

Senior Management Board

Quality Inn

Bourne, MA

May 27, 2009

6:30 – 8:45 p.m.

Meeting Minutes

Members:	Organization:	Telephone:	E-mail:
Virginia Valiela	Town of Falmouth	508-563-9028	valiela@hotmail.com
Stephen Mealy	Town of Bourne	508-759-0600	smealy@townofbourne.com
Capt Dan Abel	USCG	508-968-6300	dan.b.abel@uscg.mil
LTC Randy Cordeiro	HQCE	508-968-6487	randall.j.cordeiro@us.army.mil
Dr. Mike Ciaranca	E&RC	508-968-5121	Michael.ciaranca@us.army.mil
Martha Steele	MDPH	617-624-5757	Martha.steele@state.ma.us
Mary Sanderson	US EPA	617-918-1381	sanderson.mary@epa.gov
Len Pinaud (sitting in for Millie Garcia-Serrano)	MassDEP	508-946-	leonard.pinaud@state.ma.us
Attendees:	Organization:	Telephone:	E-mail:
Jon Davis	AFCEE/MMR	508-958-4670	jon.davis@brooks.af.mil
Mike Minior	AFCEE/MMR	508-968-4670	mike.minior@brooks.af.mil
Tom Sims	AFCEE	404-562-4200	Thomas.sims@us.af.mil
Bill Sullivan	E&RC	508-968-5147	William.g.sullivan@us.army.mil
Lynda Wadsworth	E&RC	508-968-5152	Lynda.e.wadsworth@us.army.mil
Emily Derbyshire	E&RC	508-968-5146	Emily.derbyshire@us.army.mil
Sally Hartmann	E&RC	508-968-5145	sally.a.hartmann@us.army.mil
Hap Gonser	IAGWSP	508-968-5107	kent.gonser@us.army.mil
Ben Gregson	IAGWSP	508-968-5821	ben.gregson@us.army.mil
Dave Hill	IAGWSP	508-968-	dave.hill@us.army.mil
Barbara Burnett	6 th SWS	508-968-3283	Barbara.burnett@capecod.af.mil
Mike Speth	ARNGB	703-601-7982	mike.speth@us.army.mil
Bill Myer	NGB-ARE	703-607-4504	bill.myer@us.army.mil
Carter Hunt	MDFA	508-563-2785	chunt@massdevelopment.com
David Dow	Sierra Club	508-540-7142	ddow420@comcast.net
Jim Quin	Aerostar Environmental	303-794-9123	jq9123@msn.com
Jane Gasper	Innovar	508-759-9114	jgasper@innovar-env.com

Handouts Distributed at Meeting:

1. Presentation handout: Chemical Spill 19 Groundwater Proposed Plan
 2. Figures to accompany CS-19 Groundwater Proposed Plan Presentation
 3. Tables to accompany CS-19 Groundwater Proposed Plan Presentation
 4. Presentation handout: Ashumet Valley and Chemical Spill 10 ROD and Construction Update
 5. Presentation handout: L Range Remedial Investigation and Feasibility Study
 6. Presentation handout: Remedial Investigations/Feasibility Studies for Demo 2 – Northwest Corner – Western Boundary
 7. Presentation handout: Soil Removal and Treatment Update
 8. Paragraph: Discuss Future Meeting Schedule for the SMB
-

Agenda Item #1. Introductions, Approval of March 25, 2009 SMB Minutes, and Agenda Review

Ms. Valiela convened the meeting at 6:41 p.m. and the Senior Management Board (SMB) members introduced themselves. Ms. Valiela asked if there were any additions or corrections to the March 25, 2009 SMB meeting minutes. Mr. Pinaud referred to a typo on page 12, first full paragraph, line seven – noting that “S-1/GS-1” should be changed to “S-1/GW-1.” The minutes were approved with this change.

Agenda Item #2. Camp Edwards Activities Update

LTC Cordeiro reported that six annual training (AT) periods are scheduled at Camp Edwards from May through August, many of which are 21-day pre-mobilization ATs involving individual readiness tasks, weapons qualification, mandatory briefings, and so forth. He noted that a total of 3,500 soldiers will be training, including a unit from the New York Army National Guard. He also noted that over the next 18 to 24 months the Massachusetts Guard will hit its “high water mark for deployed soldiers” and therefore activity will increase in order to get them trained for deployment. LTC Cordeiro also mentioned that in October, a unit from Maine will be training at Camp Edwards, doing pre-mobilization tasks.

