Massachusetts Military Reservation Cleanup Team (MMRCT)
Building 1805
Camp Edwards, MA
April 14, 2010
6:00 – 9:00 p.m.

Meeting Minutes

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Action Items:

1. IRP will consider ways to express risk associated with COCs (particularly EDB) in the upcoming Plume Booklet.

Handouts Distributed at Meeting:

1. Responses to Action Items from the March 24, 2010 MMRCT/SMB Meeting
2. Presentation handout: 2009 Ashumet Pond Update
3. Presentation handout: Fuel Spill 1 Plume Update
4. Presentation handout: Gun & Mortar Firing Positions Update

5. Presentation handout: XCTC Site Investigations
6. MMR Cleanup Team Meeting Evaluation Form

Agenda Item #1. Introductions, Agenda Review, Action Items Review, and Approval of March 24, 2010 MMRCT/SMB Meeting Minutes

Ms. Grillo convened the meeting at 6:06 p.m. and reminded participants to speak directly into the microphones in order to help ensure accurate meeting minutes. She also reviewed the agenda and confirmed that there were no comments on the Responses to Action Items from the March 24, 2010 Massachusetts Military Reservation Cleanup Team (MMRCT)/Senior Management Board (SMB) meeting. Ms. Grillo then asked if there were any changes or additions to the March 24, 2010 MMRCT/SMB meeting minutes. No changes were offered and the MMRCT approved the minutes as written. Ms. Grillo also noted that the minutes would be emailed to SMB members for their approval before considered finalized. In addition, she announced that public comment period on the Textron Natural Resource Damages (NRD) Restoration Plan is ongoing and will close on April 21, 1010. She also noted that the minutes from the public meeting on the Restoration Plan are available on the Massachusetts Executive Office of Energy & Environmental Affairs (EEA) website and the Installation Restoration Program (IRP) website.

Agenda Item #2. Ashumet Pond Update

Mr. Davis showed a map and pointed out Ashumet Pond, just outside the southern part of MMR. He reminded the group that a decline in the pond's trophic health was seen from the 1960s to 2000, as indicated by a reduction in clarity, an increase in algae blooms, and decreased oxygen levels in the deep part of the pond during the summer. These changes in the pond were driven by an increase in the amount of phosphorus entering the pond, primarily from the discharge of a wastewater-contaminated groundwater plume from the former MMR wastewater treatment plant, which operated from the late 1930s to the mid 1990s.

Mr. Davis reported that the wastewater treatment plant was shut down in 1995, after which it was learned that the phosphorus plume travels very slowly in the groundwater. He also noted that a new treatment plant was built and the treated wastewater is piped to the northern end of the base where it's discharged into infiltration basins near the canal. Long-term monitoring of the phosphorus plume began in 1999. Mr. Davis then showed a graphic depicting the 1997 footprint of the phosphorus plume. He also showed a 2007 footprint of the plume and pointed out two new monitoring locations installed by the U.S. Geological Survey (USGS), both of which showed lower concentrations than expected. He also pointed out the 1.5 milligrams per liter (mg/L) contour line, but noted that the highest concentration there is actually 0.29 mg/L, and he pointed out a 0.42 mg/L detection. In addition, Mr. Davis noted that earlier on there were many 4 mg/L and 5 mg/L phosphorus detections in the plume.

Mr. Davis then spoke about the 2001 alum treatment at the pond, explaining that the alum (aluminum sulfate) that was applied in an approximately 25-acre area at the deep part of the pond stripped some phosphate out of the water column as it descended and then covered the bottom of the pond where it decreased the amount of phosphate regenerated out of the sediments. He also mentioned the geochemical barrier that was installed in 2004 at the area where the plume discharges into the pond. Mr. Davis explained that although traditional pump-and-treat technology was initially considered to remove the phosphorus, it was not recommended because it would have drawn in highly oxygenated water, which would have exacerbated the problem, plus the number of extraction wells that would have been needed would have impacted the water level of the pond.

Mr. Davis then reported that the geochemical barrier, which is 300 feet long, 40 feet wide, and 3 feet thick, was fashioned by mixing zero valent iron (ZVI) with the pond sediments. He explained that a coffer dam was created, the water pumped out, and the iron mixed in with the three feet of pond

bottom, after which the coffer dam was removed. The barrier is permeable in that groundwater travels through it, but the iron in the sediment strips out a substantial amount of the dissolved phosphorus in the groundwater discharging to the pond. The lifespan of the barrier, which was installed in 2004, is estimated to be 20 to 25 years. Mr. Davis then showed a figure depicting the area where the phosphorus plume upwells into the pond near the shoreline and pointed out the red outline representing the barrier. He also showed schematic cross-section figures and explained that the barrier was designed to handle the plume based on an average water level. However, when water levels in the pond are higher than average (as has been the case for the past couple years), the plume actually shifts shoreward and some of it misses the barrier, although a substantial portion of the plume still flows through the barrier.

Mr. Davis showed photographs of the barrier area before, during, and after installation and pointed out the coffer dam, the mixing bucket that was used to mix the ZVI with the sediments, USGS workers installing monitoring devices, and the iron discoloration of the sediments. He also spoke about the barrier core sampling conducted in 2008, the objectives of which were: to collect cores from representative areas of the barrier; to visually observe the changes in the barrier samples with depth and location; and to examine the core materials using a scanning electron microscope to identify how the barrier is removing phosphorus. Mr. Davis showed some photographs of the cores, and then he reported that magnetic fractions of core samples were examined, chemically analyzed, and photographed using a scanning electron microscope, which supported the theory that the phosphate was mineralizing within the barrier and creating vivianite crystals. He also showed several of these high-magnification images and pointed out the iron and the vivianite crystals, and he displayed a figure that showed an Energy Dispersive Spectrometry (EDS) analysis and pointed out oxygen, phosphate, and iron. In addition, Mr. Davis pointed out the vivianite and the iron sulfide in another high-magnification image, and he displayed another image, the examination of which is intended to show how much room on the iron hasn't yet been taken up by vivianite in order to provide a sense of the remaining capacity of the barrier.

Mr. Davis continued his presentation by displaying a figure that showed the location of the permanent sampling network installed by the USGS to assess the performance of the barrier, with sampling devices including permanent seepage meters, vertical multilevel samplers, horizontal multiport samplers, and vertical diffusion samplers. He then showed line graphs depicting phosphate data from the southernmost horizontal multiport sampler at shallow (0.5 feet below pond bottom) and deep (3 feet below pond bottom). He referred to the deep, pointed out the line representing 2009 lab data, and noted that phosphate was detected at nearly 1.5 mg/L about ten feet from shore, with concentrations dropping off beyond about 20 feet from shore. He also referred to the shallow, toward the top of the barrier, and said that at that point the phosphate has been mostly stripped from the groundwater. Mr. Davis then mentioned that there's a significant difference between the field sample results and the lab results.

