



REPLY TO  
ATTENTION OF:

DEPARTMENT OF THE ARMY  
US ARMY INSTALLATION MANAGEMENT COMMAND  
HEADQUARTERS, UNITED STATES ARMY GARRISON  
4551 LLEWELLYN AVENUE, SUITE 5000  
FORT GEORGE G. MEADE, MARYLAND 20755-5000

IMND-MEA-PWE

November 7, 2012

MEMORANDUM FOR Restoration Advisory Board Members

SUBJECT: Minutes for the September 20, 2012 Restoration Advisory Board Meeting

1. The Restoration Advisory Board (RAB) meeting was held on September 20<sup>th</sup>, 2012, at 7:00 p.m. at the Captain John Smathers Army Reserve Center, Hwy 175, Fort Meade, Maryland. The next RAB meeting will be **Thursday, November 15<sup>th</sup>, 7 p.m.**, at the Captain John Smathers Army Reserve Center.

2. The following RAB members were present:

Mr. Tim Berkoff, Community Member  
Mr. Rusty Bristow, Community Member  
Mr. John Burchette, U.S. Environmental Protection Agency  
Mr. Mick Butler, Fort Meade Co-Chair  
Mr. Paul Fluck, Fort Meade Restoration Manager  
Mr. Martin Madera, Community Member  
Mr. Harry Neal, Community Member  
Mr. Kurt Riegel, Community Member  
Mr. David Tibbetts, Community Co-Chair  
Ms. Kerry Topovski, Anne Arundel County

3. Members not present:

Mr. Wayne Dixon, Community Member  
Mr. Francis Coulters, Army Environmental Command  
Ms. Ivana Maksimovic, Community Member  
Mr. Harry Neal, Community Member  
Mr. Howard Nicholson, Community Member  
Mr. Fred Tutman, Community Member

4. Others present were:

Mr. Steve Cardon	Fort Meade BRAC Office (Versar, Inc.)
Ms. Elisabeth Green	Maryland Department of the Environment
Ms. Katrina Harris	Bridge Consulting Corp.
Mr. Tim Lemke	Odenton Patch
Mr. Tim Llewellyn	ARCADIS

Ms. Shelly Morris

ARCADIS

Ms. Denise Tegtmeyer

Fort Meade Environmental Division (Versar, Inc.)

Mr. Bob White

ARCADIS

5. Announcements and Minutes:

a. Mr. Paul Fluck welcomed everyone. Mr. Fluck expressed his appreciation for everyone taking the time and making the effort to be present. He invited all present to introduce themselves.

b. Mr. Fluck reminded everyone of the importance of signing out and the location of restrooms and exit doors.

c. Mr. Fluck made a motion to approve the July 19<sup>th</sup>, 2012, meeting minutes. The motion was seconded and unanimously adopted to approve the July 19<sup>th</sup>, 2012, minutes.

6. Outstanding Items:

a. Mr. Fluck advised Fort Meade's environmental web site ([www.ftmeade.army.mil/environment](http://www.ftmeade.army.mil/environment)) continues to be upgraded with new content, and he encouraged frequent visits to the web site to keep apprised of the latest additions.

b. Mr. Fluck stated Mr. Tim Berkoff had suggested at the last meeting and in a follow-up discussion that it would be helpful to have a way to visualize all the sites on Fort Meade relative to nearby communities. Mr. Fluck proposed the Site Management Plan might be adequate for this purpose. Mr. Fluck invited Mr. Berkoff to talk about his objective and ideas.

Mr. Berkoff stated he is interested in being able to visualize sites at Fort Meade in a Google Earth environment which would show the location and boundaries and allow the user to change the perspective or view and put in additional overlays such as wetlands or floodplains or look at historical information. He continued explaining it is difficult at the Board meetings to visualize where the sites are located and such a tool would be very helpful. Mr. Berkoff offered to help facilitate the development of such a tool and transfer information from a GIS format to a Google Earth format. In response to a question from Mr. Mick Butler about whether the end product would be shared with other Board members, Mr. Berkoff discussed the file format and offered to help other Board members learn to use the information.

