EPA United States Environmental Protection Agency

Meeker Avenue Plume Superfund Site

Meeker Avenue Plume CAG Meeting

Wednesday, April 8, 2026

John Brennan
Remedial Project Manager
EPA Region 2

Meet EPA's Team

John Brennan – Remedial Project Manager

Anna Drabek – Community Involvement Coordinator

Stephanie Vaughn – Mega-Projects Section Supervisor

Site Description

•The Meeker Avenue Plume Superfund site spans several city blocks in the Greenpoint / East Williamsburg area of Brooklyn, New York.

•The soil, soil gas and groundwater at the site are contaminated with chlorinated volatile organic compounds. Trichloroethylene, or TCE, and tetrachloroethylene, or PCE, are considered to be the primary contaminants of concern for vapor intrusion at the site.

•The EPA has not yet determined the full nature and extent of contamination.

•Vapor intrusion is a major health concern.

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Meeker Avenue Plume Superfund Site

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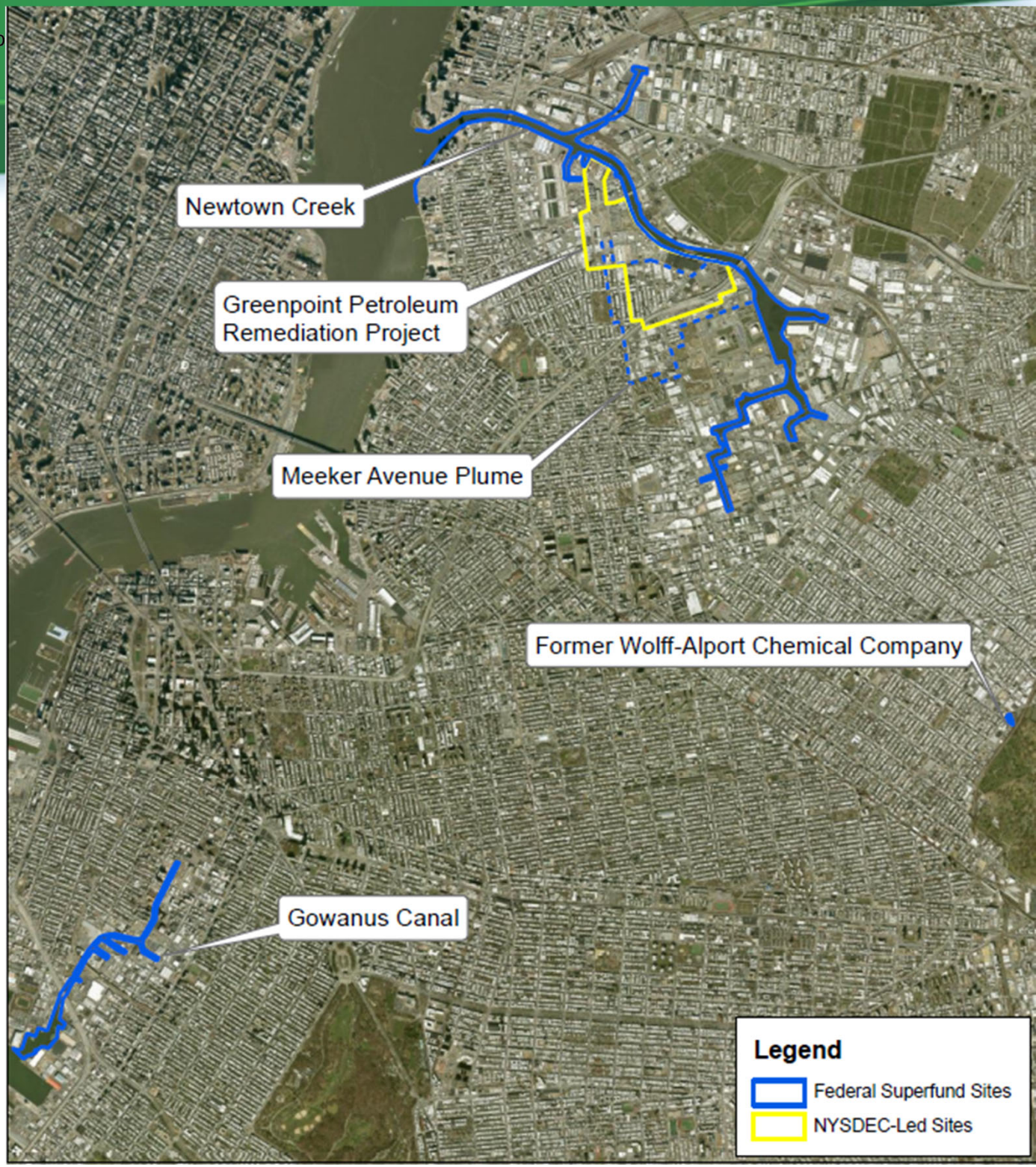
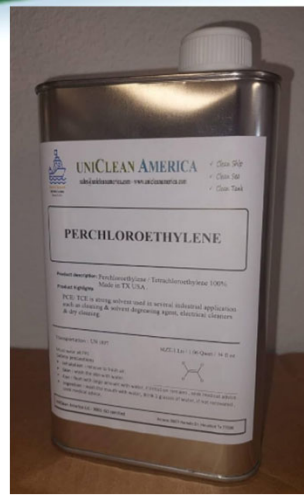
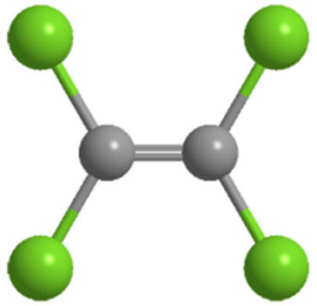
Federal Superfund Sites in Brooklyn & the Greenpoint Petroleum Remediation Project



