



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

REPLY TO
ATTENTION OF:

IMND-MEA-PWE

July 15, 2011

MEMORANDUM FOR Restoration Advisory Board Members

SUBJECT: Minutes for the May 19, 2011 Restoration Advisory Board Meeting

1. The Restoration Advisory Board (RAB) meeting was held on May 19th, 2011, at 7 p.m. at the Captain John Smathers Army Reserve Center, Hwy 175, Fort Meade, Maryland. The next RAB meeting will be **Thursday, July 21st, 7 p.m.**, at the Captain John Smathers Army Reserve Center.

2. The following RAB members were present:

Mr. Rusty Bristow, Community Member
Mr. Mick Butler, Fort Meade Co-Chair
Mr. Wayne Dixon, Community Member
Mr. Paul Fluck, Fort Meade Restoration Manager
Mr. James Fraser, Community Member
Mr. Matt Jones, Community Member
Mr. Martin Madera, Community Member
Mr. Harry Neal, Community Member
Mr. David Tibbetts, Community Co-Chair
Mr. Fred Tubman, Community Member
Mr. Brian Chew for Ms. Kerry Topovski, Anne Arundel County

3. Members not present:

Mr. John Burchette, U.S. Environmental Protection Agency
Mr. Blight Carter, Community Member
Mr. Ed Dosek, Community Member
Ms. Laurie Haines, Army Environmental Command
Ms. Ivana Maksimovic, Community Member
Mr. Howard Nicholson, Community Member
Ms. Kathy Scott, Community Member

4. Others present were:

Mr. Steve Cardon	Fort Meade, Base Realignment and Closure Office
Ms. Jenn Casteline	Fort Meade, Public Affairs Office
Mr. Marcus Craig	U. S. Army, Base Realignment and Closure Office

Mr. Rick Grills	Maryland Department of the Environment
Ms. Katrina Harris	Bridge Consulting Corp.
Mr. Bill Hudson	U.S. Environmental Protection Agency
Mr. George Keller	Bridge Consulting Corp.
Mr. George Knight	Fort Meade, Environmental Division
Ms. Shelly Kolb	ARCADIS-Malcolm Pirnie
Mr. Tim Llewellyn	ARCADIS, Inc.
Mr. Dan Sheehan	ARCADIS-Malcolm Pirnie
Mr. Lenny Siegal	Center for Public Environmental Oversight
Mr. Larry Tannenbaum	U.S. Army Institute for Public Health
Ms. Denise Tegtmeier	Fort Meade, Environmental Division
Ms. Gretchen Welshofer	URS Corporation

5. Announcements and Minutes:

a. Mr. Paul Fluck welcomed everyone. Mr. Fluck welcomed Mr. Lenny Siegel from the Center for Public Environmental Oversight in California. Mr. David Tibbetts introduced Mr. Siegel, noting he was a long-time environmental activist and a member of the first Restoration Advisory Board (RAB) at Moffett Field in San Francisco. Mr. Tibbetts stated Mr. Siegel currently consults with the Defense Department on environmental issues and has a wealth of experience. He invited Mr. Siegel to address the Board. Mr. Siegel's discussion occurred prior to the calling the RAB to order.

b. Mr. Siegel stated he had been involved nationally in the Federal Facilities Environmental Restoration Dialogue Committee, as well as the Technical Review Committee and its replacement RAB at Moffett Field. He said he had been hired by San Francisco University and that project eventually evolved into the Center for Public Environmental Oversight. He noted he travels around the country to share their experiences at Moffett Field and on the overall cleanup process, including serving on two National Academy of Science Committees overseeing activities at Fort Detrick. Mr. Siegel stated RABs have the opportunity to learn about the issues and the technologies and cleanup process to address them, to influence the military to do better, and to lobby Congress and regulators to make sure funds are there to carry out programs. He said he is an advocate for technical consultants where there is a need to have assistance with reading documents and to draw on additional technical resources to understand issues and technologies. He stated while he is not available as a consultant to the Fort Meade Board, he can be a resource to answer questions and to help understand the process. Mr. Siegel also mentioned his web site at www.cpeo.org contains many articles on environmental restoration, including restoration at military sites, and technology; he encouraged community members to use it as a resource.

