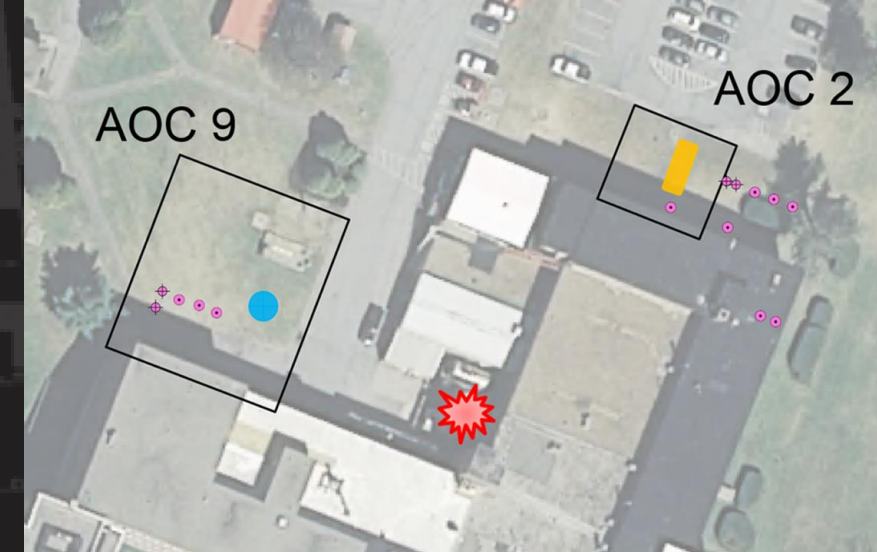


COLD REGIONS RESEARCH AND ENGINEERING LABORATORY RESTORATION ADVISORY BOARD MEETING

Christopher Kane, USACE Project
Manager

Date: 14 May 2025

"The views, opinions and findings contained in this report are those of the authors(s) and should not be construed as an official Department of the Army position, policy or decision, unless so designated by other official documentation."



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US Army Corps
of Engineers®

New England District



CRREL

COLD REGIONS
RESEARCH AND
ENGINEERING
LABORATORY



- Introductions
- Review/Approve January 2025 Meeting Minutes
- Administrative Record Update
- 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
- Upcoming Work
- Adjourn





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INTRODUCTIONS

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Members

- Christopher Kane, RAB Chair and USACE Project Manager
- Kristine McDevitt, Community Member
- Bree Carlson, Member Representing Dartmouth College
- Roelof Versteeg, Community Member
- Deputy Chief/Fire Marshal Michael Gilbert, Member Representing Town of Hanover
- Tony Daigle, Member Representing SAU 70

Support

- Roberto Rivera - USAEC Environmental Support Manager
- Julia Rupp – USACE Technical Lead + COR
- Amy Rosenstein, USACE Risk Assessor
- Whitney Plasket, USACE Engineer
- Dr. Jen Appell, USACE Engineer
- Dr. Steve Potts, USACE Geologist
- Katherine Miller, USACE Chemist
- Terry Harwood, ERDC-CRREL IRP Manager
- Dr. Samuel Beal, ERDC-CRREL Deputy IRP Manager
- James Wieck, GZA/Dartmouth
- Scott Calkin, WSP PM
- Wolfgang Calicchio, WSP Chemist
- Amy Quintin, WSP Risk Assessor
- Ryan Ordnung, WSP Hydrogeologist
- Jack Besse, WSP Engineer
- Bryan Connolly, WSP HAPSITE® Operator

Regulatory Agencies

- Rene Nahlik, NHDES PM
- Richard Spiese, VTDEC PM





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ADMINISTRATIVE RECORD UPDATE

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The Administrative Record is available for review:

- CRREL library (hard copies)
- CRREL SharePoint (digital copies) site and
- Howe Library in Hanover (digital copies)
 - Includes all final reports
 - See the information desk to access the files

May 2025:

- Four Groundwater monitoring permit submittals in 2025.





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ON-SITE CERCLA INVESTIGATION STATUS

5



Next Steps:

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

- USACE-NAE sent timeline of Final FS and follow-on NHDES comments with NAE responses on 27 January as requested by NHDES at January RAB
- NHDES responses needed on ARARs

2. Once resolved, Proposed Plan and Decision Documents will follow thereafter

- Provides public and stakeholders an opportunity to comment on selected remedy(s) per CERCLA, including public meetings as part of each document cycle.
- Provides formal record and rationale for the selected remedy(s) and commits parties to the remedy(s).