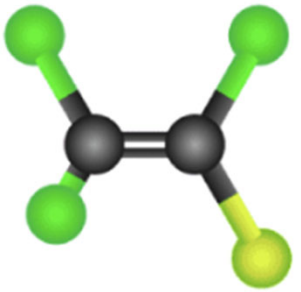


Contaminants of Concern

- Volatile Organic Compounds (VOCs)
  - **Tetrachlorethylene (PCE)**
    - Non-flammable colorless liquid with a sweet odor
      - Odor threshold – 1 part-per-million (ppm)
    - Specific gravity - 1.62 *Heavier than water*
    - Dry cleaning solvent

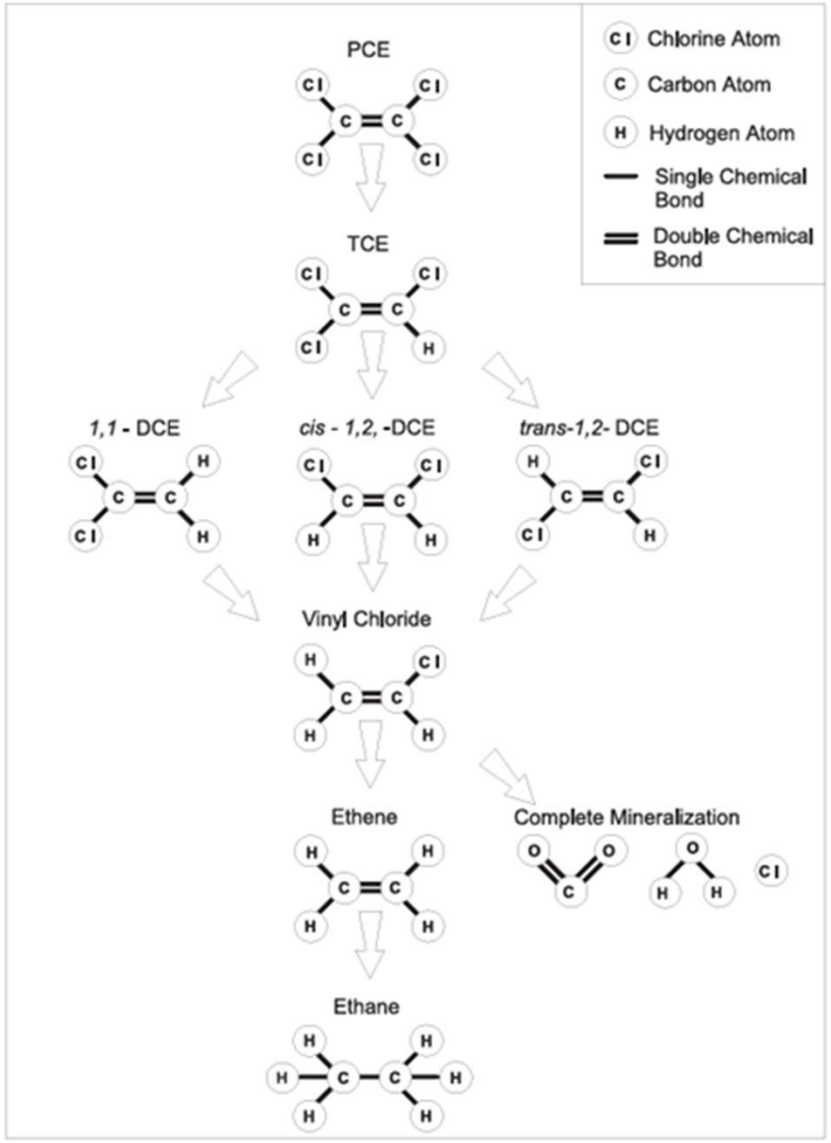


  - **Trichlorethylene (TCE)**
    - Non-flammable colorless liquid with a sweet odor
      - Odor threshold – 28 ppm
    - Specific gravity - 1.47 *Heavier than water*
    - Common metal degreaser



