Environmental Updates

Community Advisory Council
February 13, 2020

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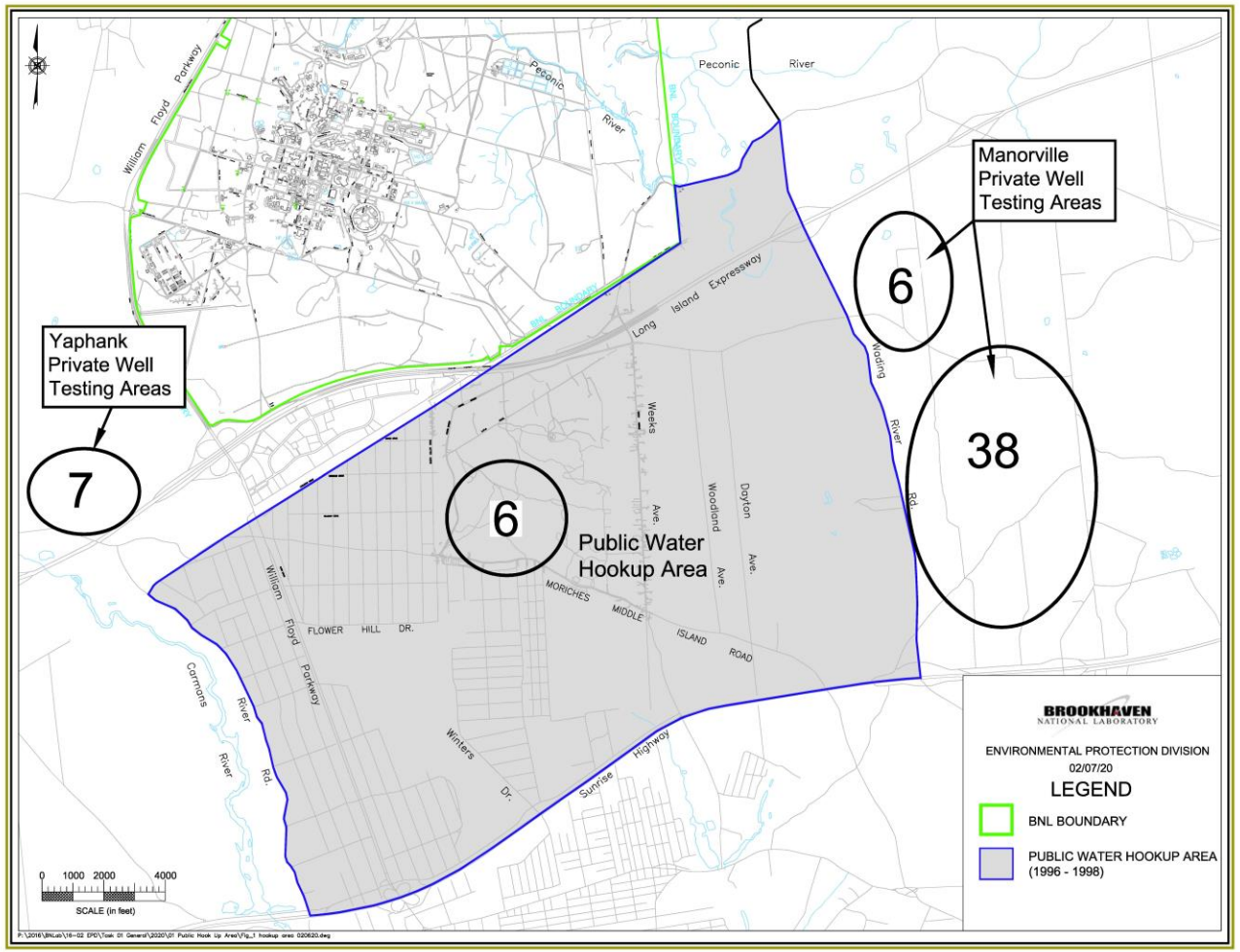
Testing of Private Wells for PFAS and 1,4-Dioxane

