

MEMORANDUM FOR RECORD

SUBJECT: Fort Detrick Restoration Advisory Board (RAB) Meeting Summary, 3 MAR 08

1. Summary Contents

Items addressed at the meeting are listed below, with corresponding section numbers indicated in the column on the right.

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Please note: A PowerPoint presentation was utilized during this RAB meeting. A copy of the presentation is attached to these minutes and is incorporated into these minutes by this reference.

2. Attendees

Members Present:

COL Mary Deutsch, Garrison Commander and Co-Chair
Ms. Linda Robinson, Community Member and Co-Chair
LTC Carl Hover, Director, SEIPO
Mr. Robert Craig, Chief, Environmental Management Office
Mr. Joseph Gortva, Environmental Restoration Program Manager
Dr. Henry Erbes, Community RAB Member
Ms. Helen Miller-Scott, Community RAB Member
Dr. Gary T. Pauly, Community RAB Member
Ms. Sarah Maxwell, Fort Detrick Public Affairs
Mr. Douglas Scarborough, Restoration Oversight Mgr., U.S. Army Environmental Center
Mr. Curtis DeTore, Maryland Department of Environment
Ms. Alicia Evangelista, Frederick County Health Department

Others Present:

Mr. Jeffrey Parks, Shaw Environmental & Infrastructure, Inc.
Ms. Robin Sims, Shaw Environmental & Infrastructure, Inc.
Mr. Butch Dye, Maryland Department of the Environment
Mr. Pete Gold, US Environmental Protection Agency
Mr. Hank Sokolowski, US Environmental Protection Agency
CPT Ryan Wolfe, OSJA
Ms. Edna Falk Curtin, OMB
Mr. Charlie Howland, Environmental Protection Agency – Region III
Mr. Barry Kissin, Interested Community Member

Members Absent:

Mr. Charles Billups, Community RAB Member
Mr. Daniel J. Patton, Community RAB Member
Mr. Gerald Toomey Community RAB Member
Mr. Craig Toussaint, Community RAB Member
Mr. Thomas Wade, Community RAB Member

3. Meeting Opening / Remarks

Immediately prior to the official opening of the RAB Meeting, Mr. Robert Craig had distributed and mentioned the latest edition of “*Mission: Sustainability*”, which is a periodic outreach document in support of Fort Detrick’s sustainability program. He summarized by saying that Ft. Detrick’s Environmental Management Office does more than seek to achieve compliance. Fort Detrick’s sustainability program is striving to reduce the Army’s “environmental footprint” at Ft. Detrick. The pamphlet discusses what the program has accomplished in 2007 and where the program is headed. He ended by saying that there is good news in the document, but that it is not part of the formal RAB presentation.

COL Mary Deutsch convened the meeting at approximately 7:30 p.m., on Monday, 3 MAR 08, in Conference Room 3 at 810 Schreider Street, Fort Detrick, Maryland. COL Deutsch thanked everyone for coming, asked everyone to sign the sign-in sheet, and to introduce themselves since there were some new attendees.

COL Deutsch continued by saying that the purpose of this meeting is to hear the status of the current projects and what will be done in the future. She added that this meeting is a great example of how the Army wants everyone to work together with them on this project; the community, the regulatory agencies, and the contractor.

