



RAB MEETING MINUTES

Date/Time: Thursday, August 14, 2025, 6:30 p.m. to 8:30 p.m.

Location: Virtual meeting via Microsoft Teams

Attendees: Restoration Advisory Board (RAB) community members Julie Corenzwit, Amy McCoy, Dave McCoy, Christopher Mitchell, Alix Turner

Thomas Lineer, Samantha Velluti-Fry (U.S. Army [Army])

Penny Reddy, Peter Phillips (U.S. Army Corps of Engineers [USACE])

ZaNetta Purnell, Shawn Lowry (U.S. Environmental Protection Agency [USEPA])

Joanne Darden, Jessica Crispin (Massachusetts Department of Environmental Protection [MassDEP])

Meg Delorier, Anne-Marie Dowd (Massachusetts Development Finance Agency [MassDevelopment])

Anne Gagnon (Department of Fish and Game)

Andy Vitolins, Steven Perry, Mark Pasquarello, Amy Henschke (SERES-Arcadis Joint Venture [S-A JV])

Brian Younkin, Hagai Nassau (Skeo)

John Kastrinos (Haley & Aldrich)

Neil Angus (Devens Enterprise Commission)

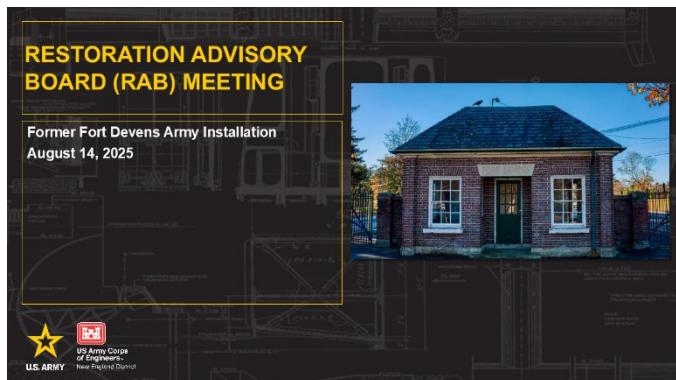
Libby Levison

Slides: RAB meeting slides are available on the project website at:

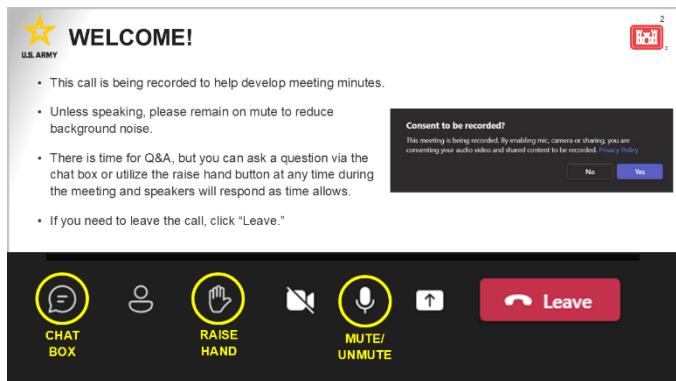
<https://www.nae.usace.army.mil/missions/projects-topics/former-fort-devens-environmental-cleanup/>.

Please Note: Discussions described in these minutes have been paraphrased as needed for clarity. The invitation for this meeting is provided for reference at the end of these meeting minutes.

WELCOME & OPENING COMMENTS



Steven Perry (S-A JV Community Involvement Specialist) opened the meeting and welcomed the attendees.



Steven Perry informed attendees that the meeting was being recorded to generate minutes. He reminded everyone online that microphones will be muted to avoid background noise. He noted that attendees can use the mute/unmute button at the bottom of their screen to talk or they can enter questions in the chat box.

Former Fort Devens Army Installation Restoration Advisory Board (RAB) Meeting Minutes



WELCOME!

Thank you for joining us tonight.

U.S. Army and Support:
Thomas Lineer
U.S. Army HQDA/DCCS G-9
Base Realignment and Closure
(BRAC) Environmental Coordinator
(BEC)
Samantha Velluti-Fry
BRAC BEC Support
Penelope Reddy & Peter Phillips
U.S. Army Corps of Engineers
(USACE)
Andy Vitolins, Steve Perry, Mark
Pasquarello, and Amy Henschke
SERES-Arcadis JV Team

**Regulatory and Other
Board Members:**
Shawn Lowry
U.S. Environmental Protection
Agency (USEPA) Region 1
ZaNetta Purnell
USEPA Community
Involvement Coordinator
Joanne Dearden and Jessica Crispin
Massachusetts Department of
Environmental Protection (MassDEP)
Meg Delorier and Anne-Marie Dowd
MassDevelopment

**Community
Board Members:**
Julie Corenzwit
Amy McCoy
Dave McCoy
Chris Mitchell
Alix Turner: Chair

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8/19/2025

Steven Perry led introductions for attendees. Leaders and contributors for the call included Tom Lineer (Army); Samantha Velluti-Fry (Army); Penny Reddy (USACE); Peter Phillips (USACE); Andy Vitolins (S-A JV); Steven Perry (S-A JV); Mark Pasquarello (S-A JV); Amy Henschke (S-A JV); Shawn Lowry (USEPA); ZaNetta Purnell (USEPA); Joanne Dearden (MassDEP); Jessica Crispin (MassDEP); Meg Delorier (MassDevelopment); Anne-Marie Dowd (MassDevelopment), and RAB members Julie Corenzwit, Amy McCoy, Dave McCoy, Chris Mitchell, and Alix Turner.

