

Plume Cleanup Team/Impact Area Review Team Meeting
Building 1805, Camp Edwards, MA
July 9, 2008
6:00 – 9:00 p.m.

Meeting Minutes

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Action Items:

1. The IAGWSP and regulators will discuss options for sampling for all six DNT isomers and report back to the PCT/IART at the September meeting.
2. The agencies will look into scheduling a joint PCT/IART/SMB meeting and report back to the PCT/IART regarding same.

Handouts Distributed at Meeting:

1. Responses to Action Items from the June 11, 2008 PCT/IART Meeting
2. Presentation handout: Remediation & Investigation Update
3. Robotics demonstration newspaper articles

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4. Presentation handout: Camp Edwards Small Arms Range Update: Tango and Juliet & Kilo Ranges
 5. IAGWSP fact sheet 2008-1: July 2008 J and K Range Investigation
 6. E&RC fact sheet: Camp Edwards/Massachusetts Military Reservation Small Arms Range Working Group Status Update 2 – Summer 2008
 7. Presentation handout: Southeast Ranges Plumes Update
 8. Map: Southeast Range Groundwater Rapid Response Action Treatment Systems and Monitoring Networks
 9. Presentation handout: Ashumet Valley Update
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Agenda Item #1. Introduction, Agenda Review, and Approval of 6/11/08 PCT/IART Meeting Minutes

Mr. Field convened the meeting at 6:05 p.m. and reviewed the agenda. Ms. Grillo asked for a brief discussion on whether any team members had difficulty gaining access to the Massachusetts Military Reservation (MMR) to attend this meeting. Mr. Field queried the team members and Mr. Goddard and Mr. Mullennix noted that it had taken them a few minutes to get through the guard gate. Ms. Grillo said that when she came through the gate the guards had not known the name of the group that was meeting. Ms. Richardson said that she visited the guards at the gates just before the meeting and was surprised to find out how many access lists they had, so she's not surprised that it takes a few minutes for them to identify the proper list. She also said that she would ensure that all team members' names would be included on the list for future meetings.

Mr. Field asked if there were any changes or additions to the June 11, 2008 Plume Cleanup Team (PCT)/Impact Area Review Team (IART) meeting minutes. Ms. Gasper referred to the fifth full paragraph on page 12 and noted that a reviewer's edit incorrectly identified a J-3 Range source area as being 300 feet wide by 3,000 feet long, rather than the range itself being that size, as originally written. She also noted that the reference to the J-2 Range in that paragraph should be changed to J-3 Range. Mr. Field confirmed the minutes approved with those two changes.

Agenda Item #2. IAGWSP Remediation and Investigation Updates

J-2 East Construction Update

Mr. Gregson showed a map, pointed out the J-2 Range plumes (J-2 East and J-2 North), and reminded the group of the existing J-2 North plume treatment system, which has been in place since September 2006, includes three extraction wells, and is pumping at 375 gallons per minute (gpm). Mr. Gregson also noted that the J-2 Range plumes are a result of munitions testing and disposal activities that occurred at the range.

Mr. Gregson displayed a figure showing the layout of the treatment system currently under construction for the J-2 East plume, which, like the J-2 North plume, also contains both perchlorate and RDX. He reported that the system will be composed of three extraction wells down the center of the plume (one at the toe, one in the middle, and one near the source area), three infiltration trenches, and four mobile treatment units (MTUs). He also noted that the total pumping rate of the system will be 425 gpm and that the system is expected to run for about 14 to 16 years. Mr. Gregson also showed a few photographs of the ongoing construction work and noted that the anticipated startup date is September 2008.

Robotics Update

Mr. Gallagher reminded the group that the Impact Area Groundwater Study Program (IAGWSP) has been working with the Air Force Research Laboratories (AFRL) Robotics Group on a technology demonstration to determine if remotely-operated (robotics) heavy equipment can clear unexploded ordnance (UXO) from some of the MMR ranges in a safe, efficient, and cost-effective manner. He also noted that copies of the Enterprise and Cape Cod Times newspaper articles about this project are included in the team's information packets for this meeting.