Mr. Fluck displayed a map from the Site Management Plan which showed the location of all of Fort Meade's environmental [Installation Restoration and Military Munitions Response Sites] sites.

Mr. Tibbetts stated some parts of the Federal government already have such tools. He advised he would send everyone the link to view a similar tool and to see information on educational webinars which are available on the tool.

Mr. Tibbetts asked if it is possible to have something on the web site where a user could click on a site, bring up data and compile a report, and also be able to manipulate GIS layers. He also asked if it would be possible to have a map on the web site and have all related reports come up when someone clicks on a site. Mr. Butler said he would take these ideas back for further deliberation and investigation.

Mr. Fluck inquired about the need to have controls on the data so that an individual would not be able to put a site in the wrong location or misinterpret data and then share misinformation with the community. Mr. Berkoff said data could be manipulated with any type of map or document. Mr. Tibbetts asked whether it might be possible to have a moderated option. Ms. Kerry Topovski said the County does not share data publicly in this manner because of the concern it might not be presented correctly. She noted when data is shared, it is usually with an institution or university, and the County enters into a data use agreement with the institution before they are able to use the data. She suggested caution be used because of the potential negative consequences. Mr. Butler said his office would also need to be sure any Army security requirements would be met. Mr. Berkoff said a possibility would be for the Army to supply the initial data but for the end product to be under his name so the Army would not have any responsibility for its accuracy.

Mr. Martin Madera asked if it was possible to make the data available but in a format where the data could not be manipulated.

Mr. Berkoff asked if it would be helpful to file a Freedom of Information Act request to get the data points. Mr. Fluck suggested Mr. Berkoff give him some time to discuss the issue with other staff, and he will get back to Mr. Berkoff in the next 30 days. Mr. Berkoff stated he would send Mr. Fluck some examples of government agencies making similar data available.

Mr. Mick Butler said the Army would take the comments back and gather more information on what might be able to be done.

c. Mr. Fluck updated the Board on the consequences of the small fire on Cell 1 of the Closed Sanitary Landfill. He reminded the Board the fire had damaged four vent pipes in the passive gas vent system. He said they are making progress on having those four pipes removed and fixed, but the work would not be completed for several more weeks.

d. Mr. Fluck said a storm had damaged the perimeter fence around Inactive Landfill 2 within the Patuxent Research Refuge North Tract a few months ago. He said the repair of the fence will be taking place soon.

e. Mr. Fluck updated the Board on Site Y. He said Fort Meade had received a draft report from the Army Public Health Command who collected samples and oversaw the analysis of those samples. He advised the objective of the sampling program was to determine whether or not approximately 100 to 150 piles of dirt deposited at the site was a hazardous waste which would determine how it should be disposed. Mr. Fluck said, samples were tested using the Toxicity Characteristic Leaching Procedure (TCLP), and were analyzed for volatiles, semi-

volatiles, herbicides, pesticides and PCBs. The results showed extremely low concentrations of these analytes and the waste is considered non-hazardous. He said the sampling also showed asbestos was only present at extremely low levels. He explained the analysis for radioactivity showed levels consistent with those of background levels. . He advised the Army is working to have a contract in place to have the waste removed off-site before the end of the fiscal year. Once a contract is in place, plans will be prepared, approved, and the waste will be removed and disposed of at an appropriate off-site facility. Mr. Fluck stated the work would include confirmation that no residual contamination is present, and the site would be included in the current preliminary assessment/site inspection (PA/SI) project. He explained the goal of the PA/SI is to identify potential release sites and, where appropriate, begin the CERCLA (Comprehensive Environmental Response, Compensation and Liability Act) process.

f. Mr. Fluck stated he would like to discuss the frequency of Board meetings to ensure they were appropriately calibrated to the timing data becomes available.. He said he recognized everyone's time is valuable, and the Army wants to make as much information as possible available about the cleanup program and be as transparent as possible. He asked the Board if they thought meetings were held too frequently or not frequently enough.