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CONNECTICUT RIVER REMEDIAL INVESTIGATION REPORT



6

In Draft Final Status – Vermont DEC approved the report to issue as final in July 2023.

USACE is drafting formal response, a meeting is expected to be scheduled in June to discuss.

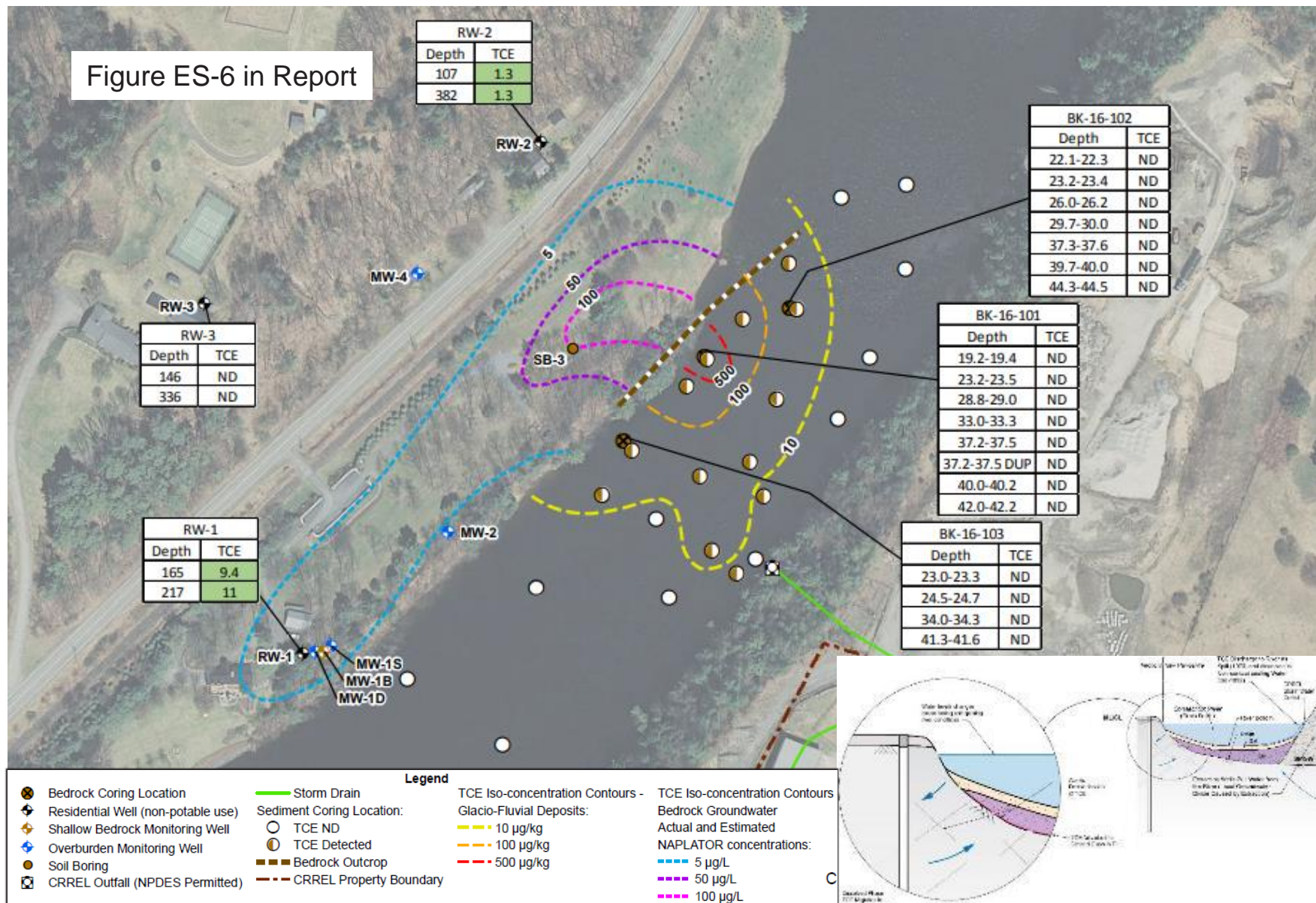
Once NHDES comments are resolved the document will be finalized.