Mr. Davis also discussed diffusion chamber sampling, noting that these devices look at various elevations down a column at an individual spot within the barrier. He showed line graphs pertaining to phosphate data from diffusion chamber 1 (DC1), which is a control site, and from DC2 through DC8. He noted that in general phosphate concentrations are higher toward the bottom of the barrier and drop off toward the top of the barrier. DC4, however, is an exception, with phosphate detected at a concentration as high as 2.26 mg/L at the bottom of the barrier, concentrations still ranging from 0.5 to 0.75 mg/L in the middle of the barrier, and increasing closer to the top of the barrier.

Mr. Davis referred to the drive-point sampling conducted last year and displayed graphics showing phosphate concentrations at three different depths at the barrier area, with the highest concentrations at the greatest depth (0.95 meters). He also pointed out the location of DC4, where there is some breakthrough, and he pointed out the "strip" of phosphates that's able to enter the pond because of the high water levels.

Mr. Davis showed a chart entitled "Comparison of Average Phosphorus Entering the Barrier in 2006 and 2009." He noted that the average concentration entering the pond (below the barrier) in August 2006 was about 0.85 mg/L, but that had dropped to about 0.7 mg/L by August 2009. He also said that the lower concentrations entering the pond have to do with a very complex geochemical process occurring in the aquifer, and although this can't be accurately modeled, the general idea is that more of the phosphate is able to sorb onto the aquifer sediment itself.

Mr. Davis then reviewed the criteria for evaluating the trophic health of the pond: lower phosphorus levels in the epilimnion (the shallow part of the pond); lower phosphorus levels in the hypolimnion (the deep part of the pond); reduced production of algae; increased water clarity; increased oxygen in the hypolimnion; lower ammonium in the hypolimnion; and improvements in the Trophic State Index (TSI). He said that the Air Force Center for Engineering and the Environment (AFCEE) has been using these criteria to help determine whether additional remedial actions at Ashumet Pond are needed, and it's been decided that another alum treatment will be applied at the pond this year.

Mr. Davis then showed a slide entitled "Typical Seasonal Changes in Ashumet Pond" and noted that from about October through April, the dissolved oxygen (DO) level and the temperature are constant throughout the depth of the pond. In late April/early May, however, the pond will begin to stratify, with warmer water on top and cooler water on the bottom, and there will no longer be the mixing of oxygen. Once temperatures begin to drop, in mid October, the pond will again remix. Mr. Davis then explained that when the pond is in a stratified state, phosphorus is able to regenerate off the sediments at the bottom of the pond where it remains trapped until the fall. Then, when the pond remixes it allows the phosphorus to be released and available for algae, typically resulting in a fall algae bloom.

Mr. Davis then displayed a series of line graphs illustrating pre-alum, post-alum, and post-barrier pond conditions, beginning with graphs showing average total phosphorus in the epilimnion and the hypolimnion. He pointed out the downward trend in phosphorus concentrations in the shallow part of the pond, but also mentioned "a couple of spikes" in late 2009, and he noted that in the deep part of the pond phosphorus regeneration from the sediment doesn't start as early or last as long, and the peaks in the graph aren't as high.

Mr. Davis showed a line graph entitled "Anaerobic Sediment Release of Phosphorus," mentioned the UMass Dartmouth laboratory study that's looking at the release of phosphorus off of Ashumet Pond sediment cores, and noted that the graph shows that the initial alum treatment began losing its effect around 2007, although the situation is still better than pre-alum conditions.

Mr. Davis then showed a line graph pertaining to chlorophyll a and noted that concentrations are generally decreasing, especially compared to the pre-remedial timeframe. He also showed a line graph pertaining to water clarity, which, he noted, is determined through the use of a Secchi disk (a black-and-white disk that's lowered into the pond until it's no longer visible). He noted that 2005, 2006, and 2007 were very good years in terms of water clarity (Secchi depth), but clarity has begun to decrease. Mr. Davis also showed the graph for average ammonium-N, said that those levels remain "pretty good," and he showed a graph entitled "Summer DO Depletion Trends," noted that there hasn't been much change, and pointed out that the best (deepest) oxygenated conditions occurred in 2006.

Mr. Davis displayed a figure entitled "Carlson's Trophic State Index (TSI)," which included plot lines representing Secchi disk, total phosphorus, and chlorophyll a data over five time periods (1999-2001, 2002-2004, 2005-2006, 2007-2008, and 2009) against the TSI scale, which is made up of three parts: eutrophic (more algae, typically considered bad); mesotrophic (less biomass); and oligotrophic (clear, typically considered good). He pointed out that the pond's trophic state had improved after the alum treatment, but the lines representing Secchi depth and chlorophyll a have since begun to climb (toward eutrophic). Mr. Davis stated that with the trend back toward eutrophic, AFCEE believes that it is wise to apply another alum treatment at this point.

Mr. Davis also reviewed a findings/conclusions slide, which noted the following: the alum treatment and geochemical barrier produced substantial and steady improvement in the health of the pond between 1999 and 2007; AFCEE core sampling in 2008 and USGS barrier pore water sampling in 2009 indicate that the barrier continues to remove substantial amounts of phosphorus from groundwater, preventing it from discharging to the pond; concentrations of phosphorus in the groundwater plume discharging to the pond have substantially decreased since 1999; based on the current barrier effectiveness and mineralogy, it is anticipated that the barrier will remain effective for at least the next five to ten years – barrier evaluation will continue; relatively large fall algae blooms in 2007 and 2009, decreasing water clarity, and increasing total phosphorus and chlorophyll a suggest that the health of the pond is starting to decline; and a new alum treatment is planned for the summer of 2010.

Mr. Davis noted that the contract for the alum treatment was awarded this week. He also reported that the Town of Mashpee has agreed to be the lead agency for issuing AFCEE's Order of Conditions, and AFCEE is currently going through the Notice of Intent (NOI) process. He further noted that the alum treatment will probably be done sometime between mid-August and mid-September. Prior to that, however, a study will be done to determine if Ashumet Pond is home to any tidewater mucket, a type of muscle that is a rare or endangered species. Also, additional sediment cores will be collected at the pond in order to determine whether the alum treatment area should be expanded.

