Spring Valley Partnering Meeting
April 14, 2015
Spring Valley Project Trailers Conference Room

Name	**Organization/Address**	
Sherri Anderson-Hudgins	USACE - Huntsville	**Via Phone**
Thomas Bachovchin	ERT	**X**
Brenda Barber	USACE - Baltimore	**X**
Todd Beckwith	USACE - Baltimore	
Janelle Boncal	Parsons	
Bethany Bridgham	American University	**X**
Sean Buckley	Parsons	**X**
Paul Chrostowski	CPF Associates, AU Consultant	**X**
Tom Colozza	USACE - Baltimore	
Jennifer Conklin	DDOE	
Kathy Davies	EPA – Region III	
Peter deFur	Environmental Stewardship Concepts/RAB TAPP Consultant	**X**
Diane Douglas	DDOE	
Bill Eaton	URS	
Alma Gates	RAB Member – Horace Mann Representative	
Steven Hirsh	EPA –Region III	**X**
Dawn Iovan	EPA – Region III	
Leigh Isaac	Environmental Stewardship Concepts	
Carrie Johnston	ERT – Community Outreach Team	**X**
Julie Kaiser	USACE - Baltimore	
Rebekah McCoy	ERT	**X**
Dan Noble	USACE - Baltimore	**X**
Cliff Opdyke	USACE - Baltimore	
Randall Patrick	Parsons	**X**

Lan Reeser	USACE - Baltimore	**X**
Amy Rosenstein	ERT (Risk Assessor, Independent Consultant)	
Don Silkkenbaken	Parsons	
Jim Sweeney	DDOE	**X**
Andrea Takash	USACE – Corporate Communications Office	**X**
Tenkasi Viswanathan	USACE – Washington Aqueduct	
Cheryl Webster	USACE - Baltimore	
Ethan Weikel	USACE - Baltimore	
Nan Wells	ANC 3D Commissioner	
Gretchen Welshofer	URS	
Maya Werner	ERT	
Kellie Williams	USACE - Huntsville	
Bruce Whisenant	USACE - Huntsville	**Via Phone**
Rebecca Yahiel	ERT – Community Outreach Team	**X**
Alex Zahl	USACE - Baltimore	**X**

Summary of 14 April 2015 Spring Valley Partnering Meeting

Consensus Decisions

- The Spaulding Captain Rankin Area Exposure Unit will be called out in the RI and moved forward to the FS in respect to the outlier concentrations of arsenic, lead, and cobalt.

14 April 2015 Action Items

- ERT will provide electronic copies of the edited Draft-Final Remedial Investigation (RI) to the Partners.

Tuesday 14 April 2015

Check-in

The Partners conducted their normal check-in procedure.

A. Groundwater Study Efforts

The goal of this segment of the meeting was to provide an update on ongoing and upcoming groundwater study efforts.

U.S. Army Corps of Engineers (USACE) provided a brief update on the status of groundwater study efforts and the Groundwater RI report.

The annual sampling of monitoring wells is scheduled to be conducted in late April / early May 2015 by the USACE-Baltimore team. In June, MW-5 (the multiport well) is scheduled to be sampled by URS. URS is in the process of getting a public space permit in order to sample the well.

URS delivered the Draft Groundwater RI report to USACE-Baltimore, who is currently internally reviewing the document. The document will go to the Environmental and Munitions Center of Expertise (EM CX) once this initial review is complete. Since the document includes a risk assessment, it will also be reviewed by the U.S. Army Public Health Command at Edgewood Arsenal. Once all Army comments are received and addressed, the Partners will receive the Draft-Final Groundwater RI document in six to eight weeks.

Issues brought up in the document include arsenic and perchlorate in two locations around Kreeger Hall, and one location near Sibley Hospital. Cobalt and manganese are over limits at the exposure unit near Sibley Hospital. All comparison levels are based on a potential future use of the groundwater as a potential drinking water source. There are no risks with the current use. However when future risk is evaluated, some compounds exceed comparison levels.

USACE discussed an EPA document that was sent around to USACE offices about groundwater remediation strategies for National Priority List (NPL) sites. Kathy Davis, with EPA Region III, gave this information during a talk at the Army Tier II meeting in January 2015. EPA stated that it related to an issue they have had with USACE as to whether to take action on a future risk and how USACE interprets the National Contingency Plan (NCP) requirement to restore groundwater. There is nothing new in the document; it is just a restatement of EPA's interpretation of the guidelines.

