



RAB MEETING MINUTES

Date/Time: Thursday, November 18, 2021, 6:30 p.m. to 8:10 p.m.

Location: Virtual meeting via Zoom

Attendees: Thomas Lineer (U.S. Army)
Penny Reddy, Daniel Groher (U.S. Army Corps of Engineers [USACE])
Carol Keating, ZaNetta Purnell (United States Environmental Protection Agency [USEPA])
David Chaffin, Diane Baxter, Mary Jude Pigsley (Massachusetts Department of Environmental Protection [MassDEP])
Roy Herzig (Massachusetts Development Finance Agency [MassDevelopment])
Laurie Nehring, Julie Corenzwit, Richard Doherty (People of Ayer Concerned about the Environment [PACE])
Chris Mitchell (Harvard Board of Health)
Andy Vitolins, Steven Perry, Julee Jaeger, **Heather Levesque**, Whitney Plasket, Sue Tauro, Tina Summerwood, Dana Schmidt (SERES-Arcadis 8(a) Joint Venture 2, LLC [S-A JV])
John Kastrinos (Haley & Aldrich)
Neil Angus (Devens Enterprise Commission)
Martha Morgan (Nashua River Watershed Association)
Laurel Schaider (Silent Spring Institute)
Bill Millar, Margaret Leshen, Ian Phillips, Joe Pearson, Claire Hayhow, Amy Rosenstein, Beth Suedmeyer, Cheryl, Amy McCoy, Zachary Gavel, and other attendees participating by phone or otherwise unidentified (citizens and guests)

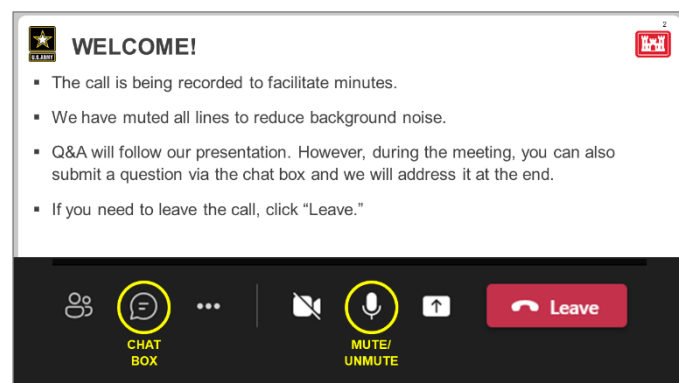
Slides: RAB meeting slides are available on the project website at:
<https://www.nae.usace.army.mil/missions/projects-topics/former-fort-devens-environmental-cleanup/>.

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



Steven Perry indicated that the meeting was being recorded to generate minutes, which will be available after the meeting. Attendees were notified that there would be an opportunity after the presentations for questions and discussions. Also, participants were encouraged to add comments and questions in the chat box.



WELCOME!

Thank you for joining us tonight.

Penny Reddy (Project Manager) and Dan Groher (Environmental Engineer) U.S. Army Corps of Engineers - New England District	Dr. Laurel Schaidler Senior Scientist Silent Spring Institute
	Andy Vitolins, Julee Jaeger, Sue Tauro, and Steven Perry SERES-Arcadis JV Team

Steven Perry introduced the project representatives and presenters for the evening: Penny Reddy (USACE New England District Project Manager), Dan Groher (USACE New England District Environmental Engineer), Dr. Laurel Schaidler (Silent Spring Institute Senior Scientist), Steven Perry (S-A JV Community Involvement Specialist), Andy Vitolins (S-A JV Program Manager), Sue Tauro (S-A JV Community Outreach Manager), and Julee Jaeger (S-A JV Meeting Coordinator).

WELCOME!

Tonight's topics

- 1 Community Involvement
- 2 RAB Discussion
- 3 Massachusetts PFAS and Your Health Study
- 4 Project Updates & Upcoming Work
- 5 Q&A
- 6 Next Steps & Meeting

Steven Perry summarized the topics to be covered, which included updates about community involvement, information about the Restoration Advisory Board (RAB) and the upcoming refreshing of the Board, a presentation by Dr. Schaidler (Silent Spring Institute) on Massachusetts PFAS and Your Health Study, project updates from Andy Vitolins (S-A JV), a question and answer (Q&A) session, and next steps and new date of meetings in 2022.