c. Mr. Tibbetts, community co-chair, called the meeting to order. Mr. Fluck thanked everyone present for attending. Mr. Fluck asked everyone present to introduce themselves. He expressed the Garrison's continued appreciation to the U.S. Army Reserves and the facility personnel for the use of the facility. Mr. Fluck emphasized the importance of everyone signing in and out and discussed the location of building exits, restrooms, and vending machines.

d. Mr. Fluck made a motion to adopt the March 17th, 2011 meeting minutes. The motion was seconded and unanimously adopted to approve the March 17th, 2011 minutes.

6. Outstanding Items:

a. Mr. Fluck discussed the Board membership outreach efforts. He noted there were three current approved community members and seven provisional community members. He advised another community member had recently expressed interest in submitting an application for membership. He mentioned Fort Meade's Public Affairs Office continues to issue press releases a few weeks prior to Board meetings so the community is aware meetings are open to the public and to encourage additional applications. He noted the Commander's official decision regarding the provisional members should be available by the next Board meeting; he reminded the Board the Commander reviews the proposed members to ensure the Board reflects the diversity of the surrounding communities.

b. Mr. Fluck said another outstanding item is the updating of the Board's 2004 charter. He expressed appreciation for comments received from Board members and noted he has a draft that he will circulate for review.

c. Mr. Fluck discussed the logistics for an upcoming tour including the timing and the sites to be visited. He offered anyone who was unable to attend once the tour is scheduled the opportunity to call him and arrange an individual tour at another time. Mr. Mick Butler mentioned the upcoming off-post monitoring well installation that ARCADIS will be doing and noted community members might want to take advantage of the opportunity to see the wells being installed. Mr. Tim Llewellyn of ARCADIS confirmed ARCADIS will be glad to accommodate a site visit. The Board agreed a Saturday morning would be the best time for a tour. Mr. Fluck advised he would put together a proposed itinerary as well as a synopsis of each site. Mr. Fluck and Mr. Tibbetts encouraged additional input on sites to be visited during the tour.

7. Human Health Risk Assessment 101:

a. Mr. Fluck introduced Mr. Larry Tannenbaum, a Senior Health Risk Assessor from the U.S. Army Institute for Public Health to provide a general overview of risk assessments.

b. Mr. Tannenbaum provided a summary of his background and experience noting he has been with the Army for 17 years; prior to his Army career, he worked for the U.S. Environmental Protection Agency (EPA) Region II. He stated he is a biologist by training with a specialty in ecology and has been performing risk assessments for his entire career. Mr. Tannenbaum added that he is an editor for the Society of Environmental Toxicology and Chemistry journal and has been published in various publications more than 25 times.

c. Mr. Tannenbaum stated he first needed to talk about risk before discussing risk assessment. He said everyone faces risk and engages in risky behaviors everyday such as

driving, smoking, playing the stock market, and even typing; all activities have some element of risk associated with it. Mr. Tannenbaum showed some definitions of risk, including “the possibility of a negative consequence resulting from a specific action.” He stated a risk is something we do not want to happen.

d. Mr. Tannenbaum discussed the reasons why health risks are assessed noting it is required by regulation and for the purpose of determining whether a cleanup is needed and if it is safe to buy a house in a particular area or station soldiers in an area. He noted diverse groups are involved in risk assessments including the public, regulators, assessors and risk managers.

e. Mr. Tannenbaum stated a key component of the assessment and management process is good risk communication throughout the process. He said just because chemicals are present does not mean there is a problem, and information needs to be communicated so it can be easily understood.