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, homes 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.

A Draft Feasibility Study will be revised and resubmitted to USACE for review following RI comment resolution.

Figure ES-6 in Report





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GROUNDWATER MANAGEMENT ZONE SAMPLING

JANUARY 2025



7

January 2025 TCE Results		
Sample ID	Result	Qualifier
CECRL-01	88	
CECRL-02	80	
CECRL-03	0.5	U
CECRL-04	0.5	U
CECRL-09	280	
CECRL-12	0.5	U
CECRL-18	36	
CECRL-Outfall	0.5	U
MW-14-103A	0.5	U
MW-14-103B	0.5	U
MW-14-104	120	
MW-14-105	600	
MW-14-107	0.87	J
BR-14-102	0.5	U
BR-14-103	0.5	U

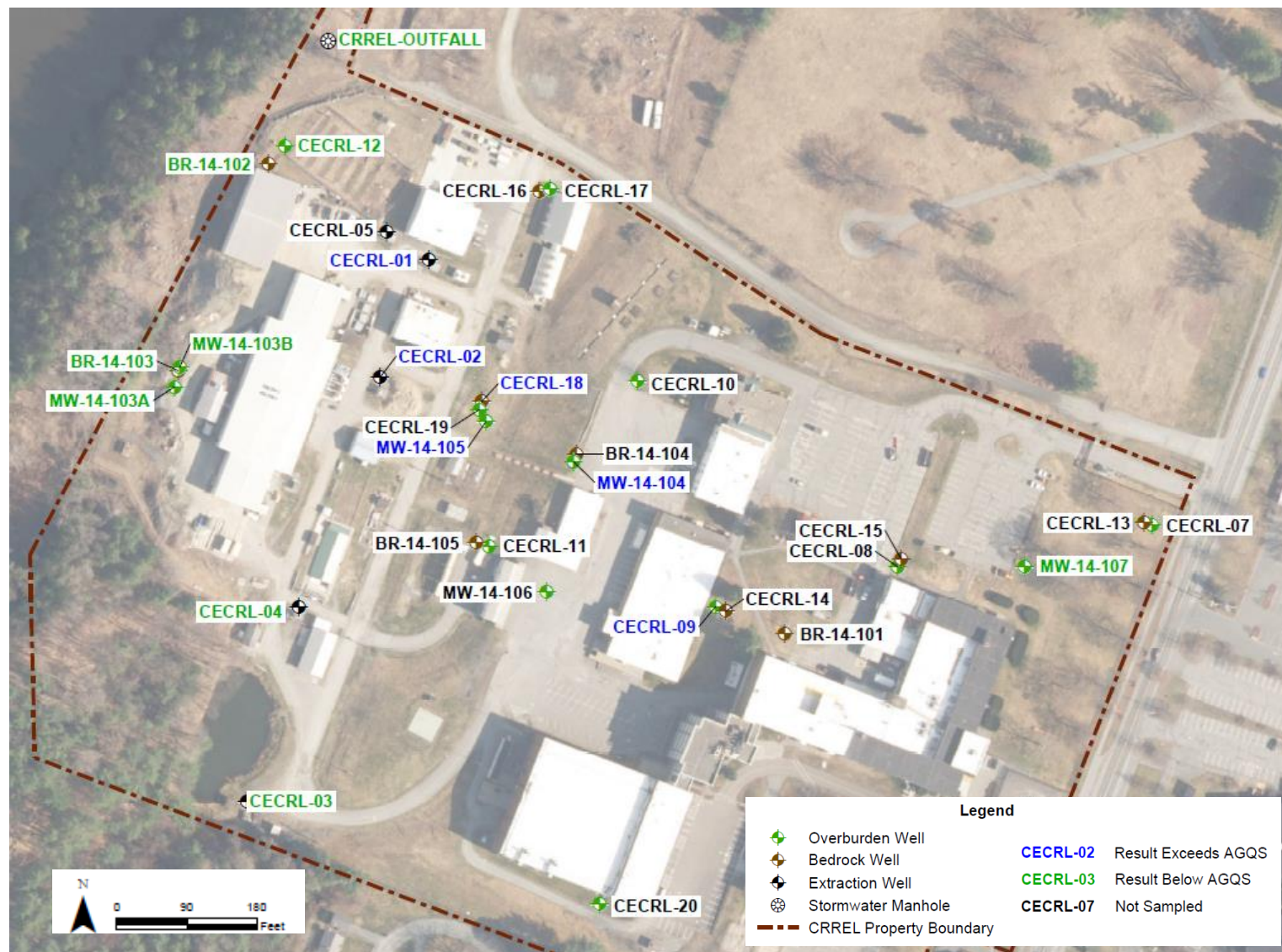
Notes:

All units in micrograms per liter ($\mu\text{g/L}$)

U = not detected

J = estimated

Bold = exceeds NH AGQS ($5 \mu\text{g/L}$)





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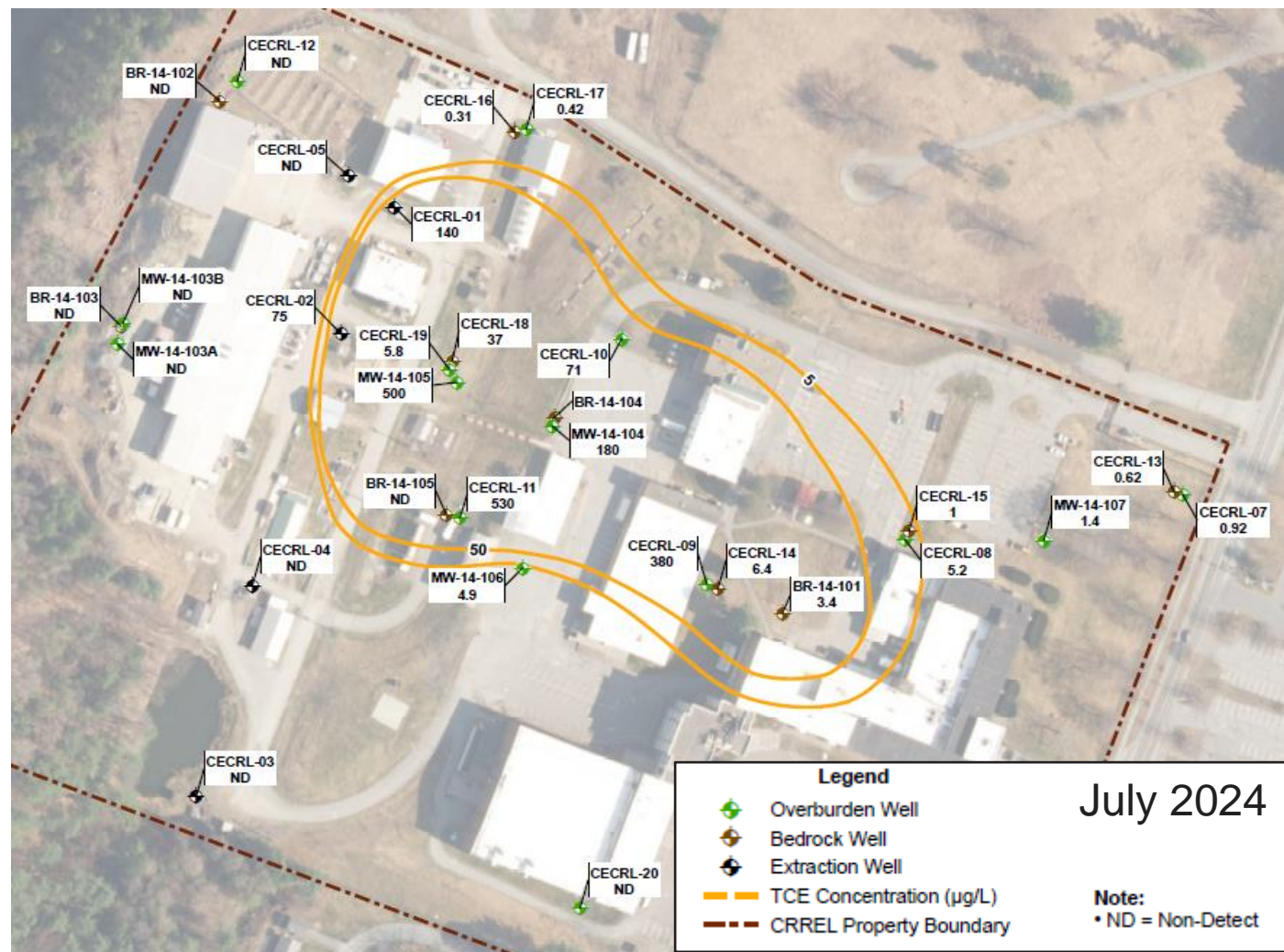
UPCOMING WORK