COMMUNITY INVOLVEMENT & RAB DISCUSSION

1 | COMMUNITY INVOLVEMENT

Implementing the Community Involvement Plan (CIP)

Shepley's Hill Landfill fact sheet and first quarterly project update distributed; new fact sheets and updates will continue quarterly

Information repository is at the Ayer Library and being updated with PFAS project documents

CIP is available on the Fort Devens Environmental Cleanup website at: <https://www.nae.usace.army.mil/missions/projects-topics/former-fort-devens-environmental-cleanup/>

RAB meetings will change to the second Thursday of the month in Feb 2022

Website enhancements are done, with mechanism for continued community input

MEC outreach plan is being finalized and will be part of the CIP

Steven Perry started with an update on community involvement. He stated that the Community Involvement Plan (CIP) was finalized a year ago and many deadlines were occurring in November 2021. He reminded everyone that the information is available on the Fort Devens Environmental Cleanup website: <https://www.nae.usace.army.mil/missions/projects-topics/former-fort-devens-environmental-cleanup/>.

Progress on the CIP included the following tasks:

- Within the last week, the most recent factsheet was sent out to everyone on the email list to increase the amount of information flow. Steven Perry reminded everyone that feedback on those factsheets is welcome.

- An email update was also sent out, and based on feedback from that update, future updates will include more information and detail.
- The public information repository at the Ayer Public Library is being updated with PFAS project documents. The repository was opened in July and had some issues with construction causing it to be temporarily relocated.
- The date for the RAB meetings will change in the new year and will now be held on the second Thursday of the month, starting in February 2022, to accommodate those with conflicts with the current time slot.
- The website has been enhanced, and Steven Perry recommended that the participants in the meeting visit the website, which should now be easier to navigate.
- A Munitions and Explosives of Concern (MEC) Outreach Plan is being finalized to address MEC that was discovered in the Nashua River in May. Information on what MEC look like, what to do if they are encountered, and how to avoid them were sent out in mailings. Signage has also been put up to notify the public of the potential hazard. The supplemental outreach plan under development will be an addendum to the CIP.



1 | COMMUNITY INVOLVEMENT

MEC Safety Information & Signs

Boat Launch at Bill Ashe Visitor Center
Riverfront at Still River Depot Rd
On the bridge at Still River Depot Rd

3Rs Safety Card

Steven Perry briefly reviewed photos taken from the previous Monday showing the MEC signage that had been set up. Basic signs had been set up over the summer near the Nashua River to explain MEC and warn the public of the hazards associated with them, but new signs have just been placed within the past week with more detailed information. This slide also showed the information card that has been sent around to outdoor-oriented shops in the area. Participants were informed that if they know of a place where these cards should be shared, they can receive some cards to distribute.

1 | COMMUNITY INVOLVEMENT

Enhanced Former Fort Devens environmental cleanup site

Highlights:

- ✓ Better navigation with the new left menu of "Features"
- ✓ "History" is now a feature on the left instead of on the front page
- ✓ "Restoration Advisory Board (RAB)" is now a feature with its own page and documents
- ✓ "Document Repository" is now organized in categories to make finding documents easier
- ✓ "Public Information" is now front and center
- ✓ "What's New" section on the home page for news about former Fort Devens
- ✓ Dedicated RAB email address at: FormerFortDevensRAB@arcadis.com, for folks to provide suggestions and ask questions

Steven Perry briefly reviewed a screenshot of the website. He mentioned that the left side of the website now shows a list of features for easier navigation. In addition, the document repository has been updated so that it is easier to search for information. A separate page has also been set up for the RAB where agendas, meeting minutes, and other related items will be posted. It was mentioned that the website is still a work in progress and feedback is welcome to make sure that this is a beneficial tool for the community. Feedback and questions can be directed to the dedicated RAB email: FormerFortDevensRAB@arcadis.com.

2 | RAB DISCUSSION

Nine people submitted interest forms to serve as RAB Board Members for the 2022-2024 term!

We truly appreciate the great response and are communicating directly with all nine people.

Two of the respondents expressed interest in serving as Community Co-Chair.

We will make a special announcement in January 2022 about Board Members, who they are, what the Board Members will be doing during their term, and the RAB's upcoming activities.

Steven Perry announced that nine people responded to the request for interest forms for being a board member of the RAB by the deadline of November 1, 2021. Two of the respondents expressed an interest in being a community co-chair. Those nine respondents will be receiving more information via email over the next week. Conversations with the volunteers will begin after Thanksgiving, and the new RAB will begin operating in the new year by the February meeting.