Agenda Item #3. Installation Restoration Program Updates

CS-19 Groundwater Update

Mr. Davis stated that the Chemical Spill 19 (CS-19) site, although located in the Impact Area, is being addressed by the Installation Restoration Program (IRP) and is regulated under the Superfund Program. He also noted that the CS-19 site, a disposal area that was not identified in previous Massachusetts Military Reservation (MMR) record searches, was identified in 1990 by an anonymous tip to the Massachusetts Department of Environmental Protection (MassDEP). A preliminary assessment, site investigation, and additional groundwater investigations were conducted, and then a remedial investigation (RI) in 2000, and Supplemental RIs in 2001 and 2003. In 2004, given the status of the Impact Area Groundwater Study Program’s (IAGWSP’s) investigation of the Central Impact Area (CIA) plume, the Air Force, Army, and U.S. Environmental Protection Agency (EPA) developed a Memorandum of Understanding (MOU) on how to approach a remedy for CS-19/CIA, which basically noted that the two decisions would not interfere with each other. In 2006 the IRP issued an Interim Record of Decision (IROD) for CS-19 groundwater, which was long-term monitoring with land-use controls (LUCs) to prevent exposure to groundwater, with the source area to be addressed separately.

Mr. Davis then reported that in 2008 it was determined that enough information about the CIA had been gathered that it made sense to proceed with the final remedy selection for CS-19, separate from CIA. In April 2009, the IRP developed the CS-19 Groundwater Feasibility Study (FS), and the public comment period on the CS-19 Groundwater Proposed Plan is ongoing.

Mr. Davis then reviewed the “CS-19 Groundwater Final Decision Steps” slide: a CS-19 Groundwater FS presentation was made at the combined SMB/MMR Cleanup Team (MMRCT) meeting on November 18, 2008; a public meeting (which was part of an MMRCT meeting) was held on April 8, 2009; the public comment period on the CS-19 Groundwater Proposed Plan was extended and ends tomorrow; a public hearing on the CS-19 Groundwater Proposed Plan was held on May 14, 2009; a draft Record of Decision (ROD) will be submitted to the agencies in June; and the goal is have a signed ROD by September 24, 2009.

Mr. Davis explained that the objective of the CS-19 source area cleanup is to remove the source of RDX that created the CS-19 groundwater plume. The source area cleanup has been ongoing since 2004 and has involved: the excavation and thermal treatment of 2,200 tons of soil; the excavation, transport, and disposal of 3,800 tons of soil; and the removal of more than 27,000 pounds of munitions debris (with more than 100 items identified for blow-in-place [BIP]). The cost of the source area cleanup is \$5.1 million, and a closure report will be issued this summer.

Mr. Davis showed a figure entitled “CS-19 Plume Conceptual Model” and noted that items at the source area were found buried as deep as 14 feet below ground surface (bgs). He explained that precipitation carried contaminants down to the water table where they dissolved into the aquifer and traveled with groundwater flow. He also pointed out that the figure shows other contamination (RDX and perchlorate) not associated with CS-19, but with the CIA groundwater plume.

Mr. Davis then discussed the “Groundwater Summary” slide, which noted the following: the risk assessment that was part of the CS-19 RI identified RDX, perchlorate, pesticides alpha-BHC and DDT, and metals arsenic, manganese, and thallium as contaminants of potential concern (COPCs); RDX was the only contaminant carried forward as a contaminant of concern (COC), although perchlorate remained in the interim monitoring program included in the 2004 IROD to monitor the plume; the maximum pesticide detection had occurred in one well upgradient of the site, and was determined not to be associated with CS-19, and so was not retained; and the metal detections were found to be less than background levels in the area, and so also were not retained. Mr. Davis also referred to a table from the CS-19 Groundwater RI entitled “Location and Detected Concentrations of Groundwater COPCs, CS-19 Study Area,” pointed out the limited and low-value pesticide and perchlorate detections, and explained that the COPCs were included in the risk assessment to look at the total effects of all contaminants that may be in the plume.

Mr. Davis then stated that for RDX: the MassDEP Massachusetts Contingency Plan (MCP) Groundwater 1 (GW-1) standard for RDX is 1 microgram per liter ($\mu\text{g/L}$) (or part per billion [ppb]); the risk-based number, which represents a one-in-a-million lifetime cancer risk is 0.6 ppb; the current maximum detection in the plume is 10 ppb; and the historical maximum detection is 21 ppb. He also reported that various wells were sampled for perchlorate, and that the Massachusetts maximum contaminant level (MMCL) for perchlorate is 2 ppb, current perchlorate detections at CS-19 are below reporting limit (BRL); and the historical maximum perchlorate detection was 1.4 ppb (in 2002).

