynamic survey - conducted with grid lines covering the whole area to develop the cued target list.
- Cued survey - matched to the munitions classification library to separate all normal debris from munitions debris to develop the target dig list. The cued survey will begin week of September 3.

Some private properties have undergone a video of the site, civil survey (property boundaries and structures), and landscape evaluation, enabling the team to create a plan to move plants to achieve the maximum amount of geophysical coverage. The team has presented each vegetation removal plan and walked the sites with some of the property owners.

Another group of properties are currently undergoing the video, civil survey, and landscape evaluation.

Weston Solutions and USACE will conduct blind seed testing for quality control on all the properties.

In response to a question from EPA Region III, Weston Solutions confirmed that each property will receive at least two blind seeds from Weston and an unidentified number of blind seeds from USACE, no matter the size of the property. Each property in the entire remediation plan will have 4-5 blind seeds planted by Weston Solutions and USACE Baltimore. A separate Weston Solutions QC team will plant the blind seeds, independent from the regular field team of geophysicists.

A geophysicist will conduct a Man-Portable Vector (MPV) demonstration for the Partners today at the Federal Property.

## 3. Public Safety Building (PSB)

- Collected 79 sub-slab soil samples (every 2 ft) at 12 locations across the foundation of the former PSB, ending June 29. Air monitoring and soil analysis was conducted by ECBC for HD, L, 1,4-Dithiane, 1,4-Thioxane, Thiodiglycol, and a TIC scan. The analysis data is in and available.
- ECBC air monitoring, headspace, and soil sampling results were non-detect for chemical warfare agent (CWA) and ABPs. Bedrock refusal at 12-14 ft.
- Data used to update the Probability Assessment: no change; still Low Probability.

- Met with AU to discuss how to move forward with shutting off, evacuating, and capping the Washington Gas line to the Jack Child Building (former Financial Aid Building) that passes along the edge of the PSB foundation and cinder block walls. Working to expedite gas line shut-off.
- Current estimate to begin PSB mobilization is October 1. The team plans to conduct the work at the Spaulding/Rankin Area and 4710 Woodway and transition directly to the PSB. Excavation and backfill operations at the PSB are expected to take ~12 weeks to complete.

In response to a question from EPA Region III, USACE Baltimore explained that the Jack Child Building is occupied, and currently heated by gas. USACE will install heat pumps to provide a cooling and heating source for the building, enabling USACE to terminate the gas line. The gas line does not serve other buildings. The gas line will be removed from within the excavation footprint and then capped outside the excavation. The line will be marked and remain as a short section of abandoned underground gas line.

AU expects to begin the heating season October 15.

In response to a question from EPA Region III, Weston Solutions confirmed that the wheels of the trucks used for operations will be cleaned off before leaving the site.

In response to a question from DOEE, Weston Solutions confirmed that the Erosion and Sediment Control Plan has been reviewed by the Department of Consumer and Regulatory Affairs (DCRA) and Weston Solutions received DCRA comments.

#### **4. Soil Borrow Pile - New Source Sampling**

- An additional 1,000 cubic yards of soil borrow is required to complete the Site-Wide Remediation tasks. The current borrow pile will be used for activities at Glenbrook Road.
- The plan is to use Aggtrans soil source in Jessup, MD.
- The team collected three discrete and one composite soil characterization samples this week for analysis using procedures documented in the Site-Wide Work Plan (2007):
  - HTW analysis: TCLP VOCs, SVOCs, pesticides, PCBs, target analyte list (TAL) metals with boron, tin, and mercury.
  - Geotechnical analyses: grain-size with hydrometer, Attenberg limit, and Standard Proctor/compaction.
- Soil borrow tech memo comparing results to Spring Valley background and screening levels will be prepared for USACE and Partner review.