2 | RAB DISCUSSION

RAB Interest Form Results

Communities represented:

- Harvard
- Lancaster
- Ayer
- Devens
- Shirley

Respondents have a diverse mix of professional backgrounds:

- Professional geologist
- Science teachers
- School librarian
- Information resources specialist
- Environmental educator
- Software engineer
- Graduate college student & educator

Steven Perry gave an overview of the RAB interest form results. Each of the five communities had good representation, and the professional backgrounds of the respondents was diverse.



2 | RAB DISCUSSION

RAB Interest Form Results

Respondents are a diverse group with varied experience working with environmental groups, town committees and boards, community groups, and other organizations such as:

- Former Fort Devens RAB (three respondents previously served on the Board of the RAB)
- Adult Learners in the Fitchburg Area
- Ayer Cultural Council
- Ayer Pond and Dam Committee
- Building Commission for Brookline
- Devens Committee
- Federally designated NSN Steering Committee
- Harvard Ambulance Service
- Harvard Board of Health
- Lancaster Council on Aging and Community
- Lancaster Land Trust
- Lancaster Selectmen
- Mass Audubon
- Nashoba Valley Chorale
- Nashua River Watershed Association
- North County Land Trust
- People of Ayer Concerned About the Environment (PACE)
- Self-managed condominium board

Steven Perry noted that the respondents have varied experience working with other organizations and will be able to bring other voices forward and allow for cross-communication among the groups.

2 | RAB DISCUSSION

RAB Interest Form Results

The primary reasons why the respondents wish to serve on the Former Fort Devens RAB:

- To represent my community and have a seat at the table.
- To bring an informed, technical perspective.
- To bring years of experience and historical insight to the Superfund remedial process, for protection of the local environment and human health.

The respondents are interested in:

- Restoring the name Fort Devens within the area.
- Supporting the continued development of commercial/industrial/residential real estate, provided the architecture of existing structures are preserved.
- Land preservation.
- Positive change at the airfield.
- Climate change, environmental issues, and protecting the Earth.
- Stemming noise pollution.

Steven Perry added that the respondents motivation for serving as a board member included that they would like to represent their communities, restore the name of Fort Devens, encourage positive change, and many other reasons.

3 | MASSACHUSETTS PFAS AND YOUR HEALTH STUDY

The Health Study presentation is being given by Silent Spring as information to the RAB members. The presentation is a follow-up from the prior RAB meeting, which agreed to allow community presentations to the RAB. This presentation is an independent effort outside of the Army, without Army collaboration, input or review. The content and opinions expressed in the presentation are solely those of the presenter (Silent Spring). It is presented without comment or opinion from the Army.

Steven Perry introduced the guest speaker of the meeting, Dr. Laurel Schaidler (Senior Scientist at Silent Spring Institute). He noted that the presentation was being provided as a follow up from the previous RAB meeting during which it was discussed that there would be community presentations at the RAB meetings. The presentation was developed without Army collaboration and represents the opinions of the Silent Spring Institute only. The Army has not commented on or reviewed the presentation.

Massachusetts PFAS and Your Health Study

Laurel Schaidler, PhD
 Senior Scientist, Silent Spring Institute

Former Fort Devens RAB Meeting, November 18, 2021

PFAS in the news

Ayer DPW completes first PFAS treatment plant in state
 Public water wells near Grove Pond will have system removing chemical compounds.

<https://www.lowellbluen.com/2021/10/04/ayer-dpw-completes-first-pfas-treatment-plant-in-state/>

BOSTON.COM

Why do so many Mass. communities have contaminated drinking water?
 "Certain PFAS chemicals can stay in our bodies for years."

<https://www.boston.com/news/science/2021/06/03/massachusetts-communities-contaminated-drinking-water/>



PFAS exposure and health concerns

>99%

PFAS exposures are common

- PFAS have been detected in over 99% of Americans



Harmful health effects linked to PFAS exposures

- Elevated cholesterol
- Cancer (kidney, testicular)
- Developmental effects
- Ulcerative colitis
- Immune system toxicity, including decreased vaccine response
- Thyroid disruption
- Decreased birth weight
- Changes in liver enzymes
- Preeclampsia

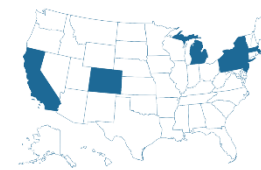
Multi-site Health Study



- Includes studies in 7 states in areas with a history of PFAS drinking water contamination