Soil Gas

- SVE Pilot Re-Start pending task award
 - New SVE pilot testing designed to test for potential connections between 2nd floor/plenum TCE and the subsurface.
- Synoptic Soil Vapor sampling scheduled for summer 2025.

Groundwater

- Continue quarterly sampling of GMZ wells, annual sampling scheduled for week of July 14th.





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UPCOMING WORK - CONTINUED

9

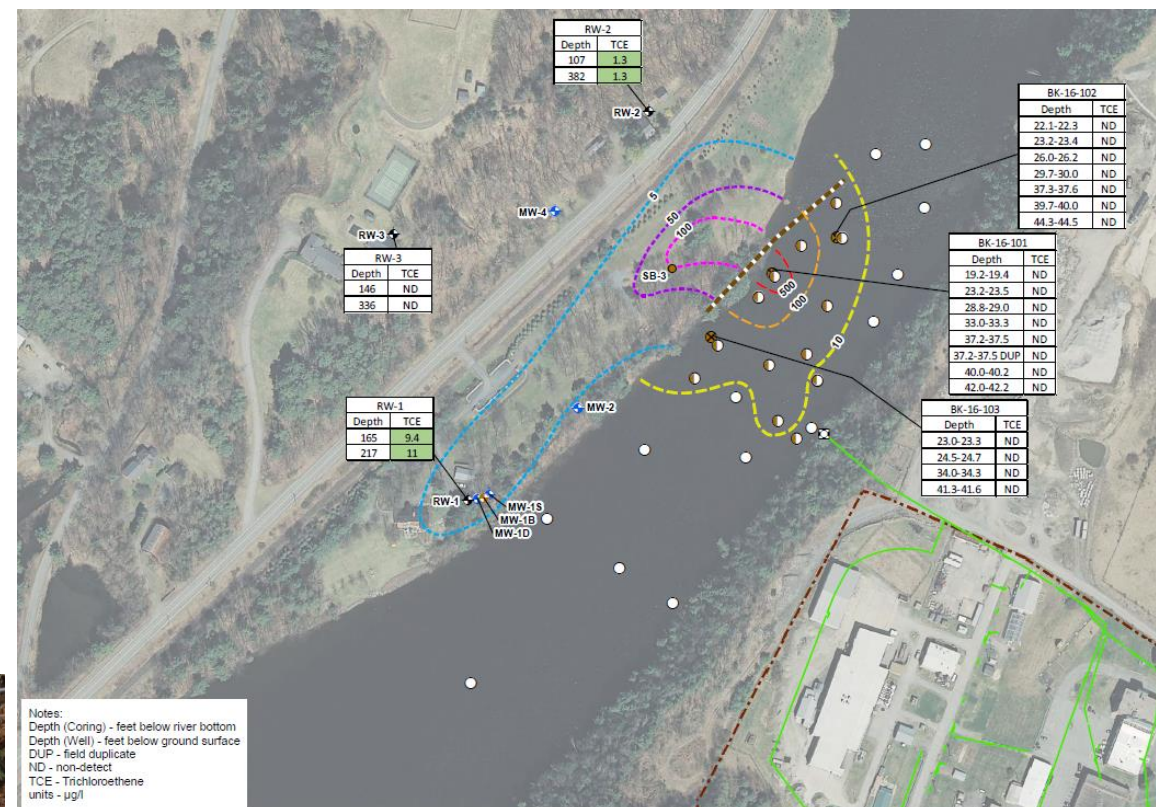


CRREL RI/FS/Proposed Plan/Decision Document

- Resolve NHDES Feasibility Study Comments
- Draft Proposed Plan and Decision Document
- Conduct a public meeting during Proposed Plan comment period

Connecticut River RI/FS

- Prepare Final RI incorporating NHDES Comments
- Submit revised Draft Feasibility Study after the RI is finalized for USACE Review
- Draft Proposed Plan and Decision Document
- Conduct a public meeting during Proposed Plan comment period