f. Mr. Tannenbaum said the reason for conducting a risk assessment is to forestall health effects from coming due within the lifetime of the people who are exposed. He continued explaining that when there is a modeled unacceptable risk, the Army intervenes as there is information to show continued exposures will cause health effects.

g. Mr. Tannenbaum explained that in a health risk assessment, risk is a function of toxicity and exposure; if something is not very toxic, it takes much exposure for there to be a risk while something very toxic may have a risk after one exposure.

h. Mr. Tannenbaum discussed a study done with deer to examine the impact of an animal’s roaming on its potential exposure to an ecological risk and how exposure is a key component of evaluating a potential risk.

i. Mr. Tannenbaum reviewed the essential elements of an exposure pathway: a contamination source (examples are tanks, stack release, drums, buried waste), environmental media that the contamination can get into (air, biota, groundwater, sediment, soil, surface water), a migration pathway or point of exposure (where a person meets up with the contamination such as ingesting locally-caught fish or swimming), and a route of exposure (dermal, ingestion, inhalation, or occasionally injection).

j. Mr. Tannenbaum listed the four steps to a human health risk assessment: hazard identification (what is the chemical and where did it come from), exposure assessment (who is exposed and to how much), toxicity assessment (how toxic is the chemical and is any pathway more toxic than another), and risk characterization (making concrete statements about what has been found).

k. Mr. Tannenbaum next discussed how contaminants of potential concern are selected through a screening process which looks at the frequency of detection, compares the on-site concentrations and background concentrations, compares the on-site concentrations with risk-based numbers which are known to equate to an effect, screens out nutritional essentiality,

examines the site history, and performs geochemical screening. He showed a chart of some of the risk-based benchmarks which are available from EPA and states. Mr. Tannenbaum later noted that Maximum Contaminant Levels are established based on technical practicability and are not risk-based. He stated detections are also compared to naturally-occurring background levels to determine whether they should be included in the risk assessment.

l. Mr. Tannenbaum explained that during the next step, exposure assessment, a determination or estimation is made of the magnitude, frequency, duration and route of exposure; for example, how often a person might be drinking the water and in what quantity. He stated if there is no exposure then there is no health hazard, even if the chemical is very toxic. Mr. Tannenbaum displayed a chart presenting exposure pathways and pointed out different types of receptors might be included such as residents or workers. He noted site specific information is used as much as possible, but if not available, the average number is used. He advised different population types are taken into account, such as the elderly and children.

m. Mr. Tannenbaum next discussed the toxicity assessment, explaining that both cancer risk and non-cancer hazard are evaluated. He explained how the toxic effects arising from exposure to contaminants of potential concern are expressed quantitatively. He said cancer risk is evaluated by looking at how likely it is a person would develop cancer from the exposure over and above the background level; currently, the rate of cancer in the United States is between one in every three persons and one in every four persons. He advised the level that has been established is anything greater than one in ten thousand is unacceptable. Mr. Tannenbaum stated for non-cancer hazards the Hazard Index is used, and a number either above or below one is developed; above one would require further evaluation. Mr. Tannenbaum displayed a list of factors affecting toxicity and the data needed for a toxicity assessment.

n. Mr. Tibbetts asked why there is a different scale for cancer risk versus non-cancer risk. Mr. Tannenbaum responded that cancer risk is expressed as a probability while non-cancer risk is expressed as a threshold where there is only an effect if that threshold is exceeded.

o. Mr. Siegel commented it is often difficult for the general public to understand the quantitative aspects of risk assessment, especially as the experts argue about what the standards should be for certain chemicals. He noted as a starting point the general public can understand whether there is an exposure pathway. He referenced Mr. Fluck's earlier comment that proximity is not necessarily exposure. He said contaminated groundwater 500 feet under a residence where the water is not used for drinking may need to be cleaned up, but there is no increased risk to the occupants because of that exposure. He gave an example of residents near Fort Detrick who believe they are sick because they live near the base but are unable to identify what is the likely pathway. Mr. Tannenbaum concurred with Mr. Siegel's comments and added that the Army would study the movement of the groundwater contamination where there is no immediate exposure to assess its flow and ensure there would not be an impact in the future on a different population.