WELCOME!

Tonight's topics

1

Project
Updates

2

CERCLA:
Proposed Plan
Process

3

PFAS Treatment
Pilot Studies

4

Community
Involvement
& RAB Update

5

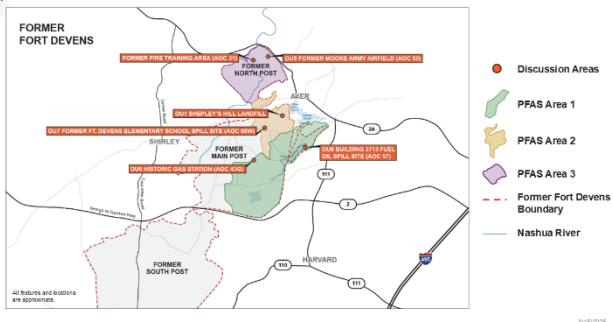
Questions
& Answers

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8/19/2025

Steven Perry introduced the topics for the meeting: project updates, an discussion of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) process for the proposed plan at Shepley's Hill Landfill (SHL), per-and polyfluoroalkyl substances (PFAS) treatment pilot studies updates, community involvement updates, and Q&A.

1 | PROJECT UPDATES



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Andy Vitolins (S-A JV Project Manager) gave an overview of the site, which includes the following areas:

- Three investigation areas for PFAS: Area 3, Area 2, and Area 1;
- Various areas of contamination (AOCs);
- SHL; and
- Nashua River (the site of munitions of explosive concern investigation, which will be discussed by Peter Phillips).

1 | PROJECT UPDATES

Supplemental Post-Record of Decision (ROD) Remedial Investigations (RIs) for Areas of Contamination (AOCs) 69W, 57, and 43G

- EPA and MassDEP comments on Supplemental RI Reports received.
- Army submitted responses to comments in July 2025

Moore Army Airfield (MAAF) Former Fire Training Area (FFTA) PFAS Field Pilot Studies

- Soil stabilization field pilot study work plan submitted to Agencies (EPA and MassDEP) in May 2025
 - Laboratory treatability testing report is an appendix to the work plan
- In-situ groundwater field pilot study work plan finalized and posted to the website in June 2025
- Field work anticipated for fall/winter 2025/2026
- Environmental Security Technology Certification Program (ESTCP) demonstration project (jet grouting) cancelled by ESTCP board

Shepley's Hill Landfill (SHL)

- Groundwater extraction system operation and maintenance:
 - Third extraction well evaluation complete
 - Well remains in operation
 - Draft summary report being prepared by Army

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Andy Vitolins began with the project updates for the petroleum sites. These include AOCs 69W (Charter School), 57 (off Barnum Road), and 43G (on the portion of the base still under Army control), which are former petroleum sites. AOC 69W was the site of a heating oil spill in the 1970s. AOC 57 was the site of stormwater outfalls from the vehicle maintenance area along Barnum Road. AOC 43G was a former gas station that was active when the Army was active on the facility.

The Army conducted investigations of the remedies to confirm whether they are still protective. Based on this work, they prepared draft supplemental remedial investigation (RI) reports, which were reviewed and commented on by USEPA and MassDEP. They submitted responses to comments in July and will provide more information to the agencies

this month, with draft final versions expected in September.

Andy noted that the Army will perform two pilot studies to address PFAS contamination in the soil and groundwater at the former fire training area (FFTA) at Moore Army Airfield (now Moore Field). One pilot study will focus on soil stabilization. The work plan for that study was submitted in May. The agencies commented on it, and the Army expects the plan will be finalized within the next month. The second pilot study will involve in-situ groundwater remediation. The work plan for that study has been finalized and was posted to the website in June. Fieldwork for these pilot studies will start in the fall and continue through the winter, with monitoring lasting for a couple of years.



Additionally, Andy updated the group about the ESTCP demonstration project, a pilot study funded by the Department of the Defense (not associated with the Army) to use jet grouting to stop PFAS from migrating from soil into groundwater, which the ESTCP board has decided will not move forward. Julie Corenzwit asked via the chat why it was cancelled. Andy Vitolins replied that they were not given that information but that it was most likely due to expired or limited funding and prioritization issues. He noted, however, that the two pilot studies that are being funded by the Army will continue to move forward. Steven Perry asked if they will be notified about why the ESTCP project was halted. Andy replied that they might once the Army gets the formal notification.

Andy continued with the project updates by discussing the extraction system at SHL, which is still operating. The Army installed a third extraction well to evaluate its effectiveness as part of the current remedy. That evaluation lasted about 2 years. The well remains in operation, and the Army is preparing a draft report on its performance. Steven noted that this topic could be discussed in future RAB meetings or could be presented on a future fact sheet. Amy McCoy commented via the chat that fact sheets are always helpful.

1 | PROJECT UPDATES

SHL (continued)

- Final barrier wall evaluation draft report submitted to Agencies in April 2025
- Proposed plan for groundwater remedy submitted to Agencies in April 2025
- Final proposed plan and public meeting winter 2025/2026

Area 1 Phase 2 PFAS RI

- Field work is complete
 - First groundwater sampling event conducted in March 2025
 - Second groundwater sampling event conducted in June 2025
 - Soil and groundwater IDW disposed offsite May-July 2025
- Validated results expected late 2025
- Draft Phase 2 Remedial Investigation Report submission to Agencies planned in 2026

Area 2 Phase 2 PFAS RI

- Area 2 Phase 2 PFAS RI work plan to be submitted to Agencies in 2026

Area 3 Phase 2 PFAS RI

- Area 3 Phase 2 PFAS RI work plan submitted to Agencies in May 2025
- Field work anticipated to start fall/winter 2025/2026

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Andy Vitolins continued discussing the current work at SHL. An evaluation of the barrier wall adjacent to Plow Shop Pond has been completed, and the report has been finalized. The proposed plan for the groundwater remedy is currently in the process of going through multiple review stages — drafts, responses to comments, and draft final versions. A public meeting for the proposed plan could be conducted late this year or, more realistically, after the holidays in early 2026.