Mr. Davis referred to a figure entitled “RDX Concentrations Trends in CS-19 Monitoring Wells,” referred to the well right underneath the source area, and pointed out how concentrations there decreased in response to the source removal work, with the current concentration now being less than 2 ppb. He also pointed out the well with the highest concentrations at this time (which he noted are well below 5 ppb), mentioned that higher concentrations are not moving downgradient, and said that the premise for the decision on CS-19 is based on the long-term data set shown on the figure.

Mr. Davis then stated that three alternatives were developed for the CS-19 Groundwater FS: Alternative 1, no action; Alternative 2, monitored natural attenuation (MNA) with LUCs; and Alternative 3, active treatment (using one extraction well located to minimize ecological damage while still reaching a portion of the plume with higher concentrations) with long-term monitoring and LUCs. He also showed the modeling animation for Alternatives 1 and 2 and noted that concentrations drop below 2 ppb around the year 2018 and are no longer detectable around 2037. The animation for Alternative 3 showed the prediction that the plume would clean up about seven years sooner.

Mr. Davis also showed a chart entitled “CS-19 FS Alternatives Performance” which noted the following: under Alternatives 1 and 2 estimated time to cleanup is 2037 and under Alternative 3 is 2030; under Alternative 3 about 1.7 pounds of RDX mass is predicted to be removed; the present value

cost for Alternative 1 is zero, for Alternative 2 is \$0.9 million, and for Alternative 3 is \$5.3 million; at year 2030, there would be approximately 116 million gallons of plume volume under Alternatives 1 and 2, and zero gallons at that time under Alternative 3.

Mr. Davis then stated that if the plume did not dissipate within the anticipated timeframe or distance, it's believed that it would travel under the Bourne landfill and end up in the Cape Cod Canal or Buzzards Bay. Nevertheless, given the available data set, it's not thought that the plume will ever even reach the base boundary. Mr. Davis also mentioned that there's a Bourne Board of Health regulation that states that no wells can be installed in the direct path of an advancing plume of contamination. He further noted that as part of the on-base LUCs, no wells can be installed hydraulically upgradient of the Bourne landfill.

Mr. Davis reported that the preferred groundwater remedy put forth in the CS-19 Proposed Plan is Alternative 2 – MNA with LUCs (and the Five-Year Review). He also noted that the other plume where there's been no active treatment is the Eastern Briarwood plume, which turned out to be a good decision. He then reviewed the reasons why active treatment isn't proposed for CS-19: low uncertainty, as the plume is well-defined with long-term data results and has no surface water interactions; the plume remains on base, and therefore doesn't threaten any residences or municipal/private wells and is predicted to attenuate within the current Department of Defense (DoD) lease timeframe; and the source area removal action has been successful, as demonstrated with soil and groundwater sampling.

Mr. Davis then mentioned the two objectives associated with groundwater decisions: to prevent exposure to contaminated groundwater, and to restore groundwater to beneficial uses in a reasonable timeframe under the given circumstances. He noted that Alternative 2 meets the first objective because of the LUCs, which include an on-base drilling moratorium for wells that service fewer than 25 people and MassDEP's permitting process, which is required for wells that service 25 or more people. Alternative 2 meets the second objective because the year 2037 is considered a reasonable cleanup timeframe and because the additional cost and impacts of active treatment do not outweigh the benefit of a seven-year acceleration of the cleanup timeframe.

Mr. Davis concluded his presentation by reminding the group that an appropriate action for the CIA plume will be proposed at a later date, and that any decision on CS-19 will not predetermine or limit remedial options for the CIA plume.

Questions and Comments from SMB and Public

Ms. Valiela inquired about the distance from ground surface to the water table and the depth of the plume in the water table. Ms. Thomas replied that the distance from ground surface to the top of the water table in the source area is about 90 feet, and the plume is about 100 feet below the top of the water table. Ms. Valiela then asked how the toe of the plume will be monitored as it moves forward, as there are only two monitoring wells ahead of the toe at this time. Mr. Davis replied that the \$900K cost of Alternative 2 includes drilling two additional monitoring wells if increasing concentrations are seen at the toe and it's determined that more wells are needed. He also noted that it's normal practice to add wells during the monitoring of a plume, if needed. Ms. Valiela asked if it's correct then that the two wells at the toe will be monitored on a yearly basis and additional wells will be added farther downgradient if concentrations begin to rise. Mr. Davis confirmed that that is correct, and added that a new well was recently added at the CS-20 plume because of that type of situation.

Ms. Valiela also asked about the level of contaminant concentrations represented by the color orange in the modeling animations. Mr. Davis replied that orange represents concentrations in the 6 to 20 ppb range. He noted that to be conservative, concentrations seen in monitoring wells were migrated

forward in the model without any degradation. He also said that the maximum concentration currently being seen is 10 ppb, in one well.