p. Mr. Butler asked for any current information on cumulative risk debate where several chemicals are found at a site and individually do not cause a risk but might pose a risk if looked

at from a cumulative perspective. Mr. Tannenbaum said in his experience there is typically one chemical driving the risk. He noted cumulative risk more frequently refers to the question of whether the naturally occurring background levels of risk should be included with any site-related risk added to the background risk. Mr. Tannenbaum noted no final decision has been arrived at for this type of cumulative risk issue.

q. Mr. Butler stated the Army has spent \$82 million dollars to understand the impact of past practices at Fort Meade as reflected in Mr. Tannenbaum's presentation such as data collection, site characterization, installing wells, sampling and risk assessments. He noted that the process the Army follows, as mandated by EPA, sometimes results in comprehensive studies and field work, but no cleanup action because there is no risk.

r. Mr. Siegel stated that risk is not the only factor that goes into remedy selection, and suggested a presentation on the nine criteria used to evaluate remedies might be helpful. Mr. Tibbetts suggested repeating the presentation on the RCRA/CERCLA process. Mr. Fluck agreed with these suggestions.

8. Inactive Landfill #2:

a. Mr. Fluck introduced Ms. Denise Tegtmeier of Fort Meade. Ms. Tegtmeier displayed an aerial map and pointed out the location of Inactive Landfill #2 near Tipton Airfield and the Patuxent Research Refuge-North Track. She also showed a site map and noted the boundaries of the landfill are outlined in red. Ms. Tegtmeier stated the site consists of approximately 24 acres of fenced area with the landfill being about 10 acres.

b. Ms. Tegtmeier highlighted the site's historic use noting from the time of Fort Meade's creation in 1917 until 1992 the site was an impact area, so there is a potential for munitions to be present. She stated disposal of debris started in 1938 and continued through the 1950s, with less disturbance in the 1970s and 1980s. Ms. Tegtmeier displayed a list of studies that have been conducted at the site, including the ordnance survey in 1994. She stated the Army retained this site when the Tipton Airfield property was transferred and put up a fence at the site which is periodically inspected as required by the Decision Document. She advised the Decision Document also prohibits any surface or sub-surface excavation at the site without advance Army approval, and later documents restricted the use of the groundwater and implemented bi-annual groundwater monitoring. Ms. Tegtmeier noted the site was included in the 2006 historical records search and site inspection under the Military Munitions Response Program.

c. Ms. Tegtmeier displayed several photographs showing the area starting to be disturbed in 1943 and the area starting to re-vegetate in 1977 but with some ground scarring still visible in the northern area.

d. Ms. Tegtmeier summarized munitions use at the site noting it was part of the larger training and maneuver area from 1917 through 1992. She stated ordnance surveys uncovered anti-tank rockets, large caliber projectiles, a landmine, and a smoke grenade which was what was

expected to be present based on historic use of the site. Ms. Tegtmeier explained that because of the metallic debris and wetlands at the site, the area could not be cleared of ordnance like the other areas surrounding the airport and refuge, so the Army fenced the area; since the Army owns and maintains the site, it was included in the Military Munitions Response Program.

e. Ms. Tegtmeier noted there is a possible canister recovery area where a report stated a heavy equipment operator uncovered canisters and was overcome by gases. She advised that the report led to investigations by the Army. She showed the suspected location where the incident occurred on a map and stated the area historically had signs stating "prohibited area." Mr. Fluck added that the Army's additional investigation and evaluation of the suspected canister concluded it did not contain mustard as initially reported but more likely contained a lachrymator (tear gas) which was used at Fort Meade for training purposes.

