

**Picatinny Arsenal Environmental Restoration Advisory Board
Meeting Minutes, Wednesday, June 19, 2013
Hilton Garden Inn – Rockaway, New Jersey**

Attendees

Name	Organization
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Members

Ted Gabel	Government Co-Chair, Picatinny Arsenal
Mark Hiler	Community Co-Chair, Rockaway Twp. Env. Commission
Tom Brackin	Community Member, Rockaway Township
James Breiten	Official representative of Rockaway Township
Brad Carroll	Community Member, Tilcon
Chris Dour	Official representative of Denville Township
David Forti	Community Member, Rockaway Township resident
Michael Glaab	Community Member, Official representative of Jefferson Twp.
Pat Matarazzo	Community Member, Township of Verona; NJ Clean Water Council
Virginia Michelin	Official representative, Morris County, Planning & Development
Anne Pavelka	NJ Department of Environmental Protection (NJDEP)
William Roach	U.S. Environmental Protection Agency (EPA)
Tom Trapasso	Official representative, Borough of Rockaway
Henry VanDyke	Community Member, Rockaway Borough
Lisa Voyce	Community Member, Mine Hill resident
Cara Sileno	Official representative of Rockaway Township

Members of the Public, Support Staff for RAB, Picatinny, EPA and NJDEP

Tom Solecki	Picatinny Environmental Management Division
Fran Coulters	U.S. Army Environmental Command
Nancy Flaherty	U.S. Army Corps of Engineers
Eric Kowal	Picatinny Public Affairs Office
Bryan Hnetinhq	Weston Solutions, Inc.
Doug Schicho	CBI
Robert DeMott	CBI
Tim Llewellyn	ARCADIS
J.B. Smith	Picatinny UXO Safety
Neil Julian	Picatinny/ARDEC
Barbara Dolce	Subsurface Solutions
Katrina Harris	Bridge Consulting Corp.

Mr. Ted Gabel convened the meeting at 6:34 p.m. He welcomed all to the meeting and thanked everyone for attending.

Attendance

Ms. Harris took attendance of the Restoration Advisory Board (RAB) members.

Correspondence

Mr. Gabel confirmed with Ms. Harris that no new correspondence had been received since the last meeting, and Ms. Harris agreed.

Resolutions, Motions, Significant Events

- Approval of the March 27, 2013 minutes was postponed pending review and incorporation of an additional comment from Ms. Lisa Voyce.
- The community members of the Board voted to continue with the TAPP for another year and to continue with Subsurface Solutions as the TAPP contractor for another year.
- The next meeting timeframe was set for September/October 2013, perhaps in conjunction with a Proposed Plan meeting.

Agenda

Slide 1 (of Mr. Gabel's presentation): Agenda for June 19th Picatinny Arsenal RAB

Mr. Gabel reviewed the meeting agenda.

Technical Assistance for Public Participation Contract

Slide 2:

Mr. Gabel gave an update on the status of the Technical Assistance for Public Participation (TAPP) contract with Subsurface Solutions. He reminded the Board a contract for \$22,413.16 was awarded in fiscal year 2012 and the Picatinny procurement office had allowed funds to be used through March 2013 and then de-obligated \$4,185.35. Mr. Gabel stated he had been able to procure an option year for \$23,218.50 of which \$4,199.90 had been used. Mr. Gabel noted the contractor has some reports in progress. He noted there is one remaining option year on the contract which would extend from September 24, 2013 to September 24, 2014. He explained the Board would need to vote on whether they would like the TAPP contract to be renewed for the second option year. He noted if the Board voted to extend the contract through the second and final option year, it also would be the final year of the four-year waiver granted the Picatinny Board. Mr. Gabel advised the Picatinny Board had received an initial TAPP award and then two waivers which allowed the support to continue to be provided.

Ms. Anne Pavelka asked for additional clarification on what is being waived. Mr. Gabel said there is an Army regulation that the TAPP contracts will not exceed \$25,000 a year for four years. He stated any funding beyond that amount or length of time requires a waiver being submitted by the Board to the Army through Picatinny's Commander to the Pentagon. Mr. Mark Hiler asked for clarification that the waiver is to continue to have a TAPP contract, not for the contractor to continue to be Subsurface Solutions, and Mr. Gabel stated Mr. Hiler was correct. Mr. Fran Coulters explained TAPP contracts are typically awarded for education of the Boards which are just starting. He stated the Picatinny Board is a very educated Board, has been fortunate to receive the two waivers, and it might not be possible to get a third waiver. Mr. Hiler noted the Board does have some new members and hopes to continue to attract additional new members so it might be helpful to continue the TAPP. Mr. Glaab asked about the possibility of applying for a Technical Assistance Grant from the U.S. Environmental Protection Agency. Mr. William Roach responded that he believes these grants are only available at EPA-lead sites, but he will check and let the Board know if a Technical Assistance Grant is an option.