Mr. Gallagher showed some photographs and reviewed the various pieces of equipment being used for the robotics technology demonstration: an excavator equipped with a thumb attachment; the excavator equipped with a large electromagnet; the ARTS system, which can be used with many different attachments, including a brush-cutting head to clear vegetation; the excavator with a Brontosaurus attachment, used to clear vegetation in the

Central Impact Area; a control unit, including joysticks and monitoring screens; and the AMRADS system, used to conduct EM-61 surveys to identify surface and subsurface metal that might be UXO.

Mr. Gallagher then updated the team on the robotics projects, beginning with the clearance of 40mm grenades from L Range: targets were removed using the excavator equipped with the thumb attachment; vegetation was cut using the ARTS system with the brush-cutter attachment; an EM-61 electromagnetic survey was performed using the AMRADS tow vehicle and multiple sensor array (MSA) over eight acres of cleared vegetation; and UXO clearance was performed using the ARTS system with the Harley power rake, the rototiller, a barber surf rake, and a Cherrington beach cleaner attachment. He also discussed the clearance of the four target berms (150m, 1,000m, and 2,000m A & B) at the J-1 Range: vegetation was cut using the ARTS system with the brush-cutter attachment; UXO were removed from the berms using the excavator with the rotary-sifter bucket attachment; UXO were transported to a central location (for later detonation) using the ARTS system with bucket; and an EM-61 survey will be performed to determine the effectiveness of the removal action.

Mr. Gallagher also updated the team on the clearance of munitions from the upper and lower target berms at Former A Range. He noted that, using the excavator with the electromagnet attachment, 50-caliber bullets, several 37mm projectiles (that may or may not contain explosives), and one 75mm projectile were removed, beginning at the upper berm. He also noted that work at approximately one-third of the lower target berm was completed before the unit was mobilized to the Central Impact Area to begin clearing vegetation using the excavator equipped with the Brontosaurus attachment. Although the excavator soon had to be moved to another AFRL site, the IAGWSP did have about an hour to watch the excavator equipped with the electromagnet pick up some scrap metal and one 155mm low-intensity training round (LITR). Mr. Gallagher further noted that vegetation at the BA-1/Grenade Court was cleared using the ARTS system with the brush-cutter attachment, and then an EM-61 survey will be conducted to determine if there is any subsurface metal that could be UXO.

Mr. Gallagher then reviewed next steps for the robotics demonstration: continue clearance on L Range; continue brush-cutting and evaluating the effectiveness of the electromagnet in the Central Impact Area; initiate brush-cutting at the J-3 Range; perform EM-61 surveys as necessary to determine the effectiveness of the various actions; and engage in other projects (completing work at the Former A Range lower target berm and cutting firebreaks for potential future controlled burns) as time permits.

Ms. Rielinger asked if the IAGWSP has an idea of the amount of UXO being removed, as opposed to scraps and fragments. Mr. Gallagher replied that a fairly high percentage of the metal items removed from the J-1 Range berms could potentially be munitions debris, an inert round, or UXO, while at the L Range, a lot of fragmentation and partially detonated aluminum bodies were removed. He also said, "It's kind of site dependent." Mr. Gonser confirmed that it is; the percentage of UXO has to do with the activities that occurred at the site. For example, a lot of non-explosive inert rounds are found at L Range, where mostly inert rounds were used, and at the Central Impact Area, where soldiers shot at tank bodies and the like, there are pieces of tank, range debris, and so forth. Mr. Gonser also noted that it's good to also remove the frag because doing so eliminates clutter before EM-61 surveys are conducted so that just the bigger items can be highlighted.

Ms. Rielinger asked if it's correct that robotics are being used to clean up whatever is found, regardless of whether it is UXO. Mr. Gonser confirmed that it is and explained that the technology has developed to the point where there's good equipment to find things, but it has no ability to distinguish whether the items are just scrap or UXO, or whether they're small items in shallow soil or larger items in deeper soil. This is why "you pretty much have to take it all out and then sort it out."