Next, Andy moved on to the topic of the PFAS RIs. For Area 1, Phase 2, the fieldwork is complete. They started in April of last year, and the last groundwater sampling event was finished in June of this year.

Investigation-derived waste, which includes soil and groundwater removed during well or soil boring installation, was containerized in roll-off dumpsters and large groundwater storage tanks and disposed of off site in May and July. The validated results for the last round of groundwater sampling are expected by late 2025, with the draft Area 1, Phase 2, RI report to be submitted next year. For Area 2, Phase 2, the PFAS RI has not been contracted by the Army yet, but that is scheduled to happen in the upcoming fiscal year, with the first draft work plan expected in 2026. For Area 3, Phase 2, the work plan was submitted to the agencies in May, and they have commented on it. The Army is working on responses, and a draft final plan should be ready in the fall, with fieldwork starting in late fall or early winter.

Chris Mitchell asked if the Area 1 groundwater investigation-derived waste was treated on site or taken off site. Andy replied that it was taken off site because treating it on site would have been too complex with the need to treat, store, sample, and characterize it for discharge. It also would have cost more given the volume. There were about 100,000 gallons of groundwater and 40 to 50 cubic yards of soil generated and disposed of. The soil went to a landfill in western New York, and the groundwater went to Ohio for treatment.

Steven Perry asked how the Area 3 RI will compare to the Area 1 RI in terms of level of effort and data generated. Andy replied that similar techniques will be used, like vertical aquifer profiles and groundwater monitoring well and soil boring installation. He noted that it is several hundred feet to bedrock in Area 3 under the airfield, but the bedrock is much shallower across the Nashua River at the other side of Area 3. He also noted that Area 3 is smaller and that most of the area, outside the airfield and wastewater treatment plant, was not developed or used because of the terrain. For Area 1, seismic work was done to gauge the bedrock surface location because the area is so large, but in Area 3, they will drill to the top of the bedrock to find where it is located only in areas they are concerned about. There was significant work done in Phase 1 of the PFAS RI for Area 3, so the issues are well known. Now, they need to define how far contamination has spread vertically and horizontally. Steven emphasized the point that this is Phase 2, so there has already been work done in the area. Andy confirmed that several hundred samples have already been collected in Area 3. He noted that the Area 1 RI included fish tissue sampling at all surface water bodies at Devens, including North Post, so there will not be a separate fish tissue study for Area 3.

Libby Levison asked if fish tissue samples were done in Mirror Lake. Andy replied that they collected samples in Mirror Lake, Robbins Pond, Cold Spring Brook, Grove Pond, Plow Shop Pond, and the Nashua River. Anne Gagnon asked via the chat where to find the fish study results. Andy mentioned the results will be presented in the Area 1 RI report; they were not released yet because they were just validated.



1 | PROJECT UPDATES

Five Year Review

- Draft report submitted to Agencies in March 2025
- Agency comments received in June 2025
- Draft-Final to be submitted to Agencies in August 2025
- Final report to be submitted no later than September 29, 2025

Long Term Monitoring Reports (Main Post, SHL, Airfield, South Post)

- Annual Reports to be submitted or signed no later than August 2025

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Andy Vitolins discussed the five-year review next. The draft report was submitted in March, and agency comments were received in June. There have been several meetings with the agencies to discuss the comments and expedite the process because the Army must submit the final report by September 29. They are working to address all concerns in the draft final version, which is expected this month.

The Army performs annual and semi-annual groundwater monitoring at Main Post, SHL, the airfield, and South Post. The results are reported annually, with draft reports submitted in May and final reports released in August. Most of the reports for 2024 have been submitted, with the report for South Post expected to be submitted this month.

1 | PROJECT UPDATES

Nashua River Military Munitions Update

- The underwater intrusive investigation is on-going and builds upon prior investigation efforts.
- Focus is to investigate saturated response areas identified as a result of the underwater analog survey.
- Field efforts are projected to be complete by October 2025.
- Investigation results will be documented in an addendum to the Removal Site Evaluation (RSE).



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Peter Phillips (USACE), project manager on the Nashua River military munitions investigation, gave an update on the ongoing investigation. He noted that a geophysical analog survey was conducted last spring. Based on that data, they determined the locations to investigate during the intrusive investigation. The Army and its contractors are currently in the field performing this investigation, which began with the clearance of natural debris, followed by underwater dive operations. The operations are focused on the identified saturated response areas.

He noted that the figure on the right of the slide illustrates the study area, outlined by the light blue line along the Nashua River. The red circles/ovals are areas of potential interest that are the focus of the intrusive investigation. This investigation is projected to continue into

early October, with findings documented in an addendum to the removal site evaluation document. The photo at the bottom shows the boat with divers preparing for operations. The efforts have been successful so far, and they have made good headway.

