

COLD REGIONS RESEARCH AND ENGINEERING LABORATORY RESTORATION ADVISORY BOARD MEETING

Samantha Russo, USACE Project
Manager

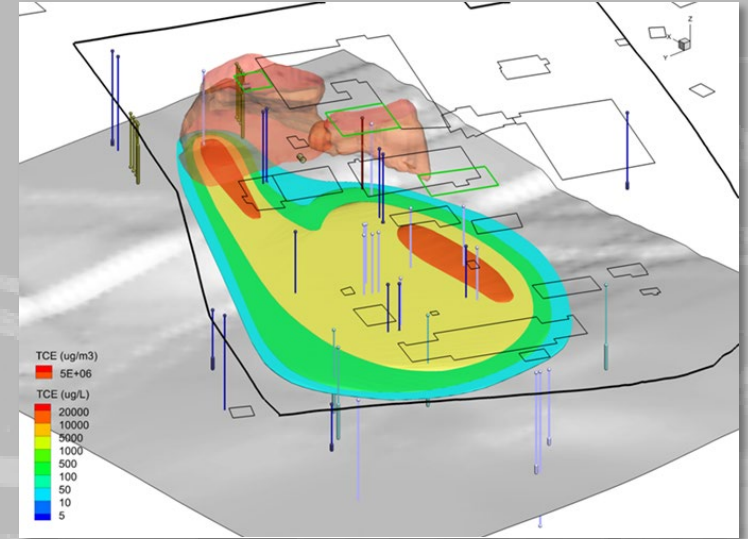
Date: 22 February 2023



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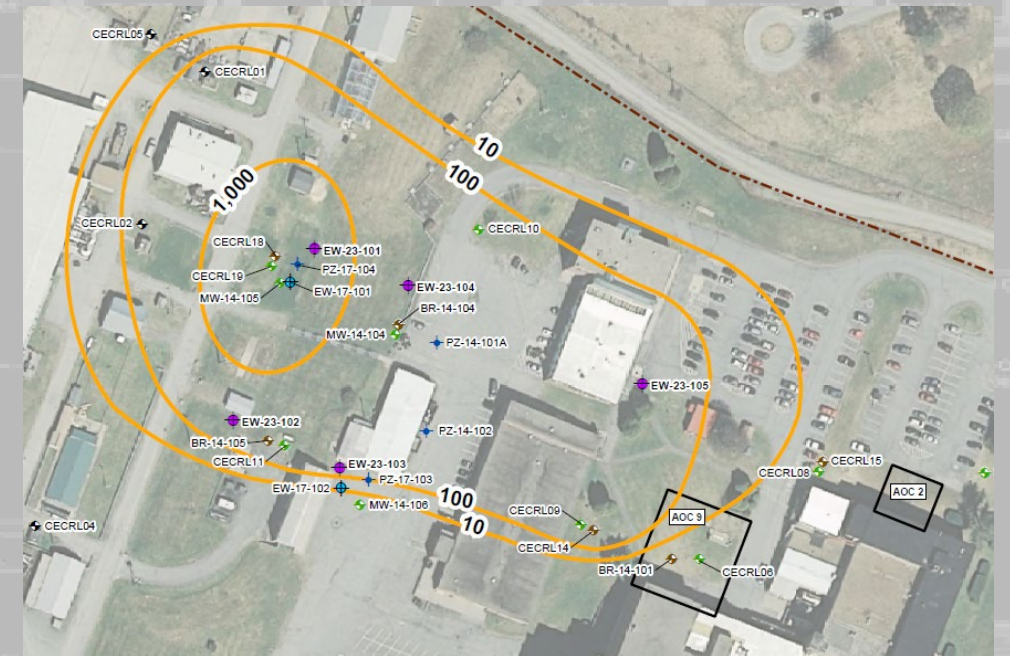


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AGENDA

- Introductions
- Review/Approve September 2022 Meeting Minutes
- On-Site Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Investigation Status
- Connecticut River Remedial Investigation and Feasibility Study Report Status
- Groundwater Management Zone Sampling
- Groundwater Treatment Plant Design Status
- Remedial Systems Update
- Upcoming Work This Quarter
- Adjourn



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INTRODUCTIONS



Members

- Samantha Russo, RAB Chair and USACE Project Manager
- Kristine McDevitt, Community Member
- Bree Carlson, Member Representing Dartmouth
- Roelof Versteeg, Community Member
- Chief Martin McMillan, Member Representing Town of Hanover
- Tony Daigle, Member Representing SAU 70
- Stephanie Monette, Member Representing New Hampshire DES

