



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

September 12, 2011

MEMORANDUM FOR Restoration Advisory Board Members

SUBJECT: Minutes for the July 21, 2011 Restoration Advisory Board Meeting

1. The Restoration Advisory Board (RAB) meeting was held on July 21st, 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, September 15st, 7 p.m.**, at the Captain John Smathers Army Reserve Center.

2. The following RAB members were present:

Mr. Tim Berkoff, Community Member*
Mr. John Burchette, U.S. Environmental Protection Agency
Mr. Mick Butler, Fort Meade Co-Chair
Mr. James Fraser, Community Member
Mr. Martin Madera, Community Member
Mr. Harry Neal, Community Member
Mr. Kurt Riegel, Community Member*
Mr. David Tibbetts, Community Co-Chair
Mr. Fred Tubman, Community Member
Ms. Kerry Topovski, Anne Arundel County

* Provisional Member

3. Members not present:

Mr. Rusty Bristow, Community Member
Mr. Blight Carter, Community Member
Mr. Wayne Dixon, Community Member
Mr. Ed Dosek, Community Member
Mr. Matt Jones, Community Member
Ms. Ivana Maksimovic, Community Member
Mr. Howard Nicholson, Community Member
Ms. Kathy Scott, Community Member

4. Others present were:

Mr. John Cherry

ARCADIS

Mr. Thomas Crone	ARCADIS
Ms. Amanda Duggins	ARCADIS
Mr. Paul Fluck	Fort Meade Environmental Division
Ms. Laurie Haines	Army Environmental Command
Ms. Katrina Harris	Bridge Consulting Corp.
Mr. Bill Hudson	U.S. Environmental Protection Agency
Ms. Jessica Hyder	Resident
Mr. George Keller	Bridge Consulting Corp.
Mr. George Knight	Fort Meade Environmental Division
Mr. Tim Lemke	Odenton Patch
Ms. Shelly Kolb	ARCADIS-Malcolm Pirnie
Mr. Kurt Scarbro	Maryland Department of the Environment
Mr. Dan Sheehan	ARCADIS-Malcolm Pirnie
Ms. Denise Tegtmeyer	Fort Meade Environmental Division

5. Announcements and Minutes:

a. Mr. Dave Tibbetts, community co-chair, called the meeting to order. Mr. Paul Fluck welcomed everyone and invited all present to introduce themselves.

b. Mr. Fluck made a motion to adopt the May 19th, 2011 meeting minutes. The motion was seconded and unanimously adopted to approve the May 19th, 2011 minutes.

6. Outstanding Items:

a. Mr. Fluck advised applications for membership had been received from two community members, Mr. Kurt Riegel and Mr. Tim Berkoff; he noted both applicants were present. Mr. Fluck reviewed the guidance and expectations for community Board members. He said the purpose of the Board is to serve as an instrument for conveying information between the Army and the community. He stated Board members are expected to regularly attend meetings, review and comment on environmental restoration documents, identify projects and priorities, work cooperatively to ensure effective use of time, and take information back to their friends, families and communities to keep them informed about the environmental program. Mr. Fluck added that community members serve as volunteers without compensation. Mr. Fluck invited Mr. Riegel and Mr. Berkhoff to tell the Board about themselves and their experience.

b. Mr. Riegel stated he lives in Annapolis and is a retired member of the Federal Executive Service, most recently serving with the Department of the Navy as Director for Environmental Technology and founding environmental director for the Naval Sea Systems Command. He advised he teaches a class in environmental management at Johns Hopkins and is a member and past president of the Severn River Association, as well as a Commissioner on the Severn River Commission. Mr. Riegel stated his background also includes working as an Associate Director of Environmental, Engineering and Technology for the U.S. Environmental Protection Agency.

c. Mr. Berkhoff stated he lives in Crofton and currently serves on committees addressing smart growth practices and the fly ash contamination site which has provided him with experience looking at sub-surface environmental issues. He currently is on the Research Faculty at the University of Maryland, Baltimore County. Mr. Berkhoff noted he is comfortable addressing complex problems and analyzing extensive amounts of data.