Mr. Pinaud noted that the plume would travel underneath the Bourne landfill if it didn't dissipate before the base boundary. He then said that according to MassDEP's Solid Waste Division the area underneath the landfill is, by regulation, considered a degraded portion of the aquifer, as is the commercial area across Route 28 from the landfill. Mr. Pinaud then explained that although the Bourne Board of Health regulation already states that a public water supply well wouldn't be located there, it's also highly unlikely that MassDEP would permit such a well. He also reminded the group that MassDEP would have to permit an on-base supply well serving more than 25 people and noted that neither the Upper Cape Water Cooperative nor the Town of Bourne have applied for a permit for a supply well in that area. Mr. Pinaud also clarified that his comments are not meant to indicate a preference for or against the Air Force for Engineering and the Environment (AFCEE) preferred remedy; rather, he was just following up on comments from the last MMRCT meeting.

Ms. Valiela asked if it's correct that the modeling animations are for RDX only. Mr. Davis confirmed that the plume shell is RDX only. Ms. Valiela then asked if any projections have been made as to whether any of the other constituents will be seen "at the very end." Mr. Davis replied that none of the other constituents (such as the pesticides and metals) were built into the plume shell, as their concentrations are so low, or at background, or they didn't come from the CS-19 source. Ms. Valiela asked if it would be accurate to assume that concentrations of those constituents would be lower farther downgradient from where they were seen. Mr. Davis replied that if there really is a source for those contaminants, certainly they would dilute or disperse as they moved through the aquifer. Ms. Valiela then asked if it's thought that manganese is "actually being added to the groundwater from above" or if it's "just mobilized by the chemistry in the plume." Mr. Davis replied that manganese concentrations were actually a little bit lower than what are considered background concentrations.

Mr. Dow stated that his group, the Sierra Club, favors Alternative 3 – Active Treatment, as do (former Plume Cleanup Team [PCT] member) Sue Walker and current MMRCT member Greg Taylor. He then said that because the RDX is above the cleanup level, and the Sierra Club believes that there's a variety of other contaminants in the plume (with pesticides and metals highlighted in the risk assessment as posing potential risk, and nearby perchlorate that's been attributed to the CIA or some other source), the Sierra Club doesn't think that MNA with LUCs is a satisfactory solution. Mr. Dow noted that the Sierra Club's policy is that the answer to toxic pollution is not dilution, and in this case there appear to be a number of areas of concern that could be addressed by active treatment, which he thinks AFCEE and EPA "apparently have decided to minimize." He further noted that although Mr. Davis said that the Eastern Briarwood plume is the only one whose proposed solution was MNA with LUCs, both AFCEE and EPA proposed that solution for that part of the CS-10 plume east of Ashumet Pond, and the Sierra Club believes that MassDEP's preference for active treatment is "the way to go forward." Mr. Dow then reported that the Sierra Club sent in an addendum to its comments after the CS-19 public comment period was extended to express disagreement with how to monitor the "the transfer through the vadose zone from the source area down to groundwater, for what the military uses...(which) would influence actually how far the plume would go..." Mr. Dow added that the Sierra Club has serious concerns about this and is very disappointed that EPA agreed to AFCEE's preferred alternative, having believed that EPA was "here to protect public health and the environment" but instead appears to be "stuck in the Bush era, with aligning themselves with the polluters."

Ms. Sanderson said that she thinks that "every plume needs to be looked at specifically, based on its data, based on the receptors, based on how aggressive source control measures have been." She also said that on balance EPA does not subscribe to "the solution is dilution," and she thinks it's important

to “take a broad look at all of the plumes and the work that’s done collectively on them...” She also noted that remedy selection is a difficult process that requires balancing nine criteria, and there are impacts to every decision that’s made – whether it’s for active treatment or for monitoring. Ms. Sanderson then said that while she appreciates Mr. Dow’s comments, she wants to assure him that EPA has been very thoughtful in reviewing the data and did not take a “walk-away approach.” She further noted that the decision has not been made yet.

Ms. Valiela said that she thinks the fact that the plume is on base is a key factor; it’s more likely that an active treatment decision would be pursued if the plume had traveled beyond the boundary into Bourne or some other town. She added that she thinks that monitoring the CS-19 plume makes sense. If the values at the leading edge of the plume continue to drop, it wouldn’t make sense to “pump all those millions of gallons in order to get 1.7 pounds.” Ms. Valiela also indicated that she’s satisfied with Alternative 2 because the modeling that’s been done over the past 20 years “has been good” and because samples will be taken on a yearly basis. Mr. Davis said that it’s likely that annual samples will be taken for some time, but there will be flexibility in the ROD to modify sampling frequency in the future.

