

RESTORATION ADVISORY BOARD (RAB) MEETING

Former Fort Devens Army Installation
August 11, 2022



US Army Corps
of Engineers®



WELCOME!

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- The call is being recorded to facilitate minutes.
- We have muted all lines to reduce background noise.
- Q&A will follow our presentation. However, during the meeting, you can also submit a question via the chat box and we will address it at the end.
- If you need to leave the call, click “Leave.”



**CHAT
BOX**



**MUTE/
UNMUTE**



Leave



WELCOME!



Thank you for joining us tonight.

Thomas Lineer

U.S. Army HQDA/ODCS G-9

Base Realignment and Closure (BRAC)

Environmental Coordinator (BEC)

Penny Reddy

U.S. Army Corps of Engineers (USACE) -

New England District

Andy Vitolins, Amy Henschke,

Steven Perry, Mark Pasquarello, and Dawn

Penniman

SERES-Arcadis JV Team

ZaNetta Purnell

U.S. Environmental Protection Agency

(USEPA) Region 1

Public Affairs Specialist

Diane Baxter

Massachusetts Department of

Environmental Protection (MassDEP)

Our Invited Speaker:

Peter Phillips, P.G.

Project Manager, Military Section,

Environmental & Munitions Design Center

USACE - Baltimore District

Our Community Board Members:

Julie Corenzwit

Amy McCoy

Dave McCoy

Chris Mitchell

Laurie Nehring

Alix Turner



WELCOME!

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Tonight's topics

1

**Community
Involvement
& RAB Update**

2

**Nashua River
Military
Munitions
Overview**

3

**Community
Board
Member
Presentation**

4

**Project
Updates**

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**Next
Steps
& Meeting**

6

**Questions
& Answers**



1 | COMMUNITY INVOLVEMENT & RAB

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Implementing the Community Involvement Plan (CIP)



Next fact sheet is being prepared and will be distributed in fall 2022



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 continue on the second Thursday of the month through 2022



Military munitions outreach efforts continue through summer/fall 2022



Digital Administrative Record (AR) being updated (demo today)



1 | COMMUNITY INVOLVEMENT & RAB

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Digital Administrative Record on the Website

The screenshot displays the US Army Corps of Engineers New England District Website. The navigation bar includes links for About, Business With Us, Missions, Locations, Careers, Media, Contact, and Coronavirus. A search bar is located on the right. The breadcrumb trail reads: Home / Missions / Projects/Topics / Former Fort Devens Environmental Cleanup / Administrative Record.

AR Updates

Recent Updates

Former Fort Devens Administrative Record (AR)

The AR is a collection of documents that form the basis for the selection of a response action at an environmental restoration site. The documents included in the Former Fort Devens AR are arranged by subject code and are identified with unique numbers to assist in tracking and retrieval of the documents.

The index to the administrative record file is linked below.

[Index of the AR for the Former Fort Devens Site.pdf](#)

01 Site Management Records

- 1.01 Correspondence
- 1.02 ASR
- 1.03 Scopes of Work/Contractual Document
- 1.04 Site Photographs and Maps
- 1.05 Site Descriptions and Chronologies
- 1.06 Reference Documents
- 1.07 Federal, State, Local Technical Records
- 1.08 INPR
- 1.09 PA Report
- 1.10 SI Documents
- 1.11 Work Plans/Safety Plans and Progress Reports

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RAB Business Meeting

- Held on July 14, 2022, to continue process of getting organized, set a meeting frequency, and develop mission and operating procedures
- Business meeting frequency established – four weeks prior to each RAB meeting
- Every other RAB business meeting will be a technical meeting focusing on the site work done in the month prior and upcoming work
- Discussed information repository options
- Discussed fact sheet topics