#### **5. Spaulding/Rankin Area**

- Completed cobalt soil sampling for pre-excavation soil removal delineation on August 7.
- Evaluated analytical results to plan soil removal depths and extent at the six identified locations. The revised Hazard Index (HI) was 2.0 for the entire property, 0-10-foot interval.
- At DOEE request, the HI was recalculated for 2 areas: 'Landscaped' and 'Wooded'. The Wooded HI was 2.0 and Landscaped HI was 2.4. The Wooded areas are accessible to people living at the property.
- Excavation permit in progress – utilizing the proposed excavation extents determined last week.
- Targeting September 17 start date for excavations. Work should take ~1 week to complete.

The Partners discussed the recalculation of the property and the Landscaped HI of 2.4. DOEE expressed concern for the hazard risk of 2.4 in areas accessible to the homeowners. Weston Solutions understood that the risk assessment for current use was acceptable, and the 0-10-ft limit was set for future use; such as scenarios when construction workers would be onsite to excavate for an addition to the house. The higher numbers are found at deeper soil sample depths, not at 0-2-ft. The level for the whole property at 0-2-ft was 2.0. Additionally, some areas are difficult to reach because of structures such as brick walls. DOEE and Weston Solutions discussed each sampling point and depths of collection in more detail, and DOEE agreed that the HI numbers were acceptable.

USACE Baltimore directed Weston Solutions to begin activities at the Spaulding/Rankin Unit as soon as possible after Labor Day.

#### **E. Open Issues and New Data**

USACE Baltimore was contacted by a homeowner who conducted their own arsenic sampling on their property. In 2001-2002, USACE screened that property for arsenic and the results were very low. USACE performed an arsenic removal in the next-door neighbor's backyard, excavating to the property line of the homeowner. The property has a brick wall instead of a fence on the property line. The foundation of the brick wall prevented the collection of a side-wall sample. During arsenic removal, a brick wall is considered the boundary of a grid, and halted excavations at the boundary. USACE relied on the next-door neighbor's screening results in the backyard to indicate if excavations were necessary on the other side of the wall at the homeowner's property. The next-door neighbor's screening results for the backyard were very low, the composite number was 23 PPM for arsenic. USACE gave the homeowner an assurance letter stating that the property was clear based on the approved sampling process.

Many years later, the homeowner became concerned and hired a contractor to conduct grid sampling on the property. USACE did not conduct grid sampling at the property previously because the sampling did not warrant grid sampling. Grid sampling was only performed if the initial screening results were unacceptable. The results of the grid sampling conducted by the homeowner's contractor came back with very low results all over the property, except for one grid in the backyard that was 39 PPM. The homeowner contacted USACE Baltimore to ask USACE Baltimore to perform an arsenic removal in that grid. USACE Baltimore declined the request, and explained that based on USACE policy, USACE does not perform remedial action based on outside data. All properties across Spring Valley were subject to the same agreed-upon protocols and procedures.

Cliff Opdyke, USACE Risk Assessor, will talk the homeowner by phone today to discuss the basics of risk assessment, the sampling protocols, and answer the homeowner's questions.

In response to a question from DOEE, USACE Baltimore explained that if the homeowner is not comfortable with the results of the phone meeting with the USACE Risk Assessor, the homeowner may want to reach out to the Partners. USACE Baltimore will notify the Partners if the homeowner wants to contact them.

In response to questions from DOEE, USACE Baltimore confirmed that the grids were 20 x 20 maximum. The single sample was drawn from the surface of a partial grid along the property line in a grassed area.

The Partners discussed the homeowner's option of hiring a contractor to perform the removal and file a tort claim with the USACE Claims Office.

#### **F. Future Agenda Items**

1. Groundwater FS
2. 4825 Glenbrook Road/4835 Glenbrook Road
3. Site-Wide PP
4. Site-Wide RA

#### **G. Agenda Building**

The next meeting was scheduled for Thursday, October 18, 2018.

#### **H. Adjourn**

The meeting was adjourned at 2:04.