Tetrachlorethylene (PCE) Biodegradation Pathway –

Reductive Dechlorination



(Source: Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water, EPA/600/R-98/128, September 1998)

The Process of Vapor Intrusion

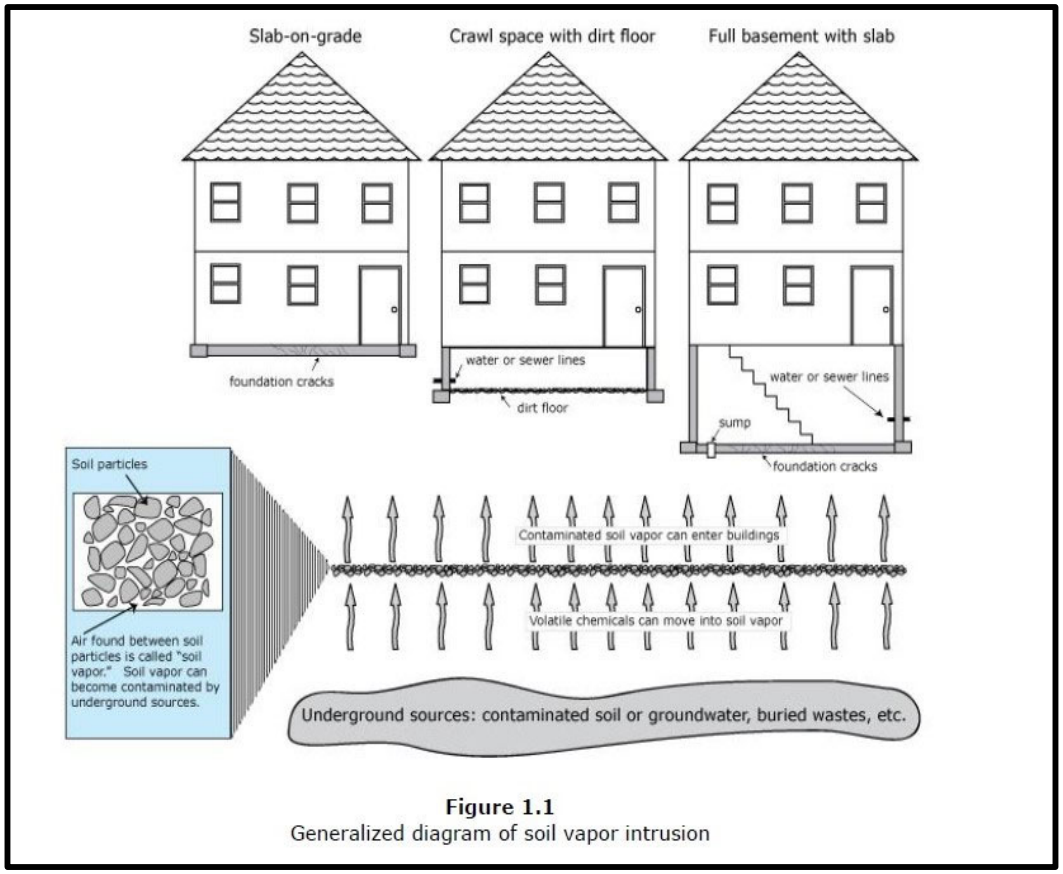
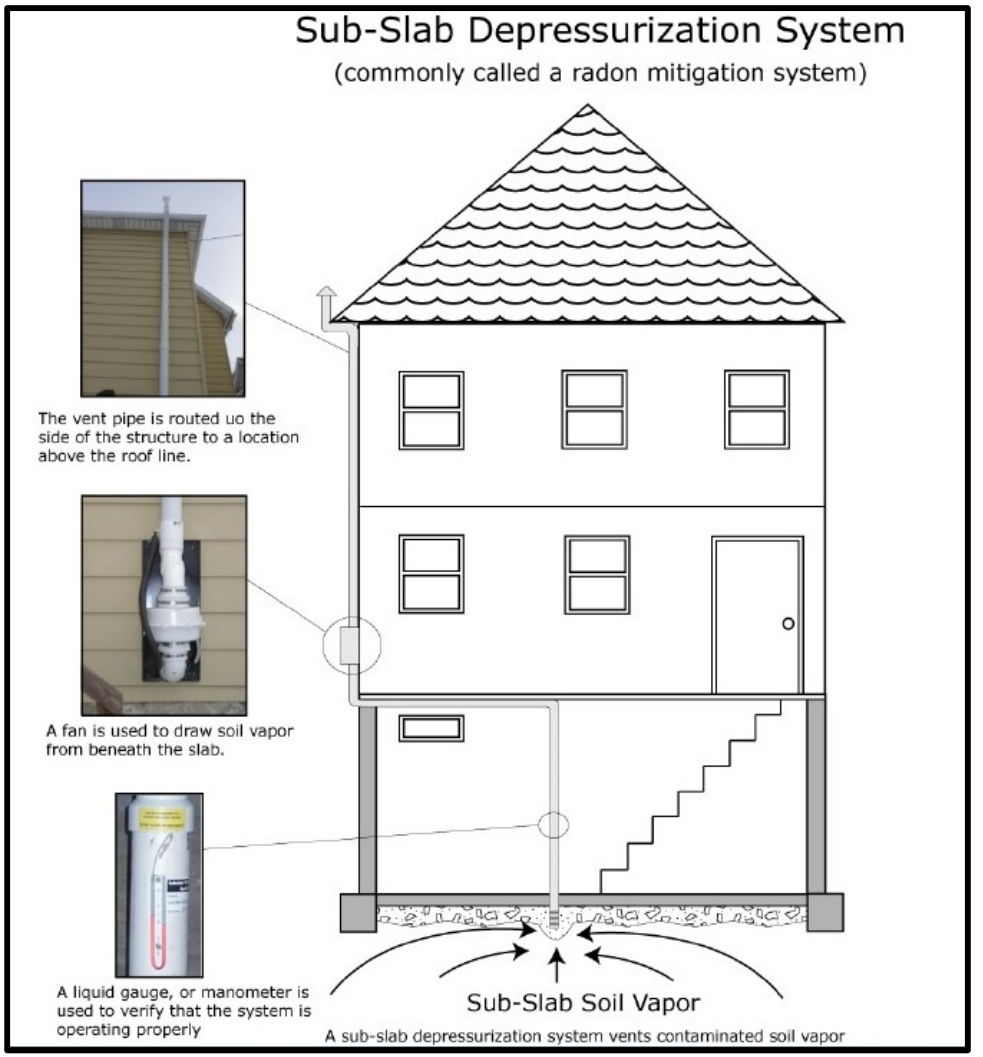