f. Ms. Tegtmeier advised the landfill is inspected annually and a report issued with the results of the inspection. She said the most recent report was done in September 2010, and the recommendations from that inspection were to replace portions of the fence, repair the gate at the northern end, clear vegetation from the fence, remove trees that have fallen on the fence, and replace some faded signs. Ms. Tegtmeier displayed a map from the annual report showing the location of the areas where recommendations were made, as well as some photos of the areas needing attention.

g. Ms. Tegtmeier said the next step is for the Army is to hire a contractor to confirm the report and make recommendations for fixing and preventing any reoccurrence. She stated the contractor would prepare a work plan for conducting the work, and there will be ordnance support available during the work if any munitions are encountered. She advised the Army will continue to conduct annual inspections and make sure signage is up to date.

h. Mr. Harry Neal asked if bids would be accepted from local contractors for the vegetation removal and how the removal would be performed. He stated he was concerned about the use herbicides and asked specifically what herbicide will be used at the site. Mr. Fluck responded that Fort Meade strives to use local contractors where possible, but they have to be on the GSA schedule. He noted the Army had awarded the contract for clearing of the vegetation and repair of the fence to PIKA who is an 8A corporation. He stated the contractor will be removing the vegetation mechanically and by hand; Ms. Tegtmeier added that the details will be available in the work plan. Mr. Fluck noted the application of herbicide will be a separate effort that would occur in fiscal year 2012. He stated the Army has been in discussion with Fish and Wildlife staff at the refuge about the specific herbicide, and he will find out the name of the herbicide and provide Mr. Neal with the information.

i. Mr. Neal referenced an EPA program which encourages use of local businesses and offers training to do the needed work. Mr. Bill Hudson of EPA mentioned this program is a Headquarters initiative and might not apply to Federal Facilities. Mr. Fluck stated many contractors the Army uses have local offices including ARCADIS in Millersville, Malcolm Pirnie in Baltimore, and URS in Gaithersburg. Mr. Siegel asked if Fort Meade had an outreach program to local contractors so they would be aware of the jobs and compete. Mr. Fluck

responded Fort Meade [Installation Restoration Program] did not have a specific outreach program and the environmental contracts are administered through the Army Environmental Command [and the Army Corps of Engineers]. Ms. Shelly Kolb of Malcolm Pirnie stated the contracts have small business subcontracting goals that a larger company needs to meet, and typically the small businesses are local.

9. Base Realignment and Closure Act Update/Ordnance Demolition Area Proposed Plan:

a. Mr. Fluck introduced Ms. Gretchen Welshofer of URS Corporation.

b. Ms. Welshofer advised a public meeting had been held several weeks prior at the Wildlife Refuge Visitors Center, and she would be presenting the same information as had been provided at the public meeting. She stated the purpose of the meeting was to provide information on the site, welcome feedback from the public and stakeholders on the cleanup remedy proposed for the site, and discuss any concerns or issues regarding the Proposed Plan and the remedial alternatives.

c. Ms. Welshofer reviewed the background of the site, noting the Ordnance Demolition Area is a Legacy Base Realignment and Closure Act (BRAC) Program site and a former Fort George G. Meade site. She advised the site is located within the Patuxent Research Refuge North Tract. Ms. Welshofer said the U.S. Army is the lead agency for the environmental restoration activities at the site, in coordination with the U.S. Environmental Protection Agency and the Maryland Department of the Environment. Ms. Welshofer advised there is a Congressional mandate to transfer the Ordnance Demolition Area to the U.S. Fish and Wildlife Service as a wildlife sanctuary. She stated another document driving the environmental remediation is the Federal Facility Agreement signed in 2009.

d. Ms. Welshofer displayed an area map and pointed out the North Tract and the site location to the south near the Patuxent River. She also showed a site map and pointed out several site features including the outer and inner berms.