- SCDHS originally identified 97 properties downgradient of BNL that potentially had private water supply wells
  - SCDHS identified 14 additional properties; bringing the total to 111
    - In April 2019, BNL and Suffolk County established a Technical Services Agreement
      - BNL provides funding and analytical laboratory for PFAS analyses
      - SCDHS is responsible for sampling the wells and 1,4-dioxane analyses
    - Sampling started May 6, 2019
- In November 2019, SCDHS identified 50 additional properties
  - In December 2019, BNL and Suffolk County agreed to modify the Technical Services Agreement to account for the additional wells
    - Contract was finalized on January 24, 2020
    - Agreement extends to March 31, 2020
  - Letters were sent to property owners during the week of February 3, 2020

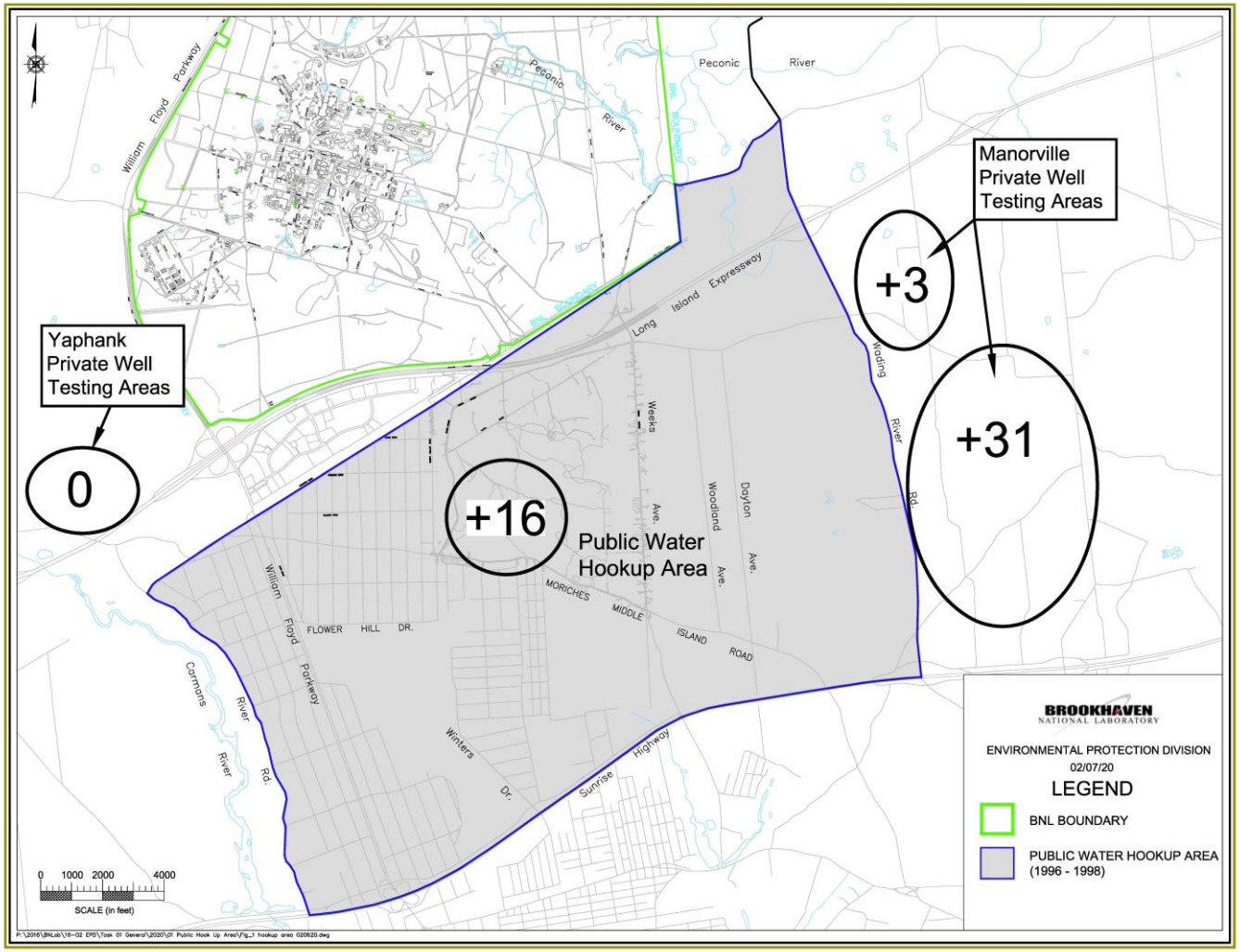
Status of the First 111 Properties

- 57 properties have been sampled (total **59 wells**)
- 25 properties have not been sampled:
  - Declined the offer (10)
  - Not responded (15)
- 21 properties found to be connected to public water
- 8 properties were vacant, unoccupied or have no domestic well



