

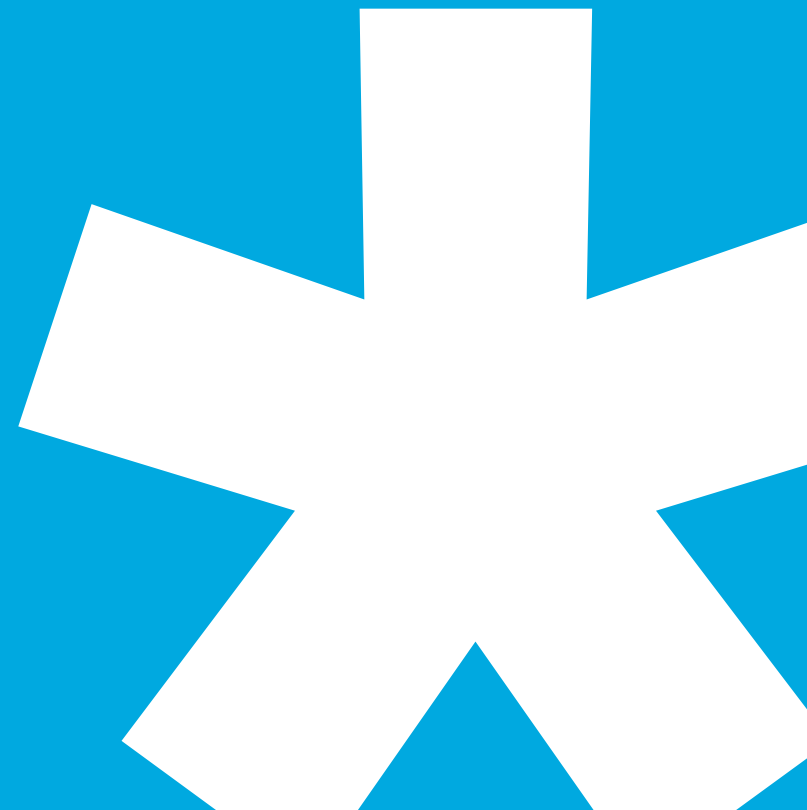
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# August 2023 Technical Advisory Group

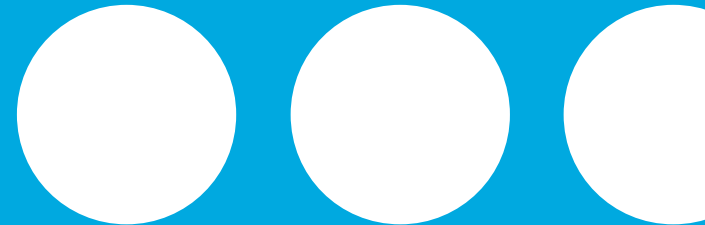
**Former Varian Facility (Site 3-0485)  
150 Sohier Road  
Beverly, Massachusetts**

**August 8, 2023  
Beverly Middle School**



# Agenda

- Greetings and Agenda Review
- Introductions
- Summary of Activities Since Last TAG Meeting and Upcoming Field Work
- Thermal Treatment Progress
- Environmental Visualization System (EVS) Model
- Revised Phase III/Partial Phase IV, Part 1 – Comment and Responses
- Upcoming Submittals and Events



# Activities Since Last TAG Meeting

## ➤ Submittals

- Response to public comments on Revised Phase III, Phase IV Part 1 documents

## ➤ Ongoing Work

- Coordination with CPI, selected thermal treatment contractor, and electric provider
- Continued operation and maintenance of soil vapor extraction (SVE) systems
- Continued operation, maintenance, and monitoring of Longview Drive mitigation system
- Sampled indoor and sub-slab soil vapor at Longview Terrace and Tozer Road properties