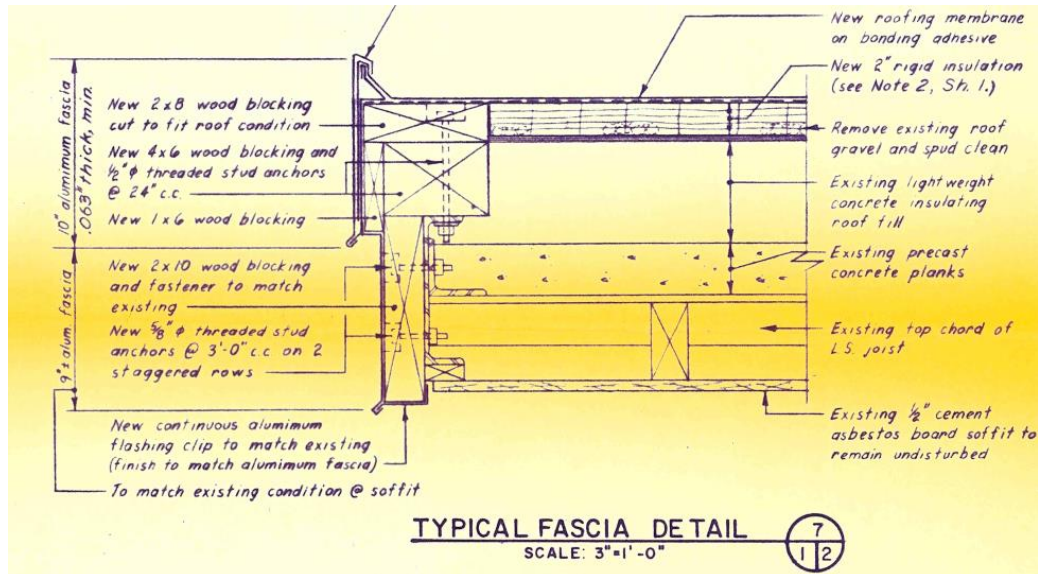
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UPCOMING WORK - ROOF SAMPLING

10



- Work Plan Approved Early May
- Sampling of 3 locations to occur May 2025
- Objectives: Determine if there is TCE in the roof materials
- Sequential heated desorption and analysis by HAPSITE®.