Ms. Valiela asked if it’s correct that the wells will be sampled for a range of constituents, including metals and pesticides. Mr. Davis replied no, the plan is to look at RDX, which is the COC. He also reminded her that it was background concentrations of the non-COCs that were seen earlier. Ms. Valiela suggested that it would be a “good piece of data” to periodically confirm that those concentrations have not exceeded background.

Ashumet Valley and CS-10 ROD Update

Mr. Davis reminded the group of the plan for treatment in the southern part of the Ashumet Valley plume, noting that an easement offer had been signed for placement of a mobile treatment unit (MTU) in the bog area and a discharge bubbler in the Backus River. However, despite an earlier indication of acceptance, it turned out that the Falmouth Conservation Commission opposed the plan, due to the opinion that it would involve the taking of too many trees. AFCEE then went to the property owner to look at alternate locations for the MTU and bubbler and a revised plan was developed.

Mr. Davis stated that although the new layout involves the same pumping rate as before, and will have the same effect on the plume, it has delayed the project in that a revised easement plan and offer are needed before construction can get back on track. Although the hope was to be in the field this month, that probably won’t occur until late June, with construction to be completed sometime in August. Construction needs to begin by the end of the fiscal year in order for AFCEE to meet its goal for the Ashumet Valley plume. Mr. Davis also noted, however, that the signature process for the Ashumet Valley ROD itself is estimated to be completed around June 15, 2009.

Mr. Davis then reminded the group that the final ROD for CS-10 calls for an additional extraction well on Currier Road. He noted that that well has been installed and is operating, the regulatory agencies have the draft CS-10 ROD, and the target date for the signed ROD is the third week in July.

Questions and Comments from SMB and Public

Ms. Valiela inquired about the contaminant that the new extraction well is extracting. Mr. Davis replied that the contaminant is TCE and pointed out on a map the lobe of the plume where the well is located. Ms. Valiela also inquired about the contaminant concentrations. Mr. Davis pointed out a location where concentrations are around 90 ppb, another where they’re around 70 ppb, and another where they’re around 17 ppb. Ms. Valiela then asked if the extraction would disturb the nearby U.S. Geological Survey (USGS) research site. Mr. Davis replied that monitoring is being conducted to

ensure that that's not the case. He also noted that an another reinjection well was added and reinjection flow rates were adjusted in order to keep a hydrologic balance for both the USGS site and the phosphate plume that's discharging into the iron barrier along the shoreline of Ashumet Pond.

Agenda Item #4. Impact Area Groundwater Study Program Updates

L Range Remedial Investigation and Feasibility Study

Mr. Gregson displayed a figure and pointed out L Range (located in the southeast part of the base), the base boundary with the Forestdale neighborhood of Sandwich, and the Cape Cod Canal. He also showed an aerial photo of L Range and pointed out where the firing points and targets were located. He noted that the range is about 600 feet wide, 1,500 feet long, and is situated about 500 feet from the base boundary. He further noted that as part of the L Range investigation, the IAGWSP looked at three cleared areas near the range – Cleared Areas 11, 46, and 79. The range was used for training as an infiltration course in the 1940s and 1950s, and after was used as a 40mm grenade launcher range. Mr. Gregson reported that nothing of concern was found in Cleared Areas 11, 79, or 46, the latter of which was used during construction of AFCEE's Fuel Spill 12 (FS-12) source area treatment system.

Mr. Gregson then stated that the L Range investigation that occurred prior to 2008 involved the analysis of 473 soil samples from 60 locations, and interestingly, no explosives or perchlorate were detected in that soil. The groundwater investigation at that time involved 340 samples from 70 wells, which led to the identification of several very small noncontiguous plumes of explosives and perchlorate migrating southeast. Contaminant concentrations at that time were very close to the health advisories, and current levels are 3.6 ppb for RDX and 1.9 ppb for perchlorate (below the state's 2 ppb level). Mr. Gregson noted that the plumes appear to be detached from the source and concentrations are decreasing overall.

Mr. Gregson showed a map and noted that at this point it's difficult to even see where the L Range plumes are. He also pointed out: the J-3 Range plume, which is undergoing active treatment; the FS-12 plume, which has been undergoing active treatment by AFCEE for some time; and the J-1 South plume, which is also undergoing active treatment. Mr. Gregson then reported that the L Range RI/FS was submitted a few weeks ago and briefed in some detail at the May MMRCT meeting. Potential response actions considered were no-further-action, long-term management (monitoring and institutional controls [ICs]), and active treatment (one extraction well pumping the water to the J-1 South treatment plant for treatment and reinjection).