Mr. Gabel reminded the Board Doodle polls have been sent asking Board community members if they want the TAPP contractor to review reports as they are submitted. He said a vote of "yes" by two or more members is required to have the contractor proceed with a review. He said recent reviews by the TAPP contractor included the 600 Hill Feasibility Study Addendum, and six annual reports for long-term monitoring of groundwater are under review. He displayed a list of documents that will be submitted soon, and Doodle polls will be sent for votes on these documents. Mr. Michael Glaab reiterated his desire that each document be reviewed and that his vote automatically be assumed to be a yes vote. Ms. Virginia Michelin advised she found it helpful to review the summary of the report provided by Mr. Gabel and then decide if additional support is needed. The Board community members agreed each document should be the topic of a Doodle poll.

A motion was made by Mr. Glaab to continue the TAPP grant for another year and Mr. Van Dyke seconded the motion. The motion was approved with one vote against.

A motion was made by Mr. Glaab to continue the TAPP contract with Subsurface Solutions and Mr. David Forti seconded the motion. The motion was approved with one vote against and one abstention.

Installation Restoration Program/600 Hill Feasibility Study Update:

Slide 1 (of Mr. Schicho's presentation):

Mr. Gabel introduced Mr. Doug Schicho of CBI (formerly Shaw) to give an update on the 600 Hill groundwater investigation and feasibility study. Mr. Schicho discussed the location of the site, noting the site is in the test range of Picatinny, on a mountain.

Slide 2: Mr. Schicho stated the purpose of his presentation is to update the Board on the progress of the site decision document, recent investigations, and the results of the revised Feasibility Study. He added that he would also be discussing the remedial alternatives evaluated in the Feasibility Study. Mr. Schicho showed a photograph of a well installed in support of the

construction of the AWDF Building, noting environmental investigations began after the well showed low levels of trichloroethylene (TCE).

Slide 3: Mr. Schicho briefly reviewed the background of the site noting the TCE detection occurred in the mid-1990s. He said the building was equipped with a treatment system and bottled water so no one ever utilized the water from that well. He advised that a construction project in 2011 connected the building to Picatinny's water system. Mr. Schicho stated a remedial investigation was conducted between 2006 and 2009, and a feasibility study was developed in 2010. Mr. Schicho explained a feasibility study evaluates remedial alternatives for a site and compares the alternatives against a set of criteria provided under the Comprehensive Environmental Restoration, Compensation and Liability Act (CERCLA). He stated EPA's comments on the 2010 feasibility study included requesting additional work be conducted, specifically more source area investigation, an evaluation of the potential for vapor intrusion into Building 660, and additional groundwater and surface water sampling.

Slide 4: Mr. Schicho showed aerial photographs of the site, noting it is on the northern side of Picatinny on the mountain. He stated Site 12 is the main source area and the primary area he would be discussing in his presentation.

Slide 5: Mr. Schicho reminded the Board detailed information on the remedial investigation had been provided the last time he presented, and he would be summarizing that information this evening. He displayed a list of the activities conducted as part of the remedial investigation, noting it was a very thorough investigation and one that is typically conducted for a hard rock groundwater plume. Mr. Schicho discussed a diagram of the geology, noting the location of faults and a fold axis, and stating these were important features in understanding the shape of the groundwater plume. Mr. DeMott explained a fold axis can be thought of as a crease in the middle. He continued explaining a fold axis tends to propagate fractures on both sides, and there tends to be preferential permeability along the fold axis. Mr. Schicho showed the groundwater flow direction on the diagram and noted groundwater moves down towards the permeable fault so it spreads along the fault, and then moves towards the fold axis where it also spreads.

Slide 6: Mr. Schicho displayed a map showing the groundwater plume and said the well with the highest concentration of TCE during the remedial investigation was to the north so that area was examined as a potential source area. Mr. Schicho pointed out the plume stops at the second fault and does not flow onto the main area of Picatinny. He said it is flowing along the features he had discussed and discharging to surface water on either end.