Mr. Tibbetts stated he believes it is a multi-faceted issue tied to the effectiveness of the Board. He said he talked with Lenny Siegel, and Lenny advised the Board he serves on in California meets quarterly because they are in a completion mode whereas Fort Meade is not. He stated he feels it is important to have some regularity to Board meetings as a way to get more members of the public involved. He stated he also recognized that people do not necessarily like to attend meetings or may just want to attend to get certain information of interest to them. He said he is concerned about effectively reaching the target audience, and one of the ways to do that is to have regular meetings that the public can attend. Mr. Tibbetts said he feels six meetings a year is about right as there are still projects to discuss.

Mr. Fluck discussed the possibility of trying to schedule meetings around the availability of new data. He cautioned it might not be possible to forecast six months in advance when data will be available. Logistically, this is more difficult than regularly scheduled meetings, but is doable.

Mr. Madera stated that he believes people use timing as an excuse; if they are committed to attending, they will make the meetings a priority. He said it would not reflect well on the Board if they advised their communities that the Board meets when the Army has something to say. He suggested meetings should be regularly scheduled so Board members can report to those they represent that they have confidence they are being kept informed in a timely, organized manner. Mr. Madera said when things are working well, as they are, it may seem like meetings are not needed as often, but if something goes wrong, the situation could change quickly.

Mr. Rusty Bristow commented that he appreciates the way meetings are scheduled in advance as it makes it easier to schedule other activities. He noted meeting every other month seems to be good timing.

Mr. Kurt Riegel said he supports regularly scheduled meetings. He asked if it would be possible to schedule quarterly meetings with the proviso of calling additional meetings if needed. Mr. Fluck stated if a critical issue arose, it is possible to schedule another meeting.

A motion was made, seconded and unanimously approved to continue to hold meetings every other month.

g. Mr. Fluck opened the floor for nominations or expressions of interest for the community co-chair position. Mr. Tibbetts expressed interest and was nominated by Mr. Bristow. No other nominations were offered. Mr. Tibbetts was elected community co-chair for the next year and accepted the position.

7. Former Pesticide Shop Update:

a. Mr. Fluck introduced Mr. Tim Llewellyn of ARCADIS to give an update on the Former Pesticide Shop.

b. Mr. Llewellyn displayed a graphic of the CERCLA process, noting this Act is the principle law which the Army operates under with respect to the environmental restoration program. He stated there are six major aspects to the process. Mr. Llewellyn said the process starts with a remedial investigation which is the stage at which samples are collected, and a determination is made as to whether there has been some environmental impact. He stated samples of soil and groundwater are analyzed, and risk assessments are performed to determine if there is a potential human health risk or impact to the environment. He noted there was a determination of some environmental impact from historical activity with respect to the former Pesticide Shop, so the process moved forward to the next stage which is the Feasibility Study. He explained the Feasibility Study is the document where a spectrum of remedial alternatives is assessed that could possibly address the contaminants at the site.

Mr. Llewellyn said the process then moves to the Proposed Plan, the public document which summarizes the Army's proposed remedy. He stated this document, like all others, is coordinated with the Maryland Department of the Environment (MDE) and the U.S. Environmental Protection Agency (USEPA). He noted a public meeting to discuss the Proposed Plan for the former Pesticide Shop had been held in the same room as the Board meeting just a month ago [August 15, 2012] to solicit public comments on the proposed remedy. Mr. Llewellyn said he would be showing almost the exact same presentation as given that evening. He stated the site is now at the Record of Decision stage, which is the document that legally obligates the Army to implement the remedy. He advised the Army is working to get the Record of Decision for this site finalized by the end of the fiscal year. Mr. Llewellyn said the next step is the Remedial Design which is the document that describes in details all the aspects of implementing the selected remedy and then the Remedial Action. He stated the Army is hoping to start the Remedial Action at the former Pesticide Shop in the spring of 2013 or perhaps slightly earlier.

c. Mr. Llewellyn reviewed the four primary topics he planned to discuss: site information and background, a summary of the field investigations, the remedial alternatives, and the preferred alternative which is becoming the selected alternative.