Mr. Gregson also reviewed a "Next Steps" slide: the RI/FS is currently being reviewed by the agencies, after which comments will be resolved; an Remedy Selection Plan (RSP) – which is the same as a Proposed Plan under the IRP – will be issued and a public comment period held in September 2009; and the goal is to issue a final L Range Decision Document (DD) in October 2009.

Demolition Area 2, Northwest Corner, and Western Boundary Remedial Investigations and Feasibility Studies

Mr. Gregson stated that the IAGWSP plans to issue one RSP and one DD that covers the Demolition Area 2 (Demo 2), the Northwest Corner, and the Western Boundary sites, as they all have similar potential remedies. He noted that Demo 2 is similar to the Demolition Area 1 site, but had a lower explosive limit, was used only for explosive training, and showed no evidence of disposal activities. He also said that a small RDX plume is migrating north from the Demo 2 site. Mr. Gregson then described the Western Boundary as an area of perchlorate detections upgradient of the Town of Bourne's Monument Beach wellfield. He noted that at this time the perchlorate concentrations are very low, with no detections exceeding the MMCL for perchlorate, which is 2 ppb. He further noted that the

Northwest Corner is a an area of perchlorate and RDX contamination located between the base boundary and the Cape Cod Canal, and groundwater flow there migrates from the base to the canal.

Mr. Gregson stated that the sites are similar in that they have no known active source, have no current receptors associated with them, and have relatively low levels of contamination. He also said that the IAGWSP has proposed a limited range of response alternatives for all three: no action, long-term management, and a limited pump-and-treat alternative. Also, the RSP and DD for all three sites will be combined.

Mr. Gregson showed a three-panel time-series figure depicting the Demo 2 plume in 2006, 2007, and 2008. He noted that the plume is breaking up and concentrations in the monitoring wells have dropped to below the 0.6 ppb risk level for RDX, with the exception of just one well showing a concentration around 2 ppb. He also said that the model predicts that by 2012 the plume will essentially be gone, with no concentrations above 0.6 ppb migrating across the base boundary.

Mr. Gregson then showed a time-series figure for perchlorate at the Northwest Corner and noted that it's predicted that by 2011 there will be just a small amount of perchlorate remaining off base and migrating into the canal. He also noted that there's only a small area of perchlorate above 2 ppb at the Western Boundary, and that is expected to decrease over time and probably won't be detectable downgradient, in monitoring well 208 (MW-208).

Mr. Gregson noted that three separate RI/FS documents for these sites are currently under review by the regulatory agencies. Based on agency comments, the IAGWSP will put together a combined RSP that will go out for public comment this August, and then issue a final DD for the three sites in September 2009.

Soil Removal and Treatment Update for Multiple Sites

Mr. Gregson reminded the group that the IAGWSP is moving forward this summer with some soil removal and cleanup actions at a number of sites. He noted that the program has embarked on a bench scale test to evaluate remediation of contaminated soil through the on-site application of various amendments, rather than transporting the soil off site for disposal. The alternatives being tested are: MuniRem (chemical method of denitrification), lime (chemical method of alkaline hydrolysis), DARAMEND (biotic method of denitrification), and composting (biotic method of remediation).

Mr. Gregson reported that soil for the bench test was collected from L Range and, interestingly, it all tested nondetect. Therefore, more samples were collected, with results expected tomorrow. Once the IAGWSP is successful in coming up with a treatment alternative, a project note describing the excavation and stockpiling of L Range soil for a pilot test will be produced. The pilot test (which will involve stockpiling the soil, mixing it with amendments, and sampling to ensure that it's working) is scheduled to occur this summer. Mr. Gregson also noted that the applicability of the selected technology for use at other MMR sites will be evaluated.

Mr. Gregson concluded his presentation by displaying a figure that showed where fairly high concentrations of RDX, TNT, and HMX were previously detected at the L Range former target area, and where RDX was detected in an area on L Range where a "consolidated shot" was performed to destroy about fifty 40mm rounds that contained high explosives (HE).

Integrated Scheduled Overview

Mr. Gonser displayed a slide of a rough preliminary schedule listing all upcoming IRP and IAGWSP activities and Massachusetts Army National Guard (Guard) training initiatives. He noted that the

schedule, which he described as a work in progress, will document steps for each cleanup project all the way to the last DD, thereby allowing for a strategy for closure. He also said that referring to the schedule would be helpful to the various organizations in terms of planning their resource needs, determining when it's important to obtain public input, and engaging in discussions about meeting frequency and the like.

Mr. Gonser noted that immediate activities include: the Demo 2 and Western Boundary FSs, Gun Position 2 (GP-2) approval – a Guard initiative to return to using one of the Gun & Mortar positions, and approval of documents associated with CS-18 and CS-19. He also pointed out on the schedule the J-1 Range and J-3 Range final DDs.