Ms. Curley introduced a video of the robotics technology demonstration to show the group, noting that it is a very "rough cut" that's in the process of being developed for use at other installations and perhaps at conferences. She said that the IAGWSP is interested in getting feedback on the video in terms of what else might be added to it and what groups might like to see it. Mr. Gallagher ran the video and provided the narration for it, making note of: a control unit; the ARTS system with the brush-cutter attachment; the Harley power rake that's used to remove root masses; a rototiller removing root balls; the barber surf rake picking up material and bringing it to a hopper; transects cut at the K Range for use in UXO density evaluations and as firebreaks; the J-2 Range berms; the rotary-sifter bucket dumping cobbles, root balls, and items that could be UXO; a fines pile; the Brontosaurus attachment cutting down a tree in the Central Impact Area where the topography is too rough for the ARTS system; and the electromagnet attachment being used at the Central Impact Area.

Mr. Davis asked if the IAGWSP had reached a point with the robotics that it can achieve a cleared area without having to put any technicians on the ground. Mr. Gonser replied that that is essentially the case with the J-1 Range berms. He also noted that the L Range work hasn't been completed yet and that it's uncertain whether everything could ever be removed from the Central Impact Area. Mr. Gonser also said that a problem with UXO is determining "when you're done" – what might be left, what kind of risk is considered acceptable – and other than at the J-1 Range, that hasn't been determined yet.

Agenda Item #3. Small Arms Ranges Update

Mr. Cody, the director of environmental affairs for the Massachusetts National Guard, reported that since receiving approval from the agencies in August 2007 to fire lead ammunition at Tango Range, 63,849 rounds have been fired there, including 7.62mm, 5.56mm, and 9mm/.40cal rounds.

Mr. Cody then showed an aerial view of Juliet & Kilo Ranges, the next two ranges where the Guard has proposed installing STAPP bullet catcher systems in order to fire lead ammunition. He noted that Juliet & Kilo Ranges are parallel to each other and that, for safety purposes, the berms will be made to line up with each other before the STAPP systems are installed on them. He also reported that in order to ensure a "clean" base before installing the STAPP system on the berm at Juliet Range, 12 inches of soil were removed to address some residual tungsten contamination there. Sampling results indicated a need to remove another six inches of soil, which is ongoing. At the Kilo Range berm six inches of soil were removed to address some nitroglycerin contamination, and sampling results are expected next week.

Mr. Cody stated that Juliet Range will support 17 lanes once the STAPP system is installed, while Kilo Range will support 29 lanes. He also noted that both Juliet & Kilo Ranges are 25-meter ranges capable of handling 7.62mm, 5.56mm, and 9mm/.40cal rounds, and that the Guard is working toward receiving approval from the agencies in September 2008 to fire lead ammunition on these ranges.

Ms. Grillo asked if the latest Small Arms Range fact sheet is available at tonight's meeting, and Ms. Curley confirmed that it is.

Mr. Karson took a moment to remind the team that the PCT/IART base tour is scheduled for Friday, July 11, 2008 at 4:00 p.m. Participants are being asked to meet at this building (Building 1805, Camp Edwards) to begin the tour of IAGWSP sites and the Air Force Center for Engineering and the Environment (AFCEE) Fuel Spill 12 (FS-12) treatment plant, which will last about one hour and 45 minutes and will be followed up with a 45-minute AFCEE presentation. Mr. Karson noted that anyone who hasn't yet signed up for the tour but is interested in participating should see him or Ms. Curley.

Agenda Item #4. IAGWSP Southeast Ranges Plumes Updates

Mr. Gregson reminded the group that he had provided an update on the J-3 Range plume at the June PCT/IART meeting and tonight would be providing updates on the J-1 South, J-1 North, J-2 North, and J-2 East plumes.