- Sponsored & funded by:

- **CDC** (Centers for Disease Control and Prevention)
- **ATSDR** (Agency for Toxic Substances and Disease Registry)



Communities in 7 states:
California, Colorado, Massachusetts,
Michigan, New Jersey, New York, and
Pennsylvania

Mass. PFAS and Your Health Study

- Silent Spring Institute, Newton (lead)
- Harvard T.H. Chan School of Public Health, Cambridge/Boston
- Eastern Research Group, Lexington
- Massachusetts Breast Cancer Coalition, Hyannis and statewide
- People of Ayer Concerned about the Environment, Ayer



What is the scope of our study in MA?

- 2 communities: 1000 adults and 300 children total

- Hyannis

- Recruitment starting Fall 2021
- Goal: 700 adults and 200 children

- Ayer

- Recruitment starting late spring 2022
- Goal: 300 adults and 100 children



What are we measuring

Core elements (required by ATSDR, all participants)

- 12 PFAS chemicals measured at the CDC lab
- Markers of health effects (including cholesterol, thyroid hormones, sex hormones, markers of liver function)

Additional data (some participants)

- Additional measures of PFAS exposure (non-targeted analysis, total organofluorine)
- Other measures of health effects (metabolomics, cholesterol subfractions, COVID antibodies)
- Self-reported diet and consumer product use data

Who is eligible to participate?

- ✓ Adults (ages 18+):
 - Lived in Ayer between **May 2006 and Feb. 2018**
- ✓ Children (ages 4-17):
 - Lived in Ayer between May 2006 and Feb. 2018 and/or their mothers lived in Ayer during this time prior to child's birth
- ✓ Multiple members of same household can participate
- ✓ Former residents are eligible
- ✗ Firefighters and others exposed to PFAS through their work are not eligible

What we'll ask you to do

Office visit

- Blood sample (fasting, no eating for 8 hours before)
- Urine sample
- List of current medications and/or supplements
- Basic health information and body measurements



Questionnaire (by phone)

- Medical conditions
- Residential and work history
- Water consumption



Neurobehavioral assessment (children only)

What will participants receive?

- **Personalized report** with results from individual testing for PFAS and clinical markers of effects.
- **Satisfaction** of being a part of a major study on chemicals of widespread concern.
- For **adults**:
 - \$50 in gift cards for completing all parts of study
- For **children**:
 - \$75 in gift cards for completing all parts of study (including neurobehavioral testing)



Reconstructing past PFAS exposures

Goal:

Estimate cumulative exposures to PFAS in drinking water over time for individuals

Steps:

- Identify potential contamination sources
- Model movement of PFAS in groundwater
- Model mixing in the Ayer distribution system
- Collect self-reported drinking water consumption patterns and residential history



Help spread the word

- Share links to our website: <https://bit.ly/ma-pfas>
- Let us know about community events for further education and outreach
- We can give a presentation for your church, school, civic association, and other groups
- Our PFAS Community Advisory Board is looking for members (contact Laurie Nehring at PACE)



TO LEARN MORE:

Laurel Schaider, Silent Spring Institute

email: schaider@silentspring.org
 website: www.silentspring.org

PACE (People of Ayer Concerned about the Environment)
[facebook.com/PACEayer/](https://www.facebook.com/PACEayer/)

Ayer DPW PFAS information

www.ayer.ma.us/water-department/pages/pfas-drinking-water




▲ LINK TO STUDY WEBSITE

PROJECT UPDATES & UPCOMING WORK


4 | PROJECT UPDATES

Shepley's Hill Landfill (SHL): Air Sparge (AS) Pilot Test

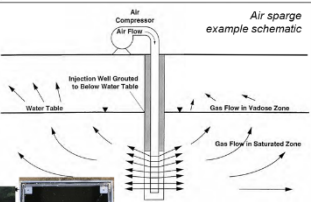
- Conducting an AS pilot test to evaluate the effectiveness for arsenic treatment in groundwater.
- Inject air into the groundwater (through wells) to change the groundwater geochemistry so that arsenic will precipitate out of the groundwater.
- ✓ System installation, baseline sampling, and start-up testing completed in September 2021.
- ✓ System operation began in the first week of October 2021.
- ✓ There are two shallow sparging wells and two deep sparging wells.
- Site visit with MassDEP and Mass Development was held on October 28, 2021.
- SHL fact sheet was distributed November 16, 2021.