1 | PROJECT UPDATES

Nashua River Military Munitions Update (continued)

- Annual Military Munitions Awareness Letters sent in early July 2025
- Munitions Response-Quality Assurance Project Plan (MR-QAPP) Addendum 2 was finalized in July 2025.

Nashua River Water Chestnut Pull

- NRWA volunteer event for water chestnut scouting/removal along Nashua River was held on 18 July 2025 with support from a USACE Ordnance and Explosives Safety Specialist.



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Peter Phillips mentioned that the annual military munitions awareness letters were sent to the community stakeholders in early July, providing the status of activities occurring on the Nashua River. In addition, the Munitions Response Quality Assurance Project Plan Addendum 2 was finalized in July, which captures the current plans for the saturated response areas. Addendum 1 documented the change from digital geophysical mapping to analog geophysical survey. Both documents have been uploaded to the document repository.

During the Nashua River Watershed water chestnut pull event on July 18, safety awareness and anomaly avoidance activities for unexploded ordnance were performed successfully by the USACE ordnance and explosives safety specialist.

The event was sponsored by the Nashua River Watershed Association, and no issues or items were identified.

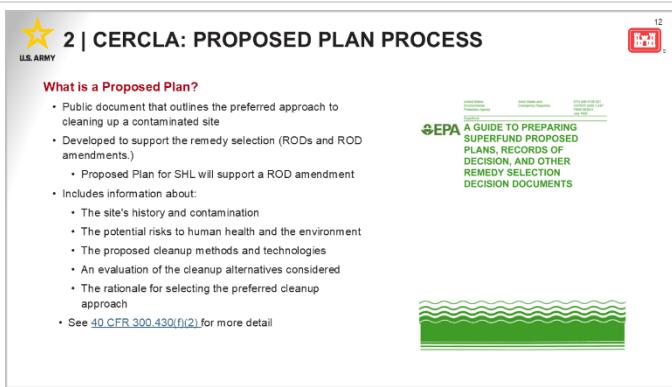
Julie Corenzvit asked via the chat who the stakeholders of the munitions project are. Peter replied that the stakeholders include MassDevelopment, the Fish and Wildlife Service, and the Nashua River Watershed Association. Penny Reddy (USACE) added that they also send the awareness letters to the town of Shirley, businesses that sell fishing licenses, and anyone who might use the river for recreation or fishing. Neil Angus (Devens Enterprise Commission) noted that they worked with MassDevelopment on magnet fishing signage along the river, but he did not receive an awareness letter. He said that it would be helpful, as the local Board of Health and Conservation Commission, for them to receive that information too. Mark Pasquarello (S-A JV) replied that they were already on the list, so he would confirm the correct address with Neil. Neil added that Mark could send the letter directly to him.

Steven Perry asked if the work on the river would end after the investigation concludes in October or if there would be additional steps. Peter replied that once the intrusive investigation finishes in October, the findings will be documented in the removal site evaluation addendum. The results from the report will determine the next steps, which could include further efforts. Steven asked if the next phase would involve removal if needed. Peter confirmed that that would be the case.



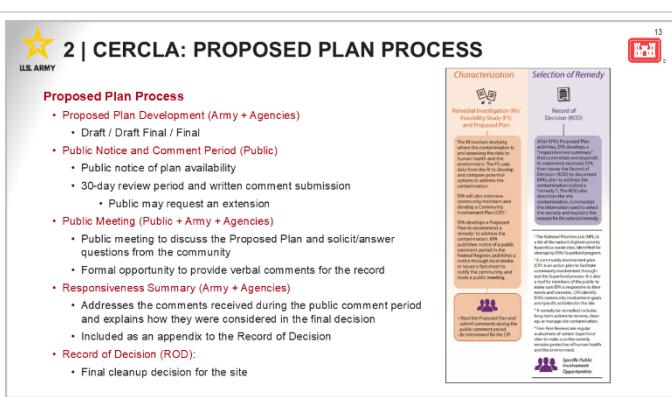
Andy Vitolins discussed the CERCLA process, including the proposed plan. First in the process is the discovery of contamination, followed by preliminary assessments and site inspections (SIs). A preliminary assessment is typically a desktop study, whereas an SI confirms whether contaminants are present and if they are at concentrations high enough to warrant listing on the National Priorities List. Next is the characterization phase during which RI and feasibility studies (FSs) are conducted. The proposed plan comes at the end of that phase, followed by the selection of the remedy, implementation, and monitoring.

At Devens, this process has already occurred at SHL and most of the other sites. However, there are circumstances a site re-enters the process, such as when new contaminants are identified (like PFAS), when new technologies become available, or when the performance of a remedy needs to be reassessed based on five-year reviews. In the case of SHL, the groundwater remedy re-entered the process at the FS level. They have completed that study and are now at the proposed plan stage, moving toward the Record of Decision (ROD) amendment, design, and implementation of the new remedy.



Andy Vitolins continued discussing the proposed plan. The latest USEPA guidance for the proposed plan process is a 1999 document, which is still relevant because the process has not significantly changed. The proposed plan is a public document that outlines the preferred approach to cleaning up a site. For SHL, they performed an FS, looked at various remedies, and selected one that they believe is the best approach to address the arsenic groundwater contamination. This process is used to get to the formal selection of the remedy and eventually, in this case, an amendment to the ROD (finalized in 1995).