## ➤ Upcoming Field Activities (August-September)

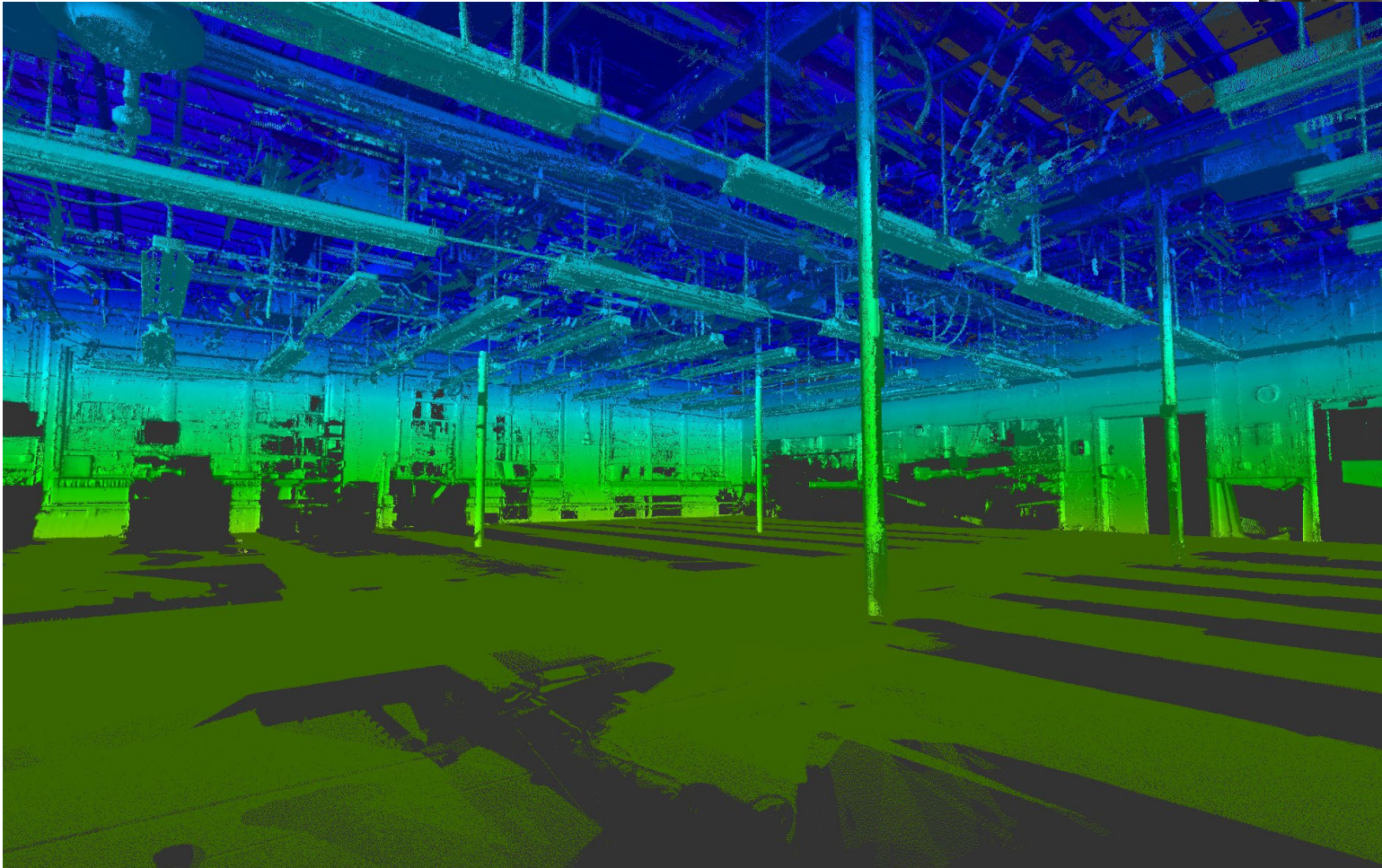
- Tozer Road investigation
- Bldg 3 thermal treatment design soil boring installation
- PSL 10 investigation
- PFAS sampling
- Seep barrier installation





# Thermal Treatment Progress

- Completed 3D scans of stockroom and surrounding rooms to support thermal system design efforts



- Utility location surveys completed
- Selected CPI operations have been relocated; others remain in progress
- Plans are underway to build out additional CPI workspaces