Support

- Jacob Holloway, USAEC Team Lead
- Amy Rosenstein, USACE Risk Assessor
- Dan Groher, USACE Engineer
- Dr. Steve Potts, USACE Geologist
- Dr. Jennifer Apell, USACE Chemist
- Terry Harwood, ERDC-CRREL IRP Manager
- Dr. Jay Clausen, ERDC-CRREL Deputy IRP Manager
- Steve Lamb, GZA/Dartmouth
- Scott Calkin, WSP PM
- Wolfgang Calicchio, WSP Chemist
- Amy Quintin, WSP Risk Assessor
- Rod Rustad, WSP Hydrogeologist
- Jack Besse, WSP Engineer

Regulatory Agencies

- Stephanie Monette, NHDES
- Richard Spiese, VTDEC





ON-SITE CERCLA INVESTIGATION STATUS



Site Investigation

- Final On-Site RI completed 2018
- Interim Actions taken to reduce TCE concentrations in the environment and to protect human health
- On-site monitoring ongoing

Next Steps:

Resolve NHDES Feasibility Study comments regarding Applicable or Relevant and Appropriate Requirements (ARARs)

- Discussions ongoing
- NHDES is reviewing draft USACE responses
- May result in an Addendum to the Final Feasibility Study

Once resolved Proposed Plan and Decision Documents will follow thereafter

- Provides public and stakeholders an opportunity to comment on selected remedy(s) per CERCLA.
- Provides formal record and rationale for the selected remedy(s) and commits parties to the remedy(s).

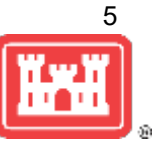
Groundwater Treatment Plant 100% Design has been tabled to keep in line with the CERCLA Process

- Design will be completed after the Decision Document is finalized.





CONNECTICUT RIVER REMEDIAL INVESTIGATION REPORT



In Draft Final Status – NHDES and VTDEC are currently reviewing the document, anticipate comments in coming months.

Document sent to RAB members in mid-July for review.

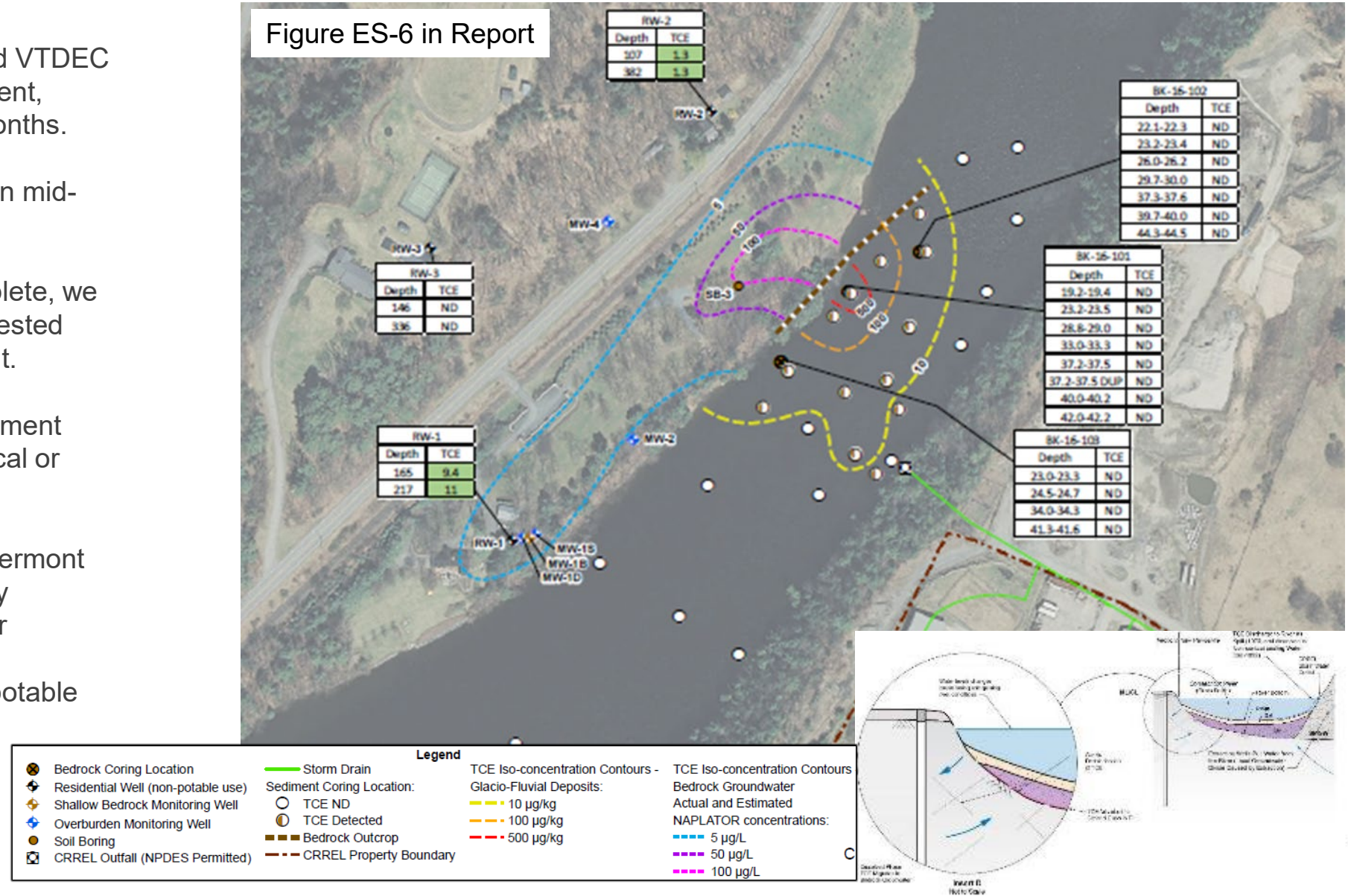
Once regulatory reviews are complete, we will review any comments or suggested edits and will finalize the document.