The proposed plan will summarize the site history, contaminants, and risks to human health and the environment. It will also provide a summary of the FS and the alternatives that were considered. Those alternatives range from continuing with the current remedy to stopping everything to implementing different technologies. It also shows the rationale for why the Army selected its preferred cleanup approach. The lead agency (the Army) prepares the proposed plan, and it is reviewed by the USEPA and MassDEP. It goes through the process of draft, comments, and draft final version. This process is governed by the Code of Federal Regulations, specifically Chapter 40.



Andy Vitolins continued discussing the proposed plan process. He noted that, after the plan reaches the final version, a public notice is issued to the community that the plan is available for review. The plan will be available in hard copy at several locations as well as being distributed electronically. There will also be newspaper notices stating that it is being released, where it can be found, and noting the 30-day comment period. Andy noted that the RAB can help to get the word out about it as well. If needed, members of the public can request an extension to the comment period. Instructions and contact information are also provided in the notice. After the comment period, a public meeting is held, providing another opportunity for verbal and written comments. A stenographer records the meeting, and the minutes are included in the responsiveness summary in the ROD amendment.

responsiveness summary in the ROD amendment. The Army prepares the responsiveness summary to address all comments received and to explain how the comments were considered and whether they resulted in changes to the plan. Once the summary has been approved by the agencies, the proposed plan is updated reflect the summary and the final cleanup decision is issued as the ROD amendment.

Libby Levison asked via the chat if cleanup at the Cold Spring Landfill in the 1980s would have looked for PFAS. Penny Reddy responded that they investigated the Cold Spring Brook Landfill as part of the Area 1 PFAS RI. At the time of the removal in the 1980s, they did not sample for PFAS. Libby asked if they did not find anything. Penny replied that they will summarize the data in the Area 1 RI report. However, PFAS have been found in vertical profiles in the area.



Dave McCoy mentioned via the chat that Amy McCoy had shared this meeting information on the Ayer Community Facebook page. Mark Pasquarello added that they had shared the information with the Town of Ayer as well, and it had been added to the Upcoming Events section of their website.

Steven Perry mentioned that using TikTok as a way to comment on the plan in addition to e-mail, letters, or verbal comments at the public meeting would be something to consider in the future since that is how many people give and receive information. Andy noted that the requirement for formal newspaper notices dates back to the beginning of CERCLA in the 1980s when that was how public notices were conveyed to the public. He added that there will also be notices via the same avenues that the Army has used for the RAB meetings or five-year reviews, like community websites. Legally, there are certain steps that have to happen through official channels, but the community involvement plan provides for other types of notifications as well. Steven commented that this stage of the process is where the public can really help by getting the word out because it is a clear and required opportunity for public input on a decision.

2 | CERCLA: PROPOSED PLAN PROCESS

Proposed Plan Schedule

- Draft Plan – April 30, 2025
- Draft Final Plan – August 2025
- Final Plan – November 2025
- Public Comment Period – January 2026
- Public Meeting – February 2026
- Record of Decision Amendment (Including Responsiveness Summary) – 2026

Andy Vitolins continued discussing the proposed plan at SHL. He noted that the plan is for the groundwater remedy, which is the groundwater extraction system designed to address arsenic contamination in groundwater that exceeds cleanup goals. This contamination migrates into the North Impact Area, which is part of Ayer and ends at Nonacoicus Brook. The plan will formalize elements of the remedy that have already been implemented but were never officially documented. For example, the barrier wall installed in 2012 has been functioning as part of the remedy for years, but it has not been officially incorporated into the decision documents. Additionally, the USEPA changed the maximum contaminant limit for arsenic in groundwater from 50 to 10 parts per billion in 2000. Although this updated goal has been reflected

in all documents and analyses since then, it has never been formally codified in a decision document. This ROD amendment will formally include the barrier wall as part of the remedy for SHL and will formally adopt the cleanup goal of 10 parts per billion. Most of the plan will be dedicated to discussing the alternative to the groundwater extraction system.

Chris Mitchell asked via the chat if there is a target date for the release of the proposed plan. Andy replied that the draft final plan will be completed in August. They expect the final plan to be completed in November. Although they could conduct the public comment period and meeting late this year between Thanksgiving and the holidays, that is not ideal. Therefore, the public comment period will likely be scheduled for January, with the public meeting to follow in February. If the comment period gets extended, the public meeting will be adjusted accordingly. The ROD amendment and the responsiveness summary are scheduled for completion in 2026. The exact timing will depend on the number of comments received and how they need to be addressed or incorporated into the ROD.

3 | PFAS TREATMENT PILOT STUDIES

Soil Treatment Pilot Study

- In Situ Soil Stabilization/Solidification (ISS)
 - Stabilize and immobilize PFAS in site soils to reduce leaching to groundwater
- Objectives:
 - Confirm bench-scale testing results
 - Develop key design factors for full-scale ISS implementation
- ISS incorporates two mechanisms intended to eliminate leaching of PFAS from soil to groundwater:
 - Stabilization – prevents leaching by binding PFAS to reagent mixed into soil (i.e., FLUORO-SORB)
 - Solidification – prevents leaching by encapsulating soil containing PFAS with cement-based amendments that prevent contact with infiltrating water (i.e., Portland cement)

Andy Vitolins discussed the two PFAS pilot studies that will be performed. The figure on the slide shows the former airfield and the area of the studies. The small rectangle represents the FFTA. To the northeast are the hangars, and to the southwest is the Nashua River. The contours represent groundwater elevation. Groundwater at the airfield flows across the airfield toward the Nashua River. On the other side of the river, it flows from the east to the west, also toward the river.