B. 4825 Glenbrook Road Remedial Action

Parsons presented an update on the 4825 Glenbrook Road Remedial Action effort.

1. Recent Intrusive Operations

Parsons is continuing intrusive activities**:** 95% of the curve retaining wall and footer has been removed to date. The only portion that remains is by the Engineering Control Structure (ECS) foundation. As of 9 April, 45 roll-offs of soil have been removed. An open test tube, found on 6 February, was filled approximately 50% with a clay-like substance. The test tube was sent to Edgewood for analysis after clearing headspace on 12 February. Two open cavity 4.7" projectiles were found on 10 February. These two items cleared headspace. One closed cavity 75mm projectile was found on 11 February. Based on the x-ray, approximately 6% of that 75mm was filled with liquid, and no energetics were identified. Edgewood's assessment team came down with the Mobile Assessment System (MAS) and identified the liquid to be water.

A second closed cavity 75mm projectile was found on 3 March. It contained no liquid fill, no energetics and cleared headspace. Since March, ten and three quarter pounds of accumulated scrap glass have been found. As scrap glass is recovered, the items are accumulated and segregated into a bucket until enough has been accumulated to headspace. This glass was accumulated over a series of days. A lid or bag covers the bucket of scrap glass and it stays inside the tent until removed for headspace.

No agent or agent breakdown products (ABPs) have been detected under the second tent location either in the soil or in the air. All composite samples have come back negative for agent, ABPs, hazardous for Toxicity Characteristic Leaching Procedure (TCLP) and other hazardous characteristic parameters.

The test tube was analyzed by a gas chromatography-mass spectrometry (GC-MS) for Tentatively Identified Compounds (TICs). Diphenyl sulfide was identified as the chemical present in the greatest percentage. Fourier Transform Infrared Spectroscopy (FTIR) compares the peak of a compound with

known items from a library of peaks, and the highest probability match for the test tube was a compound similar to tailpipe putty. Possible uses of diphenyl sulfide at the American University Experiment Station (AUES) could have included stabilizing organic compounds for chemical agent storage and/or placement in munitions, or as an odorant to measure dispersal due to the compound being smelly and relatively non-toxic.

Parsons is currently working to level the area behind the retaining wall and is finding competent saprolite along the wall footer. They will work their way from the 4801 Glenbrook Road side across the property towards 4835 Glenbrook Road. After that area is excavated to competent saprolite, they will start working to remove the basement wall.

Lagging is located along the 4801 Glenbrook Road property line to hold back the soil as the team excavates to competent saprolite. The slope itself is being held by the steel beams. The final restoration will include replacing the wood lagging with cement. In the majority of the area, competent saprolite has been reached therefore only minimal additional lagging will be added as the area is evened out. The crawl space and cement around the chimney base also remains to be removed. Parsons plans to segregate and containerize the material underneath the concrete pad. USACE concurred with this approach based on the results of the soil borings in this location which detected lewisite. The concrete basement slab remains and a plan is currently being developed for its removal under the third tent location.

Parsons coordinated with DC Water and Sewer Authority (DC Water) to turn the water back on in the street that is part of the water loop on the American University (AU) campus, which provides water to the AU fields. DC Water attempted to turn the valve on by hand on 12 March; however, it only opened a quarter of a turn. On 31 March, DC Water brought a machine to turn the valve mechanically, which broke the valve. The valve is currently stuck open about a quarter turn. Parsons has both of their hoses open to help provide water to AU. DC Water will have to come out and replace the valve, at which time the water will need to be shut off on the street. DC Water has stated that they will let USACE and Parsons know when they will be returning to the site.

Two sets of waste shipments occurred on the 24-25 of February and 23-24 of March. Water, soil, personal protective equipment (PPE), roll-off boxes and palletized and rapped filters were shipped out. There are still approximately two vanloads left to be shipped. Parsons hopes to have a shipment sent out towards the end of April.

The 10’ high fence along Glenbrook Road and along the 4801 Glenbrook Road property boundary was completed. The area in front of the fence on the property along Glenbrook Road is planned to be filled in with gravel by late April/early May.