d. Mr. Llewellyn next discussed the site information. He displayed an aerial photograph showing Fort Meade and the location of the former Pesticide Shop, noting it is in the center of the Installation near the former golf course. Mr. Llewellyn advised the site is very small, about half an acre, and the former building is no longer present. He explained the U-shaped area represents where Building 6621 used to be. He advised the building was reportedly used as a mess hall during World War II for prisoners of war, and then starting in 1958, the building was used for about 20 years as a pesticide shop. He stated it housed maintenance equipment, pesticides were mixed and loaded into equipment at the site, and some equipment maintenance also occurred at the site. He noted the building was demolished and the site graded in 1996.

e. Mr. Llewellyn showed photographs of how the site currently looks, noting it is just a grassed-covered site with a few trees, no structures, and surrounded by a fence.

f. Mr. Llewellyn summarized the results of the remedial investigation, noting such an investigation under CERCLA can take a long time even for a small site as the investigation is very thorough and includes a number of phases. He stated the investigation started in 1997 and was completed in 2010, and as with all the environmental work at Fort Meade, was done in partnership with USEPA and MDE.

g. Mr. Llewellyn reviewed the sampling results, noting soil sampling found impacts from pesticides and arsenic above screening levels. He stated groundwater sampling found low levels of pesticides but above drinking water standards, as well as volatile organic compounds. He said the impacts were relatively limited in aerial extent to the small area around the former building. Mr. Llewellyn displayed aerial photographs showing the soil and groundwater sampling results. He noted the exceedances are generally centered in the courtyard area of the former building. He explained what is believed to have occurred is that equipment was serviced in this area and there was some spillage at that time. He pointed to an area where there are impacts from pesticides and arsenic in soil to about eight or ten feet deep; he explained the impacted area gets smaller deeper beneath the surface and compared it to an inverted cone.

h. Mr. Llewellyn pointed out the locations of the groundwater monitoring wells and stated the sampling results found only two wells with solvents or pesticides above drinking water standards. He advised the wells were sampled twice in 2010 and summarized the analysis of those samples. He stated the results showed detections of TCE (trichloroethylene) and PCE (tetrachloroethylene), which are common industrial solvents and also mixed as carriers with pesticides. He said the maximum concentration of PCE detected in 2010 was 260 parts per billion compared to a drinking water standard of five parts per billion. He explained the levels drop off quickly at the well a couple hundred feet downgradient. Mr. Kurt Riegel asked about the use of the TCE at that site. Mr. Llewellyn responded the two mostly likely uses were degreasing of the equipment and mixing TCE with the pesticides to carry the pesticides similar to the way an aerosol disperses paint as it is sprayed. Ms. Topovoski asked how often the

groundwater was sampled. Mr. Llewellyn responded that there were two groundwater sampling events in 2010, in addition to other sampling events over the course of the remedial investigation. He advised he did not have the full report with him but would get back to Ms. Topovski with the number of sampling events. [After the meeting, Mr. Llewellyn advised there was one additional sampling event prior to the two sampling events in 2010.] Mr. Riegel asked if any attenuation was occurring, and Mr. Llewellyn responded there was no attenuation observed. Mr. Berkoff asked if there was any current monitoring, and Mr. Llewellyn replied as part of the proposed remedy there would be regular monitoring, and an additional monitoring point would be added.

i. Mr. Llewellyn discussed the pesticides detected in the groundwater and noted there were relatively low levels detected, but the levels were above drinking water standards. He said the pesticides detected were primarily alpha and gamma chlordane which are common pesticides; he said these pesticides were also detected in the soil so it was not surprising to find them in the groundwater. He stated the maximum detection was 5.1 parts per billion compared to a drinking water standard of 2 parts per billion. Mr. Riegel asked if the pesticides are water soluble. Mr. Llewellyn said the pesticides are designed to stick to soils, so they are not often seen in groundwater at high concentrations.

j. Mr. Llewellyn stated the next step was to look at whether the compounds detected presented a potential risk, and the risk assessment found they do. He explained under current use of the site there was no unacceptable risk; however, there was a potential risk for future construction workers who may dig through the soils, or if the site was ever used for residential development and a well was installed for drinking water purposes. He continued explaining that while the Army has no plans to use the site for residential purposes, such a possibility is considered. Mr. Llewellyn said a full ecological risk assessment was not run due to the small size of the site and the lack of good ecological habitat. He noted pesticides could impact ecological receptors, but the proposed remedy would remove the pesticides and the potential impact to ecological receptors.