e. Ms. Welshofer noted the Ordnance Demolition Area is inactive. She said the years of operation are unknown, but the site was used for the demolition of unexploded ordnance from Fort Meade and the Patuxent Research Refuge-North Tract parcel. She said the site may have been used for the demilitarization of obsolete and out-of-date training rounds. She noted the demolition occurred within the bermed pit area.

f. Ms. Welshofer stated the berms are composed of earthen materials and were safety features for the demolition of the ordnance items. She said the inner berm is about 40 feet by 80 feet and mostly filled with sand. Ms. Welshofer stated the outer berm is constructed of similar materials. She said the area between the berms varies from 50 to 200 feet and is a flat, grassy area. Ms. Welshofer advised the entire site is about two and a half acres.

g. Ms. Welshofer discussed the contamination found at the site. She said there is a potential for munitions and explosives of concern to be present in the sub-surface at the site from

the artillery and munitions training exercises conducted by Fort Meade. She advised that in 1995 an ordnance survey was performed to search for ordnance down to a depth of six inches.

h. Ms. Welshofer stated the Army has implemented measures to provide protection from the munitions and explosives of concern. She stated the Army has put land use controls in place to prohibit any excavation or disturbance of surface or sub-surface soils without ordnance technician support. She noted the Patuxent Research Refuge-North Tract provides materials and education of the public and personnel about ordnance hazards to increase awareness. She stated they provide examples of what munition items look like and what to do if suspected ordnance items are found.

i. Ms. Welshofer stated a remedial investigation in 2002 looked at the soil, surface water, sediment and groundwater at the site. She advised detections of volatile organic compounds, explosives, and metals were found in site soils; in addition, metals were detected during the sampling of surface water and sediment in the seep which runs close to the Ordnance Demolition Area. She explained human health and ecological risk assessments were performed, and the results showed no adverse health effects are likely to occur from exposure to soils, surface water and sediment.

j. Ms. Welshofer next reviewed the groundwater investigation and advised volatile organic compounds, explosives, polycyclic aromatic hydrocarbons, and metals were detected in the groundwater. She explained the human health risk assessment determined that consumption of groundwater at the site is not a complete exposure pathway since land use controls prohibit the use of groundwater at the site; in addition, the current and future use of the site is as a wildlife refuge. Ms. Welshofer continued explaining that EPA recommended a residential scenario be evaluated for groundwater and did a set of risk calculations to calculate the worst case scenario.

k. Ms. Welshofer referenced Dr. Tannenbaum's earlier presentation which explained an acceptable cancer risk range is 10^{-4} to 10^{-6} which is one additional chance in 10,000 to one additional chance in 1,000,000 that a person will develop cancer if exposed to contaminants at a site. She stated that action would be taken if 10^{-4} is exceeded but if the results are within the range, the stakeholders would discuss what should be done. Ms. Welshofer advised that the non-cancer threshold is a hazard index of 1; if the risk is at or below 1, no adverse health effects are expected.

l. Ms. Welshofer displayed a chart summarizing the risk assessment results. She explained the remedial investigation report looked at a current and future recreational user of the site and also looked at a construction worker who might excavate soils. She stated the results were within the acceptable range, and the human health risk assessment concluded adverse health effects are not likely to occur. She advised EPA's analysis using residential scenarios and 2002 data showed some potential for adverse health risks. She advised during the five-year review process, EPA re-ran the numbers using data collected between 2002 and 2008, and while the potential non-cancer numbers have decreased below 1, the cancer range results are still slightly above 10^{-4} .

m. Ms. Welshofer reviewed the preliminary remediation goals discussed in the human health risk assessment. She explained the first column of numbers represents the highest detected level from sampling conducted in September 2010. She noted the only compound detected in excess of the preliminary remediation goals is tetrachloroethene (PCE). She also noted that only one detection of PCE from one well during the September 2010 sampling event was above the preliminary remediation goal.