Mr. Goddard inquired about the possibility of extending the iron barrier shoreward. Mr. Davis replied that the idea of raking some iron into the sediment there has been considered, and is not off the table, although the hope is that the current situation will be short-term and the phosphate that's getting by the barrier won't have a significant impact on the health of the pond.

Mr. LoGuidice suggested that the septic tanks associated with the summer cottages near the pond might have to do with the increased phosphate load during the summer. Mr. Davis replied that most of the homes around the pond are downgradient of the hinge line, and therefore their septic systems are more apt to affect Johns Pond. He also acknowledged, however that AFCEE hasn't looked for a trend associated with the portion of homes that do feed into Ashumet Pond.

Mr. LoGuidice also asked if it's correct that at some point the phosphorus plume will dissipate. Mr. Davis confirmed that it will eventually become bound up in the sediments. He also noted that the iron barrier was designed to match what is believed to the lifetime of the phosphate plume, and monitoring continues to ensure that that's the case. Otherwise, it might be necessary to regenerate the barrier.

Agenda Item #3. Fuel Spill 1 Plume Update

Mr. Hilyard displayed a map and pointed out the two areas of concern associated with the Fuel Spill 1 (FS-1) plume: the source area and the plume itself. He noted that the source area, which is located on base, was the surface release of aviation gasoline (AVGAS) at the East and West Turnaround areas, where, during the 1950s through 1970s, aircraft tested their fuel valves on the tarmac. There are three contaminants of concern (COCs) at the source area – lead, thallium, and toluene. The COCs are not migrating, but are essentially confined to within 1,000 feet of the source area. The remedy for the FS-1 source area is long-term monitoring.

Mr. Hilyard then discussed the plume itself, noting that it is detached from the source area and located entirely off base. He also explained that as fuel contaminants traveled through the aquifer, petroleum constituents degraded through natural processes, leaving ethylene dibromide (EDB), which is very persistent in groundwater. The EDB contamination continued to follow the groundwater gradients southward, and discharge at the Quashnet River bog complex. Mr. Hilyard also noted that the Massachusetts maximum contaminant level (MMCL) for EBD is 0.2 micrograms per liter (µg/L), and as of 2009, the maximum EDB concentration detected in the plume was 0.8 µg/L.

Mr. Hilyard stated that active remediation of the FS-1 plume began in April 1999 with the installation of a pilot extraction system that consisted of shallow well-points along the edge of the Quashnet bogs and one deep extraction well to address the deeper contamination. A fire consumed the FS-1 treatment plant in 2003, and the current system was built to replace the old one. The new system consisted of four extraction wells (EW-11, EW-5, EW-1, and EW-7) and the shallow well-points were decommissioned. The total system pumping rate at the time the system was designed was 720 gallons per minute (gpm). As part of an optimization in 2007, EW-7 was shut off, and the total flow rate is now 515 gpm. Mr. Hilyard displayed a photograph of the FS-1 treatment facility and pointed out the discharge bubbler at the cranberry bogs in the foreground.

Mr. Hilyard then displayed a figure showing the 1998 plume footprint alongside the 2010 plume footprint. He noted that the plume was much longer in 1998, the trailing edge has traveled south, and there's much less plume now in the area of the extraction/treatment/discharge (ETD) system. Mr. Hilyard also mentioned that in 1998 the maximum EDB detection was 44 µg/L, while the maximum in 2010 is less than 1 µg/L.

Mr. Hilyard stated that the optimization in 2007 involved shutting off EW-7 because it was no longer effective, reducing flow at the two southern wells (EW-1 and EW-5), and increasing the flow rate at EW-11, the northernmost extraction well. He noted that the goal of the optimization was to better focus extraction stresses to portions of the aquifer affected by the plume. He also noted that groundwater, surface water, and treatment plant monitoring continue through the System Performance and Ecological Impact Monitoring (SPEIM) program. He further reported that between October 2008 and September 2009 the FS-1 treatment system processed 265 million gallons of contaminated groundwater, thereby removing 0.2 pounds of EDB, or enough EDB to put 1,900 Olympic size swimming pools at the MMCL of 0.02 µg/L. Mr. Hilyard also reported that since system startup in April 1999, the FS-1 system has treated 3.3 billion gallons of groundwater and removed 17.5 pounds of EDB, which is enough to put 159,000 Olympic size swimming pools at the MMCL of 0.02 µg/L.

Mr. Hilyard reported that there is no current risk of exposure to FS-1 groundwater; the plume is traveling beneath undeveloped land that is owned by either the state or the town, and no private residences overlay the plume. He also noted, however, that AFCEE is conducting a Private Well Verification Program for parcels in the FS-1 area in order to ensure that no wells are drawing in groundwater from that area. Mr. Hilyard then noted that are no risks from surface water. He also reported, however, that some low-level (less than the MMCL), intermittent EDB detections have been seen in surface water, but at concentrations well below the screening level for cranberry workers (6.5µg/L) or the ecological risk benchmark (31 µg/L). Mr. Hilyard further noted that the FS-1 costs for fiscal year 2009 (FY'09) were $480 thousand, for 1997 to 2009 were $21.6 million, and estimated from 2009 to 2038 are another $5 million.

Mr. Hilyard showed a figure entitled "FS-1 SPEIM Groundwater Chemical Monitoring Network" and pointed out the color-coding that's used to identify wells that are sampled annually, biennially, triennially, and semiannually. He also said that the 2009 data set is the most comprehensive data set in several years, and he noted that three surface water locations are monitored three times per year, with the third event being a more comprehensive survey that includes a total of nine surface water locations in the bogs.

Mr. Hilyard displayed a line graph entitled "Extraction Well and Plant Influent Sampling," which focused on data from 2003 through 2009. He pointed out that EW-11, which is pumping at the highest flow rate, is also getting the highest influent concentrations. He also referred to the lines representing EW-7 and EW-5 and explained that before EW-7 was shut down, the two wells were competing against each other, trying to remediate the same part of the plume. In addition, Mr. Hilyard noted that influent concentrations at EW-1 have continued on a downward trend (for the last two semiannual

events, concentrations were below 0.02 µg/L), although flow has been reduced and other strategies tried.