Construction of injection wells



Completed injection well



Air sparge example schematic

Steven Perry introduced Andy Vitolins (Program Manager for S-A JV) to give the updates on the projects. The S-A JV team is implementing most of the investigations and remedial studies. Andy Vitolins highlighted two of the many projects going on at the moment. The first is the air sparge pilot test at the Shepley's Hill Landfill (SHL). Air sparging is injecting air into the ground beneath the water table, which in the case of SHL, will change the geochemistry of the groundwater so that the arsenic dissolved in the groundwater will precipitate out.


The two pictures illustrate the system, including the air sparging wells and pipes coming from a shed that houses the air compressors.

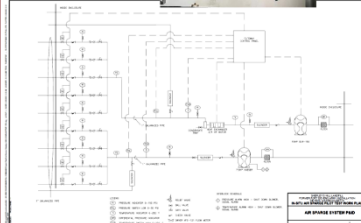
The monitoring wells were installed and sampled summer of 2021, the system was tested in September 2021, and operation began in October 2021. There are two shallow (close to the water table) sparging wells and two deep (beneath the shallow zone) sparging wells. There was a site visit in October 2021 with MassDEP and MassDevelopment; however, USEPA was not able to attend.

4 | PROJECT UPDATES

Shepley's Hill Landfill (SHL): Air Sparge (AS) Pilot Test

- AS system operates by "pulsing" air into the wells to maximize the number of air-filled channels and improve oxygen dissolution.
- ✓ Current mode is 4 cubic feet per minute (cfm) for 1 hour shallow and 1 hour deep, with 1 hour rest between each.
- Initial results indicate sparging influence in the downgradient monitoring wells.
- ✓ Water level changes
- ✓ Dissolved oxygen (DO) increases
- ✓ Dissolved iron reduction (field test kits)
- Operational monitoring continues.
- ✓ Water quality testing
- ✓ Field geochemistry testing





Andy Vitolins explained the schematic and photo on the slide, which show the how the air going into the ground is controlled. Each valve and meter in the photo connects to an air sparging well and is hooked up to a computer that is programmed to set up how much air is injected, the pressure at which it is injected, and the timing of the injections. The air is pulsed into the wells, which provides improved treatment over continuous injection.

The following items are monitored in the wells:

- Water level changes: Measurements are taken to see how much mounding of the water table happens because of the air being added.



- Changes in dissolved oxygen.
- Reduction in dissolved iron: Iron can easily be monitored in the field in place of arsenic. Arsenic, however, is still monitored in biweekly and monthly water quality testing. Initial results for arsenic reduction look good.

4 | PROJECT UPDATES & UPCOMING WORK
Former Airfield Fire Training Area (FTA) PFAS Supplemental Sampling

- Additional sampling is planned in the former FTA to evaluate source concentrations and potential remedial pilot studies. Data will include:
 - ✓ Soil samples to evaluate depth and volume of PFAS contamination.
 - ✓ Vertical aquifer profile groundwater samples to assess vertical distribution of PFAS in groundwater.
- Work is planned to start during winter 2021/2022.

Andy Vitolins explained the second of the two ongoing projects highlighted in this meeting: PFAS supplemental sampling at the former airfield fire training area (FTA). The FTA has been identified as a known source of PFAS because of the foam that was used during training for putting out aircraft fires. There has already been some investigation done in this area, which is adjacent to the Nashua River. This study will collect additional samples to get more detail about the depth of the PFAS in the soil and the concentrations. In addition, vertical aquifer profiles will be used to assess depth and concentration in the groundwater. The study will investigate what kind of remedial pilot studies could be done to remove the PFAS in the soil or groundwater. Work is planned to start in winter of 2021/2022.

4 | PROJECT UPDATES & UPCOMING WORK
The Look Ahead for Anticipated Technical Work

Fall 2021

- SHL Remedy Evaluations
- Debris Area Removals
- AOCs 43G/57/69W Supplemental Remedial Investigation (RI) Work Plans
- Long-Term Monitoring Program Fall Sampling & LUCs Inspection

Winter 2021-2022

- Airfield FTA Additional Sampling
- SHL Remedy Evaluations
- Potential Upgrades to Optimize SHL Arsenic Treatment Plant (ATP)
- Area 1 Phase 2 PFAS RI Work Plan Submission and Field Work Planning
- AOCs 43G/57/69W Supplemental RI Field Work Planning