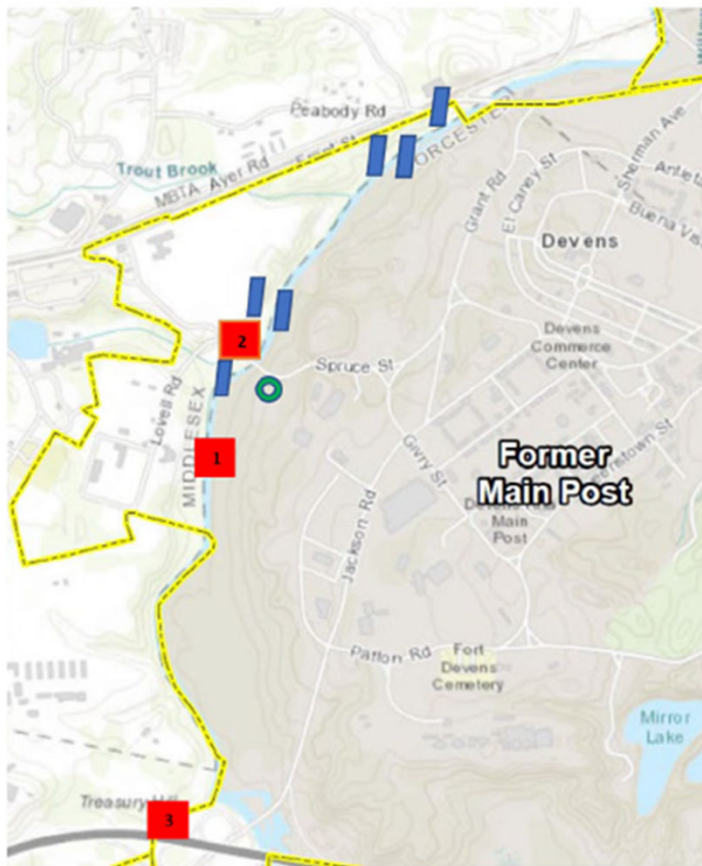


2 | NASHUA RIVER MILITARY MUNITIONS OVERVIEW

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Discoveries in the Nashua River – July 2020 to March 2021
and Invasive Species (Water Chestnut) Removal/Scouting Areas



Nashua River Military Munitions Finds

- Discarded military munitions have been recovered within the Nashua River
 - Summer 2020: During magnetic fishing, two MK-II hand grenades (July and August) and an un-fuzed 60-millimeter (mm) mortar (August) were found
 - March 2021: During a Massachusetts DoT inspection, three practice 2.36-inch M6A1 rockets, a practice 60mm mortar, and an expended M18 smoke grenade were discovered
- The recovered items were found near locations where water chestnut scouting and removal has occurred by Nashua River Watershed Association (NRWA)
 - NRWA actively manages infestation of water chestnut, a non-native, invasive aquatic plant

- Bill Ashe Visitors Center @ Oxbow National Wildlife Refuge (80 Hospital Road)
- 07/24/20 – (magnet fishing); east of Army RFTA Building 3412 (70 Liberty Street)
- 08/12/20 – (magnet fishing); Hospital Road at Nashua River Bridge (near Bill Ashe Visitors Center/Oxbow WL Refuge)
- 03/30/21 – (MassDOT Bridge Repair) @ Jackson Road Off Ramp / Rt 2 West; Naval Dive Team called in to investigate/recover
- Water Chestnut Removal/Scouting Areas - Water chestnuts found/removed approx. ¼ mile south of Bill Ashe Boat Launch to West Main St, Aver (Nashua River Watershed Association)

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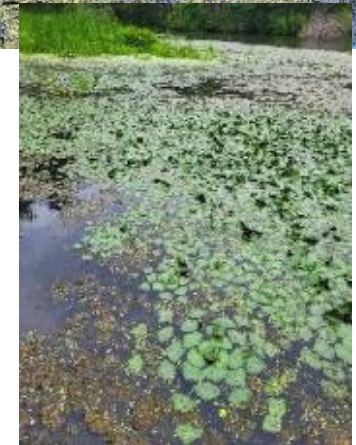
2 | NASHUA RIVER MILITARY MUNITIONS OVERVIEW

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Anomaly Avoidance Activities

- NRWA volunteer event along Nashua River for water chestnut scouting/removal held on July 18, 2022, which occurred from Hospital Road to West Main Street
- A safety briefing and anomaly avoidance was performed by a USACE Ordnance and Explosives Safety Specialist in support of volunteers during the event
- Anomaly avoidance also planned in support of next planned volunteer event in summer 2023