# Thermal Treatment Progress

- TerraTherm – Western Massachusetts firm with more than 20 years of thermal remediation experience has joined the team
- National Grid Update
  - Engineering survey or load study is not required
  - Power grid has capacity needed for the project
  - Primary service location planning underway
- Treatment Zone Refinement
  - Detailed utility location mapping to support supplemental soil boring placement outside building 3
  - Six additional borings advanced to bedrock will be completed in August to finalize Northern treatment boundary extent
  - Detailed system design by TerraTherm to follow



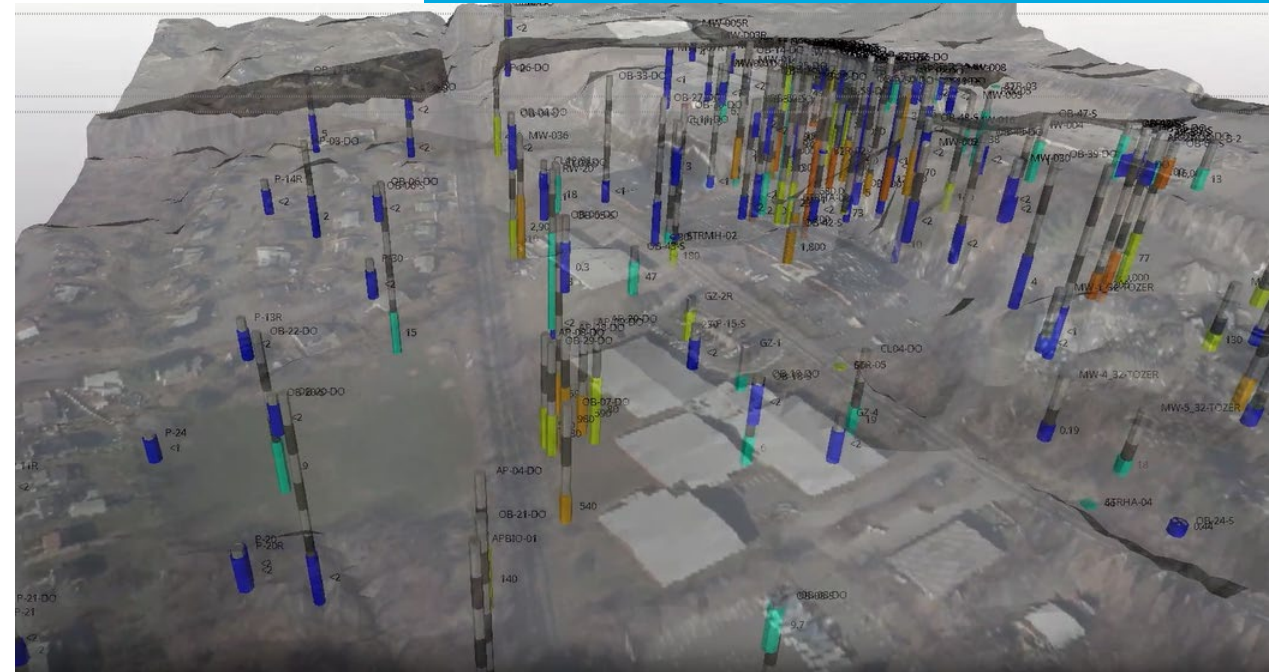
# Environmental Visualization System (EVS) Model

## ➤ Model inputs

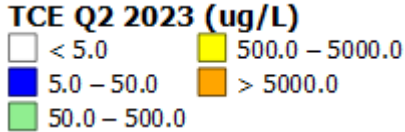
- Maps/aerial views
- Groundwater and soil data
- Lithologic data (boring logs)
- Well construction data (e.g., screen intervals)
- Water elevation data

## ➤ Uses

- Visualization (over time)
  - Geology/bedrock surface
  - 3D plume maps and cross-sections
- Calculations
  - VOC mass estimates
  - VOC mass flux estimates
- Improve conceptual site model
- Support remedial design and long-term monitoring