Mr. Gregson showed an aerial photograph of the J-1 Range and pointed out the base boundary with the Forestdale neighborhood of Sandwich, the Forestdale School, the ponds in the distance, the firing point at the range, and the locations of the 1,000-meter, 150-meter, and two 2,000-meter berms. He also noted that the source area for the J-1 North plume is located in the interberm area (between the 1,000-meter and 150-meter berms). Mr. Gregson also noted that the J-1 Range was used from the mid-1940s until the late 1990s, first as an anti-tank range and transition range for small arms, and later for contractor munitions testing and disposal of munitions and other materials by burial and burning. The IAGWSP soil investigation at the J-1 Range found explosives and propellants up to 65,000 parts per billion (ppb) and concluded that the disposal areas are the most likely sources for groundwater contamination. The IAGWSP groundwater investigation identified two plumes emanating from the range: J-1 North, an RDX and perchlorate plume migrating northwest into the Impact Area; and J-1 South, an RDX plume migrating off post in a southeasterly direction.

Mr. Gregson reported that current concentrations in the J-1 North plume are up to 13 ppb for RDX and up to 38 ppb for perchlorate, and the combined J-1 North soil and groundwater Remedial Investigation/Feasibility Study (RI/FS) is expected in early 2009. He also mentioned that there is no treatment system on this plume currently. He further noted that current RDX concentrations in the J-1 South plume are up to 34 ppb, although concentrations as high as 120 ppb were seen when the investigation first began. Mr. Gregson also reported that a

Rapid Response Action (RRA) treatment system consisting of an MTU and one extraction well (pumping 75 gpm) at the base boundary has been operating since October 2007.

Mr. Gregson showed a map of the J-1 South plume, noting that the direction of groundwater flow is to the southeast. He then showed a cross-section of the plume and noted that the plume is below the water table due to additional rainwater recharging the aquifer above the plume. He also pointed out the source area, said that concentrations in the monitoring well near the source area are lower than those farther out in the plume, and pointed out the extraction well at the base boundary, the downgradient monitoring wells where RDX is detected, and the next line of downgradient monitoring wells, which test nondetect for RDX. Mr. Gregson then showed an animation of the J-1 South RRA system and pointed out that the extraction well at the base boundary cleans up the half of the plume that exists on the base. He added that over the next six months to a year the IAGWSP will be working on determining how to address the remainder of the plume, downgradient of the extraction well.

Mr. Gregson continued with his presentation by showing a map of the perchlorate portion of the J-1 North plume, which flows to the north/northwest. He also showed a cross-section of the plume, pointed out the source area, from which the perchlorate appears to be detached, and also pointed out the upper and lower lobes of the perchlorate plume. In addition, Mr. Gregson showed a map of the RDX portion of the J-1 North plume and pointed out the inter-berm area and another RDX plume that was discovered about 18 months ago and is heading off into the Impact Area. He also mentioned the Central Impact Area contamination not shown on the map. He then showed a cross-section of the RDX contamination, mentioned some lingering source at the inter-berm area, and pointed out the upper and lower plume lobes, noting that it's unclear whether the two lobes are a function of different sources or of shifts in the top of the groundwater mound over time. Mr. Gregson then showed the J-1 North RDX and perchlorate animations, reminded the group that there's currently no treatment system on the plume, noted that it would take the plume about 30 years to migrate across the Impact Area, and reported that over the next year or so the IAGWSP will be looking at alternatives to deal with the J-1 North plume.

Mr. Gregson also displayed two photographs of the J-1 South system MTU, located right at the base boundary with Forestdale. He noted that as many trees as possible were retained to block the neighbors' view of the MTU, that camouflage netting was placed on one end to further obscure the MTU, and that there are no noise issues associated with the unit.

Ms. Rielinger asked if the IAGWSP plans to remediate the off-base portion of the J-1 South plume. Mr. Gregson replied that the IAGWSP will look at remediation alternatives, but added that the plume is in a densely-populated residential neighborhood, without many vacant lots. He said that the first step would be to find the best locations for extraction wells, and the next would be to find practical locations. Mr. Gonser clarified that the decision of whether or not to treat that portion of the plume has not yet been made. Rather, the IAGWSP still has to look at the plume and consider disruptions to the community, and the like. He also noted that the residences in that area are all connected to town water, so there is no risk associated with the plume. Instead, treatment would be just a matter of reducing the amount of time that that portion of the aquifer is unavailable. Ms. Rielinger then asked for confirmation that a J-1 South FS is forthcoming and Mr. Gonser confirmed that it is.