4. Area A Update presented by Mr. Jeffrey Parks

Mr. Parks of Shaw Environmental & Infrastructure, Inc. (Shaw) started by thanking everyone for coming and said how nice it was to see such an interest in the work they are performing. He started with a presentation on the Area A – Building 568 TCE Spill Site and the most recent data obtained from Shaw's September 2007 Groundwater Monitoring efforts. Groundwater in Area A generally flows to the southwest, toward Carroll Creek. The data shows that trichloroethylene (TCE) concentrations at Building 568 have been decreasing over time, but are still above the Maximum Contaminant Level (MCL) for TCE, which is 5 parts per billion (ppb). In October 2007, concentrations found in a down-gradient well (MW568-15A) decreased to below the MCL, back to historical average concentrations, after two recent rounds when concentrations were found to be slightly above the MCL. Tetrachloroethylene (PCE) was also detected at 1 ppb or less in this down-gradient well, suggesting a source of PCE other than Building 568. Shaw is currently trying to determine the source of the PCE. A "Five Year Review" for the Building 568 site has recently been completed, and a draft report has been submitted by Shaw to the Army. The Army is currently reviewing this document. The main issue raised in the draft report is the TCE concentrations at the boundary well. The remedy for this site is hydraulic containment using groundwater extraction and monitoring. Shaw is currently trying to determine the source of the PCE found in MW568015A, and will explore all possible sources. Groundwater monitoring is performed every 6 months with the next round scheduled for this month.

Discussion:

- Dr. Henry Erbes, Community RAB member, asked Mr. Parks why they were going to look at Area B as a possible source of the PCE when there is a stream in between the two areas.
 - Mr. Parks responded by saying that Shaw is looking at all plausible sources, and will not discount any source before it is thoroughly researched. However, a nearby old maintenance facility does seem to be the most obvious source.

5. Area B Disposal Site Update presented by Mr. Jeffrey Parks

Mr. Parks then presented an update on restoration activities at Area B.

a. Area B Five “No Further Action” Sites

Mr. Parks reported that the final decision document was signed on February 21, 2008. So, these five sites (B-20 North, B-2 South, B-Grid, B-Skeet, and B-Ammo) will probably not be discussed again at RAB Meetings until the next five year review cycle. It was determined that there was no unacceptable risk to human health or to the environment from these sites. The final remedy is “No Further Action”.

b. Area B Former Disposal Sites

The remedial strategy for all of the Area B Former Disposal Sites, except for B-18, is to cap them, which is the EPA presumptive remedy and complies with current Code of Maryland Regulation (COMAR) 26.04.07.21 for Sanitary Landfill Closure as a relevant and appropriate requirement. *[Reviewer’s note: A surface debris removal and geophysical survey will be performed at Area B-18 to determine if the site needs to be included in the cap design for Area B-8. The surface debris removal and geophysical survey is scheduled to be completed by the end of April 2008.]*

MDE has recently completed their review of the draft RI/FS documents, and soon will be receiving responses to comments, for sites B-3, B-8, B-10, and B-11. The comments on B-2 and B-6 are now complete and the decision document for B-2 was signed on February 21, 2008. Shaw intends to prepare and submit one draft Proposed Plan to address the remaining capping sites (B-3, B-6, B-8, B-10 and B-11), since they are all similar in nature. For the same reason, Shaw would like to submit one draft decision document for these five sites. A completion schedule is provided in the attached PowerPoint presentation. Shaw recognizes that this proposed schedule is quite ambitious, and they are trying their best to meet it.

The following paragraphs present site specific information for the sites at which decisions have not yet been made:

Area B-3 Inactive (FTD 51): The RI/FS was submitted to MDE and the RAB for review. Shaw is currently addressing MDE’s comments. Shaw expects to finalize the RI/FS in March 2008. The proposed plan for a landfill cap remedy and public comment period is expected in Spring 2008. The decision document is scheduled for completion in Summer 2008, along with the landfill cap. The construction of the cap is now anticipated to occur in Winter 2008.

Area B-6 (FTD69): The RI/FS was finalized in February 2007. The proposed plan for a landfill cap remedy and public comment period is expected in Spring 2008. The decision

document is scheduled for completion in Summer 2008, along with the landfill cap. The construction of the cap is now anticipated to occur in Winter 2008.

Western Disposal Areas - Area B-8 and trenches north of B-8 (FTD 70), Area B-10 / B-10 Grove (FTD 71), and Area B-11 (FTD 49): The combined RI/FS for the Area B Western Disposal Areas including Area B-8, the trenches north of B-8, Area B-10, Area B-10 grove and Area B-11 is expected to be completed in Spring 2008. The proposed plan for a landfill cap remedy and public comment period is expected in Spring 2008. The decision document is scheduled for completion in Summer 2008, along with the landfill cap. The construction of the cap is now anticipated to occur in Winter 2008.