# TCE (5,000 ug/L)

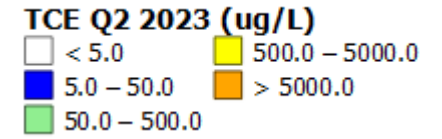


← Overburden groundwater flow direction

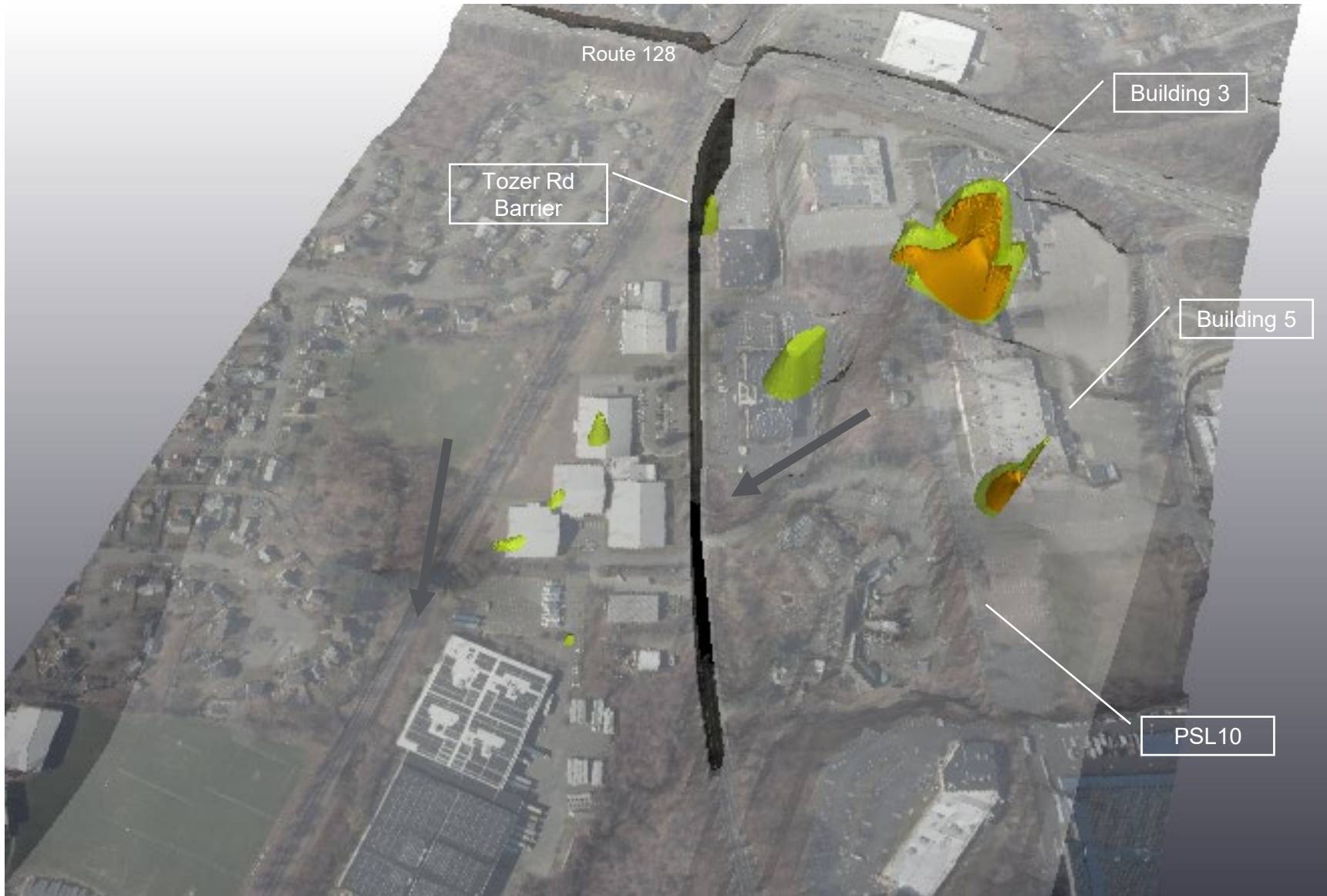




# TCE (1,000 ug/L)