d. Mr. Fluck distributed ballots to the community members. Mr. Fluck collected the ballots and gave them to Mr. Tibbetts. Mr. Tibbetts confirmed Mr. Riegel and Mr. Berkhoff had been elected to the Board.

e. Mr. Fluck noted the election of all community members is subject to the final approval of the Garrison Commander. He advised this will be done in the next few months with the new Fort Meade Commander, and all members will be notified.

f. Mr. Tibbetts stated some additional applications may be submitted, including someone from the West County Chamber of Commerce. Mr. Fluck stated the tentative goal is about 12 community members, but exceptions can be made if additional members are desired. Mr. Tibbetts said it might be good to have someone representing a labor perspective and someone from the community of faith, but the overriding factor is ensuring the Board is representative of the diversity of the community.

g. Mr. Fluck stated Fort Meade has been conducting a focused public outreach program for more than a year to increase Board membership and get information about meetings out to the community. He stated the news releases to media outlets about the meetings will continue.

h. Mr. Tibbetts discussed the importance of community members submitting written comments on documents to Fort Meade. Mr. Fluck agreed that emailed comments would be most welcome.

i. Mr. Fluck advised he is still working on the revision of the charter which will undergo legal review soon. He said he should have a draft by the next meeting.

j. Mr. Fluck reminded the members about the upcoming tour on Saturday, July 23, leaving from the Visitors Center at 10 a.m. He encouraged everyone to attend and noted he will have copies of the guidebook he and his staff have prepared at the tour. Mr. Tibbetts thanked Mr. Fluck for the effort that went into preparing the excellent guidebook and for arranging the tour. Mr. Tibbetts encouraged community members to share any thoughts after the tour by e-mail and not wait until the September meeting.

7. General Overview of the CERCLA Process:

a. Mr. Fluck introduced Mr. John Burchette from the U.S. Environmental Protection Agency to provide a general overview of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) process.

b. Mr. Burchette explained Superfund is a name that is frequently used when referring to CERCLA and to the fund that was established under CERCLA. He stated CERCLA is a law that was enacted in 1980 in the wake of the discovery of toxic waste dumps such as Love Canal, Valley of the Drums, and Times Beach in the 1970s. He stated the law provides for EPA or responsible parties to cleanup such sites or for responsible parties to reimburse the Federal government for the cleanup of such sites.

c. Mr. Burchette summarized the cleanup process by noting there are steps which involve assessing site conditions, placing sites on the National Priorities List, and then taking action to address the site. He explained sites are generally addressed in two ways—through a short-term removal action where immediate action is needed or a longer remedial action. He stated CERCLA also provides the framework for working with potentially responsible parties and for involving the community, as well as ensuring involvement at the State-level.

d. Mr. Burchette noted the law is also applicable to Federal agencies that have had a release of hazardous substances which require a response. He said the law specifically empowered the Federal government to address sites contaminated by hazardous substances and authorized the Federal government, states, and third parties to seek reimbursement of remediation costs from responsible parties.

e. Mr. Burchette quoted a provision from the law which states “any responsible party (PRP) associated with a facility from which there is a release or a threatened release which causes the incurrence of response costs, of a hazardous substance, shall be liable for...any necessary costs of response incurred by any other person consistent with the National Contingency Plan.”

f. Mr. Burchette stated CERCLA contains definitions for a number of terms such as release which is defined as “spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing into the environment (including the abandonment or discarding of barrels, containers and other closed receptacles containing any hazardous substance or pollutant or contaminant.” He explained CERCLA also established a list of hazardous substances, as well as exemptions such as petroleum and the normal application of pesticides.

g. Mr. Burchette encouraged anyone seeking additional information to visit the EPA web site at www.epa.gov/aboutepa/oswer.html. He stated this site also provides specific information on contamination by geographic area.