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2 | NASHUA RIVER MILITARY MUNITIONS OVERVIEW

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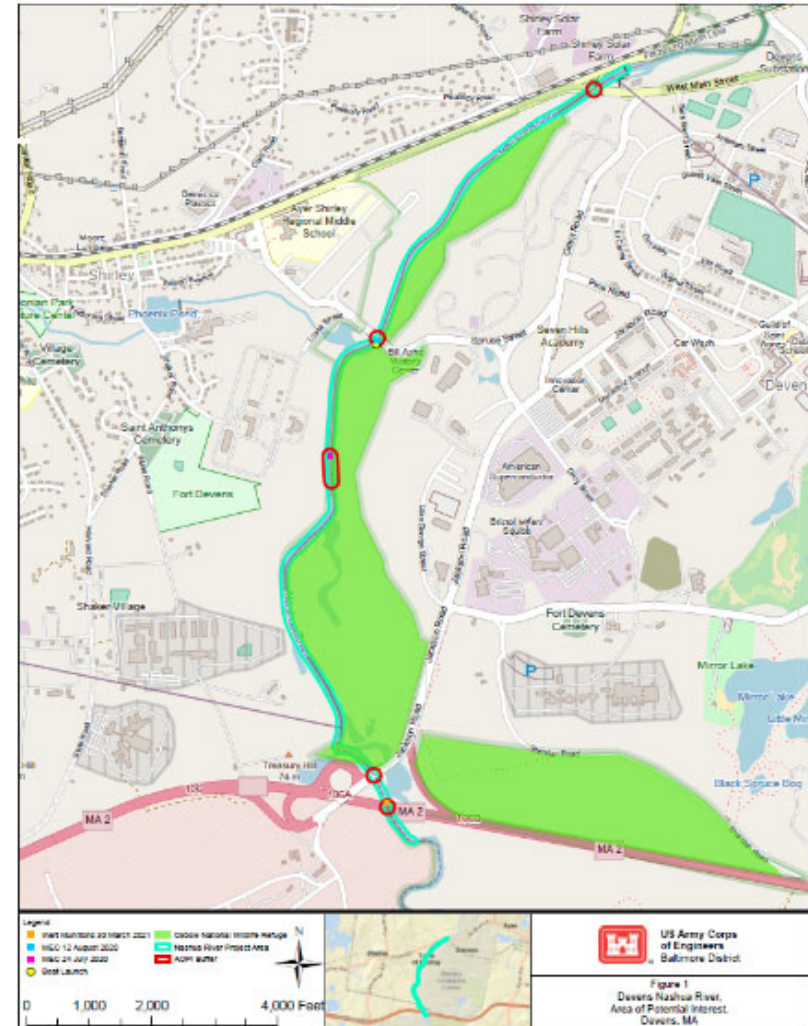
Upcoming Work

Geophysical Investigation

- General field-related tasks include:
 - Side-Scan Sonar (SSS)/Bathymetry Survey Operations and Data Processing
 - Quality Control Seeding
 - Underwater Digital Geophysical Mapping (DGM) and Data Processing
- Results from the field activities will be provided in a DGM report to identify anomalies for further investigation

Underwater Intrusive Investigation

- Dive operations performed on anomalies to intrusively investigate for munitions and explosives of concern/ munitions potentially presenting an explosive hazard



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Upcoming Work Sequence

- **Project Plan**
 - Draft Munitions Response Quality Assurance Project Plan (MR-QAPP) submitted to USEPA/MassDEP on July 18, 2022, under review
- **Geophysical Investigation**
 - Survey activities to commence dependent on approval of the MR-QAPP
- **Underwater Intrusive Investigation**
 - Investigation of underwater anomalies to begin as soon as practical following approval of anomaly list resulting from geophysical investigation
- **Removal Site Evaluation (RSE) Addendum**
 - Addendum to RSE to be prepared following conclusion of the underwater intrusive investigation



3 | THIRD-PARTY PFAS SAMPLING UPDATE

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This presentation is being given by People of Ayer Concerned for the Environment (PACE) as information to the RAB members. This presentation is provided by PACE without input, or review of the HQDA G-9 (BRAC).