Ms. Rielinger also inquired about the degree to which the J-1 North and Central Impact Area plumes are co-located. Mr. Gregson replied that the J-1 North plume is just upgradient of the Central Impact Area plume. Ms. Rielinger asked if the distance is great enough that there isn't any plan for some kind of combined treatment system, and Mr. Gregson confirmed that there is not.

Mr. Goddard said that he'd be curious about some kind of combined system, given the proximity of the J-1 North, Central Impact Area, and Chemical Spill 19 (CS-19) plumes. He then noted that the southern portion of the J-1 South plume appears in the animation to be going into a pond. Mr. Gregson said that it goes south of Peters Pond, between Peters Pond and Pimlico Pond. He also ran the animation again and Mr. Goddard said that it seems that very low concentrations make it to the pond. He then asked if this means that the plume upwells into the pond and poses risk. Mr. Gregson replied that he doesn't think so, and noted, for example, that there are no detectable concentrations of RDX from the J-3 Range plume in Snake Pond. Mr. Goddard also mentioned that he's curious as to why there's no HMX in the J-1 South plume.

Mr. Gonser said that the source area was mostly a defense contractor disposal operation, and not really a munitions issue. Mr. Gregson added that some HMX has been detected, but well below its health advisory of 400

ppb. Mr. Goddard then inquired about the health advisory for RDX. Mr. Gregson replied that RDX has a health advisory of 2 ppb and a 10^{-6} risk level of 0.6 ppb.

Mr. Pinaud reminded the group to keep in mind that the animation is just a model; it's uncertain what the plume is going to do. He also noted that the plume is still within the neighborhood and isn't known to have crossed Route 130. He further stated that the neighborhood is very dense, so it would be difficult and disruptive to install a treatment system there, although it might be possible to locate an MTU near the fire station off of Route 130. Mr. Pinaud then made a point of noting that it's necessary to wait and look at the options in the FS, which is not yet available, before a decision can be made. He also said that the IAGWSP had the opportunity to install an extraction well and an MTU at the base boundary, and did so.

Ms. Jennings asked when the FS for the J-1 Range plumes is due. Mr. Gregson replied that he thinks it is due in March 2009. Ms. Jennings then said that she expects to request a scoping meeting for alternatives fairly soon, and the alternatives could be presented to the PCT/IART.

Mr. LoGiudice asked if Mr. Gregson is at liberty to identify the defense contractors he'd mentioned. Mr. Gregson replied that he is, and noted that the Army has reached a settlement with Textron, one of the contractors that conducted activities that caused contamination at the base. He also said that the Army is looking into taking action with other contractors such as Hesse Eastern and National Fireworks. Mr. LoGiudice then asked if any of these contractors have maps of the burial areas they used. Mr. Gonser informed him that many interviews have been conducted with the contractors and much correspondence sent to them. He also said that the settlement with Textron, which he believes was the first affirmative action undertaken by the Department of Defense (DoD) that recovered money, will be used to develop a team with DoD to go after other contractors. He further noted that part of the settlement is a requirement for Textron to share any available information on activities it or other contractors might have conducted at the base.

Mr. Gregson continued with his presentation by discussing the J-2 Range plumes, which are on the northeast side of the groundwater mound, and therefore flowing in a northerly direction. He noted that the J-2 Range was used from the mid-1940s to late 1980s – first as a firing and transition range for small arms and later for contractor munitions testing and disposal by burial and burning. He noted that soil investigations at the J-2 Range found explosive and propellant concentrations in the parts per million (ppm) range in disposal pits, and concentrations in the ppb range outside the disposal pits. He reported that the disposal pits are the most likely source of groundwater contamination. He also mentioned that 8,400 tons of contaminated soil were excavated from the J-2 Range in 2004 and treated at the thermal treatment unit that was on site at that time.