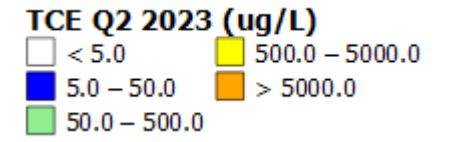


← Overburden groundwater flow direction

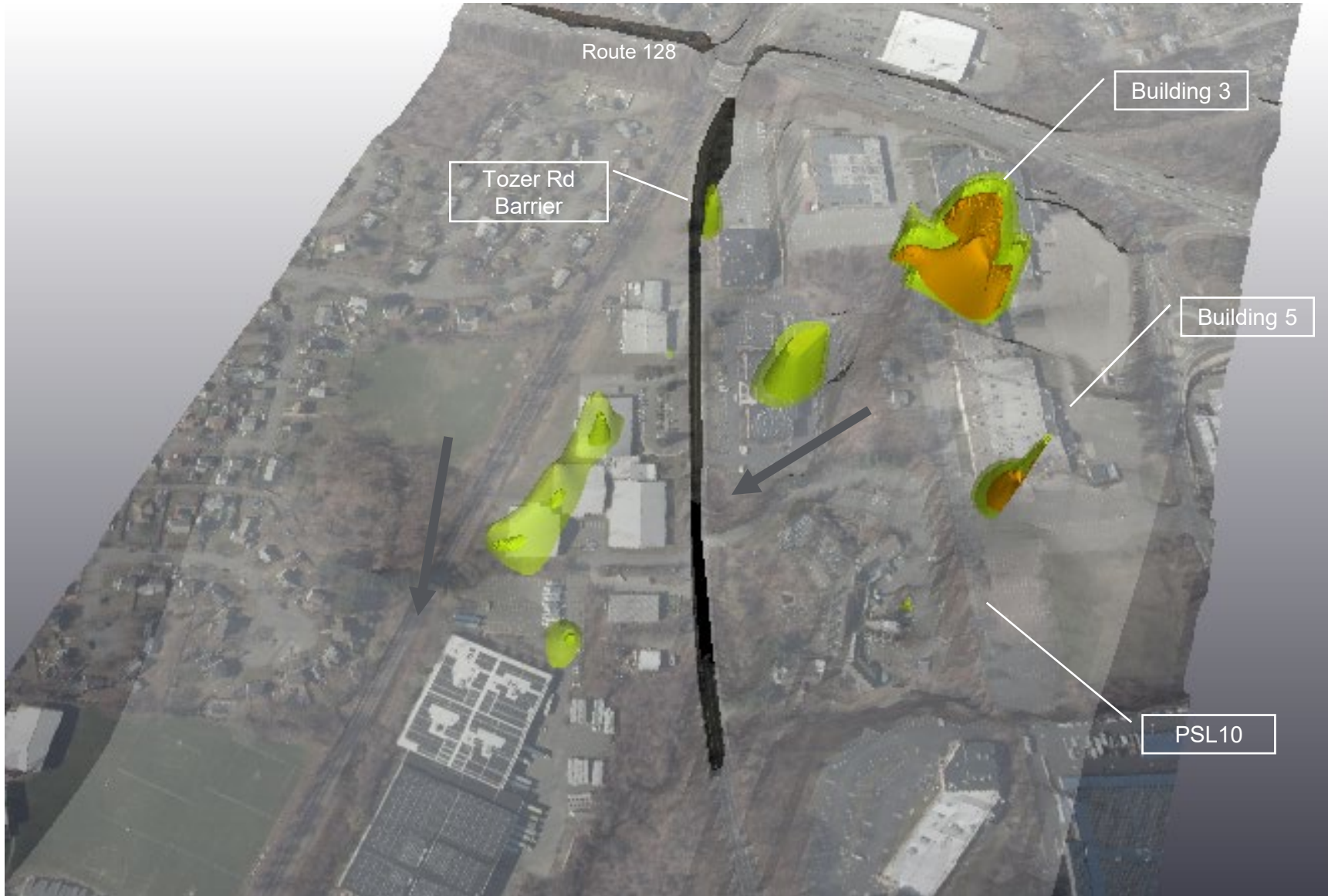




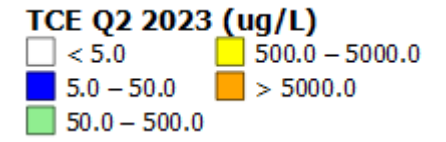
# TCE (500 ug/L)