4 | PROJECT UPDATES & UPCOMING WORK

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Final Documents Posted Since Last RAB Meeting

- N/A

Draft Documents Submitted to Agencies Since Last RAB Meeting

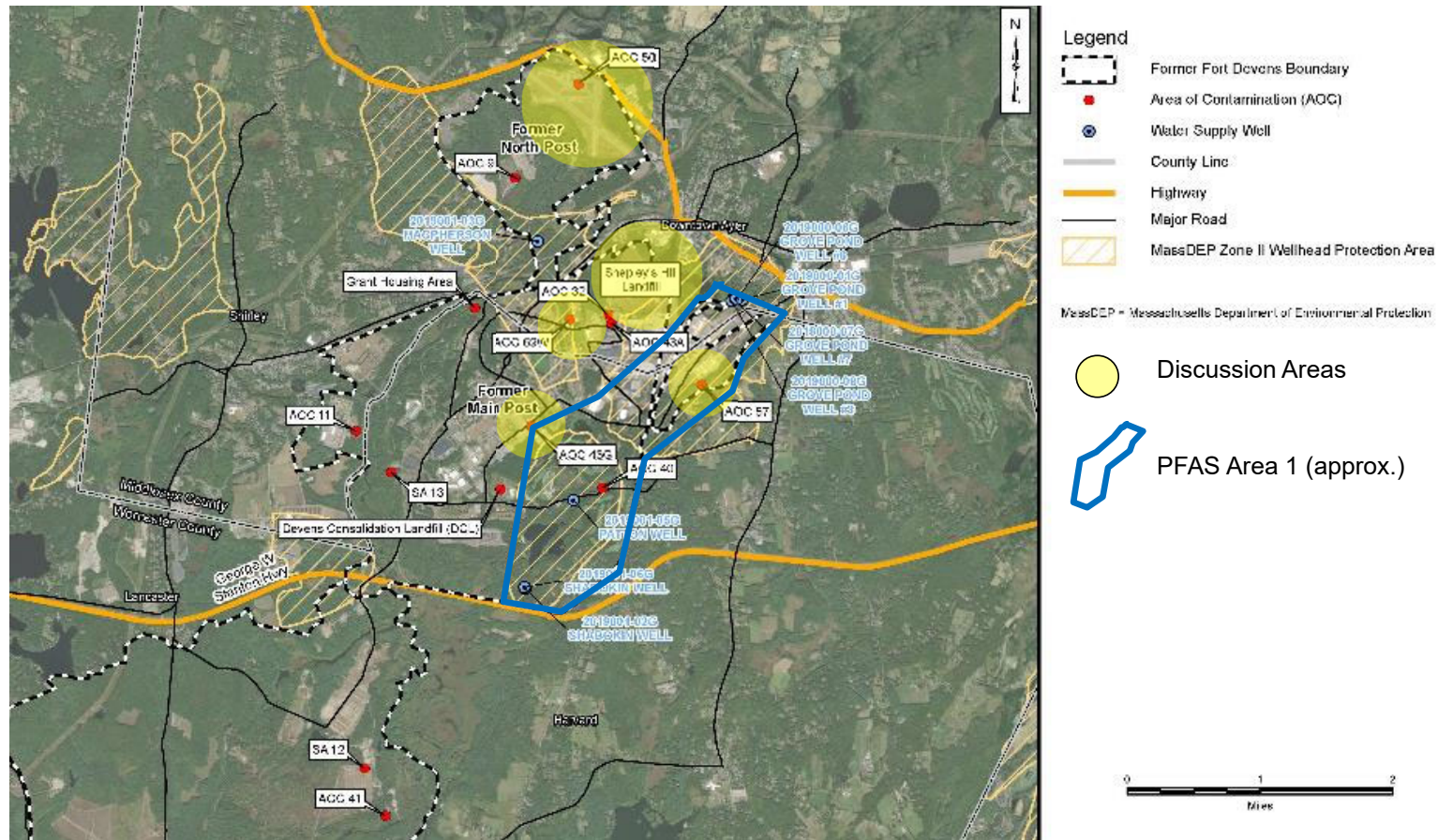
- Draft In-Situ Air Sparge Pilot Test Implementation Report – Shepley's Hill Landfill (SHL)
- Revised Draft Post-ROD AOC 69W Supplemental Remedial Investigation (RI) Work Plan – Main Post
- Revised Draft Post-ROD AOC 43G Supplemental RI Work Plan – Main Post
- Spring 2022 Long-Term Monitoring Data (unvalidated) – SHL, Main Post, Former Moore Army Airfield (MAAF)
- Draft Land Use Control Implementation Plan (LUCIP) AOCs 44 and 52 – Main Post
- Draft LUCIP AOC 69W – Main Post
- Draft MR-QAPP – Nashua River