The soil treatment pilot study involves a technique called in-situ soil stabilization and solidification (ISS). Some remedial technologies remove contaminants, some destroy them in place, and some contain them either by immobilizing them or cutting them off in some other way. This method aims to stabilize the PFAS contamination in the site's soil to

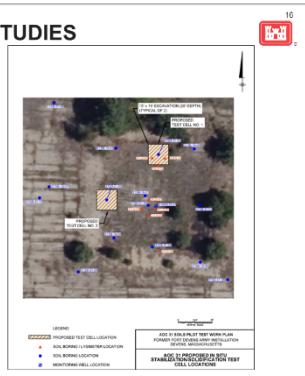
prevent it from leaching into groundwater. The goal is to cut off the source of contamination, stopping it from contributing further to groundwater pollution. Once the source is addressed, the groundwater contamination can then be focused on. In the past, they conducted bench-scale studies using soil from AOC 31, and the results informed which compounds and methods to use with ISS. There will be two test cells to address the two components of ISS: stabilization and solidification. Stabilization works by binding PFAS to a reagent (a clay-like material called FLUORO-SORB) and keeps the soil in its current condition in terms of permeability or cohesive strength. Solidification prevents leaching by encapsulating the soil with Portland cement to keep water out. The methods can be used together or separately.



3 | PFAS TREATMENT PILOT STUDIES

Soil Treatment Pilot Study

- Two test cells: 15 ft long by 15 ft wide by 20 ft deep
- Test Cell No. 1:
 - Solidification of entire cell through mixing with cement and FLUORO-SORB/Portland cement/blast furnace slag
- Test Cell No. 2:
 - Stabilization through mixing top 10 ft with FLUORO-SORB and the bottom 10 ft with FLUORO-SORB/Portland cement/blast furnace slag



Andy Vitolins continued explaining the soil treatment pilot study. The setup will involve two test cells in the AOC 31 area. Each cell will be about 15 feet long, 15 feet wide, and 20 feet deep (AOC 31 is about 100 feet by 100 feet). The 20-foot depth is based on sampling that showed most of the PFAS mass is within the top 20 feet of the soil. By focusing on this area, they can have the most impact and see results relatively quickly. Pilot studies have to be done on a relatively small scale and close together because things do not move fast in the environment.

Test Cell 1 will be used to test solidification by the mixing of soil with Portland cement and FLUORO-SORB to encapsulate and bind PFAS. Test Cell 2 will use a mixture of FLUORO-SORB and Portland cement for stabilization in the upper 10 feet, with just FLUORO-SORB for

solidification below that to stop PFAS from leaching through the upper layer. Underneath the test cells, the soil will be monitored, and the water will be monitored with lysimeters (monitoring wells that capture water leaching through the material). This data will be compared to baseline data. Creating the cells will involve excavating a hole, taking the soil out and mixing it with the materials, and placing it back in the hole. Standard construction and shoring techniques will be used during this process.

3 | PFAS TREATMENT PILOT STUDIES

Soil Treatment Pilot Study Schedule

- Pre-Mobilization Activities – Fall 2025
- ISS Site Work – Winter 2025/2026
- Post-ISS Monitoring – Winter 2026 through Summer 2027
- Reporting - 2027

Andy Vitolins presented the schedule for the soil treatment pilot study. The work plan is under review and is expected to be finalized this fall. Pre-mobilization activities will take place throughout the fall, including coordinating the contractor and ordering materials. The site work is planned for January or February. Following the initial fieldwork, monitoring will for 2 years to evaluate the effectiveness of the treatment methods. Because environmental processes do not happen quickly, the extended monitoring period is needed to assess how well the treatments are working. Although the fieldwork will be completed in early 2026, the reporting will not be finalized until 2 years later.

John Kastrinos asked if this method has been proven on other sites with similar soil conditions. Andy replied that ISS has been used for decades,

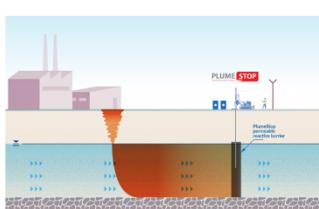
typically for metals contamination. With respect to PFAS, there have been bench-scale studies, including one at Devens, and some field-scale work completed at other sites. For example, work has been done at Air Force sites with large volumes of PFAS-contaminated soil from fueling areas. FLUORO-SORB, Portland cement, and blast furnace slag are common technologies that have been tested for PFAS.

Neil Angus asked if the materials would migrate at all. Andy replied that FLUORO-SORB should not migrate because of its chemical nature unless the groundwater conditions significantly changed—like different pH or acidity. Assuming the geochemical conditions remain stable, the PFAS should not desorb from the material, but that is a topic of research right now since PFAS remediation is relatively new.

3 | PFAS TREATMENT PILOT STUDIES

Groundwater Treatment Pilot Study

- Colloidal Activated Carbon (CAC) Barrier
 - CAC – specialized form of activated carbon, with particles milled to less than 2 microns in size (size of red blood cell) to allow distribution throughout the saturated soil matrix.
- Barrier - Injection of CAC liquid mixture downgradient of PFAS Source
- Pilot Study will utilize PlumeStop®, a product manufactured by Regenesis®



Andy Vitolins discussed the groundwater treatment pilot study next. Step one of treating any contaminant, especially PFAS, is to deal with the source. At Area 3, the source is the FFTA, where PFAS leaches from the soil down to the water table, which is about 60 to 70 feet below ground surface at the airfield. The groundwater then migrates toward the Nashua River. Once the source itself is addressed, the remaining contaminant in the groundwater needs to be prevented from reaching receptors (drinking water well, river, etc.). Currently, there are two methods: pumping and creating a barrier (like at SHL) or creating an in-place barrier to form a treatment zone that that water moves through. Because groundwater here is 70 to 150 feet below ground surface, the best option here is an in-situ treatment method. This involves creating a treatment zone in place, rather than pumping groundwater out for treatment.