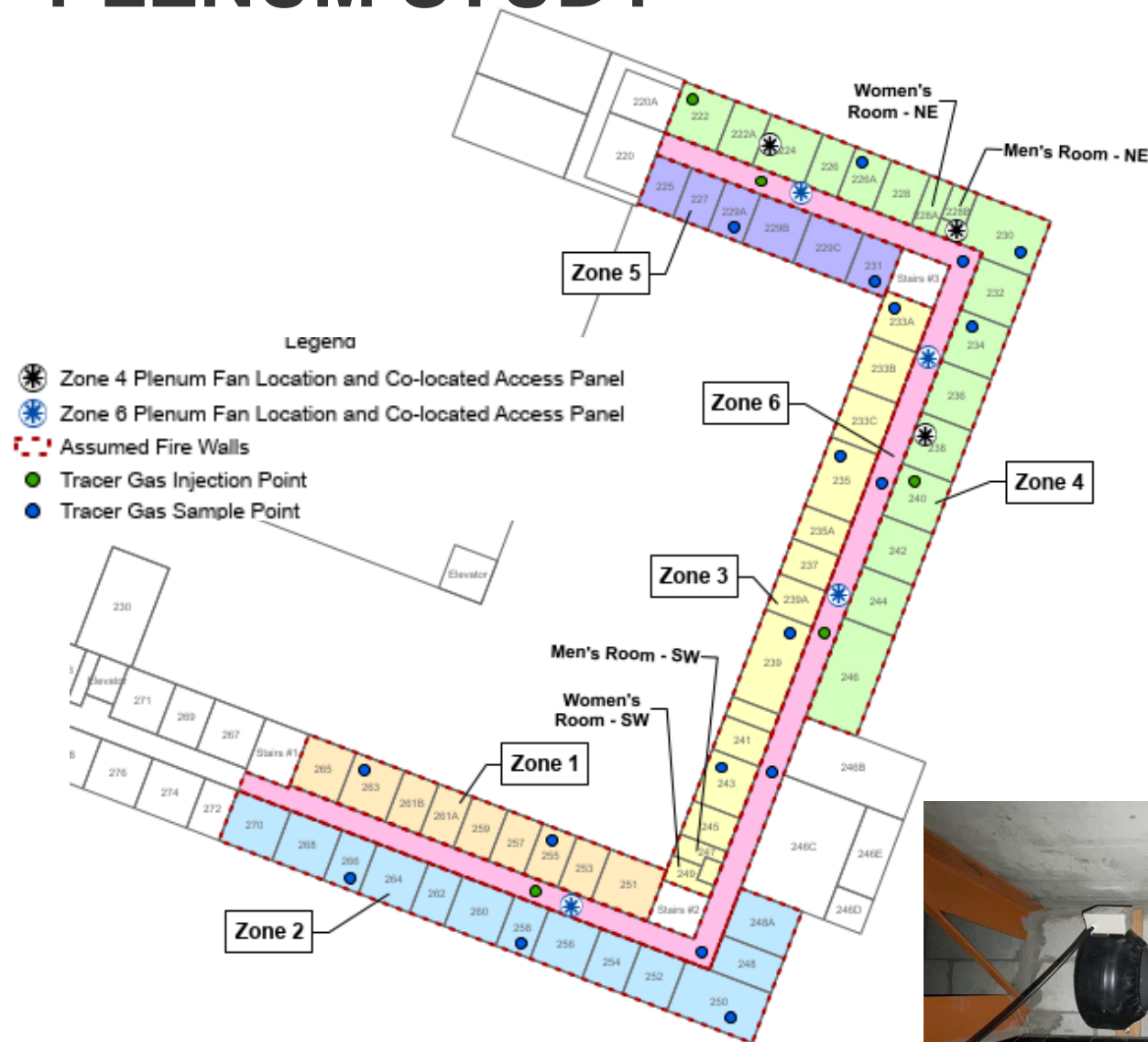
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UPCOMING WORK - PLENUM STUDY

11



- Work Plan in Review
- Scheduled to begin Summer 2025
- Primary Objective is to collect data sufficient to design a ventilation system through the following activities:
 - Visual confirmation of plenum zones, structure, penetrations, etc.
 - Identifying airflow patterns through tracer testing
 - Quantifying effectiveness of APUs through targeted HAPSITE® monitoring