Andy Vitolins continued with the look ahead for technical work. Work during fall 2021 will include the following:

- SHL remedy evaluations (for example, the air sparging pilot test)
- Removal of debris that was discovered during re-development of the area
- Preparation of work plans for supplemental remedial investigations (RIs) for areas of concern (AOCs)
- Completion of fall sampling for the long-term monitoring program and land use control (LUC) inspections

Work during winter 2021 to 2022 will include the following:

- FTA supplemental sampling
- Continuation of SHL remedy evaluations
- Potential upgrades to the existing groundwater extraction treatment system
- Submission of PFAS RI work plan for Area 1 that will outline how to continue the investigation

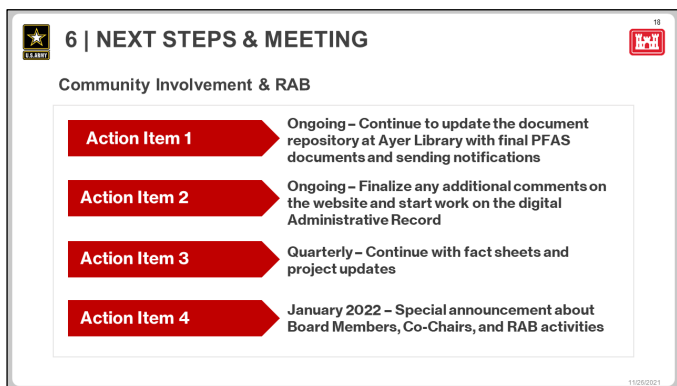
QUESTIONS & ANSWERS

4 | QUESTIONS & ANSWERS

Please see the list of questions and answers attached at the end of these meeting minutes.



NEXT STEPS & CLOSING

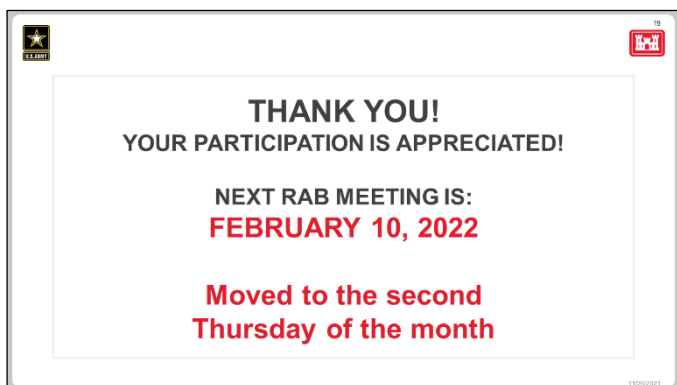


Steven Perry reminded everyone of the following action items:

- The team will continue to work with the Ayer Library to get the PFAS documents in the repository and to coordinate further with the librarians to make access easy.
- The website will be finalized based on comments and work will start on a digital version of the Administrative Record.
- Fact sheets and email project updates will continue.
- Additional outreach to the nine volunteers to serve as RAB board members will happen in the new year.

Laurie Nehring (PACE) asked for clarification on the work involving the digital Administrative Record, and Sue Tauro (S-A JV) commented that this would be putting the digital Administrative Record on the project website with an index that would allow people to find the documents on the website so no one would have to visit the Devens office in person. Documents would be indexed by keywords in the titles. Laurie offered to help with cross-referencing documents in the index.

Steven Perry and Sue Tauro mentioned that committees may be developed to address efforts like this when there is work to be done between RAB meetings. This can be discussed in the future with the RAB Board Members.



Steven Perry reminded everyone that the RAB meetings will be moving from the third Thursday of the month to the second Thursday of month, starting with the next RAB meeting on February 10, 2022.

QUESTIONS AND ANSWERS

Question	Answer
From Laurie Nehring – Is the section “What’s New” the way PACE and others will know what’s going on between RAB meetings?	Sue Tauro confirmed and added that there is also a new section called “Public Information,” which will also have useful information for PACE and others.
From Neil Angus (Devens Enterprise Commission) – Is this study open to Devens residents as well?	Laurie Nehring responded that it is only for Ayer residents or prior residents who have moved away.
From Chris Mitchell (Harvard Board of Health) – Can we get a copy of the last presentation?	Laurie Nehring responded that it will be posted on the PACE Facebook page or Chris could email her directly for a copy.
From Laurie Nehring – Can PACE and others interested also do a site visit?	Dan Groher (USACE) added that people are not at the air sparging system all the time, but it could be arranged to have people out there again at another time, perhaps when the USEPA is able to do a site visit as well. Laurie added that members from PACE would be respectful of any safety requirements. They would need as much notice as possible and a backup date in case of bad weather. Carol Keating (USEPA) will coordinate with USEPA and PACE for a date that works for everyone.