Mr. Hilyard reported that it had taken approximately 265 megawatt hours (MWh) of electricity to operate the FS-1 treatment system from October 2008 through September 2009, and nearly 4,000 MWh of electricity to operate the system from April 1999 to September 2009. He also referred to a chart listing the types and amounts of resultant emissions that would be expected over the October 2008 to September 2009 time period, and explained that because the FS-1 treatment plant is hooked into NStar's Green 50% Program, the actual emissions are about half of what would be expected from a traditional New England power mix. He further noted that the chart doesn't account for the additional benefit of AFCEE's wind turbine, which became operational in December 2009 – therefore a further decrease in emissions is expected in future years.

Mr. Hilyard also discussed monitoring at the source area, noting that after a short-lived spike in lead concentrations in the 2002/2004 timeframe, lead levels have continued to decrease. He said that lead is below the tap water action level of 15 µg/L at monitoring well 7 (MW-7), but above 15 µg/L at MW-2. Mr. Hilyard explained that because there is no groundwater cleanup standard for lead, the agencies and AFCEE defer to the 15 µg/L, which is actually an action level for water suppliers for municipal water supply. He also noted that monitoring for thallium and toluene at the source area has been discontinued, since thallium hasn't been detected in any source areas wells since 1999, and toluene levels have been below the MCL of 1,000 µg/L since 1999.

Mr. Hilyard then stated that data collected over the past several years continue to show a declining trend in EDB concentrations in the FS-1 plume. This is attributed to the operation of the treatment system as well as natural processes such as attenuation and dispersion, which occur as the plume moves through the aquifer. Mr. Hilyard reported that the highest EDB concentrations, which were seen at MW-1041A (near the northernmost extraction well), have declined from 3.02 µg/L in May 2007 to 0.857 µg/L in June 2009. He also said that since 2007 the trailing edge of the plume has moved approximately 1,000 feet to the south, the eastern boundary of the plume has shifted west in the area of the extraction system, and the top of the plume has begun to collapse in the aquifer toward the extraction wells. Mr. Hilyard then showed a figure entitled "EDB Concentration Trends in Groundwater and Surface Water," and he showed a cross-section figure and pointed out the previous plume boundary, the proposed (current) plume boundary, and the extraction wells. He also displayed a figure entitled "FS-1 SPEIM Surface Water Chemical Monitoring Network" and pointed out surface water monitoring locations SW0019 and SW4200, where low-level, intermittent EDB detections continue to be seen. He also noted that those detections are attributed to the uncaptured portion of the plume that remained underneath the bog area after system startup. Mr. Hilyard further noted that the model has done a fairly good job of predicting plume fate & transport over the past several years, with monitoring data consistent with model transport simulations generated for the 2007 optimization.

Mr. Hilyard then showed an FS-1 plume "hits map," pointed out the monitoring wells with EDB detections above the MMCL (in the main core of the plume), and noted that most of the monitoring wells are nondetect. He also explained that influent concentrations at the extraction wells continue to indicate that the plume is present, despite the nondetects at most monitoring wells.

Mr. Hilyard also reviewed a "Conclusions" slide: data support the conceptual site model for the plume; EDB concentrations are generally decreasing throughout the plume; the plume continues to contract toward the operating extraction wells; the reduction in plume volume is greatest near EW-1 and EW-5; EDB detections in surface water, which continue to be intermittent at very low levels, are attributed to remnants of the uncaptured portion of the plume beneath the bogs; mass removal efficiency at EW-5 improved after the 2007 optimization, although influent concentrations at this well are decreasing; reduced volume and concentrations in-plume (near EW-1) present an opportunity to optimize the system; and additional characterization data are need to evaluate future optimization alternatives.

Mr. Hilyard stated that the next step is to conduct groundwater vertical profiling at three locations within the FS-1 plume footprint, which were chosen to better characterize plume mass near EW-1 and upgradient of EW-5. He also noted that the groundwater screening data will be used to determine whether and how the ETD system can be optimized. In addition, the FS-1 monitoring network will also be optimized, and the Private Well Verification Program, which is part of the land use controls (LUCs) in that area, will continue to be implemented.

Mr. Taylor inquired about marketing of the cranberries in the bogs associated with the FS-1 plume. Mr. Hilyard replied that the cranberry bogs aren't currently in production. Mr. Minior added that the town hasn't had a grower under contract to cultivate the bogs for the past four to six years. Mr. Taylor asked if the cranberries could have been sold with the detections in surface water. Mr. Minior replied that according to information provided by Ocean Spray, only cranberries from the easternmost bog would have been questionable as far as their marketability. Cranberries from all other areas of the bogs would have been marketable.

Mr. Taylor also noted that he doesn't see a monitoring well that would indicate that the trailing edge of the plume had moved south 1,000 feet; rather, it seems to him that the trailing edge is between two wells. Mr. Hilyard pointed out on a map the monitoring well north of the current plume outline where EDB was detected at concentrations greater than MMCL in 2006, but the well tested nondetect in the shallow screen and about 0.02 µg/L in the deep screen when sampled in 2009. Mr. Taylor referred to the cross-section figure and noted that the plume appears to be "between the two wells, not all the way up to the next well." Mr. Hilyard said that he doesn't think "that well is shown on this cross-section" and Mr. Taylor said "okay."

Mr. Taylor then referred to the source area and asked if it's correct that the aircraft operators exorcized their unused fuel at the end of the runway. Mr. Hilyard replied that it's his understanding that aircraft operators parked on the tarmac at the East/West Turnaround area tested their fuel valves, which involved some release of fuel to the tarmac.

Mr. Taylor remarked that he was pleased with Mr. Hilyard's use of the Olympic swimming pool analogy to express how powerful EDB is as a contaminant. He also said that he'd like to see something similar included in the upcoming Plume Booklet, as this would clarify for the public how much groundwater can be degraded by just a small amount of EDB.

Ms. Grillo noted that this topic was discussed at a meeting of the project managers earlier today. Mr. Davis stated that during that discussion it was decided that any reference to "pounds of mass removed" would just be deleted from the Plume Booklet. However, to address Mr. Taylor's comment, it would certainly be possible to take an example concentration of EDB and include somewhere in the text an explanation of its toxicity, rather than clutter up the chart for each plume. Ms. Jennings added that it's difficult to try to capture actual volume of groundwater, so the preference is to just take that out of the document. She also said that in terms of measuring progress at a site, she thinks it's better to talk about the amount of time remaining to achieve cleanup and to display side-by-side depictions of a plume to show it getting smaller. She then asked if Mr. Taylor's concern would be addressed if the "pounds removed" references were deleted from the Plume Booklet.