Results for surface water and sediment show no significant risk to ecological or human receptors.

Results for groundwater wells in Vermont (not currently in use as supplied by municipal water) show potential for hypothetical risk at one well if the groundwater were to be used for potable purposes in the future.

Advises a Feasibility Study.

Figure ES-6 in Report





GROUNDWATER MANAGEMENT ZONE SAMPLING



January 2023 Sampling Round

Date	MW-103B TCE µg/L (175-190 ft bgs)
Twenty previous rounds	Non-detect
January 2022	19
April 2022	15
July 2022	0.50 U
October 2022	0.50 U
January 2023	0.50 U



Date	CECRL-07 TCE µg/L (169- 179 ft bgs)
Nine previous rounds	Non-detect
October 2021	0.78
January 2022	0.57
April 2022	35
July 2022	31
October 2022	1.4
January 2023	6.8

GROUNDWATER MANAGEMENT ZONE EXCEEDANCES

Boundary Well CECRL-07

- NH Ambient Groundwater Quality Standards (AGQS) limit TCE to 5 µg/L in groundwater unless within a groundwater management zone (GMZ). Federal Maximum Contaminant Level (MCL) for drinking water also 5 µg/L.
- October 2022 groundwater sampling was <AGQS at 1.4 µg/L for TCE.
- January 2023 groundwater sampling was >AGQS at 6.8 µg/L.
- Letter work plan under review for conducting sampling across the CECRL-07 well screen interval to assess if soil vapor is contributing to TCE concentrations or potential for upgradient, off-site source.
- Indoor air was sampled in areas proximal to boundary GMZ exceedances. All samples were non-detect for TCE in indoor air.