Area B-18 (FTD 70/Former Sinkhole): This site is a small sinkhole. Shaw believes that only surficial debris was deposited there. However, this month Shaw will be conducting a geophysical survey to find where the surficial waste is and to assess whether any other buried waste is present.

Comments:

- Mr. Craig asked Mr. Parks how quickly Shaw can be out in the field to construct the landfill capping after the construction plans are approved by MDE.
 - MDE representative, Mr. Curtis DeTore stated that the sediment and erosion control plans will take the longest for the state to review. In addition, those MDE personnel who review the sediment and erosion control plans are extremely backed-up and short-handed. So, the sooner Shaw can get their construction plans to MDE, the sooner he can get them to the sediment and erosion control review personnel and they can perform their review.
 - Mr. Craig responded by saying that he spoke with MDE's Mr. John Fairbank on Friday about the same topic and he said that the best action may be to reserve a place in the queue in order to save time. For instance, if we knew that the documents would be sent to MDE in August, to reserve at place in the queue now for an August submission.
 - Mr. DeTore responded by saying that absolutely that is an option and that MDE has become more amenable to that idea recently.
- Mr. Barry Kissin, interested community member, asked a general question as to why the capping work will not be completed by September 2008, when the Environmental Impact Statement he had in his hand stated that the PBC requires that the contractor must have a remedy in place by that time and will not further undergo any intrusive investigation because of the live pathogens found in 2002.
 - Mr. Parks responded by saying that is one of the reasons why Shaw chose to use the EPA approved presumptive remedy for landfills, to cap and cover the sites without digging into them. In terms of the schedule, the timing has drifted due to delays in reviews and the additional concern over further groundwater characterization.

- Mr. Craig added that the timeline has encountered obstacles. There has been some slippage in the timeline, and he is concerned about it. However, the Army wants to ensure that the job is done right, and if that takes some extra time, the Army will deal contractually with it.
- Mr. Kissin had an additional concern over why it has taken since 1992 to work on the environmental issues at Ft. Detrick.
 - Dr. Erbes responded by saying that it has taken a long time, almost 10 years, to even find the waste, and that if they had simply began digging where they originally assumed the waste was in Area B, the Army would have wasted six million dollars because it was in the wrong place.
- Mr. Kissin added another concern regarding the nature of the waste at Ft. Detrick. He went on to say that he is baffled by the Bio Defense Program Expansion and the billions that are being spent on that compared to the amount of money being spent on the cleanup of Ft. Detrick contamination.
 - Ms. Linda Robinson, community member and RAB Co-Chair, said that she thought the Army had been making good progress, in a way that is careful. She added that Shaw has been careful and that she thinks that is very important. She doesn't think that doing the work any faster is even possible, given the structure of rules under the environmental laws.
 - Mr. Gortva added that Shaw can't just go out and do whatever they want to do, because the Army has to work within the regulatory framework. He added that Shaw is ready to cap the sites today, but the Army has to complete the CERCLA process, which involves public review. The capping also has to have regulatory approval. So, the Army can't just go out and construct the landfill caps today.
 - Mr. Parks also wanted to point out that the completion dates are "end-points" and that a lot of work has been going on, not the least of which has been a \$26 million removal of waste at Area B-11. There is also quarterly monitoring of wells. There are things going on that are both partial remedies and also that are giving Shaw the additional information they need so that when they do the final work they, and the public, are assured that it is the best possible remedy. There are a lot of issues that Shaw wants to make sure are addressed. By working with MDE and expediting schedules, it may be possible that Shaw moves construction up to the fall. However, MDE did say that the erosion and sediment control review could take six months. So, as much Shaw has been told that MDE can expedite things, they do not want to give unrealistic schedules that fall apart. Shaw thinks the schedule they presented was a realistic schedule and that they could possibly improve upon it.