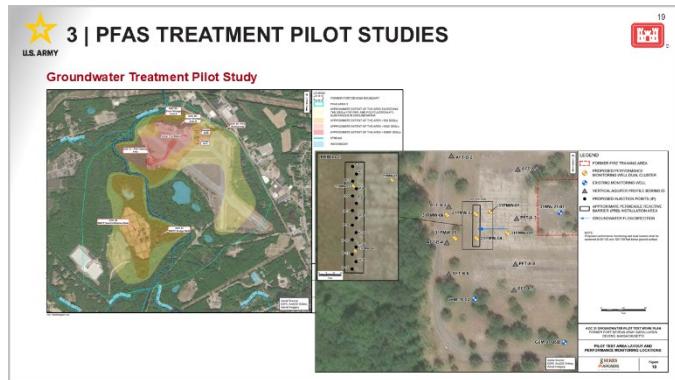
They will be testing a barrier using activated carbon. Granular activated carbon, which is common in household water filters, is not practical for use with groundwater because you need a mechanism to inject it and ensure it disperses properly. Instead, they will be using colloidal activated carbon (CAC), which consists of much smaller particles that can be injected into small pore spaces in the soil matrix. The product they will be using is called PlumeStop, made by Regenesis. It is a form of CAC that has been used at other sites around the nation. It was one of the first commercially available products that was demonstrated for PFAS. Although originally developed for other



contaminants, it has since been adapted for PFAS treatment. The figure on the slide shows the general concept. The in-situ barrier is injected into the treatment zone, intercepting the contaminated groundwater before it reaches the receptor.

John Kastrinos asked if the pilot study will investigate colloidal transport (potentially of the sorbed PFAS). Andy replied that colloidal transport will be monitored. Regenesis, the company providing the PlumeStop product, has methods to do that using flux sensors.

Anne Gagnon asked why other PFAS contamination sites like Groton's are not being proposed for cleanup. Andy replied that he is not familiar with the Groton site. However, cleanup in general is still in the initial stages across the country. However, if urgent actions are needed in the interim, those steps are taken. For example, the drinking water supply is contaminated by PFAS in Ayer, so the Army funded the addition of PFAS treatment for the water treatment plant while they are doing the RI. He noted that if the Groton site is in this process too, it will go through a similar decision-making process. If there is not a single defined source, the solution is to make sure the PFAS is not going to reach a receptor, or that the receptor is protected.



Andy Vitolins continued discussing the groundwater treatment pilot study. The figure on the left of the slide shows PFAS contamination levels in groundwater at North Post. The outer yellow contour represents areas with concentrations exceeding cleanup goals, whereas the orange and red shades indicate concentrations that are ten, one hundred, or one thousand times higher than the cleanup goal. The FFTA is at the end of the area that has concentrations one thousand times the cleanup goal. This indicates that the FFTA is one of the sources but not the only one.

The figure on the right shows a zoomed-in view of the injection area for the pilot study. The red box represents the FFTA, and the rectangle (approximately 50 feet long) is the area of injection. The black dots

indicate where the CAC will be injected, forming the treatment barrier. Surrounding the injection zone, the orange points indicate proposed performance monitoring well clusters. These wells will track the effectiveness of the barrier by measuring PFAS concentration changes upstream, downstream, and within the injection area. The down-gradient groundwater monitoring wells are only 25 feet from the injection area because that is about how far the groundwater is expected to move at the airfield during the 2-year monitoring period.



Andy Vitolins discussed the schedule for the groundwater treatment pilot study. The work plan has already been approved. They started installing the monitoring wells at the beginning of August, and that work will continue through September. Once the wells are installed, they will conduct baseline testing and hydraulic tests that Regenesis will use to design the injection of the carbon. The tests will show how fast groundwater flows around the individual wells and how it might move using a salt tracer. Based on the results, they will develop the final injection plan, which is expected to be completed by December. The injection work is planned for January or February, followed by 2 years of monitoring to track the effectiveness of the treatment.

Steven Perry asked if the monitoring wells are shallow, like in the top 20 feet. Andy replied that they are much deeper. Each monitoring cluster will include two wells—one just below the water table at around 75 feet down and another at about 150 feet down. Just like with the soil, there is PFAS contamination in the groundwater deeper than 150 feet, but they will be targeting the area where the bulk of the PFAS contamination exists. If this were to be implemented in a full-scale project, they would have to consider a longer and deeper area of injection.

Mark Pasquarello noted that the next fact sheet will highlight both pilot studies, so the community will have a chance to get more details.

Alix Turner asked where she could get a detailed write-up of the pilot studies. Andy replied that the work plan for the groundwater treatment pilot study has been finalized and is available on the website (<https://www.nae.usace.army.mil/Portals/74/Final%20Groundwater%20Pilot%20Test%20Work%20Plan%20for%20Injectable%20Carbon%20PFAS%20Treatment%20AOC%2031.pdf>). He also noted that there are other documents produced by various agencies on the technology in general. Additionally, Regenesis has information on their website about their product. If there are questions, he noted he is happy to answer them. In addition, the next RAB meeting will have an in-person component and will provide a chance to talk about it more as well.