n. Ms. Welshofer stated a Focused Feasibility Study was developed to look at clean up alternatives for the site. She explained they researched different remedial measures and then developed five remedial alternatives. She stated the five alternatives were evaluated against nine criteria and then a preferred alternative was selected.

o. Ms. Welshofer reviewed the five alternatives evaluated in the Focused Feasibility Study: no action, land use controls, monitored natural attenuation with land use controls, enhanced anaerobic bioremediation with land use controls, and pumping and treating the groundwater with land use controls. Ms. Welshofer said after evaluating the alternatives against the criteria, alternative three was chosen as the preferred alternative—monitored natural attenuation with land use controls.

p. Ms. Welshofer displayed a summary table of the results of comparing the alternatives against the criteria. She explained the first two criteria are overall protection of human health and the environment and compliance with ARARs which are applicable regulations and standards. She stated for the Ordnance Demolition Area the applicable standards are the maximum contaminant levels. Ms. Welshofer reviewed the other criteria: long-term effectiveness and permanence, reduction of toxicity/volume/mobility through treatment, short-term effectiveness, implementability and cost. Ms. Welshofer stated there are many factors involved in selecting a preferred remedy, and for this site alternative three was selected as the preferred alternative.

q. Ms. Welshofer discussed the preferred alternative, noting the monitored natural attenuation component would involve ensuring site conditions are conducive to the natural breakdown of certain chemicals. She stated there would also be annual long-term groundwater monitoring. Ms. Welshofer noted restrictions on groundwater use, prohibitions on residential use of the site, and restrictions on excavations at the site would also be in place. Ms. Welshofer advised the Army plans to submit a Land Use Control Implementation Plan to the stakeholders. She explained the plan is an agreement which clearly defines the roles and responsibilities of the Federal and State regulators, local government officials, and private stakeholders in the long-term administration management of land use controls at a site.

r. Ms. Welshofer showed the information provided to the public on how they could submit comments or any concerns, as well as contact information and the web site link.

s. In response to a request from Mr. Steve Cardon, Ms. Welshofer stated there was a 30-day public comment period, and prior to the comment period starting, there was a detailed

notice in three local newspaper networks (Maryland Gazette, Crofton West County, and Bowie Blade). She noted there was also information posted on the Fort Meade web site.

t. Mr. Tibbetts asked if the Board members had been notified of the meeting, and Mr. Cardon said they had not been notified outside of the newspaper notices, but he would be glad to address any concerns or comments. Ms. Welshofer stated Board members would be notified of meetings and public comment periods for upcoming actions.

10. Update on the Manor View Site:

a. Mr. Fluck introduced Mr. Tim Llewellyn from ARCADIS. Mr. Llewellyn showed an updated version of the map typically shown at the Board meetings and noted some requests from Board members for additional details had been incorporated into this version. He advised the map now shows the extent of the waste outlined in yellow. He reminded the Board the site is about a 10-acre dump, mostly filled with inorganic construction debris. He stated there is an area within the dump of about an acre in size with organic waste that is breaking down and producing methane. He stated the interim measure at the site is a vapor extraction system which has been operating since 2005.

b. Mr. Llewellyn advised there had only been one unscheduled shutdown in the last two months which occurred due to some BG&E work in the area which interrupted the power supply. He said the auto-dialer made the appropriate notifications, and when ARCADIS responded, the auto-start sequencer had re-started the system so there were no issues. Mr. Llewellyn advised there was a vandalism incident with one of the extraction units, and a temporary fix was installed with a permanent fix to be in place soon.

c. Mr. Llewellyn reviewed the results from the sampling data collected over the last two months and stated there were no unexpected results, and the data was consistent with past data sets.