Figure 1.1
Generalized diagram of soil vapor intrusion



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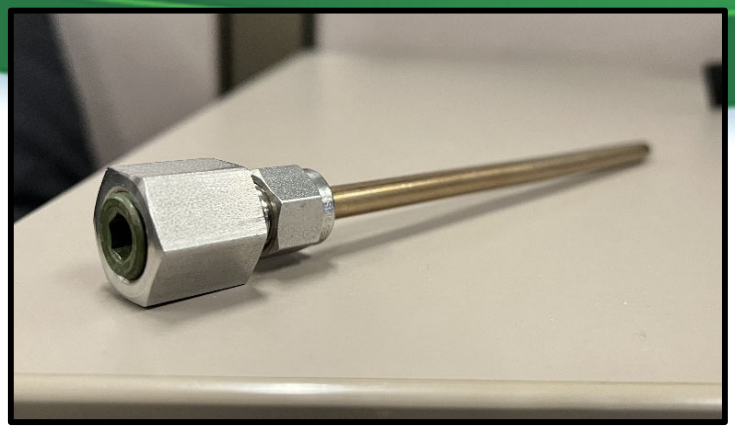


Vapor Intrusion Sampling – Day 1

- EPA arrives at your home at a pre-scheduled time
- EPA inspects the residence for any potential background sources and if needed, temporarily removes them
- EPA installs a sub-slab soil gas port through the floor of the lowest level space
  - The port is smaller than the size of a quarter
  - Typically, only one port is needed per home
  - The port is cemented through the slab / floor
  - The port can be removed once sampling is completed, and the floor will be restored

- **Total expected time: 1.0-1.5 hours**

Vapor Intrusion Sampling – Day 2

- EPA returns to the residence to begin the sample collection process
- Sampling canisters are placed throughout multiple locations to collect samples from:
  - Sub-slab soil gas ports
  - Indoor air from the lowest, or two lowest, levels (for example, basement and first floor)
  - Outdoor (ambient) air
- Samples are collected over a 24-hour period
- **Total expected time: 1.0-1.5 hours**

Vapor Intrusion Sampling – Day 3

- EPA returns to the residence to collect the sampling canisters and deliver them to the laboratory for analysis
- Property owners and tenants will be notified of the results once they are available
- **Total expected time: 0.5 hour**