Number of Properties Sampled in Each Area

50 Additional Properties to Be Evaluated



Number of Additional Properties to be Evaluated in Each Area

Results for the 59 Private Supply Wells

PFOS/PFOA

- No detections of combined PFOS & PFOA greater than(>) 70 ng/L HAL
- No PFOS or PFOA detected in 29 wells
- PFOA detected in 30 wells
  - 3 wells had PFOA >10 ng/L proposed standard
    - PFOA concentrations were 11 ng/L, 12 ng/L, and 23 ng/L
  - 17 of the 30 wells had trace (<2 ng/L) levels of PFOA
- PFOS detected in 6 wells. All were less than(<) 10 ng/L proposed standard
  - Maximum PFOS concentration was 6 ng/L

1,4-Dioxane

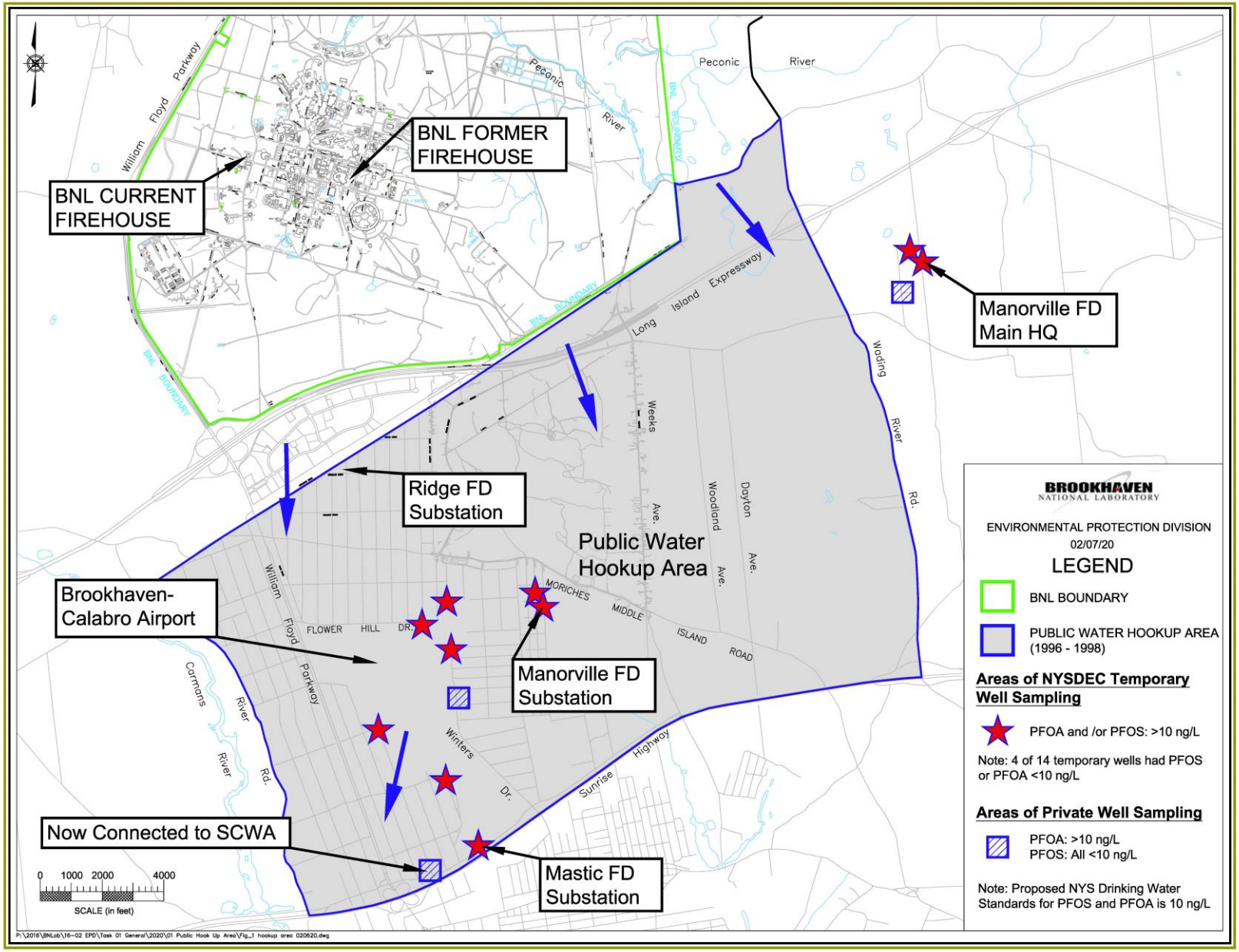
- No detections of 1,4-Dioxane >1 µg/L proposed standard
- 1,4-Dioxane detected in 8 wells (Results for 3 wells are pending)
  - Maximum concentration was 0.4 µg/L (detection limit is 0.1 µg/L)