Question	Answer
<p>From Laurie Nehring – Have you tried different methods of pulsing to see what works best? Also, do you have results yet? When can we expect to hear about them?</p>	<p>Andy Vitolins responded that the study involves varying the amount of air, pressure, and time over which the air is injected. It looks at the responses of water levels and dissolved oxygen to the different pulsing parameters, allowing them to determine which combination is optimal for maintaining the desired oxygen levels. Field testing results are available, but laboratory testing results lag behind the field results. Those results will go in the report when they are available, and some results like water level changes may be ready to present at the next RAB meeting. An important part of the test is to shut the system down and see how the system reacts after oxygen is no longer being added. Dan Groher added that they haven't made any conclusions yet, but they are not currently planning to continue operations after the pilot test.</p>
<p>From Laurie Nehring – Is it going to be possible to go back to a situation where other interested people can contribute questions and ideas during the process?</p>	<p>Andy Vitolins responded that the current phase is mainly data collection and evaluating what changes to implement in the field on a rapid basis. For the operation of the pilot study and the data collection effort, the main focus is getting it to operate in the desired way for the 3 months of operation.</p> <p>Laurie Nehring commented that she would like them to reconsider if it would be feasible to collaborate during the process even if it takes longer. Carol Keating commented that USEPA did have the opportunity to review and submit comments on the draft work plan for the pilot study and those comments should be included in the final document. Andy Vitolins added that the final work plan was posted to the website and confirmed that the USEPA and MassDEP comments were included.</p> <p>Laurie Nehring asked if an email could be sent out to the group when something significant, like the final work plan document, is uploaded to the website. Andy Vitolins commented that an email for that report had been sent out in early August. Sue Tauro added that those emails began this summer.</p> <p>Dan Groher commented that the system will be operating for another 2 months and nothing new is planned to be added to the project within that time frame. However, he offered to talk to Laurie Nehring and Richard Doherty (PACE) about what they've seen so far.</p>
<p>From John (SHL) – Are there plans to modify or augment the monitoring to confirm the plume is not migrating beyond the sparge points?</p>	<p>Dan Groher referred back to Slide 13 and commented that the black boxes in the photo are the air sparge wells and the black pipes that stick up in the background of the photo are all new monitoring points that represent shallow and deep points downgradient of where the air is being injected. Using this system they can monitor the change in dissolved oxygen, groundwater redox potential, and iron concentrations in the water. Based on the field data so far, they have changed the amount of water injected in the deeper wells from 4 cubic feet per minute (cfm) to 8 cfm because they weren't seeing as much influence as they had hoped. Depending on the effects of the change, they can continue to make additional changes to as high as 20 cfm if desired. They believe that the wells have been placed in the right locations based on groundwater flow.</p>



