Groundwater Update
Brookhaven National Laboratory
Community Advisory Council Meeting
May 10, 2018

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Agenda

- Western South Boundary (WSB) Treatment System Modification Status
- Update on Ethylene Dibromide (EDB) Characterization in North Street East Area
- Response to Suffolk County Dept. of Health Services (SCDHS) request for characterization of low level Perfluorinated Compounds (PFCs) detected in BNL Supply Wells
- Cleanup of remaining contaminated soil in former Building 811 area
Western South Boundary Treatment System
Modification Status

- Submit system modification design adding four extraction wells to regulators (late May)
- Begin construction (June)
- Complete construction/begin operation (September)
- Advantages of treating water at OU 3 Middle Road/S. Boundary Building
  - System is scheduled to run until 2026
  - Significant additional treatment capacity
  - Can decommission W. South Boundary Treatment System
  - Flexibility in treated water discharge location
North Street East – Ethylene Dibromide (EDB) Update

- Following January CAC update, EDB concentration in well 000-394 remains above 1 µg/L. The drinking water standard is 0.05 µg/L.
- Installed seven new temporary vertical profile wells to date (three initially planned)
  - EDB concentrations up to 0.46 µg/L
- Continuing to characterize extent of EDB in this area
Perfluorinated Compounds (PFCs)

- Testing in 2017 detected PFCs in three of BNL’s potable supply wells
  - Maximum PFOS/PFOA = 24 ng/L
    - EPA Health Advisory = 70 ng/L
    - Routine testing added to potable water monitoring program in 2018 (earlier results confirmed)

- Planned investigation
  - Several possible sources from 1970s and 1980s identified
    - Firefighting foams
  - Plan submitted to regulators
  - In May/June, temporary wells will be installed to determine distribution of PFCs in supply well source water areas
Former Waste Concentration Facility (Building 811) Remaining Soil Remediation

- Last briefed CAC in January 2017
- Demo and soil cleanup completed in 2016 to help reduce environmental liability risk to soil and groundwater
  - Cesium-137 primary contaminant in soil
  - Closeout Report submitted to regulators October 2016 documenting that the cleanup goals were met
- One area of surficial contamination to north of excavation remains (not in original scope). Area is radiologically posted, under institutional controls
Planning underway to excavate remaining areas exceeding the residential cleanup goal of 23 pCi/g for Cs-137

Excavation/disposal scheduled for this summer

Planning for parking area/cap once cleanup complete
Questions?