Vapor Intrusion Sampling
Winter 2025 / 2026

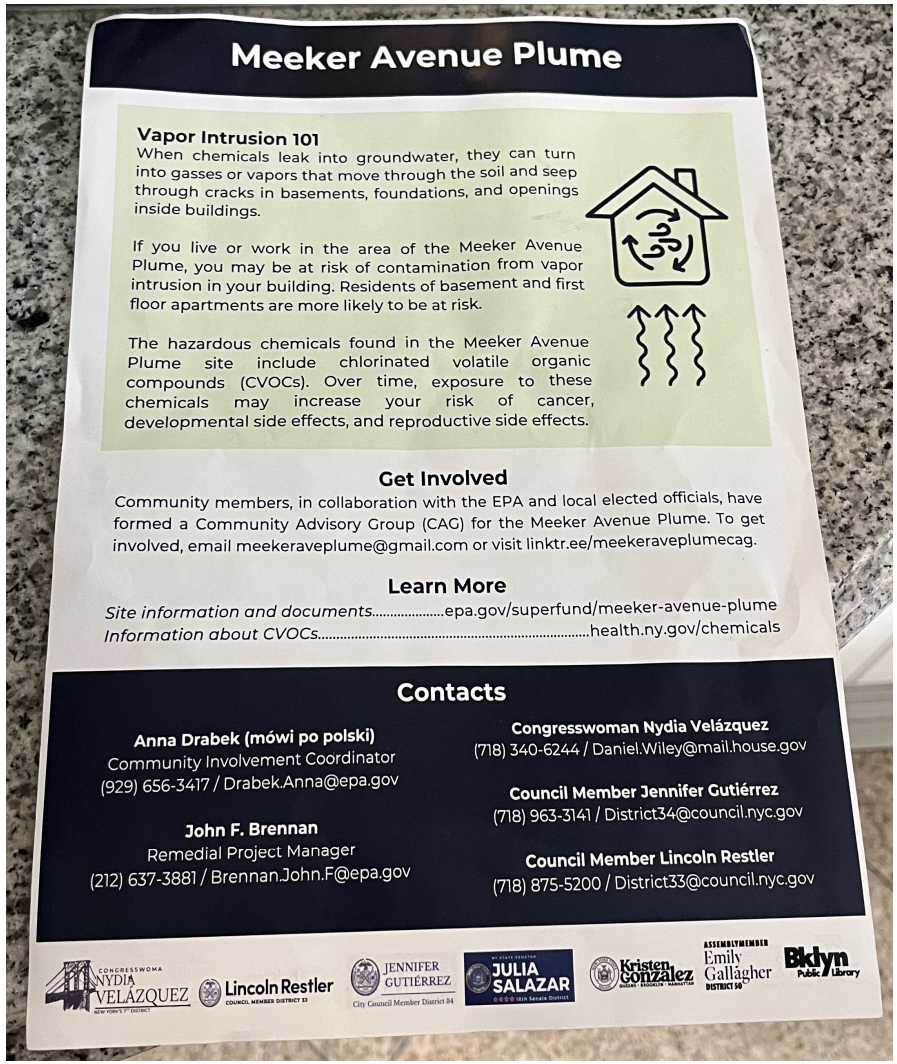
Most Recent Testing

- Week of December 8, 2025 (completed)
- Weeks of March 2, March 9 and March 23, 2026 (completed)
- **Planning for the 2026/2027 Winter Heating Season will begin in September**

Vapor Intrusion Outreach

- EPA Fact Sheets
- Monthly Update Emails
- Flyer Campaigns
  - Elected Official Support
- Social Media
- Media Interviews
- Interest Survey
  - Elected Official Support
- Door to Door
  - CAG
  - Elected Official Support
- Community Meetings
- New Homeowner Outreach
- Word of Mouth - Friends / Neighbors

Word is Getting Around !



Found at the Mail Drop Area Inside Multi-Unit Building Tested by EPA

Found in a Common Area Inside Building Tested by EPA

Vapor Intrusion Sampling
Winter 2025 / 2026

- December 2025 – 7 Properties Tested
  - 7 Residential Properties
  - Sub-Slab Soil Gas Samples from 5 Locations

    - *Results were verbally provided to property owners in March 2026*
    - *Written results / data letters are in review*

Vapor Intrusion Sampling Winter 2025 / 2026

- March 2026 – 18 Properties Tested**
  - 14 Residential Properties
  - 3 Mixed - Use Properties
  - 1 Commercial Property

    - *Results will be reported to property owners and tenants 90 days after the samples have been submitted to the laboratory (late - June 2026)*