Parsons will continue excavating to competent saprolite towards 4835 Glenbrook Road, at which time the USACE geologist will come to confirm that saprolite has been reached. Confirmation samples will be taken if competent saprolite is reached. However, if bedrock is exposed, then no sample will be taken. It is anticipated that most areas will be competent saprolite.

The site will be shut down on Memorial Day, 25 May. Reduced production during the hot months of the summer is expected. The schedule is conservative in order to account for what was encountered during the first tent location. The current completion date for the second structure is early December 2015.

Discussion

EPA asked if the recovered munitions debris items were behind the retaining wall since that is where the 4825 Glenbrook Road workers interviewed by Ginny Durrin (documentary filmmaker) indicated where items were dumped. Parsons confirmed this.

EPA asked if there was any information USACE needs from G. Durrin that would help. USACE stated that G. Durrin is apparently going to interview the workers again. However, USACE does not know whom exactly she is talking to since she is the only one who has been talking to them. The last time she

spoke with them was a year ago which is when the workers mentioned work at 4835 Glenbrook Road. USACE and EPA lawyers will discuss if they should formally request information from G. Durrin's interviews with the workers that could aid USACE in their Potential Responsible Party (PRP) investigation.

EPA and USACE discussed the transcripts of the workers. USACE confirmed that according to G. Durrin, USACE has all transcripts. USACE requested the names of the workers, but G. Durrin claims that they have requested a 'hold harmless.' USACE cannot grant a 'hold harmless' since they do not have the authority to do so. The Department of Justice (DOJ) is not in a position to give it either. EPA asked if there was a statute of limitations for a PRP case; USACE replied no. The workers could be a Potentially Responsible Party (PRP); however, DOJ would probably not consider them PRP because they do not have resources worth pursuing. USACE talked with the lawyer that initially represented the workers but she is not representing them any longer. USACE does not know if the transcripts they were given are even accurate. The last interview recording that the team received contained very leading questions. There also needs to be some validity to the transcripts and recordings.

D. Remedial Investigation/Feasibility Study

A draft final 2014 version of the Site-Wide RI report was reviewed by the regulatory Partners, Peter deFur, and AU. Comments were received in February and responses to comments were sent out. The comments were addressed in the April 2015 version of the Site-Wide Remedial Investigation (RI) report that was released to the public last week. A hard copy is at the Information Repository and an electronic copy is available online.

ERT reviewed the changes to the Site-Wide RI after comments had been received and responded to.

The main change in the RI document was in regards to cobalt. In the previous RI version, for all exposure units, no further work was proposed for cobalt largely based on the low confidence on toxicity data. Further discussions led to revising the Remedial Actions Objective (RAO) for a value of two for the non-carcinogenic Hazard Index (HI). Anything exceeding that level will be evaluated in the Feasibility Study (FS) for possible additional work. Two additional locations were forwarded to the FS for evaluation based on the revised HI, the Spaulding and Captain Rankin (SCRA) exposure unit (EU) and AU EU. Discussions were added to the RI document to support the HI of two for cobalt. Within the AU EU, cobalt is now a Contaminant of Concern (COC). It has a proposed RAO of HI of two.

Outlier samples were also reevaluated on the SCRA EU. Originally, outlier evaluation was not completed for this exposure unit because it was a singular property. Arsenic was discussed in the RI as a single maximum level that had exceeded the acceptable cancer risk range. However, the outlier sample was located underneath a concrete floor of the POI 23 bunker (now a greenhouse) on the SCRA EU. The case had been made for no further action based on the fact that it was covered by the concrete bunker floor. In applying the outlier approach, that location was again found to be a non-cancer exceedance for arsenic with an HI of eight. One lead sample was also identified as an outlier and posed unacceptable risk and is under the former bunker in POI 22 (now a utility room). The last outlier was from a sample taken in 1993 from seven to nine feet depth in the front yard for cadmium that had an HI of 1.57. This location was further mirrored in the 2012 evaluation document and its sister sample taken at the same depth was at 0.75ppm vs. the 110ppm of the 1993 sample. Due to the depth and the more recent sample having a much lower detection, it was determined that this cadmium sample is not a significant hotspot.

A few minor errors were discovered while completing the additional analysis. At the SCRA EU, the mercury HI was increased to almost two. This outlier sample was called out as a risk but the outlier is from the same sample as the lead outlier. Due to the sample being under the floor of the utility room in POI 22, it is being recommended for no further action.