Mr. Taylor replied that it would not, because he thinks it's important to express how powerful the contaminants are, and what's being done about them – although he is reluctant to use the term "cleanup" since so much "has been let go to dilute." He also said that he understands that AFCEE is trying to put out information on the progress that's been made, and he doesn't mind the reference to "pounds removed" as long as it's put in the context of the amount of drinking water that's been contaminated and cannot be used.

Ms. Jennings said that she agrees that using "pounds removed" to measure progress can be misleading, but she's not certain that using Olympic size swimming pools is the best way to go since contaminant concentrations throughout a plume are not all the same, and people may ask about how many Olympic size swimming pools are really contaminated in the aquifer. Mr. Taylor replied that one could use anything – five-gallon water bottles instead of Olympic size pools, for example. Ms. Jennings noted that to do this one has to assume a concentration, and concentrations in plumes are not consistent. Mr. Davis clarified that the purpose of the Olympic size pool analogy was not to illustrate the size of the plumes, but the toxicity of the contaminant.

Mr. Goddard suggested listing all COCs at the beginning of the Plume Booklet, along with the toxicity of each relative to a fixed amount, perhaps expressed in terms of its potential effect on a day's worth of drinking water supply. Mr. Goddard also inquired about the foam that he observed in the photograph of the bubbler in the Quashnet River. Mr. Hilyard clarified that what Mr. Goddard thought was foam is actually ice, as the photo was taken in the wintertime.

Mr. Hurley inquired about the status of mitigating the berm failure associated with the FS-1 treatment system. Mr. Minior replied that the town had used some AFCEE funds to hire a consultant to develop a feasibility study for evaluating several alternatives for channel realignment. That report is on the town's backburner at this time, although AFCEE checks in periodically to see how the town wants to proceed. Mr. Davis added that he thinks the delay has to do with the conflict between those who want the cranberries to be cultivated and those who want to let the bog area go back to its natural state. Mr. Minior agreed that that is one issue, but noted that another issue is channel realignment and depth as they relate to the fishery.

Mr. Foster asked when there might be another update on FS-1, and noted that he's particularly interested in hearing about the data that comes out of the direct-push investigation. Mr. Hilyard said that those data should be available in the May/June timeframe. Mr. Davis noted that it might make sense to provide an update in the fall, and he said that the topic would be added to the list of MMRCT future agenda items.

Mr. Dinardo referred to the slide pertaining to the monitoring data being consistent with model transport simulation generated for the 2007 optimization, and asked if it's correct that the MMCL is expected to be reached by 2012. Mr. Hilyard clarified that the figure he'd shown was not meant to indicate that 2012 was an end date – rather, 2012 was the closest time-step to 2010 conditions that he was able to show. Mr. Dinardo then asked when it's predicted that the MMCL will be reached throughout the system. Mr. Hilyard replied that the model prediction is 2038. Mr. Davis added that the treatment system would likely be shut off before then, although small pockets of remaining contamination would take some time to go away.

Agenda Item #4. Gun & Mortar Remedial Investigation/Feasibility Study

Mr. Gallagher informed the group that the Gun & Mortar Investigation Report was just recently submitted to the regulatory agencies, which have not yet had the chance to review the document and provide comments – therefore, conclusions in the report may change based on agency input. He then stated that there are 23 gun positions and 14 mortar positions in the program, located south, west, and northwest of the Impact Area. The positions vary in size (with gun positions generally larger than mortar positions) and are flat and cleared of vegetation (except some of the older positions that have been re-vegetated). Mr. Gallagher also reported that the positions were established as early as 1940s, which is when the highest use of the positions occurred (the World War II period). High-explosive artillery firing was discontinued in 1989; however, inert and low intensity training rounds (LITR) were fired up until 1997.

Mr. Gallagher then stated that artillery shells and mortar rounds are projected by propellant loaded in the gun barrel or mortar tube. Excess propellant, which is not consumed in the firing of the weapon, is discharged out of the gun barrel, settles on the ground surface, and may result in the deposition of contaminants at the position. Also, artillery rounds are supplied with enough propellant to fire the weapon the maximum distance; if firing less than the maximum distance, however, propellant increment bags have to be removed, and in the past those excess bags were burned at the position, which also may have caused propellant-related contamination at the positions.

Mr. Gallagher noted that the primary COC at the Gun & Mortar Firing Positions is 2,4-dinitrotoluene (2,4-DNT). He said that in previous soil investigations 21 positions had no detections of 2,4-DNT, eight positions had low-level detections of 2,4-DNT (less than 700 parts per billion [ppb]), and eight positions had higher level detections of 2,4-DNT (greater than 700 ppb). Mr. Gallagher said that 700 ppb is the MMR preliminary remediation goal (PRG) and the Massachusetts Contingency Plan (MCP) Method 1 SW-1 GW-1 standard. He also noted that other contaminants detected at some of the positions were 2,6-DNT, nitroglycerin, n-nitrosodiphenylamine, perchlorate, metals, and Dieldrin. Mr. Gallagher further noted that groundwater was investigated at eight of the positions, and to date no artillery or mortar propellant constituents have been detected in the groundwater monitoring wells installed there.

Mr. Gallagher then began discussing past soil response actions, noting that in 2000 the Impact Area Groundwater Study Program (IAGWSP) removed 57 tons of soil to a depth of 2 feet at Gun Position 7 (GP-7). The soil was treated using the soil-washing system that was on site at that time. In 2004 the IAGWSP removed 750 tons of soil to a depth of 6 inches at GP-6. That soil was treated using the low-temperature thermal desorption unit that was on site at the time, primarily to treat soil from Demolition Area 1. In addition, AFCEE conducted a removal action at Chemical Spill 18 (CS-18) (also known as GP-9), in which 3,500 cubic yards of soil was excavated and transported off site for disposal.

Mr. Gallagher also noted that the recent groundwater investigation, which was conducted to confirm results of earlier investigations, involved two gun positions, GP-10 and GP-11. Six drive-points (or temporary well points) were installed at each position, after which one monitoring well was installed at each position, based on the drive-point data. He reported that sampling at the GP-10 well showed no explosives or perchlorate in the first three sampling rounds, but perchlorate was detected at 0.53 ppb in the most recent sampling round, which occurred in August 2009. He also mentioned that the state MCL for perchlorate is 2 ppb. And he reported that sampling at GP-11 showed low-level explosives detections in the drive-points; however, these were not confirmed in the permanent monitoring well. Mr. Gallagher then noted that profile data is subject to more interference, and therefore permanent monitoring well data is considered much more representative of groundwater conditions at a site.