Vapor Intrusion Sampling Site-Wide Summary 2008 - Present

- NYSDEC (2008 – 2024)
  - 167 Individual Properties
- EPA (Nov. 2022 – Mar. 2026)
  - 80 Individual Properties
  - PS-110
  - Cooper Park Houses

259 total buildings evaluated to date

- 2025 / 2026 Winter Heating Season – 25 Properties Tested
  - 21 Residential / 3 Mixed-Use / 1 Commercial

Continental Safe Haven Shelter

- March 12-13, 2025, EPA conducted vapor intrusion testing at the Continental Safe Haven Shelter (83 Apollo Street)
  - EPA submitted data to NYCDEP OER on July 14, 2025, followed by a conference call on July 28, 2025
  - EPA submitted a letter to NYCDEP OER on August 4, 2025, recommending:
    - Continued operation of mitigation system
    - Soil gas and indoor air sampling during the 2025-2026 winter heating season
- EPA presented to the Meeker CAG on September 10, 2025
- EPA provided additional information to Brooklyn Community Board 1 via email on October 27, 2025
- Property owner's consultant submitted report dated March 19, 2026, to EPA.
  - Vapor intrusion testing February 3-4, 2026

Groundwater Data Analysis

- Data Gap Analysis w/ EPA's Consultant – March 16, 2026
  - Existing Monitoring Well Network: 450 wells
  - Groundwater Sampling Events to Date
    - Aug. to Dec. 2023 / Oct. to Nov. 2024 / May 2025 / Oct. 2025
- Findings to Date:
  - PCE and TCE are primary contaminants of concern in groundwater
    - Other contaminants were evaluated
  - Good understanding of the groundwater plume boundaries
    - Limited delineation is still required
  - No evidence that groundwater plume has reached Newtown Creek

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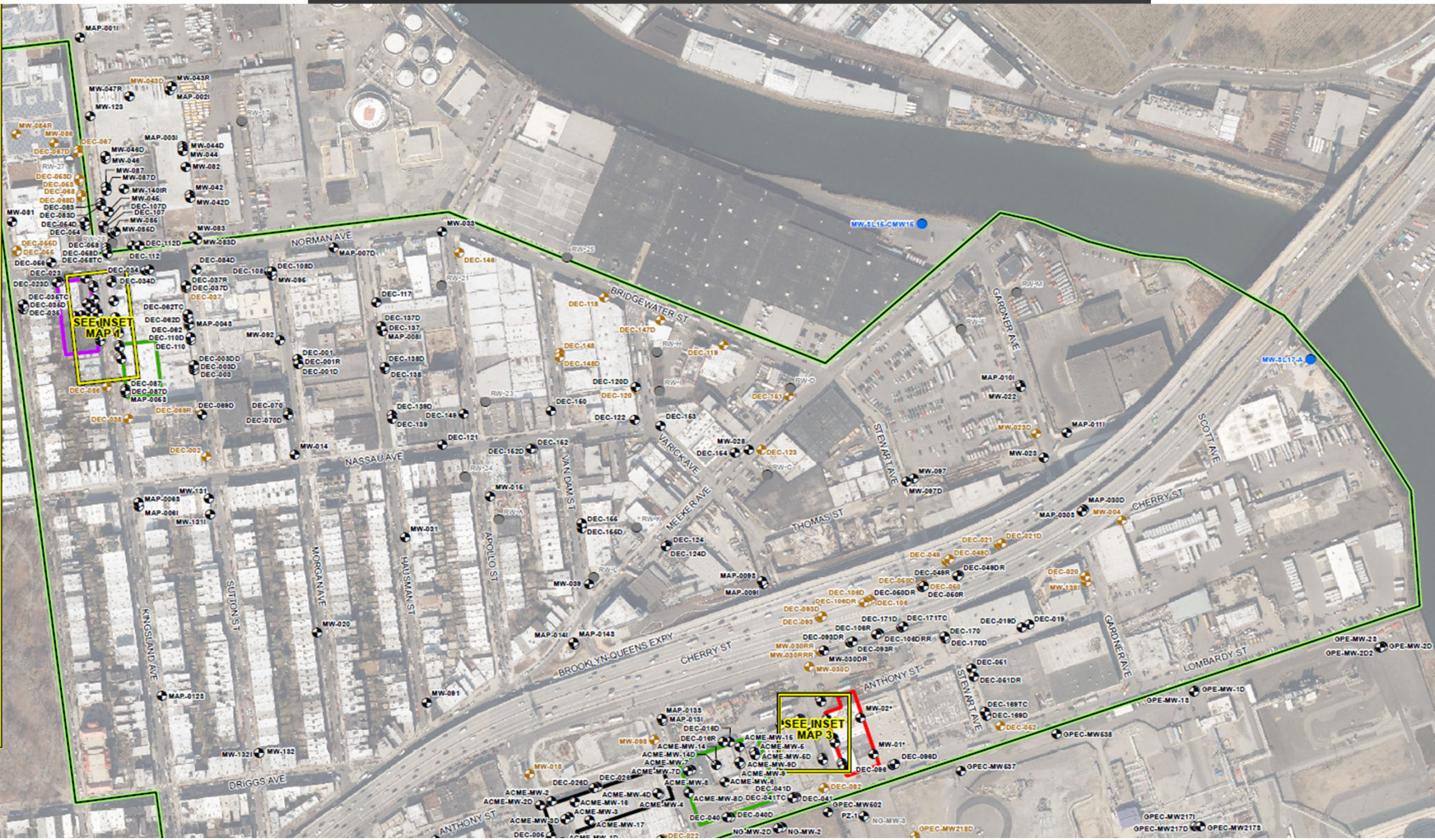
Monitoring Well Network - North of BQE