Ms. Valiela asked Mr. Gonser to review the column headings on the schedule, which were not possible to read on the screen. Mr. Gonser referred to tracking activity numbers, activities, feasibility studies, DDs or RODs, training activities/initiatives, and completion dates. Ms. Valiela inquired about the first and last dates on the schedule, and Mr. Gonser replied that the first is June 24 and the last is in November 2009; he also noted, however, that just the first page of the schedule was being displayed. Ms. Valiela again inquired about the column headings, and Mr. Gonser mentioned columns that list the general proponent for the activity and milestone dates. He also noted that the second page of the schedule runs through June of next year.

Mr. Gonser noted that the schedule details and format will be reviewed by the agencies, and the hope is that within the month there'll be a product that lays out the strategy for reaching final site closure and restoration of some of the training activities. Ms. Valiela asked if the dates in the schedule are an estimation of when things will happen. Mr. Gonser replied that they are, and explained that the dates come from schedules for individual sites, which are shared with the regulators and regularly reviewed and updated.

Questions and Comments from SMB and Public

Ms. Sanderson said that she thinks it's great that Mr. Gonser is working on an integrated schedule; she also noted, however, that in one word she would describe the schedule as aggressive. She explained that she just doesn't think it's possible to keep pace with the schedule as shown, as "an extraordinary amount of work" is behind all the various steps. Ms. Sanderson added that she wants everyone to understand that the idea of an integrated schedule is to help discuss priorities and she doesn't want people to think that "a wish list" is going to become the schedule. She further noted that while she understands that there are pressures related to training and to closing out sites, she thinks that much more discussion is needed about "what we think we can all navigate together."

Mr. Gonser agreed that each key milestone might have five or six different documents associated with it, such as draft and final RSPs, DDs, fact sheets, and so forth. He also suggested, however, that the schedule sort of lays out "where things are on the spectrum." Dr. Ciaranca added that although the last version of the schedule was "pretty aggressive," the schedule being shown this evening is right off the press and hasn't been reviewed yet. He asked the group to keep in mind that a great deal of effort was put into making the schedule more realistic for EPA and MassDEP and all the stakeholders. Mr. Gonser further noted that dates on this version of the schedule were moved back about two months and rearranged in order to accommodate input that's been received so far. He also acknowledged that while this new version is still aggressive, it lays out the activities so everyone can see "where we're going," and the intent now is to consult with the agencies and structure the schedule so that the user can easily see what's coming down the road, how training integrates with cleanup, and when major decisions will be made.

Ms. Valiela asked Mr. Gonser to elaborate on what is meant by training integrating with cleanup. Mr. Gonser replied that there are various activities the Guard wants to do to enhance training, some of which pertain to sites that the IAGWSP is trying to clean up. Therefore, it's important to make sure that sites are being cleaned up in an order that allows the Guard to reuse them for training. Another aspect of integrating is de-conflicting the document review workload for the regulatory agencies.

Mr. Dow asked if AFCEE's stated goal to have all remedies in place by fall 2009 and the IAGWSP's stated goal to have all remedies in place by fall 2010 have remain unchanged. Mr. Gonser replied yes, he believes that AFCEE is still on track to have all DDs completed by the end of the fiscal year. He also said that the IAGWSP hopes to have all of its decisions completed by mid 2010, although remedy-in-place would depend on which remedy is selected – that might not occur until a year later if the remedy requires construction of a pump-and-treat system, for example.

Mr. Dow said that he assumes that the military is working on the 2011 budget and asked what kind of numbers the IAGWSP projects it will need to actually implement the remedies that are chosen. Mr. Gonser noted that the IAGWSP has been quite aggressive about taking interim actions – therefore while the schedule shows, for example, that the J-2 Range DD is scheduled for January 2010, those groundwater systems have already been built, as have all of the others, with the exception of J-1 North and the CIA. Mr. Gonser also mentioned that source removals at most sites have already been completed. He said that much of what needs to be done is paperwork, but added that funds for J-1 and CIA treatment systems and additional source removal at CIA have been programmed for 2010 and 2011. Mr. Gonser further noted that the soil removal project that Mr. Gregson briefed this evening will take care of most of the smaller source areas.

Mr. Dow noted that the various CIA alternatives, which were discussed at the last MMRCT meeting, included some very elaborate approaches. He then asked if, when looking at the out-year budget, the IAGWSP plans for the most expensive alternatives or just the less costly ones. Mr. Gonser replied that it programs for what is believed to be the most realistic scenario – what the IAGWSP envisions and thinks the regulators envision. He said that that wouldn't be the most aggressive alternative, nor would it be the no-action alternative; rather, it would be something in the middle. Mr. Gonser also noted that he doesn't think there's been a situation yet where the IAGWSP hasn't had the funds needed to complete a project once a decision had been made.

