



# Community Advisory Council Environmental Update

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Environmental Protection Division  
April 10, 2025



# Agenda

- Building 197 Demolition and Mercury Remediation
- Groundwater Update – Western South Boundary PFAS/1,4-dioxane Investigation
- 2026 CERCLA 5-Year Review Kick-off





**Crew working on west side of building footprint removing soil/elemental mercury mixture using vacuum guzzler.**



**Example of mercury found inside pipe and then placed inside 55-gallon drum for disposal.**



**Mercury  
most likely  
came from  
pipe above.**





**Micro  
beads  
of mercury**







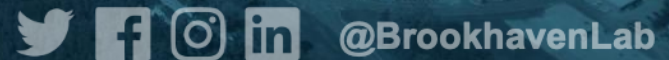
**Larger pool of mercury discovered  
underneath concrete block**





# Results from the 2024-2025 Vertical Profile Wells In the Western South Boundary Area

Groundwater Protection Group  
April 10, 2025

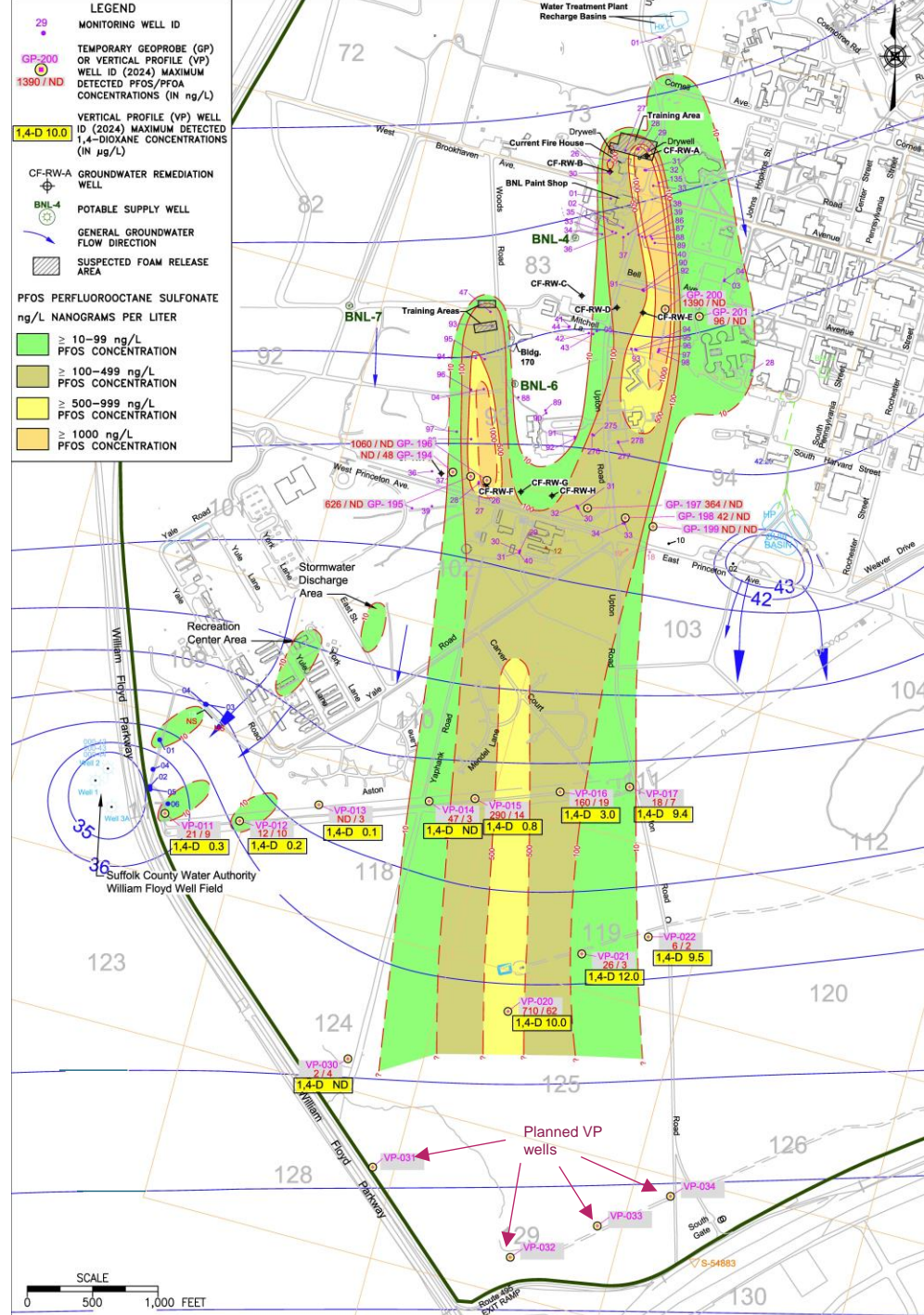




- By December 2024, BNL installed 11 of 15 planned temporary wells to:
  - Characterize the downgradient and western extents of the Current Firehouse and Building 170 PFAS plumes
  - Continued characterize PFAS and 1,4-dioxane within the capture zone of the SCWA William Floyd Well Field
  - Characterize extent of 1,4-dioxane in the Western South Boundary area
- Remaining four temporary wells were completed in Late 2024 and 2025