Mr. Gallagher stated that 10 positions were selected for further soil characterization using the multi-increment sampling (MIS) technique, which involves collected many sub-samples over a larger area (or decision unit) to get the average or mean concentration there. He also noted that: GP-5 and GP-19 were chosen to reassess sites where contamination was not previously detected; GP-6, GP-7, and GP-12 were chosen to reassess sites with contamination below 700 ppb; GP-8, GP-10, and GP-11 were chosen to reassess sites with contamination above 700 ppb; GP-17 was chosen to resolve a discrepancy between data collected in 2000 and 2004 (2,4-DNT was detected one time but not the other); and mortar position 1 (MP-1) was selected to try to resolve a discrepancy between previous nitroglycerin data.

Mr. Gallagher then reviewed results of the recent soil investigation: GP-5 had no explosives or propellant-related compounds detected, which was consistent with previous sampling results; GP-6 and GP-7 had 2,4-DNT and other propellant-related contamination detected in surface soils, but in locations where soil response actions had been conducted samples tested either nondetect or had low-level detections, indicating that the removal actions were successful; GP-8 had only low levels of

propellant-related contamination detected; GP-10 and GP-11 had somewhat elevated 2,4-DNT and other propellant-related contamination detected, which was consistent with previous sampling results; GP-12, GP-17, and GP-19 had only low levels of propellant-related compounds detected, and a nondetect at GP-17 suggests that the discrepancy between earlier data there may mean that the previous detection was a false positive; and MP-1 had no explosives or propellant-related compounds detected, and it's thought that the previous nitroglycerin detection may have been a false positive. Mr. Gallagher noted that nitroglycerin is a difficult compound for chemists to analyze.

Mr. Gallagher spoke about the laboratory leaching studies conducted at the Cold Regions Research & Engineering Laboratory (CRREL), which looked at the environmental migration of 2,4-DNT and nitroglycerin in MMR soil. He then noted the following: both single-base and double-base propellants were used at MMR; single-base propellant consists of nitrocellulose (NC) with 2,4-DNT as a stabilizer; double-base propellant consists of NC, nitroglycerin, and other additives, including 2,4-DNT; NC is a fibrous material made of cotton or similar organic material treated with acid; results of the leaching studies indicate that, after a small initial release, both DNT and nitroglycerin are encapsulated within the NC; and when released, DNT and nitroglycerin quickly degrade by natural processes (biodegradation). Mr. Gallagher stated that overall the study results indicate that 2,4-DNT and nitroglycerin are essentially immobile in the environment at MMR.

Mr. Gallagher stated that the risk screening for groundwater that was part of the investigation report looked at the maximum detected concentration of each groundwater analyte and compared it with preliminary screening levels. He noted the following: a single detection of TNT (at GP-19) over several years of monitoring was not reproduced in subsequent confirmatory samples, and the detection is believed to have been a false positive; perchlorate was detected above screening levels at two wells, both associated with the Northwest Corner site; groundwater detections of arsenic are attributed to the natural occurrence of that metal; detections of chloroform, which is believed to be ubiquitous in Upper Cape groundwater, were attributed to sources unrelated to MMR; and detections of the herbicide MCPP were attributed to an older analytical method, since MCPP has not been detected in groundwater or soil since the switch to a new method in 2001. Mr. Gallagher stated that no groundwater COCs were identified at the Gun & Mortar positions.

Mr. Gallagher also stated that the initial risk screening for soil used the maximum detected concentration of each analyte in all of the positions. Three metals, 2,4-DNT, and seven polycyclic aromatic hydrocarbons (PAHs) were identified and retained for further evaluation based on the site-wide screening. He noted that 2,4-DNT was retained because it's likely due to the firing of artillery and mortar rounds and the propellant bag burning at the positions. He also noted that 18 positions were identified as having no 2,4-DNT detections and either low or no detections of the other COCs, and therefore they were not evaluated further. The remaining Gun & Mortar positions were selected for further evaluation on a position-by-position basis.

With regard to the position-specific screening, Mr. Gallagher reported that: 11 positions had low levels of 2,4-DNT and zero to low levels of the other COCs, and due to the low concentrations the residual contamination there is not considered a threat to groundwater; GP-2 had only one elevated 2,4-DNT detection (1.3 parts per million [ppm] by Method 7270), which was not replicated in the Method 8330 analysis, and had PAH concentrations that were well below MCP Method 1 levels, and therefore the residual contamination at GP-2 is not considered a threat to groundwater; the average metals concentrations at Old MP-2 were less than MCP screening levels, and therefore the site was not carried forward; and five positions (GP-6, GP-7, GP-10, GP-11, and Old F Range) had elevated levels of 2,4-DNT, and although the leaching studies indicate that 2,4-DNT is not a threat to groundwater, as a conservative measure the IAGWSP is going to remove soils at these locations with the highest 2,4-DNT concentrations.

Mr. Gallagher then reviewed the "Conclusions" slide: no explosives or propellant-related compounds have been found in groundwater; contaminants detected in soil at the Gun & Mortar positions do not appear to be a threat to groundwater; 2,4-DNT, the most frequently detected propellant, is believed to be immobile in the environment; and as a conservative measure, a removal action is under way at five positions where 2,4-DNT was detected at elevated concentrations. Mr. Gallagher also reviewed next steps: the Investigation Report was issued to the agencies for review last week; the source removal action is scheduled to be completed this summer; and the decision document/public comment period is also expected to be done this summer.

Mr. LoGuidice asked when initial investigations at the Gun & Mortar positions began. Mr. Gallagher replied that sampling at the Gun & Mortar positions began in 1999, as part of the Phase I program. He also noted that there have been various phases and various analytes, with sampling for perchlorate starting later, and the MIS method being implemented in 2009.

Mr. Foster asked if the five positions identified in the risk screening as having elevated levels of 2,4-DNT are a subset of the eight positions identified in the previous investigation. Mr. Gallagher replied that it is not a complete subset. He also noted that the IAGWSP is conducting removal at any locations with elevated detections, regardless of whether they were identified through the older sampling methodology or through the MIS method. He further noted that in the subset of eight, some contamination was removed through the soil response actions he'd mentioned earlier. He also said that as a general rule the MIS sampling and the older methodology correlated fairly well.