k. Mr. Llewellyn next summarized the Feasibility Study and the alternatives evaluated for the site. He stated a spectrum of alternatives was examined and narrowed down to three primary alternatives. He said the objectives for cleaning up the site were to prevent human exposure to soil and groundwater that would cause unacceptable human health risks and to restore groundwater to beneficial use. Ms. Topovski asked Mr. Llewellyn to explain what would be an acceptable risk to human health. Mr. Llewellyn responded that we all face health risks everyday so USEPA set a baseline for increased probability of getting cancer of one in a million. He continued explaining that if a risk assessment shows an increased probability of getting cancer within a certain range USEPA deems it acceptable and not related to site exposure; if above a certain range, it is considered an unacceptable risk.

l. Mr. Llewellyn reviewed the three primary alternatives evaluated for the site. He said the no action alternative is required to be examined by law and provides a baseline. He stated the second alternative looked at was enhancing the land use controls already in place such as controlling digging at the site. Mr. Llewellyn said the third alternative involves removing

contaminated soils and treating the groundwater using enhanced reductive dechlorination technology. He noted the groundwater technology is the same as the in-situ bioremediation technology discussed at previous meetings and is preferred over pumping out the groundwater and treating it above ground.

m. Mr. Llewellyn further explained the proposed groundwater technology noting it would involve taking a sugar substance and injecting it into the subsurface. He stated the sugar would stimulate naturally occurring bacteria, the bacteria populations expand, and as part of their respiratory life cycle they break down the solvents in the groundwater. Ms. Topovski asked at what depth the contamination was found, and Mr. Llewellyn said the contaminants are 20 to 30 feet below ground surface.

n. Mr. Llewellyn reviewed the comparison of the three alternatives to the legally-required criteria. He stated the no action alternative was not protective and does not meet regulations. He said the land-use controls would result in nothing being removed, but potential risks are controlled by limiting access. He noted the soil excavation and groundwater treatment remedy, the Army's preferred remedy, eliminates future risk, complies with applicable regulations, is effective in the long-term, and has a higher cost than the other alternatives but is still cost-effective. Mr. Riegel asked when land-use controls would be acceptable to the regulators. Mr. Llewellyn responded land-use controls are often selected at very low risk sites, and, thus, it is a potential alternative for this site. He said another situation might be when contamination is at some depth, perhaps 10 feet, and is well controlled. Mr. Llewellyn noted land-use controls are almost always part of every remedy. Mr. Riegel asked how long the land-use controls would be in place, and Mr. Llewellyn said if that was all that was done, they could be in place in perpetuity.

o. Mr. Llewellyn discussed some of the details of the preferred remedy noting it would be about 700 tons of pesticide-contaminated soil that would be removed. He stated there would be pre-excavation sampling to define the limits of the excavation, and plans for the additional sampling are now being developed. He said post-excavation sampling would confirm all the contaminated soil had been removed. Mr. Llewellyn explained the site would be cleaned up to industrial standards, so land-use controls would be in place to prevent conversion to residential use without additional work.

p. Mr. Riegel asked where the excavated soil would be taken for disposal. Mr. Llewellyn said the soil would mostly like go to the King George landfill in Virginia which is a permitted landfill. He stated if there was a large volume of soil being excavated on-site treatment might be performed, but this method is not economically viable for smaller volumes of soil. Mr. Fluck added that where the soil is going there are specific engineering controls in place to manage and monitor the waste which cannot be readily done where the soil is now. Mr. Llewellyn added that USEPA approves the locations where contaminated soil is taken. Mr. Butler added that the soil is considered the source of the groundwater contamination which is another reason why removal is preferred over a remedy like putting a cap in place.

q. Mr. Llewellyn said there are a number of different substrates that can be injected into the groundwater for treatment. He explained emulsified vegetable oil was selected for this site because of its viscous nature which would make it stick around for a long time, compared to a substance like molasses which would flow through much more quickly. He stated the long-term monitoring would include the addition of a new monitoring well and would ensure the remedy is working; he noted the long-term monitoring would gradually decrease from quarterly to semi-annual to annual.