Slide 7: Mr. Schicho noted the site had moved to the Proposed Plan stage in 2010. He reviewed comments received from EPA. He stated EPA requested the potential for vapor intrusion be investigated to be sure there was no risk to individuals working in Building 660, which is the only building in the area. Mr. Schicho explained that another comment by EPA, investigate the source area, could not be done during the original remedial investigation because during the construction of the building tons of rock were blasted and leveled, and the rock was placed over the source area before it was known to be a source area. He stated there was approximately twenty feet of rock over the source area. Mr. Schicho advised the remedial alternative being favored at the time was long-term monitoring, and EPA commented the proposed 60 year

remediation period was too long of a time and requested a more aggressive approach be examined. He said the Army agreed to perform a Source Investigation and revise the Feasibility Study and Proposed Plan as needed based on the results.

Slide 8: Mr. Schicho reiterated the highest TCE concentration was observed at 13MW-1, adjacent to the 656 test range. He stated the test range was built in 1957 and used as a test range in the 1960s and the 1970s. Mr. Schicho said a site reconnaissance in 1996 showed construction debris, drum debris, and a buried truck within the 1970s fill.

Slides 9 and 10: Mr. Schicho showed historical aerial photographs of the site, from the time it was a test range, to when the rock was placed on the site, and current conditions.

Slides 11 and 12: Mr. Schicho explained during the original remedial investigation soil gas probes were used to determine if there were any other chlorinated solvents in the area. He stated the probes are very sensitive instruments which are placed into the ground to detect volatile contamination coming up from the groundwater into the shallow soil. Mr. Schicho advised only one low level detection of TCE was found. He stated in 2011 during the source area investigation more soil gas probes were installed, and two areas within the 1970s fill showed detections of TCE. He advised there were no other contaminants of note within the probes which reinforced the groundwater sampling results. Ms. Voyce asked the depth to groundwater, and Mr. Schicho responded that it was about 30 feet to groundwater.

Slides 13 and 14: Mr. Schicho discussed the approach for completing the source area investigation noting it had been agreed to dig two test pits, one 45-foot trench, and one 60-foot trench to see if there was TCE that was active as a source to groundwater and would continue to leach to groundwater for a long period of time. He stated another objective was to determine the depth to bedrock below the surface and the 1970s fill. Mr. Schicho advised that during the trenching 13 soil samples were collected and analyzed for volatile organic compounds, and seven samples were analyzed for semi-volatile organic compounds, metals, and explosives. He said the primary compound detected was volatile organic compounds. Mr. Schicho said munition debris was encountered during the trenching operations from some disposal of munition debris during the test range operation. He said no munitions debris was encountered in the first test pit, although a few 1950s-era cars were encountered. He stated the second test pit was dug on the eastern site of the site and some munitions debris was encountered, as well as some miscellaneous metal debris. Mr. Schicho said the 45-foot trench was dug next and quite a bit of munitions debris was found. He showed photographs of some of the items found. He stated a live gravel mine canister was found, and based on the plan under which the work was being conducted, work needed to cease due to the munitions issue. Mr. J.B. Smith explained a gravel mine was an item developed during the Vietnam era; he stated it contained material that was wet and inert until it dried out. He noted it is a difficult item to find due to the small amounts of metal contained in the item.

Slides 15 and 16: Mr. Schicho advised the Army Corps of Engineers prepared an Explosive Safety Submission for the site which enabled the project to proceed. He said they began the 60-foot trench installation and were able to obtain the information needed to fill two data gaps. He

said bedrock was encountered at about 25 feet, and evidence of TCE was found at that depth which was substantiated by laboratory analysis of samples.

Slides 16 - 20: Mr. Schicho discussed diagrams of the vertical profile of the first trench and the two test pits. He noted TCE exceeded the groundwater screening levels in 2 of 13 samples at the second trench. He stated there was one low level exceedance of benzo(a)pyrene slightly above the New Jersey remediation standards.

Slide 21: Mr. Schicho next discussed the revised Feasibility Study which had been updated in 2013 and displayed a list of the alternatives contained in the updated version. He stated the long-term monitoring alternative had been deleted in favor of a monitored natural attenuation alternative, and a new alternative had been added, total landfill removal.