6. Area B Groundwater Update - presented by Mr. Jeffrey Parks

There has historically been little change in groundwater flow patterns within Area B. The flow moves to the southeast, towards Carroll Creek. Quarterly monitoring of Area B groundwater wells is conducted, testing homeowner wells on both east and west as well

as onsite wells, with the most recent sampling event occurring in September 2007. The data showed that TCE and PCE concentrations have been decreasing significantly since the removal action at the source area. The plume is evident from the western part of Area B towards Carroll Creek. In the past, the state regulators have expressed concern that the groundwater needs further characterization. The Army and Shaw developed and recently submitted a report to MDE and EPA describing the conceptual site model (CSM) for Area B. It shows how the Army thinks the groundwater is flowing, what the concentrations are doing, and why they're doing that (increasing or decreasing). A CSM is basically a cartoonish representation of what is going on. Then one puts the facts (data) to it in order to test the model to make sure that each new piece of evidence fits into the model. If each piece does not fit, the model needs to be revised until all stakeholders would agree that all the evidence fits the model and that the model does predict what will happen using all those bits and pieces. In terms of the path forward for the Area B Groundwater RI/FS, partnering was reestablished with EPA and MDE and the first meeting is tentatively planned for the 16th/17th of April. Before that meeting, Shaw is planning to perform a well inventory and assessment on historical homeowner wells, to determine which are still in use and which have been abandoned. *[Reviewer's note: The assessment is being performed for locations where residents were connected to public water supplies to determine if any old out-of-service wells may still exist which could be sampled.]*

Comments:

- Mr. Gortva pointed out that since the completion of the Area B-11 removal action, the PCE concentrations at the B-11 site have decreased significantly from over 100,000 ppb to 300-380 ppb.
 - Ms. Robinson asked if that could be explained by any other thing, like weather or groundwater levels changing.
 - Mr. Gortva responded by saying that right now they are attributing the concentration reductions to the B-11 removal. There is still residual material that has to be addressed as part of the RI/FS and hopefully we will find that the reduction was attributed to the removal effort.
 - Ms. Robinson said that historically some people have said that rainfall over a period of many years could make a difference.
 - Mr. Gortva responded in saying that rainfall will help dilute it, but since it was a three-fold reduction in such a short time span, it is hard to believe that it is due to anything other than the B-11 removal efforts.
 - Mr. Parks added that Shaw has done rainfall research on a yearly basis, for instance just spring or winter rainfall, and found that short of span doesn't have a significant change on concentration. However, a long-term drought or rain might make a significant difference.

- Ms. Robinson asked a question concerning what the vapor intrusion part of the model was about.
 - Mr. Parks responded by explaining that it is a potential receptor pathway and that it is possible for TCE and PCE to volatilize from the

groundwater into the soil under or around homes/structures. It is possible for that vapor to reach the surface and off-gas, but most times it simply dissipates as it reaches the soil surface. If there is a structure over the main part of the plume, or over an area that has very high groundwater contaminant concentrations, it is possible for the contaminants to come up as vapor through cracks in a basement and could have volatile organic vapors in a confined space. This is only really important if this happens in a structure where people spend a great deal of time.

- Mr. Craig added that this is a potential pathway that will be explored in the risk assessment portion of the RI.
 - Dr. Erbes added that it has already been explored back in 97-98.
 - Mr. Parks added that this previous study showed that there was not a health-risk associated with this, since the model showed no evidence of vapor-intrusion. It was determined that the old data needed to be updated since there has been new modeling and equipment advancements since then.
 - Mr. Gortva added the details of the soil gas survey will be worked out in the proposed work plan. However, once they were, the Army would present them to members of the RAB for comments.
- Ms. Robinson asked how karst geology is taken into account in the CSM diagram.
 - Mr. Parks responded by saying that it is taken into account from the actual technical data. One has to have a great deal of geotechnical and subsurface information before you can start this analysis. This CSM diagram is just a simplified version of what the data tells us is going on. April 16 is the first partnering meeting where we will probably discuss this CSM further.
 - A question was posed as to the purpose of OMB attendance at last week's meeting.
 - Ms. Edna Falk Curtin, with OMB, explained that OMB was at that meeting because they wanted to hear the status of the project from all stakeholders. They wanted an opportunity to understand where each of the parties; the Army, MDE, and EPA, were sitting on the matter and to get a feel on where the process is. She added that OMB does not get in the middle of the regulatory process, and does not have any control over what EPA decides to do. However, OMB does like to provide their input on matters.
 - Mr. Hank Sokolowski, EPA, made a comment about last week's meeting and how he thought there were some unsolved issues that came out of it. He went on to say that the geology in Ft. Detrick is more complicated than a one-flow direction. There are karst areas and that means that groundwater may be flowing in different directions in certain areas. So, more study and monitoring are needed because of that. He is concerned by the fact that only 10% of the dye