Mr. Gregson reported that the J-2 North plume, which is about one mile long and about 1,500 feet wide, has current concentrations of RDX up to 4.1 ppb and perchlorate up to 140 ppb. A J-2 North RRA treatment system has been operating since fall 2006, is treating 190 million gallons per year or 375 gpm, and is using granular activated carbon and ion exchange resin. The J-2 East plume, which is about 4,600 feet long and 2,200 feet wide, has current concentrations of RDX up to 5 ppb and perchlorate up to 20 ppb. The J-2 East treatment system, which is presently under construction, will consist of three extraction wells with a total extraction rate of 425 gpm, and is expected to become operational in September 2008. Mr. Gregson said that it's thought that these two J-2 Range treatment systems will be the final remedy for these plumes and that they will clean up that area in about 14 to 16 years.

Mr. Gregson showed a map of the J-2 North perchlorate plume and explained that the IAGWSP was anxious to take quick action to address this contamination because it is upgradient of the Upper Cape Water Cooperative water supply well #2. He then showed a cross-section of the J-2 North perchlorate plume and noted that concentrations are declining at monitoring wells near the source area (J-2 Disposal Area 2), but are lower than concentrations farther downgradient in the plume. He also pointed out the extraction wells, the sentry wells for water supply well #2, and the zone of contribution (ZOC) for the supply well. Mr. Gregson also showed a map and a cross-section of the J-2 North RDX contamination, which is less extensive than the perchlorate contamination.

Mr. Gregson then showed a map of perchlorate concentrations in the J-2 East plume, noting that it is upgradient of water supply well #1. He also showed a cross-section of the perchlorate plume, pointed out the source area, and noted that there are still some concentrations in the monitoring wells at the source, while the highest

concentrations are located in about the middle of the plume and the lower concentrations are located downgradient. Mr. Gregson then showed the J-2 East RDX map and cross-section.

Mr. Gregson showed an animation for the J-2 Range plumes that included RDX on the left panel and perchlorate on the right. He also explained that the additional views in the animation are cross-sections of the plumes, and that the animations show the existing J-2 North system and the future J-2 East system running. Mr. Gregson pointed out that the plumes are cleaned up around 2020, but with some concentrations hung up in lower conductivity deposits that will take some time to clear out.

Mr. Mullennix asked why the J-2 East cross-section figure doesn't show a ZOC for the downgradient water supply well. Mr. Gonser explained that this is because the plume doesn't go near enough to the well.

Mr. Gregson concluded his presentation by showing photographs of the J-2 North MTUs, which he described as standard shipping containers equipped with small treatment vessels. He also showed photographs of the medium-sized treatment plant at the northern end of the J-2 North plume, an extraction well vault, and a computer screen with flow and monitoring information.

Mr. Goddard referred to the J-2 North perchlorate cross-section and asked how it's possible that the water supply well ZOC wouldn't pull in the plume. Mr. Gregson clarified that there are two ZOCs – one for the average operating flow and another for the permitted 1-million-gallon-per-day flow rate. Mr. Goddard inquired about a standard operating procedure that prohibits the well from being pumped at a rate that would pull in the plume. Mr. Gregson explained that there's currently no risk of pulling in the plume because it is about one mile downgradient of the well. He said that it would take years for the plume to migrate to the well, even if the pumping rate were increased. He also mentioned that there are many monitoring wells between the plume and the supply well to provide early warning. Mr. Gonser added that rainfall provides adequate water to the supply well such that the ZOC doesn't need to reach farther.