NYSDEC PFAS and 1,4-Dioxane Characterization

- During June-July 2019, NYS installed 14 temporary wells to collect multiple samples from the shallow groundwater (0 to ~50 feet below the water table)
  - Brookhaven-Calabro Airport (6 wells installed)
  - Manorville FD HQ (3 wells)
  - Manorville FD Substation (3 wells)
  - Mastic FD Substation (2 wells)

  *Note: Wells planned for Ridge FD Substation could not be successfully installed due to the local geology
- PFOS and PFOA were detected >10 ng/L at all four properties
  - Brookhaven-Calabro Airport: PFOS up to 4,340 ng/L; PFOA up to 638 ng/L
  - Mastic FD Substation: PFOS up to 501 ng/L; PFOA up to 19.1 ng/L
  - Manorville FD HQ: PFOS up to 61.4 ng/L; PFOA up to 54.1 ng/L
  - Manorville FD Substation: PFOS up to 25.6 ng/L; PFOA up to 39 ng/L
- 1,4-Dioxane detected >1 µg/L at Manorville Substation
  - Maximum concentration was 1.1 µg/L
- NYS provided the results to the property owners
  - Link to NYSDEC report: https://www.dec.ny.gov/data/DecDocs/152263/Report.HW.152263.2019-11-26.Initial%20Investigation%20Report.pdf

NYSDEC & Private Wells With PFOS or PFOA >10 ng/L



Continued PFAS and 1,4-Dioxane Groundwater Characterization at BNL

Phase 4: Extensive sampling of on-site and off-site wells and off-site treatment systems

- BNL recently started a comprehensive “baseline” characterization of PFAS and 1,4-dioxane
  - Collecting samples from on-site and off-site monitoring wells and off-site treatment systems
    - ~350 on-site and off-site monitoring wells
    - 27 off-site extraction/treatment wells
    - Influent and effluent from 5 off-site groundwater treatment systems

Phase 5: Detailed characterization of the two BNL firehouse PFAS plumes

- Detailed source area characterization using temporary wells, followed by the installation of permanent wells for routine surveillance
- Will provide the data needed to design anticipated treatment systems for the two PFAS plumes

CERCLA Five-Year Review

- Five-year review required when contaminants remain
  - Last review issued 2016
- Evaluate implementation and performance of remedies and whether they continue to remain protective
- Survey questions will be emailed to CAC members week of February 17th
- March meeting will include a review of the Five-Year Review process and discussion on CAC input
- Questions posed to CAC in 2015:
  - What is your overall impression of BNL's 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 particular focus during the review? (e.g. ROD's, cleanup goals, community input, etc.)
  - Do you feel confident in BNL and DOEs management of the long-term cleanup operations for the site?
  - Do you have any comments, suggestions, or recommendations regarding BNL/DOE's management and communications of the cleanup?