was recovered, at one location, in the 1996 dye test study. He wonders where the other 90% went.

- Dr. Erbes responded by saying that a 10% recovery is typical for the kind of soil at Ft. Detrick.
- Mr. Sokolowski responded that the EPA's hydrogeologist said that more percentage of the dye should have shown up if the groundwater moves the way Shaw says it does. EPA also has issues with the voids in the karst. He concluded his statement by saying that he doesn't think that collecting 10% of the dye from a dye test provides an accurate model. The EPA learned from the meeting that more work, more monitoring, and more characterization still need to be done in other directions. He added that the goal of the meeting on the 16th is to develop a work plan to meet all the requirements/concerns of the EPA and MDE, so that all these potential questions can be answered. Then, they would put this new information back into the conceptual site model, and hope it all fits, in order to create the best possible model. The ultimate goal is to get to a remedy.
- Mr. Parks added that there are also many caps that will be put over contaminated sites in that area, so that groundwater will not continually be affected by the contaminants under these caps.

7. Potential NPL Proposal – Information Update

Mr. Craig stated that he is very proud of the progress the Army is making in its restoration program. The first 5-year review is nearing completion, a \$26 million removal action has been performed at Area B-11, and groundwater concentrations of TCE and PCE have decreased by a several orders of magnitude. The first time that the Garrison Commander's office was aware of the potential NPL issue was when the Deputy Garrison Commander received a phone call from Mr. Sokolowski on May 2nd, 2007, that EPA Region III was considering recommending Fort Detrick's Area B for the National Priority List (NPL). This started a process of notification and information gathering.

Comments:

- Mr. Sokolowski indicated that the recommendation to list Area B could be published in the Federal Register at any time after March 19, 2008, at the discretion of the EPA Administrator. Mr. Sokolowski stated that groundwater contamination has always been the state's main concern. The state's main issue is that the RI/FS had not yet been completed, although it was started in the 90's. The state felt that their voice was not being heard in terms of the groundwater issues. So, they came to the EPA desiring their help in the process. That is what started the potential NPL listing discussion. At this time, it seems "the train is back on the track" and all parties are having open discussions and working together. The reason MDE wanted the site to get listed was so that there would be an enforceable agreement between the state of MD and the Army that would require the state's concerns to be addressed.

- Ms. Curtin, with OMB, was asked to talk a little about OMB's role in the process. She stated that OMB has a chance to make comments on whether or not EPA should list a site, or on any other proposed regulatory action. However, OMB does not have any say or authority over what the EPA finally chooses to do.
- Mr. Charlie Howland, EPA's attorney, stated that the legal path forward began in part by the EPA, because MDE expressed frustration over how the site was being handled. Currently, MDE is the regulatory agency in charge of oversight of the project. However, if the site were listed on the NPL, the EPA would be the lead agency involved in oversight of the project and MDE would be the co-regulator. He added that the regulatory "paperwork" should not in any way slow down the technical progress at the site.
- Ms. Robinson added that she believes "stigma" is an issue too, and she thinks the public would view the site differently if it were listed in the NPL.
- A few meeting attendees added their beliefs that the technical progress would inevitably be slowed some due to the regulatory process involved, if the site were to be listed. Also, concern was expressed over why this site is being listed now, so late in the cleanup process, when the concentrations are so much lower than they used to be.
- Mr. Sokolowski responded that EPA needs to get involved in this project and that the site being listed would allow this. He believes that sites that are listed do get more attention and are treated differently than non-listed sites.
- COL Deutsch added that the three entities working on the site are all in agreement now as to how to fix the issue and are working well together on attaining that goal. She does not see how listing the site will help the process at all.