Amy McCoy asked which documents capture contamination reviews at the airfield from the beginning and which recent document gave an update on perchloroethylene remediation so that she could understand the future potential at the airfield since it is important in Ayer's

Former Fort Devens Army Installation Restoration Advisory Board (RAB) Meeting Minutes



master plan. Andy replied that there was an RI report for that area, which would be in the administrative record. Penny Reddy added that the five-year review report has a summary of the history of the airfield and all the historic documents, and the annual reports have some of that information as well. She noted they are posted on the website. For PFAS, there is the SI report on the website, which has the history of PFAS at the airfield and the initial borings that were collected (the RI results have not been published yet). Andy noted that the Phase 1 RI's are available as well for each area. He added that if Amy sent him an email, he could send the links to those documents if needed. The five-year review for 2020 is in the administrative record, and the 2025 five-year review will be published in a month or two.

4 | COMMUNITY INVOLVEMENT & RAB UPDATE

U.S. ARMY



Increased RAB public outreach efforts to raise awareness of meetings and activities

Community update fact sheet distributed January 2025; Next fact sheet anticipated for August 2025

Digital AR continues to be populated with project documents; website updates are in progress

The next quarterly RAB meeting will be November 13, 2025 (hybrid)

The Community Involvement Plan (CIP) and other information is available on the Fort Devens Environmental Cleanup website at: <https://www.nae.usace.army.mil/missions/projects-topics/former-fort-devens-environmental-cleanup/>

Digital Administrative Record (AR) link is now live, and documents are being uploaded. Initial documents are available at: <https://www.nae.usace.army.mil/Missions/Projects-Topics/Former-Fort-Devens-Environmental-Cleanup/Administrative-Record/>

8/19/2025

Steven Perry highlighted the community involvement and RAB activities that are being done. He reminded everyone that the next RAB meeting is a hybrid meeting that will be online and in-person at the MassDevelopment conference center on November 13.

He also mentioned RAB recruitment and noted that Alix has an associate in Lancaster that is interested in becoming a board member. The process to become a board member involves filling out a short questionnaire, and he will send that form to Alix. He would be interested in having a conversation with that individual about their interests so they could determine how to go forward. He also mentioned that Jacob Solon, the new president of PACE, also submitted the form to indicate interest. He noted that attending the RAB meetings and getting engaged

is a good way for this new individual to learn more before committing to being a board member. Alix added that she has encouraged the person to come, especially for the hybrid meeting. Steven asked if she is an elected official. Alix replied that she has been an elected official. She was active in the state Republican Party and is on the board at the Department of Conservation and Recreation.

4 | QUESTIONS & ANSWERS

U.S. ARMY



8/19/2025

Steven Perry solicited additional questions or comments. Shawn Lowry (USEPA) commented to the RAB members who are part of PACE that they are on target to close out the Technical Assistance Grant but there is still technical support available through the Technical Assistance Services for Communities (TASC) program. The two programs provide similar services to the community but, under the Technical Assistance Grant, PACE was able to provide direction to the contractor themselves, whereas under TASC, the direction has to come from USEPA. He noted that the TASC contractor can help with the review of the proposed plan, but the community will have to request that via Shawn and Zaneta. Julie Corenzwit asked if the request needs to come through PACE or if community members can ask USEPA directly. ZaNetta Purnell (USEPA)

replied that they will work to get all the tasks in place with headquarters on behalf of the community. She mentioned that PACE might want to take the lead to reach out to Shawn and ZaNetta, but the grant does belong to the entire community. Shawn added that from USEPA's perspective, it would be easier if there were a primary point of contact from the community, but it is open to all the community. Julie replied that the point of contact would likely be either Jacob Solon or Anne Gagnon, who are the two PACE members who also attend the RAB meetings. ZaNetta added that she can connect with them to give them more information, and she provided a link (<https://www.epa.gov/superfund/technical-assistance-services-communities-tasc-program>).

U.S. ARMY



THANK YOU! YOUR PARTICIPATION IS APPRECIATED!

**NEXT RAB MEETING IS:
NOVEMBER 13, 2025 @ 6:30pm**
(Second Thursday of the month)

Please email us at FormerFortDevensRAB@arcadis.com if you would like to be included in our RAB mailing list and receive RAB meeting invitations and information.

8/19/2025

Steven Perry reminded everyone that the next RAB meeting will be on November 13.

Question	Answer
N/A	N/A



RAB MEETING INVITE

**Former Fort Devens Army Installation
Notification**



**Please join us for the next Former Fort Devens RAB Meeting
Thursday, August 14, 2025, at 6:30 p.m.**

Our next RAB meeting will be held via Microsoft Teams. Please join by clicking this link:

[Click here to join the meeting](#)

Or you can call in to hear the audio only:

+1 213-379-9608

Phone Conference ID:

159 523 505#

We hope you will join us to actively discuss the following topics and share your ideas:

Welcome to Existing Members and New Participants!

Project Updates & Upcoming Work

CERCLA Process Review

Community Involvement & RAB Board Updates

Questions & Answers

Next Steps & Meeting

Bring your thoughts about the RAB and questions about the project. This meeting will be recorded and a meeting summary will be posted on the project website at:

<https://www.nae.usace.army.mil/missions/projects-topics/former-fort-devens-environmental-cleanup/>

If you have any questions, please send an email to:

FormerFortDevensRAB@arcadis.com