h. Mr. Bill Hudson of EPA distributed a pamphlet on Superfund. He stated CERCLA was passed in 1980; and EPA began in 1970, so EPA operated without the CERCLA process for about 10 years.

i. Mr. Hudson explained there is no longer a funding source or Superfund because Congress did not renew the legislation which created the taxes for Superfund. He explained

cleanups are now funded from the general fund or by pursuing the responsible party as most of the sites are abandoned.

j. Mr. Hudson stated a major source of information about potential hazardous waste sites is community members who notify the government about something that just does not look right.

k. Mr. Hudson further explained the two types of actions: removal and remedial. He noted removals are generally actions which need to be taken quickly. He stated remedial actions are begun after it is determined there is no immediate threats [to human health and the environment].

l. Mr. Hudson referred to the section of the brochure he distributed which describes who is involved in the cleanup process. He stated quite a few entities can be involved including government agencies and private institutions.

m. Mr. Hudson called the Board's attention to a chart showing the cleanup process and a map showing the 10 EPA regional offices, as well as contact information.

n. Mr. Tibbetts asked for clarification on the difference between the Resource Conservation and Recovery Act (RCRA) and CERCLA, particularly information relevant to the RCRA Order EPA issued to Fort Meade prior to the signing of the Federal Facility Agreement. A short discussion ensued about RCRA, and Mr. Fluck suggested this topic be discussed in more depth at a future meeting.

o. Several Board members questioned the use of Superfund money at a Federal Facility. Mr. Fluck responded that Fort Meade has been listed on the National Priorities List and is subject to CERCLA, but military facilities use funds from the Defense Environmental Restoration Account and not Superfund money.

8. Basic Hydrogeologic Principles:

a. Mr. Fluck introduced Mr. John Cherry of ARCADIS to present some of the basic principles of hydrogeology to help community members better understand the groundwater issues at Fort Meade.

b. Mr. Cherry said he would first be presenting some basic concepts and key principles and then tying the information back to some of the groundwater issues at Fort Meade.

c. Mr. Cherry first explained groundwater. He said groundwater is sometimes mistakenly thought of or described as an underground river or lake. Mr. Cherry defined groundwater as water which is below the ground surface in soil pore spaces or in fractured rock formations. He emphasized that groundwater is not underground rivers or subterranean lakes.

d. Mr. Cherry reviewed a graphic showing the basic hydrologic cycle of precipitation infiltrating the ground as groundwater, surface water entering lakes and streams, and evaporation creating condensation and rain which then repeats the cycle.

e. Mr. Cherry showed a graphic of hydrologic formations under the surface, noting each formation has different properties. He explained what is typically found below the surface is groundwater saturating soil pore spaces in sand and gravel units, interconnected with surface water bodies.

f. Mr. Cherry displayed a graphic of aquifers and confining units. He stated an aquifer is a water-bearing layer of rock or unconsolidated sediments that will yield water in a usable quantity to a well or spring. He explained a confined aquifer would have a layer of clay or silt separating it from another aquifer. Mr. Cherry showed some photographs of soil core samples collected at Fort Meade. He discussed a photograph of a core sample obtained from boring through sands and gravel in the Lower Patapsco formation which is an aquifer used for drinking water purposes in some off-site areas. He also pointed out the hard-packed Arundel clay which is also found locally and acts as a confining unit. Mr. Cherry defined a confining unit as a layer of rock or unconsolidated sediments, such as clays and silts, which retards the movement of water. Mr. Harry Neal commented that it would be helpful to see representative core samples and the depths of different strata.

g. Mr. Cherry next discussed the porosity and permeability of aquifers and showed pictures of different sands and gravels. He explained the higher the permeability the more the water is able to flow.

h. Mr. Cherry displayed pictures of unconsolidated sediments and explained how water flows in a saturated zone versus an unsaturated zone.

i. Mr. Cherry explained clay/silt formations which become confining units in the sub-surface. He noted clay can hold a lot of water, but water does not flow through clay very well as clay has very low permeability. Mr. Cherry said clay is sometimes used under landfills because of its low permeability.