Agenda Item #5. XCTC Investigation Results/Decision

Mr. Gregson reminded the group that XCTC stands for Exportable Combat Training Capability, a training exercise that the Massachusetts Army National Guard (the Guard) plans to conduct at MMR this June. He noted that the IAGWSP has been working with the U.S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MassDEP) to review sites selected for XCTC training to ensure that the activities will not interfere with ongoing investigation & remediation activities. He also stated that the 24 XCTC sites, which are located in previously cleared or developed areas, include: villages consisting of portable fiberglass housing unit that will be removed at the end of the exercise; landing zones for helicopters, and trailer-mounted towers using portable self-contained communications packages.

Mr. Gregson also reminded the group that the XCTC sites were grouped into different categories. He noted that there are four Category 1 sites, which are sites requiring additional investigation. Samples were collected at three Category 1 sites in March and samples will be collected at the fourth Category 1 site in April. There are two Category 2 sites, which are sites that are part of an area currently being investigated, but located where exercises won't interfere with those activities. The Category 2 sites are the Wood Road Village Site, which is part of the Former A Range Operable Unit, and the Kendrick Road Village Site, which is part of the Gun & Mortar Position Operable Unit (GP-19). Mr. Gregson also noted that the Category 3 sites are nine sites with no evidence or likelihood of a release, and the Category 4 sites are eight sites (most located in the Cantonment area) that have no history of contamination and do not present a concern under the Safe Drinking Water Act (SDWA) Administrative Orders (AOs).

Mr. Gregson said that the XCTC site review, which included looking at old reports, records, and investigations, indicated that none of the sites are in source areas for known groundwater plumes. Also, investigations conducted at these sites, or at sites where similar activities have occurred, have not identified any explosives, perchlorate, or propellant contamination above risk screening levels. Mr. Gregson also said that it's believed that the Guard's planned use of the sites will not interfere with any future investigations, should they be needed.

Mr. Gregson continued his presentation by providing more detail on sites where samples were recently collected, beginning with a Category 1 site, Site #3, the BA-1 Village Site, which was used for maneuvers and bivouac activities from 1949 to the present. He noted that a large portion of this site was excavated in 1992 to provide top cover for the landfill. He also said that anomaly investigations at the site (in 2000 – 2005) identified a burial pit containing electronic components (which was excavated) and other debris. Post-excavation soil samples were collected and no soil contamination above risk-based levels was identified. However, the IAGWSP is going to collect some additional samples from a couple of areas of concern – a landing zone, to ensure there is no residue from smokes or flares, and near where a steel plate, which appears to have been fired upon, was found.

Mr. Gregson talked about another Category 1 site, Site #4, the A-2 Village Site. He noted that the location was labeled as an "inactive demo site" on an old map, which prompted some preliminary investigation about seven years ago. Two groundwater monitoring wells were installed – one at the northern demo site and one at the southern demo site – both of which tested clean. Soil sampling at the northern site found no contamination or evidence of disposal, and an aerial magnetometry survey conducted in 2002 led to the investigation of an anomaly that turned out to be an abandoned latrine structure. Mr. Gregson said that recent geophysical investigations found no evidence consistent with demolition activities or burials. He also said that an MIS soil sample was recently collected from the southern site and will be analyzed for explosives and perchlorate.

Mr. Gregson spoke about another Category 1 site, Site #23, the KD (Known Distance) Range Landing Zone. He said that the area being investigated is the parking lot behind the firing line at KD Range, which historically was used as a rocket-launcher range. And although a monitoring well that was installed downgradient of a soil removal project to removed nitroglycerin-contaminated soil at the range ten years ago showed no contamination, it is possible that back-blasts from the rocket launchers may have deposited perchlorate residue on the parking area. Three MIS samples were collected in that area and results are expected in one or two weeks.

Mr. Gregson then reported on two Category 1 sites – Site #5, the A-4 Village Site, and Site # 12, the A-4 Tower Site. He noted that this area was recently added to the sampling program and a work plan was just signed today. He referred to a map and pointed out the NBC (Nuclear, Biological, and Chemical) Training Area, where soldiers train in using personal protective equipment such as gas masks, but which was formerly an ammunition supply point (ASP). He also pointed out some Quonset huts where ammunition was stored in the past. Mr. Gregson then said that the IAGWSP doesn't have any soil samples from this specific site, but several years ago soil samples were taken from near Quonset huts located west of Pew Road, and prior to that at another former ASP near the Hunter Avenue Treatment Plant, and nothing significant was found at either of those locations. However, the IAGWSP felt that this area was different enough that it would be a good idea to collect a couple of samples just to confirm that there are no problems, and those results are expected in a couple of weeks.

Mr. Gregson also spoke about a Category 2 site, Site #2, the Wood Road Village Site, which includes a portion of the Former A Range, an anti-tank range where targets were mounted on railroad cars that ran down a hill. He noted that early on in the investigation soil samples were collected from the area believed to have been the firing point for that abandoned range, but no source of contamination was detected. Mr. Gregson said that results of the comprehensive investigation will be reported in the Former A Range Investigation Report, which will be issued in a couple months.

Mr. Gregson then said that another Category 2 site, Site #6, the Kendrick Road Village Site, was one of the earlier gun positions established in the 1940s and used up until 1970 (Old GP-19). Since 1970 a portion of the site has been used for earth-moving equipment training. He noted that extensive soil sampling conducted at the site (for both the Gun & Mortar Positions investigation and the Northwest Corner perchlorate investigation) found no contaminants above screening levels. Results of the investigation will be reported in the Gun & Mortar Report, which will be issued in a couple of months.

Mr. Gregson stated that the Guard's planned activities for Site #2 and Site #6 are not expected to have any impacts there.

Mr. Gregson then discussed a group of Category 3 sites, proposed XCTC village sites (Site #1 – the BA-4 Village Site, Site #8 – the C-14 Village Site, and Site #10 – the C-15 Village Site), which are located in bivouac/bunker areas used for operational camps during troop maneuvers. He noted that no evidence of high-explosives use, testing, or burials has been found in this type of area. He also reported that soil and groundwater sampling conducted at the BA-4 site during the Western Boundary investigation did not indicate that the area was a source of contamination. Also, groundwater monitoring in place downgradient of Site #1 and Site #8 has shown no evidence of groundwater contamination.

Mr. Gregson also spoke about two more Category 3 sites, Site #21 – the CS-15 Landing Zone, and Site #22 – the Wood Road Landing Zone, which will be used as landing zones for the XCTC exercise. He noted that both of the sites have been used for landing helicopters since the 1970s. Site #21 was also used for storing road-building materials and as a troop assembly point. There is no history of explosives having been used at either of these sites, and although smoke grenades may have been used prior to 1997, there is no evidence to indicate that these areas are sources of contamination.