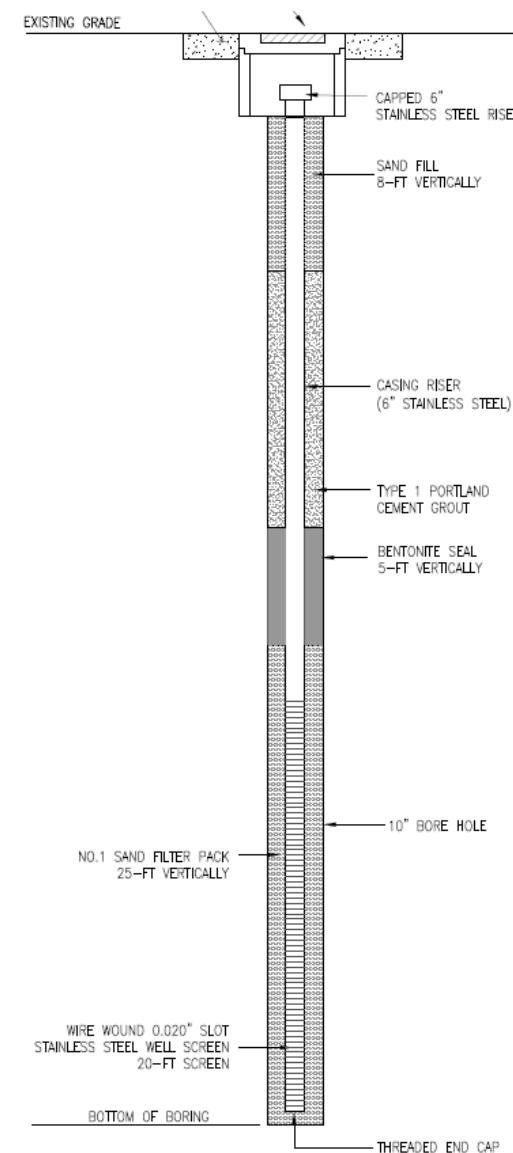
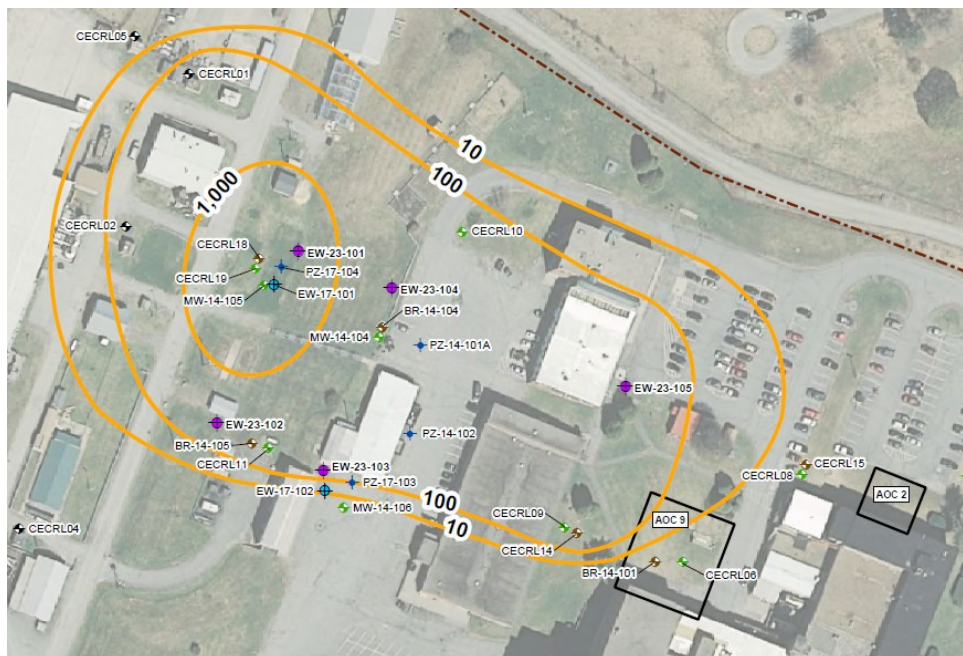




GROUNDWATER TREATMENT PLANT DESIGN STATUS



- Treatment plant design on hold pending completion of the ROD.
- Pilot extraction well design commenced January 2023
- Anticipate installing and operating pilot wells to deepen understanding of aquifer characteristics and demonstrate capacity to limit migration of TCE to production wells.





INTERIM REMEDIAL SYSTEMS UPDATE



Soil Vapor Extraction (SVE) pilot systems were shut down/decommissioned in October and November 2021.

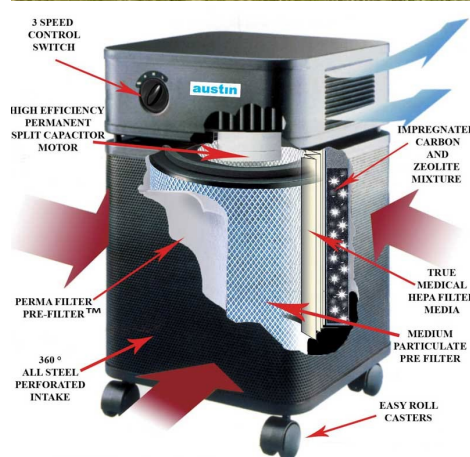
SVE rebound study sampling conducted in June 2022. Anticipate collecting additional samples this Spring.

Healthmates continue to operate.

Plenum Air Purifying Units continue to operate. Filter changeout occurred December 2022.

Sub-slab depressurization systems are currently running.

Actively monitoring indoor air quality with the HAPSITE for protection of human health, TCE concentrations remain low.





UPCOMING WORK

Continued HAPSITE monitoring of the Main Lab, FERF, and LMO; as well as intermittently at other CRREL buildings.

Routine sampling of sub slab depressurization systems.

Finalize pilot extraction well design

Monitor Boundary Wells

CRREL RI/FS/Proposed Plan/Decision Document

- Resolve NHDES Feasibility Study Comments
- Draft Proposed Plan and Decision Document

Connecticut River RI/FS

- Prepare Final RI incorporating NHDES and VTDEC Comments
- Submit Draft Feasibility Study after the RI is finalized for USACE Review
- Next Steps-Draft Proposed Plan and Decision Document

Reminder that the Administrative Record can be found at the Howe Library in Hanover.





QUESTIONS OR COMMENTS

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