Mr. Dow then asked if it's still Mr. Gonser's view that the CIA source area cleanup should involve only about ten acres. Mr. Gonser replied yes, and explained that trying to figure out the source area at the CIA is "tricky business," given both safety concerns and the heterogeneous distribution of the contaminants. He further noted that it's been decided that the best way to determine the source area is to look at contaminant concentrations in groundwater at the water table. He said that he believes that the water table contour above 2 ppb is about four acres in size, perhaps a little bit more, and that's what the IAGWSP will be looking to remove this year. He also said, "...but of course we'll have to keep working on that because the feasibility study is still down the road a little bit."

Mr. Dow inquired about the amount of contamination associated with the CIA that's represented by detached plumes. Mr. Gonser replied that he doesn't know the exact answer to that question. He said that many of them are detached with "little finger going out there" and the area of water table detections is quite small. He added that there are many fingers of contamination that are "way out there," including the sliver of RDX contamination at the Northwest Corner, believed to have originated at the CIA. Mr. Gonser also said that the water table detections indicate a continuing source, but given that it takes seven to ten years to travel from the surface to groundwater, "that might already be gone as well."

Agenda Item #5. Public Health Issues – Annual Ponds Fact Sheet

Ms. Steele noted that no SMB members responded to her request for comments on last year's annual "Recreational Water Bodies at or near MMR" fact sheet. She then noted that the fact sheet is being updated and the most recent version will soon be distributed to the local boards of health, the SMB, and other stakeholders, and posted on the Massachusetts Department of Public Health (MDPH) website.

Agenda Item #6. Discuss Future Meeting Schedule for SMB and Adjourn

Ms. Valiela acknowledged that it's unfortunate that she and Mr. Mealy are the only citizen representatives present for this discussion at tonight's meeting. She also noted, however, that at the SMB agenda planning meeting two weeks ago, SMB members had engaged in a discussion about modifying the board's meeting schedule. She then reviewed the proposal that she had developed in the hope that it would provide a basis for discussion: the SMB would meet at least twice a year (perhaps in September and March); the board's focus would be on larger issues such as "how clean is clean"; the SMB would monitor the broad progress of the cleanup rather than cleanup of specific sites, unless there's disagreement, controversy, or a "serious community problem"; and the SMB would meet on the same night as an MMRCT meeting, but earlier, thereby minimizing meeting setups/breakdowns and participants' travel time, while still accomplishing communication with the community.

Ms. Valiela then said that while she doesn't think a decision can be made tonight, given that summer is around the corner she suggests that the board "basically try it out without having said this is what we're doing" and schedule the next SMB meeting for September, on the same night as the MMRCT meeting.

Ms. Sanderson noted that she agrees with Ms. Valiela's proposal, adding that the group can always change its mind and decide to meet more frequently, if desired. She also reported that the MMRCT is scheduled to meet on June 10, July 8, September 9, and October 14, and that if the SMB decides to meet on September 9, 2009 a planning meeting could be scheduled for sometime at the end of August.

Ms. Steele said that she certainly would go along with the proposal and thinks that it makes sense. She also spoke in favor of having both an MMRCT meeting and an SMB meeting on the same night, as it gives both groups the opportunity to attend each others' meetings.

Dr. Ciaranca said that this trial period may lend itself toward a "natural merging" of the two groups.

Mr. Gonser recommended that, rather than structuring certain months to hold SMB meetings, the board consider scheduling meeting dates that are oriented to when decisions need to be made or issues need to be brought forward. In this way, as the cleanup programs move through their process, the SMB could ensure that it has opportunities to provide input that's meaningful. Ms. Valiela agreed that in practicality Mr. Gonser's recommended approach makes a lot of sense; however, she had just put forward the idea of twice-a-year meetings to give people something to think about. Ms. Sanderson added that issue-spotting by the IRP and IAGWSP on behalf of the SMB would certainly be welcomed.

Mr. Dow mentioned that the MMRCT may want to have input on policy issues such as the Natural Resource Damages Assessment (NRDA) process, which customarily have only been discussed at SMB meetings.

Ms. Wadsworth said that the Environmental & Readiness Center (E&RC) could provide input in terms of keeping an eye on upcoming issues and timing of SMB meetings. She also mentioned the idea of

expanding the SMB agenda distribution list to MMRCT members and vice versa so that everyone knows what will be discussed at the meetings and can plan accordingly.

Mr. Pinaud stated that MassDEP supports this proposal as well.

Ms. Valiela adjourned the meeting at 8:17 p.m.