Mr. Gregson then discussed four Category 3 sites that the Guard is proposing to use as XCTC tower sites. Site #14, the B-9 Tower Site, is not far from Former A Range, and soil sampling conducted there in 2004 indicated it is not a source of contamination. Site #15, the C-14 Tower Site, is a cleared area north of the C-14 Village Site, and a site investigation there showed no sources of contamination. Site #24, the B-11 Tower Site, is a cleared area located 200 feet northeast of GP-16, and no activities at the site indicate it is a source of contamination. Site #25, the S Range Tower Site, is a parking and troop assembly area 200 feet north of a small arms range firing line. Mr. Gregson noted that the IAGWSP has done an extensive investigation of the S Range firing point, range floor, and targets. And at the tower site, which is to the north, in the parking area, no potential impacts from former use of the range are expected. Mr. Gregson then turned the presentation over to Ms. Jennings.

Ms. Jennings stated that she'd hoped to be able to discuss EPA's decision at this meeting, but unfortunately, that point hasn't yet been reached. She also said that she'd like MMRCT members to have a final report to review before EPA issues its final position. She explained that EPA has seen and commented on the draft report, but would like results from the sites where more data are being collected to either be incorporated into the existing report or written up in a memorandum. Ms. Jennings said that after a final report is issued, EPA plans to issue a letter stating that the agency believes that enough data were collected at the sites to characterize any soil or source work necessary, and authorizing the Guard to use the sites for this particular purpose (XCTC training), for this particular duration. She also said that the plan is to eventually close out these sites under the AO, and it's believed that the training won't interfere with the actions, if any, that will be taken at a later date under the AO.

Ms. Jennings further noted that there will be a 14-day informal public comment period associated with the report and EPA's position letter, and if any objections are expressed, a typical formal public comment period may be held. She also said that she thinks it will take another three weeks for the IAGWSP to finish collecting data and issue a final report, so EPA expects to issue its letter around the first week in May and offer up a 14-day public comment period. She also mentioned that because this will be a very limited authorization, there won't be any major modification to the AO, as was the case with resuming training with lead ammunition at the ranges.

Mr. Goddard said that he's a bit confused as to whether these sites would have been investigated if not for the training exercise happening this summer. Mr. Gregson reminded Mr. Goddard that the sites fit into a number of categories, including "no contamination sites," and "sites that have been looked at to

some degree in the past." He also noted that as this year progresses the IAGWSP will be working on the Training Areas Investigation, which will be another base-wide look at areas that are a potential concern. Mr. Goddard asked if it's correct then that the sites associated with the training exercise are lower priority sites. Mr. Gregson confirmed that they are, and Ms. Jennings agreed, noting that some level of data already has been collected at many of the sites. She also mentioned that many of the sites won't even be of concern or require much investigation, such as those that were historically used for housing or administrative functions at the base, or those where training activities didn't involve the use of explosives.

Mr. Goddard asked, if all goes well, whether EPA might be willing to issue another letter of limited authorization for the same type of training exercise in future years. Ms. Jennings replied that the plan is to have these sites closed out under the AO by then. Mr. Gonser clarified that Ms. Jennings is talking about closing out the investigations at the site, not closing the sites entirely (to training). Mr. LoGuidice said that he thinks it's important in these times for the Guard to be allowed to use the sites for training purposes.

Mr. Foster asked if there's a mechanism in place to monitor the effects of the XCTC training. Ms. Jennings noted that the training will not involve the use of high-explosives or the like. Mr. Foster asked what type of training will actually occur. Ms. Jennings said that she thinks it is mostly maneuvering, as well as the use of pyrotechnics devices that do not contain perchlorate. LTC Bertone, the deputy base commander at Camp Edwards, added that the soldiers will be doing typical activities associated with the Annual Training period, but with a concentration on moving, communicating, and reacting to certain situations. He noted that the Guard has approval to use the simulated hand-grenades to simulate explosions and improvised explosive devices (IEDs), and to simulate loud bursts of smoke to add to the confusion, making conditions more realistic for the soldiers. LTC Bertone also mentioned that the group coming in to train this June will be the size of a small brigade, about 2,000 soldiers.

Ms. Grillo noted that Mark Begley, director of the Environmental Management Commission (EMC) works with the Guard to ensure military training that's compatible with environmental protection. LTC Bertone also informed the group that the Guard will be running a school to certify and have in place during the training Observer/Controllers (O/C) to ensure compliance with the AOs and Environmental Performance Standards (EPSs).

Mr. LoGuidice asked if it's correct that the training will involve civilians dressed as villagers. LTC Bertone confirmed that civilians from the community will be hired to participate in training activities. He said there was an ad in the local paper, and he believes that up to 150 individuals will be hired to work for about four weeks, up to 12 hours a day.

Agenda Item #11. Public Comment

Mr. Goddard said that he could show Mr. Davis a chart that he'd sketched out for relating contaminant toxicity information to the public in the upcoming Plume Booklet. He also noted that he's heard an assertion that perchlorate is being discharged to the base sewer system's infiltration basin on Sandwich Road, and he wants to confirm that that is not true. He then said that he thinks the only way that might be possible would be if uniforms with pyrotechnic residue on them were being washed on base. Ms. Jennings indicated that in that case the uniforms would have to be from some other facility, because perchlorate isn't being used at the base. Mr. Gonser noted that perchlorate is sometimes found in septic systems because it can be in bleach used for washing clothes and dishes. Mr. Goddard asked for confirmation that there is no significant concern or investigation associated with the discharge to the infiltration basin, and the only perchlorate in that area is associated with the Northwest Corner investigation area. Mr. Gonser confirmed that that is the case.

Agenda Item #12. Next Meeting Schedule and Adjourn

Ms. Grillo stated that the next MMRCT meeting is tentatively scheduled for May 12, 2010* at the Forestdale School. She noted that a posterboard session and public meeting on the L Range and J-1 Range Remedy Selection Plans (RSPs) would occur at the same location about one hour before the start of the MMRCT meeting. She also mentioned that no MMRCT meeting will be scheduled for the month of June. Ms. Grillo then adjourned the meeting at 8:33 p.m.

**Please note: the next MMRCT meeting will take place on Wednesday, May 19, 2010 at 6:30 p.m. at the Forestdale School. A posterboard session and public meeting on the L Range RSP will take place on Wednesday, May 19, 2010, at 5:00 p.m. at the Forestdale School. A posterboard session and public meeting on the J-1 Range RSP will be scheduled for sometime in June 2010.*