j. Mr. Cherry showed graphics of hypothetical cross-sections, as well as Fort Meade cross-sections. He stated at Fort Meade the upper formation is the Patapsco unit under which lies the Arundel Clay confining unit and then a sand and gravel formation known as the Patuxent formation. He stated the Patuxent formation is 200 to 300 feet deep and is used for drinking water.

k. Mr. Cherry next discussed the key concepts involved in studying groundwater. He explained a monitoring well is typically installed with a drill rig and constructed of polyvinyl chloride material [thermoplastic polymer]. He continued explaining there would be a natural or engineered filter pack around the well screen and showed a photograph of a steel well screen. He explained the slots in the well screen are open to the formation and allow groundwater to flow into the well screen so measurements can be collected to determine the depth to

groundwater or samples can be collected and analyzed for contaminants. He noted the wells can also be used for injections into the groundwater or for pumping groundwater out as part of remediation.

1. Mr. Cherry gave an example of how hydrogeologists would use information from monitoring wells to assess groundwater flow direction. He stated groundwater generally flows from higher elevations to lower elevations and in the direction of surface water; however, to accurately determine the flow direction one needs to use monitoring wells. He stated measurements of the depth to groundwater would be taken at a series of monitoring wells and then the information plotted. He showed a graphic of groundwater elevation measurements and how the information is then used to produce groundwater elevation contours. In response to questions regarding elevation measurements and contours for Fort Meade groundwater, Mr. Cherry explained the type of information that has been collected and stated that the elevations are affected by many factors, including seasonality. Several Board members suggested having this information would be helpful in communicating with the community if it could be provided either through hard copies or in a future presentation. Mr. Tibbetts suggested another topic for a future meeting would be the interaction of Fort Meade groundwater with surface water bodies and watersheds.

m. Mr. Cherry displayed photos showing the many aspects of groundwater investigation and study at Fort Meade. He stated the culmination of the collection of all the data is the conceptual site model which is a working description of an environmental system and the hydrogeological processes and factors that determine the fate and transport of contamination.

9. Update on the Manor View Site Gas Recovery System:

a. Mr. Fluck introduced Mr. Tom Crone of ARCADIS. Mr. Crone gave a brief project overview for new community members. He stated there is an old dump site which is generating methane. He advised the Army had installed a methane recovery system to safely extract the methane, and methane levels are monitored on a weekly basis.

b. Mr. Crone stated there have been no unscheduled shut-downs over the last two months. He showed the results from the most recent sampling events and noted they were consistent with historic levels.

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

a. Mr. Fluck introduced Ms. Shelly Kolb of ARCADIS/Malcolm Pirnie.

b. Ms. Kolb stated the project has been discussed at each Board meeting for some time, and she would be providing a brief update. She 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.

c. Ms. Kolb showed the most recent results from the sampling of several wells on Nevada Avenue where low levels of tetrachloroethene (PCE) have been detected.

d. Ms. Kolb said the next steps in the project are to finalize the report which will be posted on the Fort Meade web site (www.fortmeade-ems.org) for review and comment. She said a work plan for additional investigations at Nevada Avenue should be finalized in July 2011 and field work would include installing monitoring wells and sampling the monitoring wells this fall. She noted the field work is dependent on receiving signed right-of-entry forms from property owners.

12. New Business:

a. Mr. Fluck asked for any future agenda items. Mr. Tibbetts reiterated earlier comments about a presentation on CERCLA/RCRA and the continuation of hydrogeology information. Mr. Fraser commented that topics might arise after the upcoming tour. Mr. Fluck invited Board members to contact him at any time with suggested topics or any other suggestions.

13. The meeting was adjourned at 9:06 p.m.


MICHAEL P. BUTLER
Chief, Environmental Division

CF:
RAB MEMBERS
FGGM GARRISON COMMANDER
PUBLIC AFFAIRS OFFICE