Slide 22: Mr. Schicho explained Alternative No. 2, Monitored Natural Attenuation, would involve periodic monitoring of the groundwater and analyzing for a set group of parameters to judge how quickly the TCE is degrading over time. He showed the locations of the monitoring wells and noted surface water locations would also be monitored. He stated Alternative Nos. 3 and 4 would involve groundwater treatment without removing the source through the injection of amendments into the source area and let them passively flow through the aquifer and degrade the TCE.

Slide 23: Mr. Schicho discussed Alternative Nos. 5 and 6, source removal option. He advised Alternative No. 5 would target just where the TCE had been detected, and Alternative No. 6 would target where all the metal was located.

Slide 24: Mr. Schicho displayed a chart showing a comparison of the alternatives and their respective costs and duration. He stated monitored natural attenuation and the two groundwater treatment options did not show any differences in duration as it would be difficult to inject amendments in the source area due to the potential for munitions. He noted the amendments would be injected upgradient and thus not be as effective because keeping the amendments in contact with the contaminated soil would be problematic. Mr. Schicho stated that removing the source area material would cause the aquifer to flush out fairly quickly. He said the evaluation estimated about a ten-year duration for both of the removal options. He added the removal options would be complicated excavations due to the potential for munitions and site conditions.

Slide 25: Mr. Schicho reviewed the next steps in the project. He stated comments had been received from NJDEP and EPA and discussed at a meeting earlier in the day. He said the comments would be incorporated into a revised Feasibility Study. He stated the contract for implementation of the remedy will be a new contract to be awarded by the Army in fiscal year 2014.

Mr. Pat Matarazzo asked about the TCE concentrations, and Mr. Schicho responded they had been relatively consistent with the highest concentration being around 11 parts per billion.

Mr. Glaab asked about the total volume that would be removed, and Mr. Schicho said the source area is approximately 80 feet by 80 feet by 5 feet. Mr. Glaab said it seemed like removal would

be a doable option considering the possibility for potential migration. Mr. Glaab questioned the components of the cost analysis, and Mr. Gabel stated the cost analysis needs to be prepared following EPA guidance.

Mr. David Forti asked if there is a deeper aquifer in this area, and Mr. Schicho responded once the Green Pond conglomerate is encountered it extends for approximately 400 feet.

Mr. Matarazzo asked if there is any discharge to Green Pond. Mr. Schicho said there is not as the groundwater discharges from the top of the mountain onto Picatinny and the surface water features discharge to Picatinny Lake.

Mr. Gabel stated he anticipates approval of the Feasibility Study before the end of June as the contract with CBI/Shaw is about to terminate. Mr. Gabel thanked Mr. Schicho and his team for all the Board presentations over the years and the many investigations they have conducted at Picatinny. Mr. Gabel explained the Proposed Plan will be issued after a new contract is awarded so the Board will probably not see it until late in fiscal year 2014 or at least a year from now. He said the two most active remedies are the ones being considered as the mostly remedies to be recommended by the Army.

Installation Restoration Program/PICA 111 Update:

Slide 1 (of Mr. Schicho's second presentation): Mr. Gabel said PICA 111 is a site which has not been discussed much at the Board meetings. Mr. Gabel said a Proposed Plan on the site will be released soon proposing no further action based on decisions made with EPA last year. Mr. Gabel re-introduced Mr. Schicho to give an update on the site.

Slide 2: Mr. Schicho advised PICA 111 consists of six sites in Areas F and I in the main part of the valley and displayed a list of the sites. He advised the sites had been grouped together because of their similarities and closeness geographically. He noted where a site is listed as "former" it means the building has already been demolished.

Slide 3: Mr. Schicho discussed the chronology of the environmental work at the site. He advised a final Feasibility Study was completed in 2010 but further progress was delayed due to the dispute between the Army and EPA on soil criteria. He said a draft Proposed Plan was begun but did not move forward until the recent resolution of the dispute. He said the draft Proposed Plan will be submitted to EPA in about a week.

Slide 4: Mr. Schicho said the recommended alternative in the Proposed Plan is no further action with monitoring of land use as there is no unacceptable risk at these sites.

Installation Restoration Program & Military Munitions Response Program /Updates

Slide 3 (of Mr. Gabel's Presentation): Mr. Gabel stated he would be giving a brief overview of the Installation Restoration Program projects, as well as the Military Munitions Response Program projects.