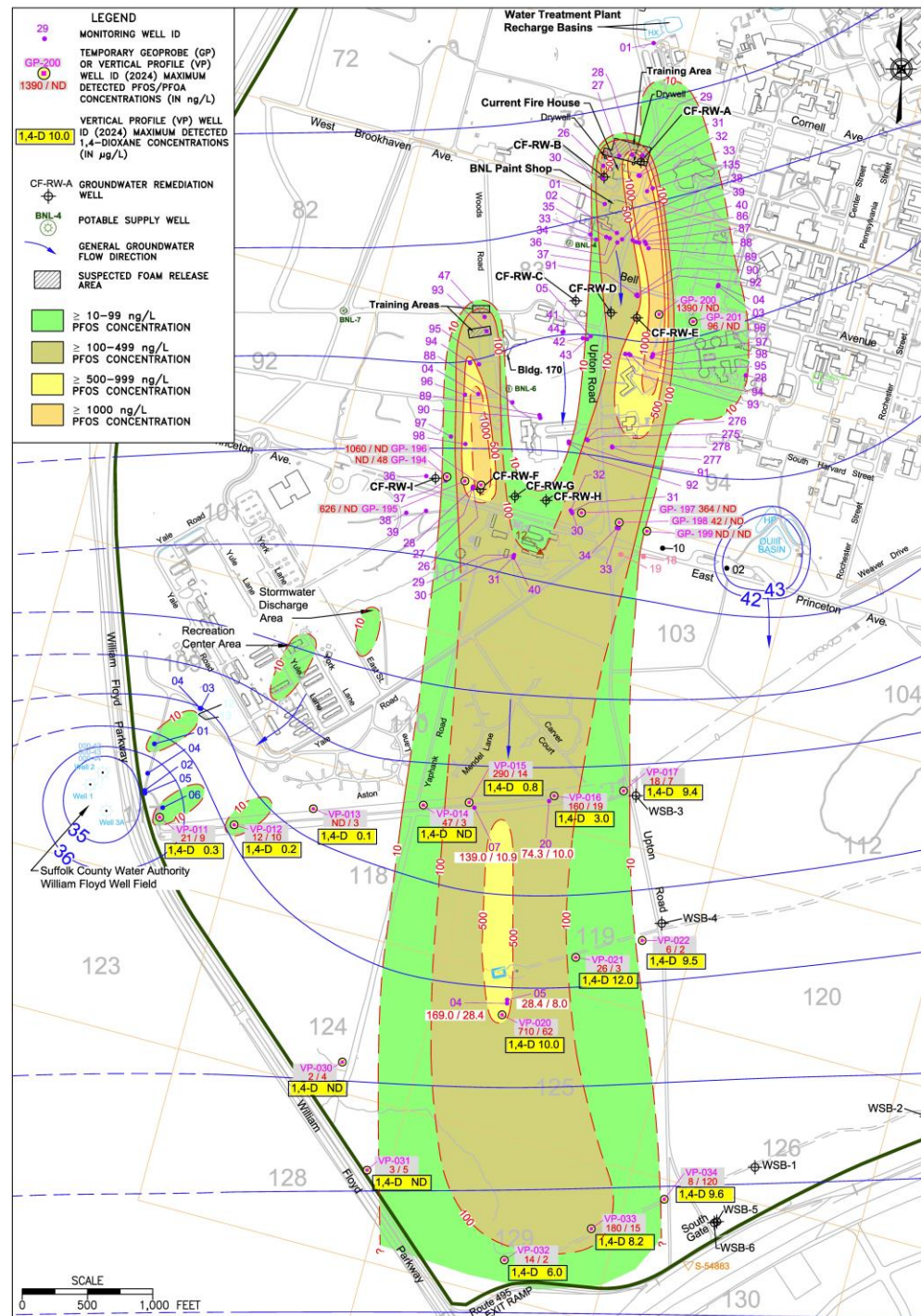


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# Summary of Results

- PFAS contamination from the Current Firehouse/Building 170 source areas extends to the boundary
  - Maximum PFOS detected at 180 ng/L in VP-033
  - Maximum PFOA detected at 120 ng/L in VP-034 (This result may be suspect)
- Low-level PFAS concentrations in temporary wells installed downgradient of the Rec. Center area were consistent with earlier results
- 1,4-Dioxane contamination extends to the boundary
  - Maximum 1,4 Dioxane detected at 9.6 µg/L in VP-034
  - Only trace levels in the temporary wells closest to the Wm. Floyd well field
  - Extent was expected based upon previous monitoring of on-site and off-site WSB monitoring wells









# 2026 CERCLA Site-Wide Five Year Review

Groundwater Protection Group  
April 3, 2025





# CERCLA Five-Year Review Process

- Required by EPA and NYSDEC for remedies that do not allow for unlimited use or unrestricted exposure to contaminants.
- The intent is to evaluate the implementation and performance of cleanup remedies and whether they continue to remain protective of human health and the environment.
- Previous site-wide reviews issued: 2006, 2011, 2016, and 2021.

# CERCLA Five-Year Review Process

## First Steps:

- Public Notice: Will be published in Newsday the Week of April 14<sup>th</sup>.
- An email distribution to CAC members requesting participation in a survey:
  - *What is your overall impression of BNLs cleanup and do you feel well informed about the cleanup activities and progress?*