Comments / Responses to Comments / Draft Final Documents Since Last RAB Meeting

- USEPA Comments Received: Draft PFAS Area 1 Phase 2 RI Work Plan, 2021 Annual Reports, Draft LUCIP AOC 44/52
- MassDEP Comments Received: Draft In-Situ Air Sparge Pilot Test Implementation Report, Revised Draft Post-ROD AOC 69W and 43G Supplemental RI Work Plans, Draft LUCIPs (AOCs 44/52 and 69W), 2021 Annual Reports



4 | PROJECT UPDATES & UPCOMING WORK





4 | PROJECT UPDATES & UPCOMING WORK

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Former Moore Army Airfield Updates

Current Concerns

- PFAS in soil and groundwater at Former Fire Training Area (FTA)
- PFAS discharge to surface water (Nashua River)
- Remnant perchloroethylene (PCE) in groundwater (post-remediation)

FTA Pre-IRM Investigation and Pilot Study

Objectives: Collect data to support IRM at FTA.

Tasks: Collect soil and groundwater samples to evaluate PFAS concentrations with depth; conduct bench-scale pilot study of potential in-situ remedial technologies for soil.

Updates: Soil and groundwater sampling began in June 2022 and is ongoing; soil samples for bench-scale study have been collected.





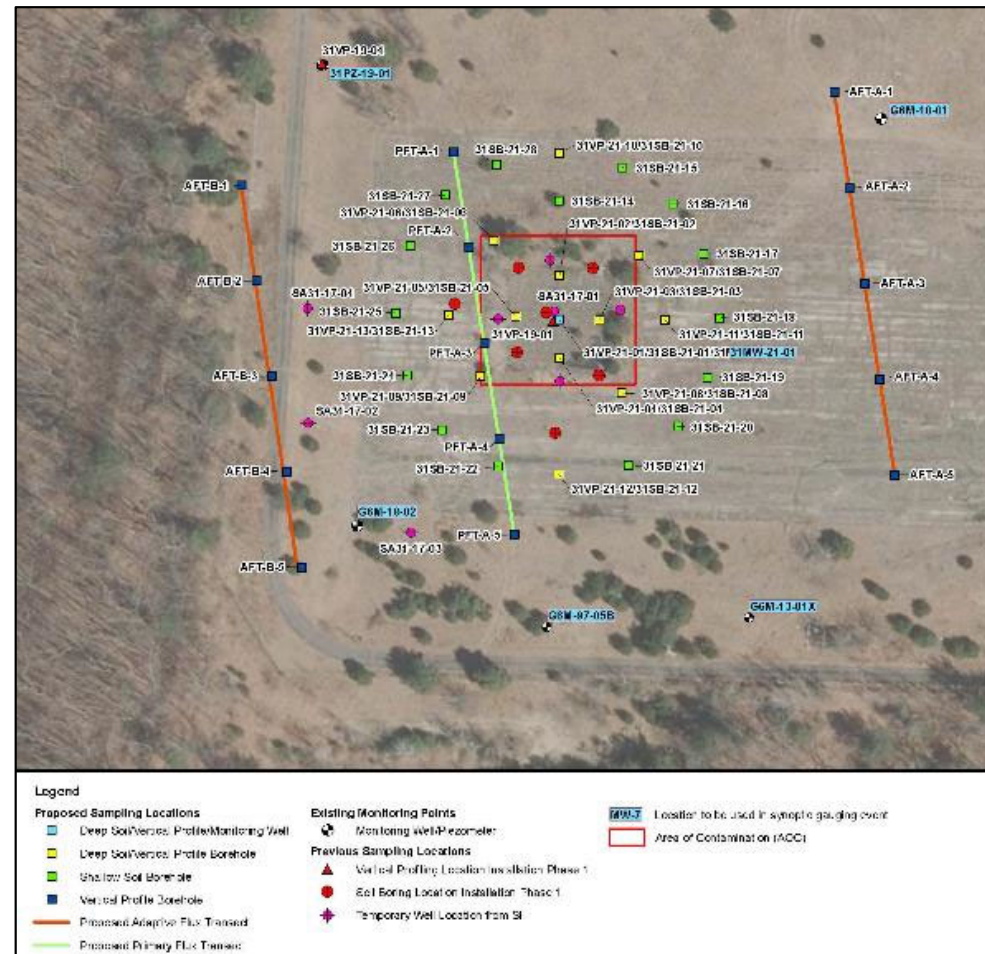
4 | PROJECT UPDATES & UPCOMING WORK

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Former Moore Army Airfield Updates