8. Upcoming Actions / Schedule

The following activities are expected:

Spring 2008

- March: Surficial debris removal and geophysical survey at Site B-18, to assess whether buried waste is present.
- April/May: Area B-3 Inactive, B-6, B-8, trenches North of B-8, B-10, B-10 Grove, and B-11: proposed plans, 30-day public comment period, and public meeting.
- April 16/17: Partnering meeting in Philadelphia to begin development of the RI/FS workplan for Area B groundwater.

Summer 2008

- Finalize the decision documents for Sites B-3 Inactive, B-6, B-8, Trenches North of B-8, B-10, B-10 Grove, and B-11.
- Finalize the construction plans for Sites B-2, B-3 inactive, B-6, B-8, trenches North of B-8, B-10, B-10 Grove, and B-11.

Winter 2008

- Begin construction on sites B-2, B-3 inactive, B-6, B-8, trenches North of B-8, B-10 / B-10 Grove, and B-11.

9. Open Comments

- Mr. DeTore stated that what really takes the most amount of time, in terms of regulatory procedures, is approving the sediment/erosion control plans. So, if Shaw lets him know when they plan to send them in, he will try to expedite the process.
- Mr. Kissin, expressed his concern over how long the Ft. Detrick remediation process was taking, as a whole.
- Dr. Erbes responded to Mr. Kissin by saying that it takes a long time to find the contaminated areas, and the Army wants to use its limited funding wisely.
- Ms. Robinson responded by stating that she believes the Army has made good progress. However, sometimes things get delayed a bit because of the environmental laws structure.
- COL Deutsch agreed with Ms. Robinson and added that the Army cannot simply go out and do whatever it wants to do. The Army has to go through the regulatory processes, which take time.
- Mr. Parks added that there are many issues they want to make sure are looked into and that they don't want to rush the process or else important issues may accidentally get overlooked. The stormwater review itself takes six months.
- Mr. DeTore stated that MDE had been discussing with the EPA, for the past 5-6 years, the prospect of them listing Area B on the NPL. He added that when the site is proposed for listing, citizens may voice their opinion on whether or not the listing is a good idea.
- Ms. Helen Miller-Scott, Community RAB Member, added that as a RAB member, she had never heard of MDE's concerns with how the groundwater issue was being treated and how they wanted EPA to list the site on the NPL.
- Mr. Sokolowski concluded the discussion by adding that the site cleanup will continue now, as soon as possible, regardless of the listing status. Additionally, the EPA will be involved in the site's cleanup process regardless of it is listed or not.
- Ms. Robinson closed the meeting by saying that she was happy with the style and simplicity with which Mr. Parks had presented the technical material. She was also impressed by the attendance, was glad to see that the partnering is live and well, and that on-going groundwater monitoring continues. She also added that she is sad to know that COL Deutsch is leaving soon and will be turning over her information to her successor.

10. Date of Next Meeting

RAB meetings are generally held bimonthly on the second Thursday of the month at 7:30 p.m. at Fort Detrick Building 810, Conference Room 3. The next RAB meeting is tentatively scheduled for 08 May 2008.

11. Meeting Closing

The meeting adjourned at approximately 9:30 p.m.

Reviewed by:

Mr. Joseph Gortva
Restoration Program Manager

Approved/Disapproved

Ms. Linda Robinson
Community RAB Member
Co-Chair

Approved/Disapproved

COL Mary R. Deutsch
Garrison Commander
Co-Chair

Enclosure:

Fort Detrick Remedial Investigation/Feasibility Study Status Update Slide Presentation