  - *Are there any specific aspects of the cleanup that you feel should be of focus during the review? (e.g.: RODs, cleanup goals, community input, etc.)*
  - *Do you feel confident in BNL and DOE's management of the long-term cleanup operations for the site?*
  - *Do you have any comments, suggestions, or recommendations regarding BNL/DOE's management and communication of the cleanup?*



# Recommendations and Progress Since the 2021 Site-Wide Review

- Optimize three VOC groundwater treatment systems to ensure the cleanup goals are met (reach drinking water standards by 2030)
  - OU III Middle Road/South Boundary: Completed installation of four vertical profile wells and three permanent monitoring wells, obtained geologic data where gaps existed, updated the geologic framework and groundwater model, and ran simulations for the installation of additional extraction wells.
  - OU III Building 96: Completed the source area optimization and continuing to actively treat and monitor groundwater.
  - OU VI Ethylene Dibromide: Completed the installation and began operating two new deep extraction wells.
- Complete Construction and begin operation of PFAS groundwater treatment systems at firehouse source areas, and prepare RI/FS Work Plan for OU X (PFAS & 1,4-dioxane)
  - Current and Former Firehouse PFAS groundwater treatment systems operational as of October 2023 and January 2024.
  - Draft OU X RI/FS Work Plan approved by regulators.

# Next Steps:

- Conduct survey of CAC
- Perform site inspections during summer 2025
- Perform interviews with regulators
- Draft to regulators in January 2026