FTA Soil and Groundwater Investigation



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4 | PROJECT UPDATES & UPCOMING WORK

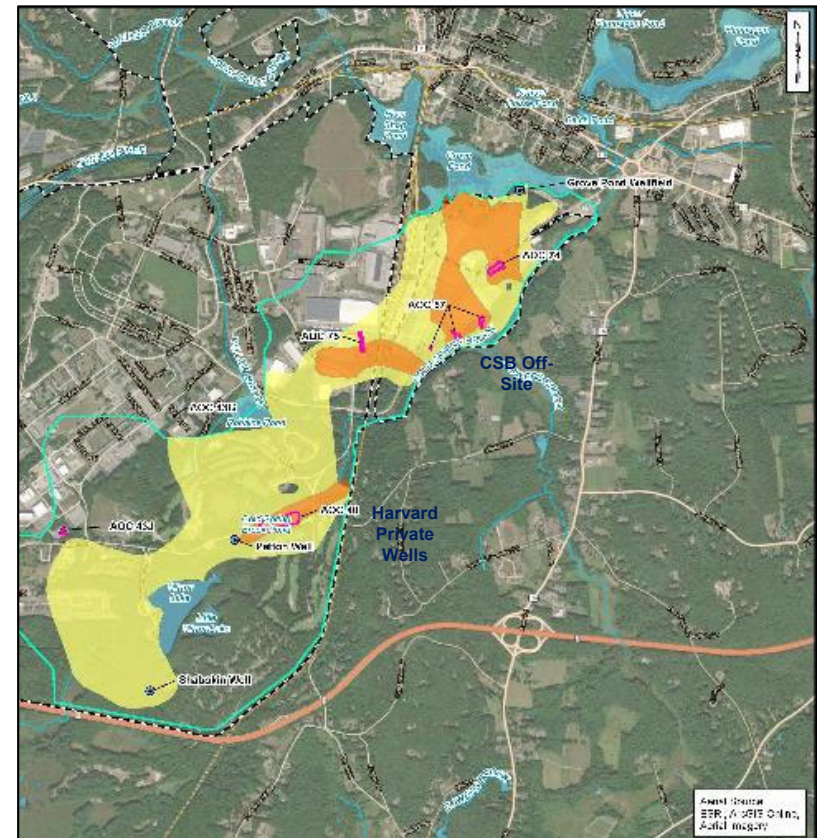
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Area 1 Phase 2 PFAS RI Update

Current Concerns

- Horizontal and vertical extent of PFAS in soil and groundwater (overburden and bedrock)
- Sources of PFAS in drinking water supply wells at former Fort Devens (Grove Pond, Patton, and Shabokin wells)
- PFAS discharge to surface water bodies
- Source of PFAS in private wells in Harvard
- Potential for PFAS migration beyond surface water bodies (Cold Spring Brook, Grove Pond)
- Risks to human health and the environment from PFAS presence in environmental media





4 | PROJECT UPDATES & UPCOMING WORK

Area 1 Phase 2 PFAS RI Update

Draft Work Plan Summary (Pre-USEPA/MassDEP Comment)