d. Mr. Llewellyn briefly discussed the more permanent solution being proposed for the site which is the proposed excavation of the methane generating waste this coming winter. He noted the Army and ARCADIS are working with the regulators to try and accelerate the removal of the waste so the action would not be delayed until next winter, since winter is the preferred time for the excavation. Mr. Llewellyn stated more updates on the removal will be provided to the Board at upcoming meetings. Mr. Butler added that Fort Meade would be in close contact with the school regarding the proposed excavation.

e. Mr. Tibbetts asked if the groundwater at the site had been sampled for vinyl chloride. Mr. Llewellyn responded it had been, and low levels of vinyl chloride had been detected. Mr. Siegel asked if any vinyl chloride had been detected in the off-gas, and Mr. Llewellyn said he would check the data and provide the information after the meeting. In response to a question, Mr. Llewellyn explained that vinyl chloride is a breakdown produce of TCE, a degreasing solvent.

11. Update on Groundwater Contamination in Odenton, Maryland:

- a. Mr. Fluck introduced Ms. Shelly Kolb of Malcolm Pirnie.
- b. Ms. Kolb displayed a site map and reminded the Board the study area for the project encompasses a one-mile radius around the deep monitoring wells 125d and 126d. She added that the project started when there were elevated detections of volatile organic compounds in groundwater monitoring wells 125d and 126d. She stated properties along Nevada Avenue and Old Dairy Farm Road were added to the project even though they are outside the one-mile radius.
- c. Ms. Kolb stated the project started with an outreach program to identify whether community properties with private wells have been impacted by the contamination, and a well survey was initiated in April 2009 to determine who has private wells and whether they are used for drinking purposes. Ms. Kolb advised that the well survey was concluded in September 2010.
- d. Ms. Kolb said the private wells for all interested properties had been sampled twice, and the Army continues to provide bottled water as requested.
- e. Ms. Kolb stated that as a result of the survey and sampling, a well on Nevada Avenue had been identified where the concentration of PCE exceeded the maximum contaminant level, and that well and two adjacent wells are being sampled monthly. She advised there have been three subsequent detections at or slightly exceeding the maximum contaminant level at that well. She noted these results have led to an additional study being undertaken by the Army as the groundwater flow for these this well does not appear to be downgradient from monitoring wells 125d and 126d.
- f. Ms. Kolb presented an overview of the results from the monthly sampling of three wells at Nevada Avenue.
- g. Ms. Kolb discussed the timeline for reports and stated the Draft Interim Measures Report had been submitted with the Draft Final due in June and the Final anticipated for July 2011. She stated the Draft Work Plan for the Nevada Avenue Investigation was submitted in February, comments are being addressed, and she anticipates the plan being finalized by July with the work commencing in July or August.
- h. Ms. Kolb reviewed the elements of the groundwater investigation being planned for Nevada Avenue noting the three private wells would continue to be sampled monthly. She advised up to seven additional monitoring wells would be installed, five deep and two shallow. Ms. Kolb said the historical research component had been completed, and the data is being analyzed. Ms. Kolb stated bottled water will continue to be offered to the private residences.
- i. Ms. Kolb showed an aerial photograph with the proposed new monitoring well locations.

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12. New Business:

a. Mr. Fluck advised Fort Meade staff would be changing e-mail addresses, and he would provide the Board with the new information.

b. Mr. Fluck asked for any future agenda items. Mr. Tibbetts suggested an overview of the CERCLA and RCRA regulations and process. Mr. Fluck advised there would be a presentation on hydrogeology and the county's role at the next meeting. Mr. Fluck invited Board members to contact him at any time with suggested topics or any other suggestions

c. Mr. Tibbetts reminded the Board of the importance of taking information back to the community.

13. The meeting was adjourned at 10:24 p.m.

FOR THE ENVIRONMENTAL CHIEF:



PAUL V. FLUCK, PG, REP
Program Manager, Installation Restoration Program
Directorate of Public Works-Environmental

CF:
RAB Members
FGGM Garrison Commander
FGGM Public Affairs Office