Question	Answer
<p>From Laurie Nehring – The fact sheet seems to convey that if the air sparging system does not work the project will use LUCs instead.</p>	<p>Andy Vitolins stated that LUCs would not be the default remedy, but would be considered along with other technologies for active treatment in accordance with the CERCLA remedial alternatives review process.</p> <p>Laurie Nehring commented that PACE would like to review future fact sheets before they are released to the public and would request that facts like the high levels of arsenic be included on the sheets.</p> <p>Andy Vitolins asked if it would be helpful for PACE to have an explanation of the remedy evaluation process that takes place during the feasibility study according to USEPA guidance. Steven Perry suggested that this topic could be presented at a meeting in the future to give everyone the benefit of that overview.</p> <p>Carol Keating added that the USEPA would also have liked the opportunity to review the fact sheet before it went out to the public. They would have liked to have been able to suggest changes to clarify the information and elaborate on the status of USEPA’s determination about the extent of plume capture and recommendations for future work. She also added that USEPA has requested the U.S. Army to put together a focused feasibility study, which will look at a no action alternative and other options that include LUCs. However, she mentioned that it is very unlikely that there will be an alternative that focuses only on LUCs because the intent is to prevent the contamination from migrating from the landfill.</p> <p>Laurie Nehring commented that the last two paragraphs of the fact sheet seemed misleading regarding this topic.</p>
<p>From Carol Keating – Will the U.S. Army be issuing a draft work plan to regulators for review and comment prior to commencement of field sampling activities at the airfield?</p>	<p>Penny Reddy replied that it would be an addendum to the Area 3 PFAS Phase I RI Work Plan. The planned work will characterize the depth to groundwater contamination and help to identify the source to set up treatability studies or pilot studies.</p> <p>Carol Keating mentioned that USEPA would like to talk more about this on a technical level. They would like to find a better way to communicate proposed activities like this with the USEPA outside of RAB meetings.</p> <p>Dan Groher commented that it will be work that will provide additional needed information that has been discussed. The work plan will not be a new work plan.</p>
<p>From Chris Mitchell – Any update on the understanding of the nature and extent of PFAS in the bedrock aquifer?</p>	<p>Andy Vitolins replied that the work plan currently being drafted does include evaluation of bedrock groundwater, but it has not been implemented yet.</p>
<p>From Richard Doherty – Please update the status of the removal of the most heavily impacted PFAS soil at Moore Army Airfield. It was discussed in the past as a potential time-critical removal action.</p>	<p>Andy Vitolins commented that they are looking at characterizing the most heavily impacted PFAs soil in the FTA. Additional data needs to be gathered to answer that question.</p>
<p>From Neil Angus – Would it be appropriate for USEPA to put out a follow up complementary fact sheet for SHL?</p>	<p>Carol replied that USEPA will most likely prepare comments to the work plan that was recently issued to the public instead of a supplemental fact sheet. The comments will identify areas where they see discrepancies or the need for elaboration of future work that they are proposing.</p>



Question	Answer
<p>From Laurie Nehring – Do we know if they were using Class A foam in addition to Class B foam at Moore Army Airfield when they were practicing putting out fires there?</p>	<p>Andy Vitolins and Dan Groher did not have that information available but can find out and give that to Laurie.</p>
<p>From Laurie Nehring – Please contact the librarian to have the PFAS documents in the repository at the Ayer Library cataloged or have them put a notice out that they are available, otherwise people would have to know to ask to see them in the locked historic room. The website does have a listing of special resources but there is not a listing for these documents.</p>	<p>Steven Perry commented that it is a work in progress. The documents were moved to a locked room because of construction but the intent is not to keep them locked up.</p> <p>Sue Tauro commented that the library does have an index of the documents that someone could use to find the documents that are there. She will find out where it is. The document repository on the Fort Devens Environmental Cleanup website has all the digital copies of the documents that are in the library.</p> <p>Laurie asked that they be put in the library catalog with their location noted for both the physical copies in the library and the electronic copies on the website.</p>
<p>From Richard Doherty – What will be the next report to be finalized for public review and when is the expected date of finalization?</p>	<p>Andy Vitolins replied that the next report for public review falls under the SHL remedy evaluations task. It is the fifth technical memo associated with SHL and the current remedy and how it is performing. Comments were received at the end of October and final report is due in December.</p> <p>Carol Keating commented that this is one of the five memos that were required in the 2016 scope of work that USEPA issued to address the deficiencies in the 2015 Five-Year Review and ensure that the current remedy is sufficient to adequately capture the plume at the landfill.</p>
<p>From Carol Keating – Suggestion to include a slide in future presentations at RAB meetings that lists all the documents that have posted since the previous RAB meeting and all the documents that are planned to be finalized prior to the next RAB meeting.</p>	<p>Andy Vitolins and Dan Groher commented that they could provide the list of previous reports and would try to predict the upcoming reports as well as they can.</p>



RAB MEETING INVITE

Former Fort Devens Army Installation
Notification



**Please join us for the next Former Fort Devens RAB Meeting,
Thursday, November 18, 2021, 6:30 pm**

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](tel:+12133799608),605455898# Phone Conference ID: 605 455 898#

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

Welcome | To existing members and new participants!

Community Involvement | CIP activities and tour of the revised website

RAB Discussion | Results of RAB interest form and next steps

Silent Spring Institute | Massachusetts PFAS and Your Health Study
(with guest speaker Dr. Laurel Schaidler, Senior Scientist, Silent Spring Institute)

Project Updates | Summary of recent project work and upcoming technical work

Questions & Answers | Bring your questions for our Q&A session

Next Steps & Meeting | The look ahead

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 and we will reply:

FormerFortDevensRAB@arcadis.com