Agenda Item #5. IRP Update – Ashumet Valley Feasibility Study Alternatives

Mr. Davis reminded the group that a focused investigation at the Ashumet Valley plume, a volatile organic compound (VOC) plume located entirely in the town of Falmouth, found some higher concentrations (in excess of 50 ppb) in the southern part of the plume, which, as discussed at the last PCT/IART meeting, led to the development of a plan to install a new extraction well in that area. He then showed a map and described the proposed system layout: the extraction well, with a flush-mounted vault, located on a town road; a pipeline to an MTU located in a vacant lot that's part of the cranberry bog property; and discharge via a surface water bubbler in the nearby Backus River. He also reported that AFCEE has begun the appraisal process for a 15-year easement for the MTU location, which would have trees around it and perhaps even a fence to minimize impacts there.

Mr. Davis then reviewed steps recently taken: a June 2008 PCT/IART presentation on the Ashumet Valley proposed alternative; a briefing before the Falmouth wastewater superintendent; a briefing before the Falmouth nutrient management group; a briefing before the Falmouth town engineer; a briefing before the Falmouth Board of Selectmen on July 7, 2008; and a neighborhood meeting on July 8, 2008, which covered both the Ashumet Valley and CS-10 Southern Trench construction projects and was attended by about nine residents, none of whom provided any negative feedback on either project.

Mr. Davis also reviewed future steps: award a construction contract in September 2008; finalize access agreement(s) in July through September 2008; and issue a Record of Decision (ROD) in fall 2008. He further noted that construction would occur in fall/winter, with system startup in spring 2009, if all goes well. He said that AFCEE would continue to update the PCT/IART as construction progresses and if there are any changes due to access issues.

Mr. Goddard said that he presumes that the Falmouth water superintendent and Board of Selectmen had no objections to the proposal with respect to the Town's plans for wastewater treatment. Mr. Davis confirmed that there were no negative comments at all.

Ms. Rielinger asked if there would be just a single discharge bubbler in the Backus River. Mr. Davis confirmed that there would. Ms. Rielinger then inquired about the flow rate at the bubbler. Mr. Davis replied that the flow rate would be about 200 gpm. Ms. Rielinger also asked about expected impacts to the Backus River. Mr. Davis

replied that there are no expected impacts. He also noted that the flow rate is about one-third the rates of discharge into the Coonamessett and Quashnet Rivers.

Agenda Item #6. Review Action Items and Adjourn

Ms. Jennings stated that at two previous meetings Mr. Dow had asked why the IAGWSP doesn't monitor for all six dinitrotoluene (DNT) isomers, but just for 2,4-DNT and 2,6-DNT. She explained that Mr. Dow had referred to the Badger Army Ammunition Plant in Wisconsin, where monitoring is being done for all six isomers, and where the state has established a health advisory for all six. She then noted that since the last PCT/IART meeting the U.S. Environmental Protection Agency (EPA) has been following up on Mr. Dow's question, trying to find out the basis for Wisconsin's established DNT health advisory. In addition, EPA has been checking with its Office of Research & Development to determine where there are sufficient toxicity studies to establish a toxicity number for each of the DNT isomers. Ms. Jennings noted that EPA has obtained some information that will be shared at the next tech meeting, and at the next PCT/IART meeting, when Mr. Dow is present. She then asked that Mr. Dow's request for this information be noted as an action item so that a written response is ensured.

Mr. Field reminded the group of tonight's request for a future PCT/IART agenda item on scoping of J-1 North and J-1 South plume alternatives. He also reviewed the draft agenda for the September 10, 2008 meeting: Southwest Plumes Update, CS-19 Source Area Update, Five-Year Review Update, Brief Construction Updates, Robotics Update, Small Arms Range Updates, Former B & D Range Field Delineation, and Central Impact Area Overview.

Mr. Goddard reminded the group of the proposal to hold periodic joint Senior Management Board (SMB)/PCT/IART meetings, beginning with one sometime before the end of this year. Ms. Jennings said that she believes that in fact the SMB had agreed to this proposal. Mr. Field recommended that the agencies work on scheduling this joint meeting and then inform the teams of the meeting date.

Mr. Field stated that the PCT/IART is scheduled to meet next on Wednesday, September 10, 2008, and the meeting adjourned at 7:30 p.m.