Slide 4: Mr. Gabel stated most of the remedial investigations are complete under the Installation Restoration Program. He advised the MidValley Groundwater Plume Vapor Intrusion Report had been submitted and approved. He noted the Lake Picatinny sampling required by NJDEP and EPA would be performed in July [after the meeting, Mr. Gabel advised the sampling would be performed in August]. Mr. Gabel said the Marsh Report Site Investigation had been submitted the previous week. He reminded the Board the Marsh Report was done on a site near his office that was discovered during the DRMO investigation and sampling had been conducted as requested by the regulators.

Slide 5: Mr. Gabel noted the Lake Feasibility Study will be revised again based on the sampling conducted, and he anticipated the study being submitted in the fall. He stated the Army is about to submit to the regulators the 45 Site Feasibility Study and the non-Lakes Sites Feasibility Study. He stated the studies look at only two alternatives, no further action and no further action with monitoring, as there are no unacceptable risks. He advised a third Feasibility Study for Five Sites will be submitted, and since unacceptable risk has been found, the Army will address cleanup for chemicals of concern as discussed in the risk assessment. Mr. Gabel said the Army is looking to get Records of Decisions finalized for these sites by the end of ARCADIS' contract in December 2014.

Slide 6: Mr. Gabel displayed a list of upcoming Proposed Plans and stated the 600 Hill Groundwater Proposed Plan was submitted to the regulators, and a 26 Site Proposed Plan will be submitted in about a week.

Slides 7 and 8: Mr. Gabel advised a Record of Decision has been submitted to EPA for review on the 26 Sites; he noted copies of the responsiveness summary are available on the back table. He reminded the Board a signed Record of Decision is in place for the Former Burning Grounds and pending completion of a contract modification the remedial decision will begin soon. Mr. Gabel showed a map with the location of sites with signed Records of Decision.

Slide 9: Mr. Gabel stated the Former Burning Ground remedial action will be starting this month and reminded the Board a hybrid cover would be installed. He advised sampling of the RDX hotspot at MidValley had been completed, and excavation of the soil will begin soon based on those results.

Slide 10: Mr. Gabel displayed a list of Remedial Action Reports and Long-Term Monitoring Reports. He noted at Area C a request by the NJDEP for an off-site well is under discussion.

Slide 11: Mr. Gabel showed a map with the Military Munitions Response Program on-post and off-post sites.

Slide 12: Mr. Gabel advised a Remedial Investigation Report is due to be submitted in August 2013.

Slide 13: Mr. Gabel reminded the Board they had been briefed on the results of the investigation at the June 2012 meeting and on the investigation of Lake Denmark and Lake Picatinny during the last Board meeting.

Slides 14 and 15: Mr. Gabel discussed the Lake Denmark off-post site and advised Department of Justice approval was needed to do intrusive work on a portion of the site under receivership. He said an agreement was made with EPA and NJDEP to do visual transects to see if there was anything under the brush. He advised information from an investigation done by the potentially responsible party on the off-post Superfund site will also be used as extensive trenching had been performed. Mr. Gabel noted if the data quality objectives cannot be met with the information gathered, a data gap feasibility study will be developed under another contract. He stated the work will begin soon and showed an aerial photograph of the area.

Slide 16: Mr. Gabel discussed programmatic developments and advised the Community Involvement Plan had been updated and approved. He noted the Classified Exemption Area Report for groundwater had been approved. He advised there will be a major performance-based contracting effort in 2014 to replace the ARCADIS contract. Mr. Hiler asked if ARCADIS can re-bid, and Mr. Fran Coulters said the scope of work may be divided so large businesses can bid on the more complex work while the less complex work will be set aside for small businesses.

Next Meeting

The Board agreed to a timeframe of September or October for the next meeting perhaps in conjunction with a Proposed Plan meeting.

A motion was made, seconded, and unanimously approved to adjourn the meeting at 7:57 p.m.

**Picatunny Restoration Advisory Board Meeting
June 19, 2013
Pending/In Progress Action Items**

Date Created	Action Item	Person Responsible	Status
10/20/2011	Discuss available documents for review by TAPP consultant at each Board meeting	Ted Gabel	Ongoing
6/19/2013	Schedule next RAB meeting for September/October	Ted Gabel/Katrina Harris	Pending
6/19/2013	Check whether the Picatunny RAB can apply for a TAG.	William Roach	Pending