The EPA asked if the rationale for not recommending action is because the sample is underneath a concrete slab or because it is a single hit. USACE stated that it is because there is no current exposure pathway. The EPA followed by asking if the slab was like an institutional or engineering control. USACE confirmed this.

USACE indicated that they were going to be meeting with the children of the recently deceased owner of the SCRA property. USACE believes that the property will remain within the family for now. Within the FS, the next major document that will be completed, the SCRA bunkers (POI 22 and 23) could be discussed as existing institutional controls. The exceedances are based on a single sample from under the concrete floor. EPA asked if there were other samples taken from underneath the concrete floor. USACE replied that there were multiple samples taken under each slab; around five depending on which bunker. One sample taken at the greenhouse bunker (POI 23) was a sediment sample taken from a pipe. This sample is where the high arsenic hit was found.

EPA, Parsons and USACE discussed the pipe. The pipe was tested to confirm that it was free of agent. After agent was determined not to be present, the pipe was reburied, surrounded by gravel, and a concrete slab was placed over it. USACE stated that around six samples were taken from inside the house and only one sample had exceedances for lead and mercury. EPA suggested this information be presented with the mitigating factors and stating the reasonably anticipated future use, which will be the current use. Following that, it should be discussed to determine if the use of the areas have changed during the five-year reviews.

P. deFur questioned that future use might be the issue and asked what provisions are made for ensuring safety, low risk and lack of exposure. Documentation, engineering structure or institutional controls would satisfy that question. EPA, USACE, and ERT discussed adding language in the FS that will talk about the nature of institutional controls as applied to these types of situations. The EPA stated that a general overall site-wide statement stating that there will be items to be checked during five-year reviews for changes in land use would be appropriate without having to actually install additional institutional controls. P. deFur asked what would happen with the SCRA property if/when it changes hands. Do the owners have to put wording into the documentation for the sale of the house? USACE stated that the SCRA property has a lot of documentation associated with it. It would be difficult to prevent a buyer from having knowledge of the property.

ERT asked if the RI's conclusions on the SCRA needed to be changed for any of these samples to formally push them to the FS, where the solution would be to leave the area as it is. The other option is similar to the AU Public Safety Building (PSB) where there are limited actions that can be taken at this point. EPA indicated that if there is a land use change, then one needs to reconsider whether the area is still protected. If there is no change in protectiveness, then you do not do anything. USACE questioned what would happen if the land use stayed residential but the owners decided to build a second house on the property or alter the property. However, the land use will not change if the PSB is taken down, but an exposure pathway will be opened. EPA and P. deFur discussed that instead of saying 'land use,' to use different words to clarify the change in the way the land is being used and the specific use of the land. For example, with the PSB, if AU takes the PSB down, they would likely replace it with another office building. Paul Chrostowski stated that the difference is that the PSB is called out specifically in the RI while the SCRA is not. The question is whether or not to call out the SCRA property specifically in the RI.

USACE stated that in Section 7, the Human Health Risk Assessment (HHRA) of the RI discusses the metals under the concrete slabs. That discussion does not move forward to the conclusions and recommendations in Section 8. P. Chrostowski, P. deFur, and EPA agreed that the SCRA property should be mentioned in the conclusions and should be moved forward to the FS. The FS should state the current land use and that it is expected to stay the same and it will be investigated during the five year reviews if anything has changed that would change the protectiveness of the site. ERT asked if the same steps

should be taken for cadmium. The Partners decided not to move cadmium forward to the FS because there is a more recent sample in that location that shows there is no longer a cadmium issue in that area.

Another change due to a calculation error is related to carcinogenic PAHs. Originally, a specific carcinogenic polycyclic aromatic hydrocarbon (PAH) dibenz(a,h)anthracene was identified as a COC. All carcinogenic PAHs contributed to PAHs falling outside of the acceptable risk range. However, this specific PAH exceeded on its own, which is why it is called out as the COC. In fixing the error, dibenz(a,h)anthracene itself no longer exceeds levels however; the total PAHs do still exceed the risk range. Wording was changed in the RI from specifying dibenz(a,h)anthracene as the COC to stating that carcinogenic PAHs are the COC. In the FS, all carcinogenic PAHs will be called out instead of just dibenz(a,h)anthracene.

Discussion

P. Chrostowski asked what the schedule was for the FS. USACE responded that a draft is planned to be given to USACE-Baltimore during the week of 20 April 2015.