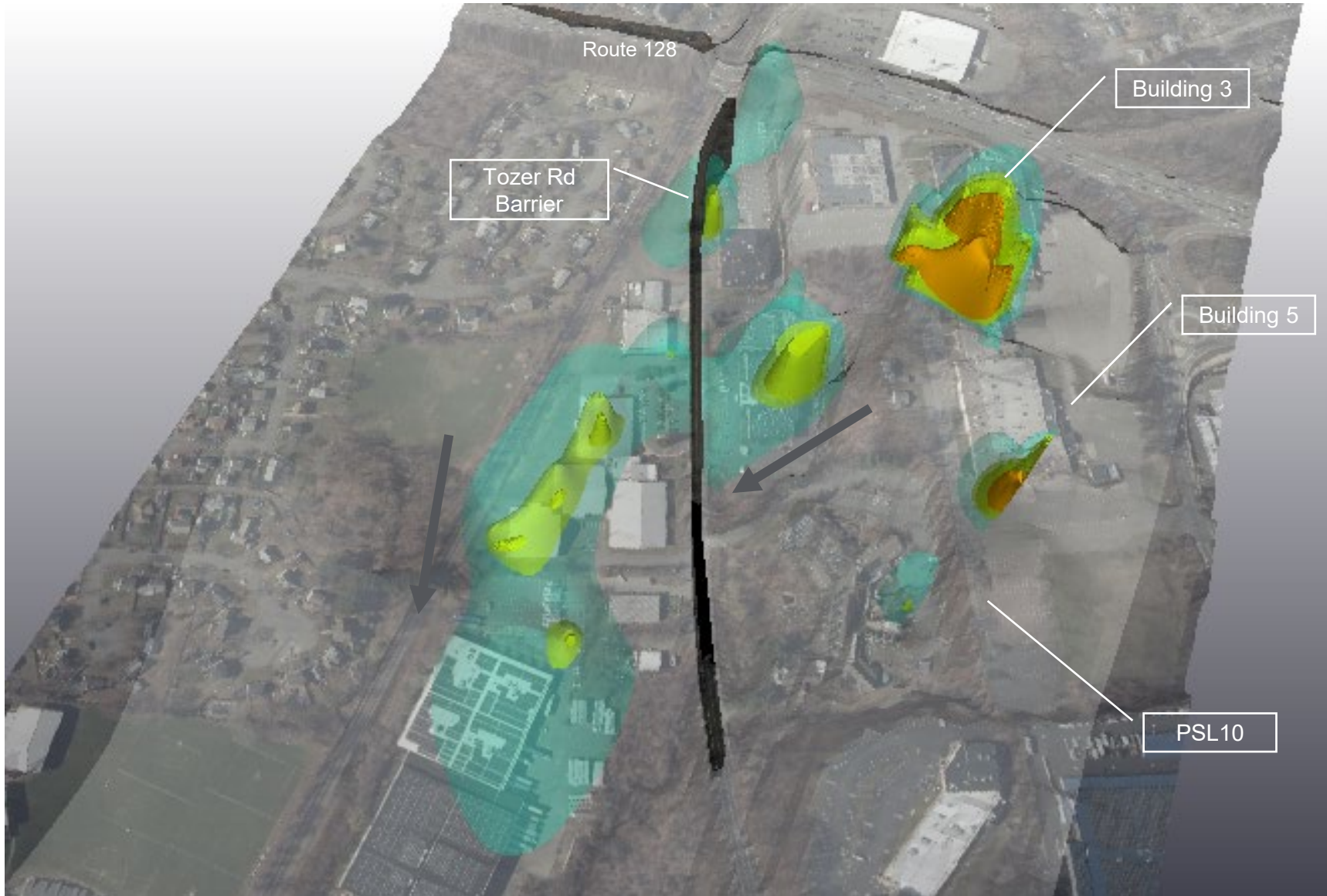
← Overburden groundwater flow direction



# TCE (50 ug/L)



← Overburden groundwater flow direction





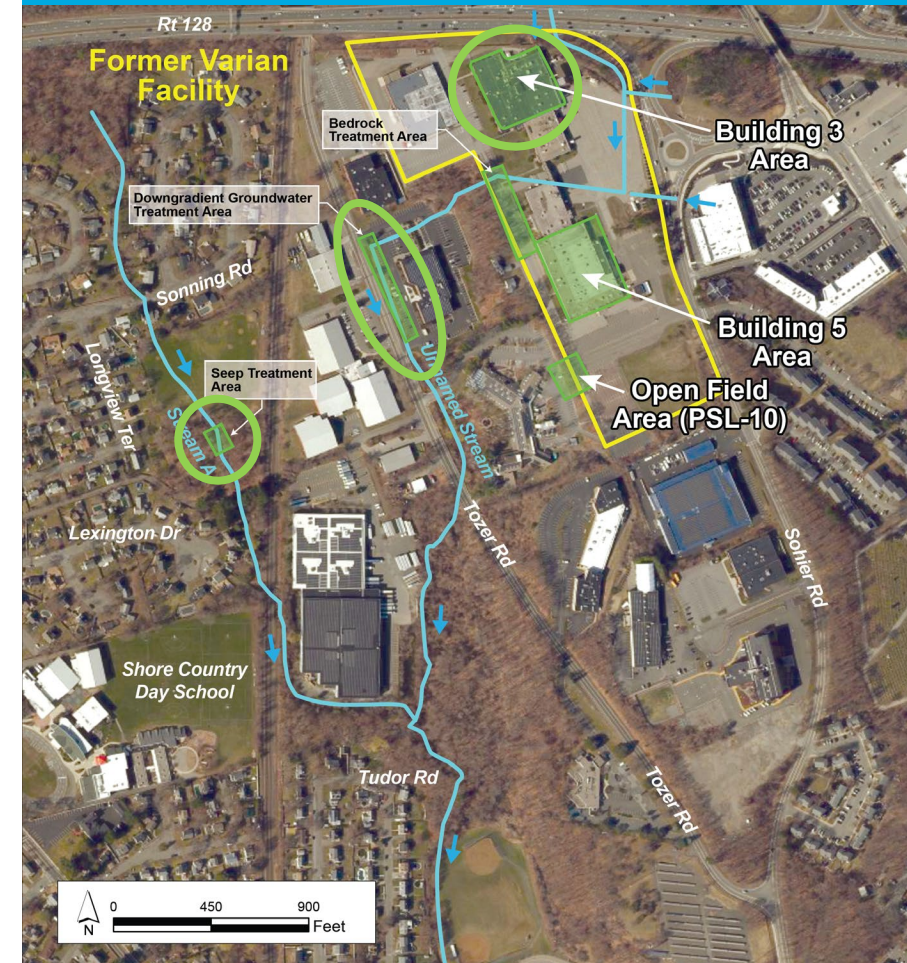
# Response to Comments

## Revised Phase III Remedial Action Plan

## Phase IV Remedy Implementation Plan,

### Part 1

- Comments received from MassDEP, Sage Environmental, and one business owner
- Public comments and responses were submitted to MassDEP July 27, 2023
- Available online at:  
<https://eeaonline.eea.state.ma.us/EEA/FileViewer/FileViewer.aspx?fileEncryptionId=hhgibaie>
- Topics:
  - Conceptual site model
  - Energy usage for thermal treatment
  - Phase IV technical comments



# Upcoming Submittals and Events

## ➤ Submittals

- August 21 – Release Abatement Measure Status Report (groundwater sampling and SVE systems)
- September 7 – Immediate Response Action Completion Report (Longview Drive Property)
- September 20 – Phase IV Remedy Implementation Plan, Part 2

## ➤ PIP Meeting - Phase IV Remedy Implementation Plan, Part 2

- Proposed for November 14 or 15
- Followed by 20-day public comment period

## ➤ Upcoming TAG Meetings

- September 19
- October 17
- November or December?





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