r. Mr. Llewellyn explained more soil would be removed from the surface to about two feet, and less volume would be removed as the excavation moved deeper. He said the estimate is about 700 tons.

s. Mr. Llewellyn showed a conceptual design of the groundwater treatment which would involve two lines of injection wells. He noted there is a clay layer at the bottom of the aquifer [Lower Patapsco Aquifer]. In response to a question from Mr. Bristow, Mr. Llewellyn said the clay layer starts at about 40 to 45 feet below ground surface. In response to a question from Mr. Butler, Mr. Llewellyn said the remedial goal is to return water to beneficial use by getting the water in the aquifer below drinking water standards from 260 parts per billion to five parts per billion or less. He said the goal for the soil remedy is to remove any of the pesticide and metals contaminated soils which are above industrial standards. Mr. Butler said these goals are in spite of the fact that there are no drinking water sources in the immediate area. Mr. Llewellyn said Mr. Butler's statement is correct that no one is drinking this water, but it could be used as a drinking water source in the future, so the law requires it to be returned to drinking water quality.

t. Mr. Riegel asked if there is any certainty that the in-situ groundwater treatment will be effective. Mr. Llewellyn said the technology has been used at a number of sites over the past 10 or 15 years and has been very effective. He said more information could be presented at a future meeting or information can be found through a Google search online.

#### 8. Manor View Dump Site Update:

a. Mr. Fluck introduced Mr. Bob White of ARCADIS to provide an update on the removal action and recent monitoring.

b. Mr. White stated he would provide a brief update of work at the site, review the methane sampling data for the last several weeks, and show pictures of the site as it looks today.

c. Mr. White advised excavation and backfilling of the site had been completed at the end of July. He reminded the Board the soil vapor extraction system had been shut off during the removal. He stated the system was restarted and run for the first two weeks of August to flush any residual methane and then was shut down. Mr. White said four weeks of methane data had then been collected.

d. Mr. White showed an updated aerial photograph of the site which showed the final excavation boundaries which had been advanced based on visual identification of waste material.

e. Mr. White reviewed the methane sampling data and noted the majority of sampling points showed non-detect for methane. He said it was important to note that there continues to be no detections of methane nearest the occupied residences. He said there were four locations with sporadic methane detections, including vapor monitoring points 30 and 31 where there have been consistent methane detections. He noted these detections are much less than the magnitude seen prior to the excavation. Mr. White said the four weeks of data is preliminary, and weekly sampling will continue. He said by the next meeting there would be a full quarter of data to present. Mr. Madera asked if the detections were normal or cause for concern. Mr. White responded that the data was not a surprise, and they feel confident all the methane generating waste has been removed. Mr. Tibbetts asked why monitoring points 30 and 31 always have higher detections, and Mr. White said he did not know of a reason why that has occurred.

f. Mr. White showed pictures of what the site looks like currently. He stated the site restoration and seeding of the site had taken place approximately three weeks ago, and grass is starting to grow.

8. Update on the Odenton Groundwater Contamination Interim Measures Project:

a. Mr. Fluck introduced Ms. Shelly Morris of ARCADIS.

b. Ms. Morris displayed data from July, August and September. She noted there had been very little change, and levels are still very low. Mr. Berkoff asked if there were any maximum contaminant level exceedances in this quarter's data, and Ms. Morris said there were none. She said once access agreements are finalized, the new wells will be installed. Mr. Fluck expressed his appreciation to Anne Arundel County and Ms. Topovski for helping with the process of obtaining rights of entry.

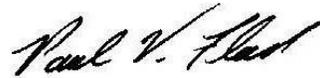
IMND-MEA-PWE

SUBJECT: Minutes for the September 20<sup>th</sup>, 2012 RAB Meeting

10. Open Discussion/New Business:

a. Mr. Fluck invited Board members to contact him with potential topics for the next meeting. Mr. Tibbetts said he would like to see the topic of increasing public participation included on the January agenda.

b. The meeting was adjourned at 9:09 p.m.



FOR

MICHAEL P. BUTLER  
Chief, Environmental Division

CF:  
RAB MEMBERS  
FGGM GARRISON COMMANDER  
PUBLIC AFFAIRS OFFICE