Task	Concern/Area Addressed	Quantity (as presented in draft document)
Surface Geophysics (seismic profiling)	Bedrock surface depth	30,000 linear feet
Vertical Aquifer Profiling	Horizontal and vertical extent of PFAS in overburden groundwater	15 locations (8 intervals each)
Overburden Monitoring Well Installation	Horizontal and vertical extent of PFAS in overburden groundwater	30 wells (in additional to 37 existing)
Bedrock Monitoring Well Installation	Presence of PFAS in bedrock aquifer	11 wells (in additional to 3 existing)
Stream Gauge Installation	Groundwater/surface water discharge patterns	6 locations (in addition to 8 existing)
Surface Water and Sediment Sampling	Presence and concentrations of PFAS in surface water and sediment	40 locations in 7 surface water bodies (CSB, CSB Pond, Mirror Lake, Robbins Pond, Grove Pond, Plow Shop Pond, Balch Pond)
Fish Tissue Sampling	Presence and concentration of PFAS in edible portions of fish (human health consumption risk)	6 surface water bodies, 10 fish per location (CSB, Mirror Lake, Robbins Pond, Grove Pond, Plow Shop Pond, Nashua River)
Groundwater Sampling	Presence and concentrations of PFAS in overburden and bedrock groundwater. Groundwater flow direction.	2 events – fall/spring; 92 locations per event
Human Health Risk Assessment	Potential human exposure pathways and risk associated with PFAS in the environment.	Human Health Risk Assessment (HHRA) per EPA guidance.
*Ecological Risk Screening	Potential ecological exposure pathways and risk associated with PFAS in the environment.	Screening Level Ecological Risk Assessment (SLERA) per EPA guidance.



4 | PROJECT UPDATES & UPCOMING WORK

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Shepley's Hill Landfill Updates

Current Concerns

- Arsenic in groundwater downgradient (north) of landfill in North Impact Area (NIA)
- Ability of existing groundwater extraction system to meet cleanup goals





4 | PROJECT UPDATES & UPCOMING WORK

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Shepley's Hill Landfill Updates

Groundwater Remedy Evaluation

Objective: Evaluate alternatives to existing groundwater extraction system.

Tasks: In-Situ Air Sparging Pilot Study; Focused Feasibility Study (USEPA 2016 SHL SOW Phase 3).

Updates: Draft Air Sparging Pilot Study Report submitted to USEPA/MassDEP in June 2022; Focused Feasibility Study Outline/List of Alternatives to be submitted August 2022.

Arsenic Treatment Plant (ATP) Pilot Test

Objective: Optimize the post-groundwater extraction treatment process.

Tasks: Replace the chlorine gas treatment with permanganate.

Updates: Draft Design Memo for Metals Removal Systems to be submitted to Agencies in August/September 2022; installation of Alternates Metal Removal System pending approval and availability of materials.



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Shepley's Hill Landfill Updates (continued)

Plow Shop Pond Barrier Wall Evaluation

Objective: Confirm that the barrier wall is preventing groundwater discharge containing arsenic to Plow Shop Pond.

Tasks: Conduct field investigation in accordance with Work Plan approved in April 2022.

Updates: Field work to be conducted once contracting is complete (spring 2023).

Long-Term Monitoring

Objective/Tasks: Groundwater sampling performed semi-annually to evaluate remedy performance.

Updates: Spring sampling completed in May 2022; fall sampling to be conducted in October 2022.



4 | PROJECT UPDATES & UPCOMING WORK

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Former Main Post Updates

Supplemental Post-ROD RIs for AOCs 69W, 57, and 43G

Current Concern: Is current groundwater remedy still effective / protective?

Objective: Evaluate fate and transport of remaining contaminants.

Tasks: Temporary and permanent groundwater monitoring well installation, groundwater sampling, groundwater flow evaluation.

Updates: Revised Draft Work Plan for AOC 69W and Draft Work Plan for AOC 43G submitted in June 2022; Draft Work Plan for AOC 57 submitted in August 2022; field work to follow Work Plan Approval.

LUCIPs for AOCs 44/52, AOC 69W, AOC 57, and SA 71

Current Concern: ROD-specified land use controls have been implemented but are not memorialized in CERCLA documents.

Objective: Memorialize requirements for implementing, monitoring and enforcing ROD-specified land use controls.

Tasks: Prepare LUCIPs for USEPA approval.

Updates: Final LUCIP Work Plan issued February 2022; Draft LUCIPs for AOCs 44/52, 69W, and 57 submitted for review; SA 71 LUCIP to be submitted in August 2022.



5 | NEXT STEPS & MEETING



Community Involvement & RAB

Action Item 1

Continue public outreach about hazards of potentially discovering military munitions

Action Item 2

RAB business meetings and committee work will continue in between quarterly public meetings

Action Item 3

Continue work on digital AR and updates to document repository and website

Action Item 4

Continue with fact sheets



6 | QUESTIONS & ANSWERS

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THANK YOU!
YOUR PARTICIPATION IS APPRECIATED!

NEXT RAB MEETING IS:
NOVEMBER 10, 2022

(Second Thursday of the month)