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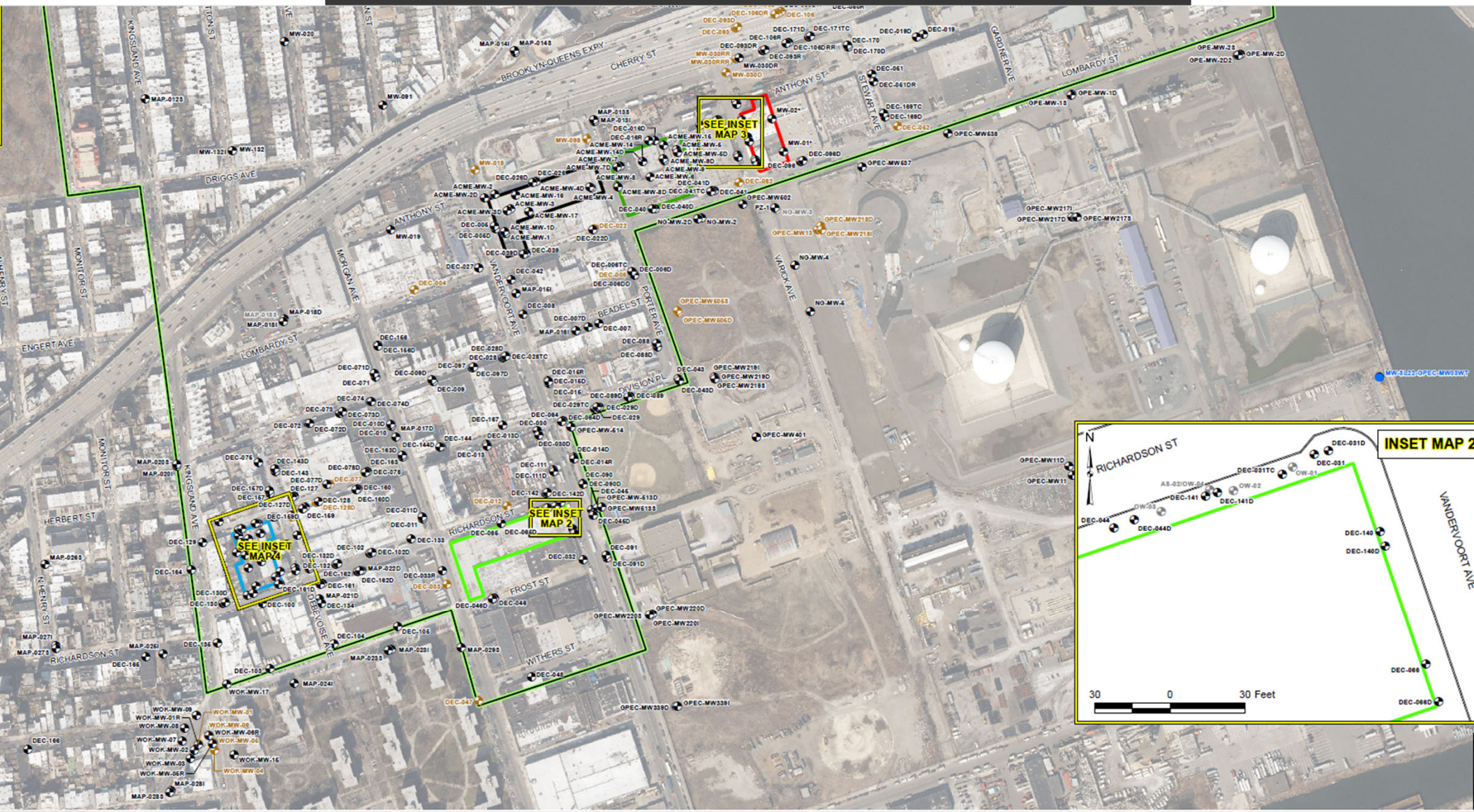
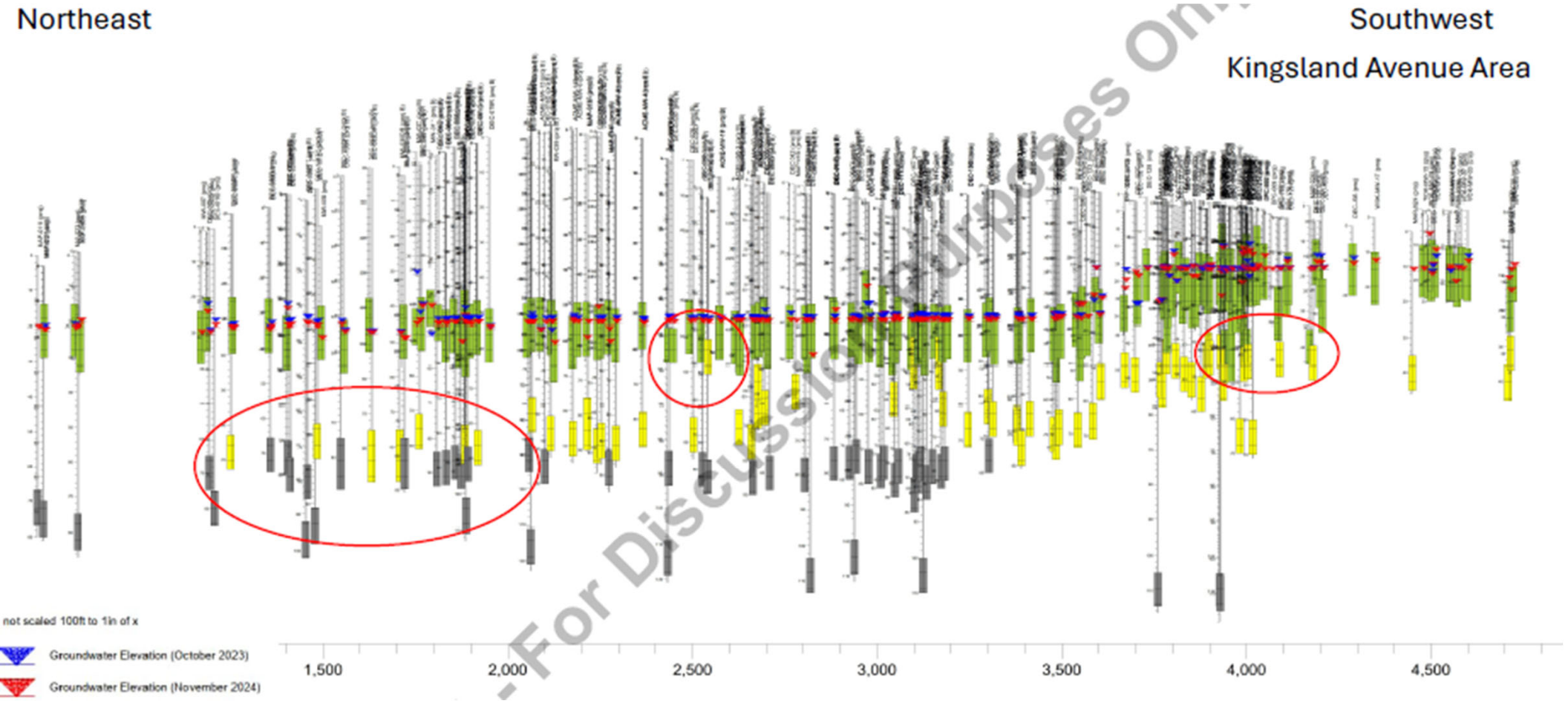
Monitoring Well Network - South of BQE



Hydrogeologic Analysis



DRAFT IMAGE – For Discussion Only / Will Likely Change

Future Site Plans (Groundwater)

- Starting June 2026
  - Additional Groundwater Sampling (~100 wells)
  - Geophysical Logging (~20 wells), Existing MW Log Review and Possible Map Revisions
  - Monitoring Well Survey
- Groundwater Data Evaluation
- Data Summary Report
- Remedial Investigation Report for Groundwater
- Interim Focused Feasibility Study
  - Focused on Source Area(s) of Contamination
  - Additional Targeted Sampling to be Conducted Prior to Development of Alternatives

Questions

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