USACE asked for responses to the official response to comments and asked if any of the Partners had any issues with the way their comments were addressed. P. Chrostowski stated that they were still reviewing the Army's responses but that they should have responses back in about a week. USACE will send hard copies of the Draft-Final RI report provided to the public on April 8th to the Partners, including a DVD with indexes, but the report is now available online.

EPA clarified that this is not a final document, it is a draft final. ERT explained that they have labeled it a draft final public version.

USACE stated they are hoping to finalize the RI by June. Public Notices were in the Washington Post and the Northwest Current on 8 April. On that same day, a hard copy was available at Tenley-Friendship Branch Library and on the project website. The 45-day comment period will end on Tuesday 26 May. USACE spoke with the RAB Co-chair and per the RAB's request to meet before a public meeting, the RAB meeting was moved with approval from the RAB members to 5 May. The public meeting will be held on 12 May. USACE asked how involved the Partners wanted to be in the public meeting. EPA and DDOE stated that they would attend the public meeting. P. deFur stated that he will be at the RAB meeting, and have a representative at the public meeting.

There will be an open house at the beginning of the public meeting, where there will be posters with project personnel available answer questions. The details for the formal part of the meeting are still being discussed. The meeting will be recorded and for those community members who do not want to give formal comments in front of everyone, a recorder will be available to take their comments individually. There will possibly be timed periods for questions before breaking into another poster session.

USACE's feedback from the last RAB meeting was that homeowners who come to the meetings are most concerned with how the RI report impacts their property and what USACE is going to do about it. Given that most of the concerns with COCs in soil are at AU and the single SCRA property, USACE asked if the presentation should focus on the results of the Munitions of Explosive Concern (MEC) Hazard Assessment (HA) and not discuss the results of the HHRA. EPA stated that people still seem to think that the concern is chemicals therefore the focus of the conversation should be on munitions and the evaluation of their properties. USACE replied they would focus the results of the MEC HA and the concern of potentially finding more munitions in certain areas of the neighborhood that is driving the further work. EPA suggested mentioning these properties will be carried forward into the FS, which will then develop the preferred option for remediation.

USACE asked if MEC HA scores should be discussed. P. deFur suggested not unless someone specifically asks and to have backup slides just in case. ERT replied what should be emphasized is there are two issues: One is contamination of soil that only affects two properties, and the other is the potential

for munitions that affects 98 properties. The larger issue of why the properties were chosen should be emphasized, i.e. because they lie within historical impact areas.

E. 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 to share new data that became available since the last Partnering meeting.

USACE talked with the Agency for Toxic Substances and Disease Registry (ATSDR), who is finalizing their report for public review. The report will be given to USACE and EPA soon, and they will have a public comment period sometime in the summer. USACE had sent them an explanation of the construction methodology for assessment of indoor vapor intrusion as well as some additional photos of the area. ATSDR had wanted more information on how the MINICAMS operated. EPA asked if the Johns Hopkins Health Study was done. DDOE replied they have not spoken about it. DDOE explained that the last ATSDR draft report had proposals about long-term health monitoring that they wanted the DC government to do, however they do not know if that is still in the report. USACE does not know, but ATSDR is going to recommend that community members see their doctors, which is why USACE is pushing to find out who the workers are that G. Durrin is talking with since they have had much higher exposure than the residents.

The Community Outreach Team went to a Long and Foster realtor office, where a RAB member (Mary Bresnahan) works, The Outreach team updated the group about the project and answered questions. USACE provided the realtors with a template of the letters received by homeowners. Overall, the meeting went well. They mentioned that they really like the USACE website and they direct potential buyers to that website. This was the third D.C. realty group visited by the Outreach team. There is also an invitation in process to go to WCN Miller, another Long and Foster company that has made an inquiry to have a meeting.

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

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

The only document currently out for review is the Groundwater Data Summary Report. The Draft Groundwater RI report is currently being internally reviewed by USACE. Once this internal review is complete, the Draft Groundwater RI will be provided to the Partners for regulatory review, tentatively by mid-summer.

G. Partner's Parking Lot

The goal of this segment of the meeting was to review and update the Parking Lot list.

The Partners agreed there was nothing new in the Parking Lot.

H. Agenda Building

The next meeting is scheduled for 23 June 2015.

I. Adjourn

The meeting was adjourned at 11:43 p.m.