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WORK PLANS IN DEVELOPMENT

12



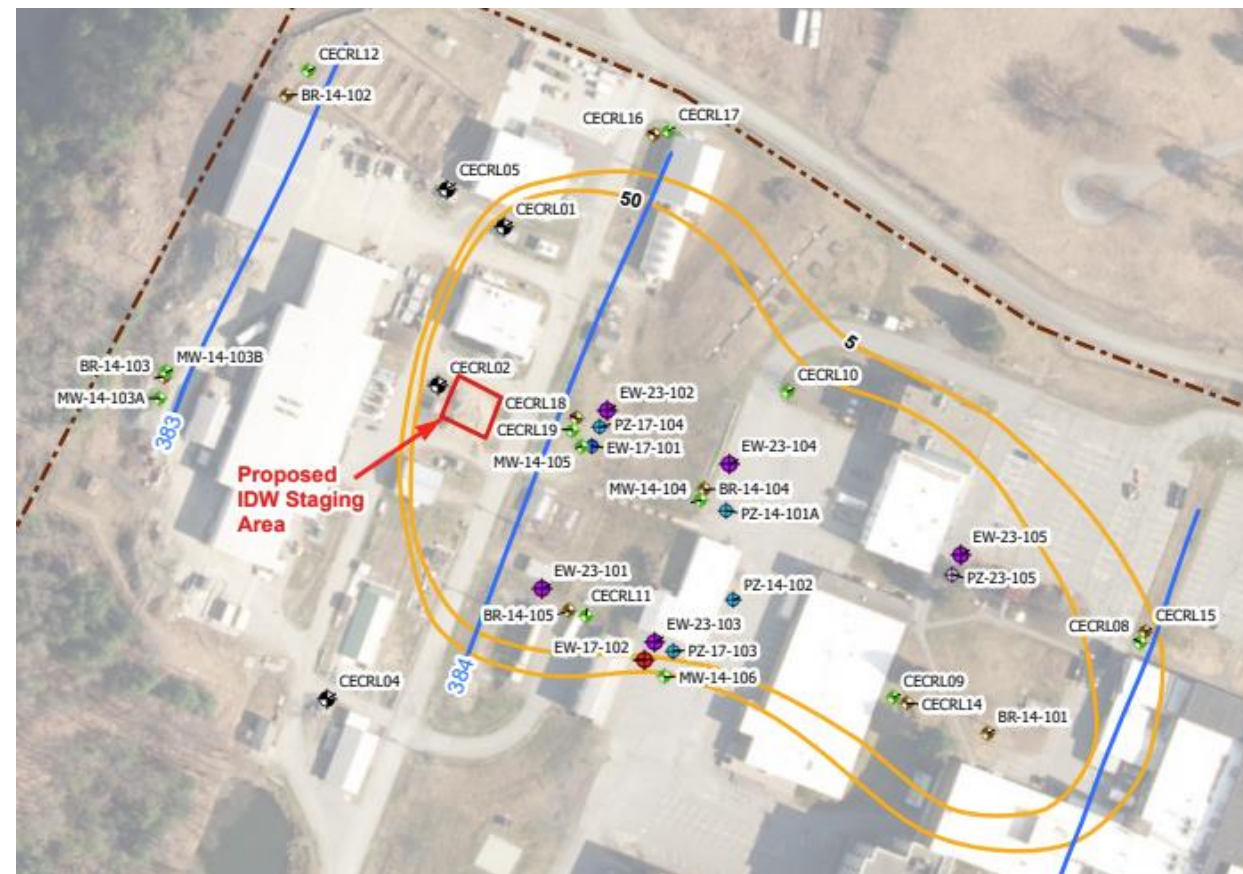
- Vapor Intrusion Pathway Study Work Plan
 - Study to identify any remaining VI pathways from the subsurface to indoor air.
- Groundwater Extraction Pilot Test
 - Design of extraction wells, water conveyance, and testing plan for a 5-well network to better understand dynamics of the upgradient aquifer



Pipe Chase



Floor Drain



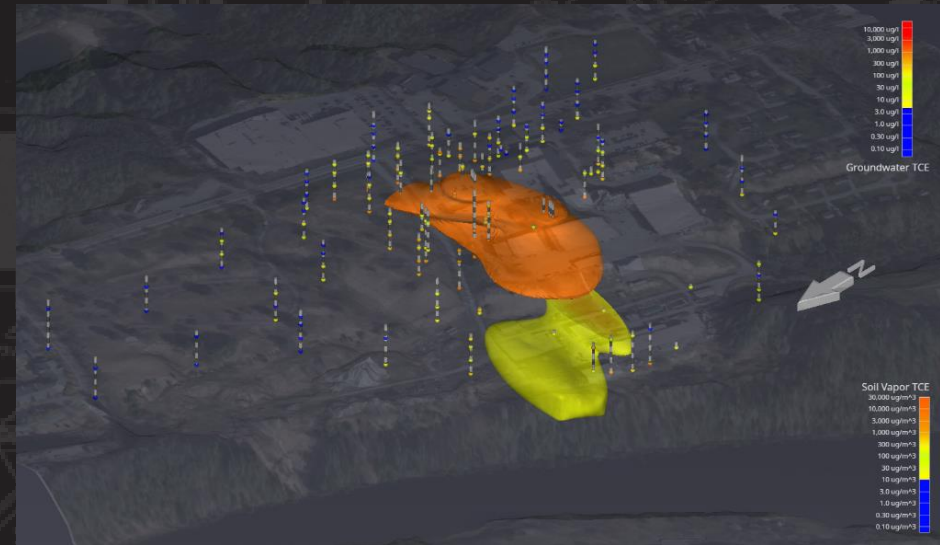
Legend

- | | | |
|--------------------------|--------------------------|-----------------------------------|
| Bedrock Well | Pilot Extraction Well | TCE Concentration (µg/L) |
| Overburden Well | Piezometer | CRREL Property Boundary |
| CRREL Cooling Water Well | Proposed Extraction Well | AOC Boundary |
| Destroyed/Abandoned Well | Proposed Piezometer | Potentiometric Contours July 2024 |

QUESTIONS OR COMMENTS

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