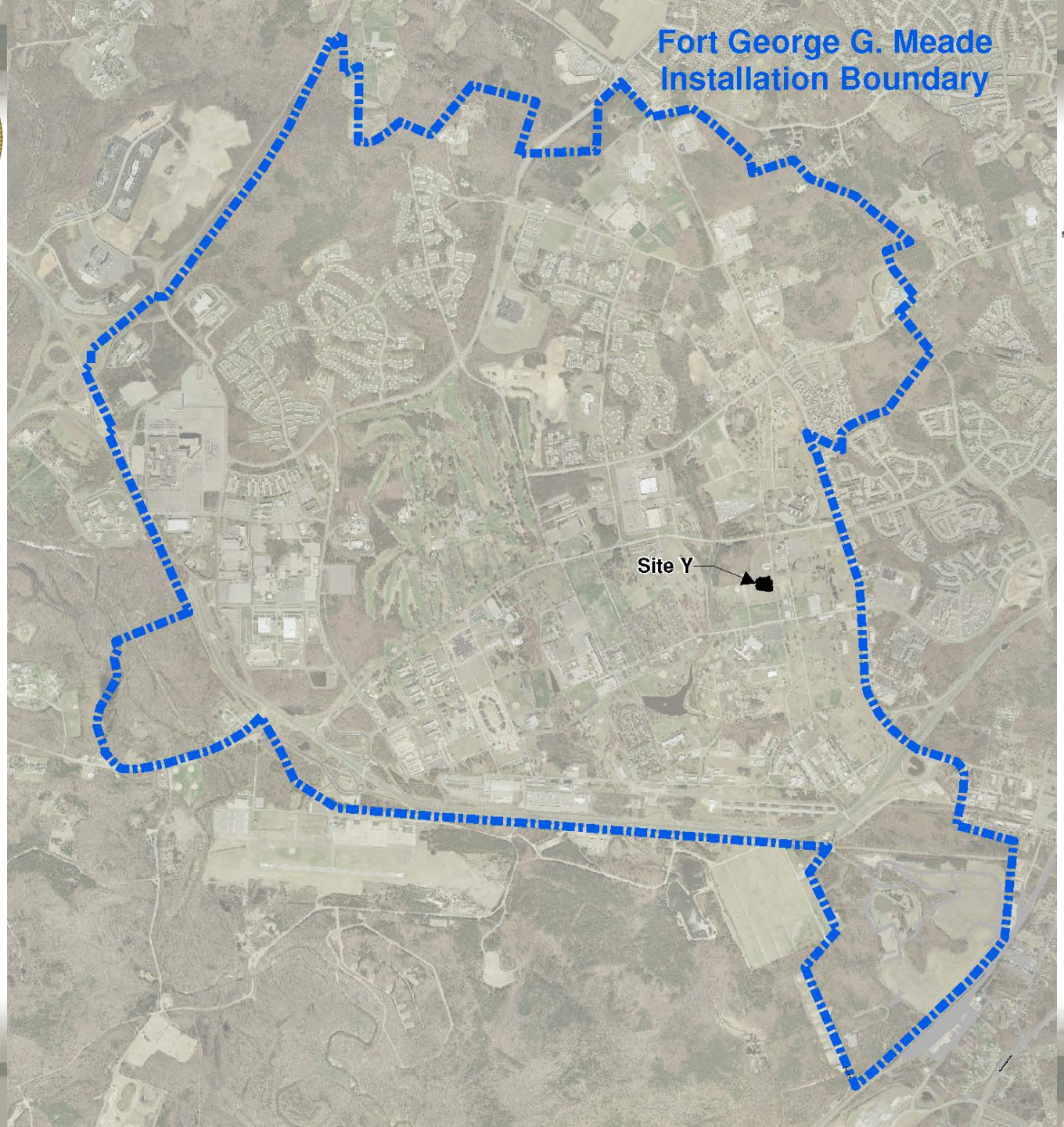
Fort George G. Meade

Restoration Advisory Board Meeting
July 9, 2015

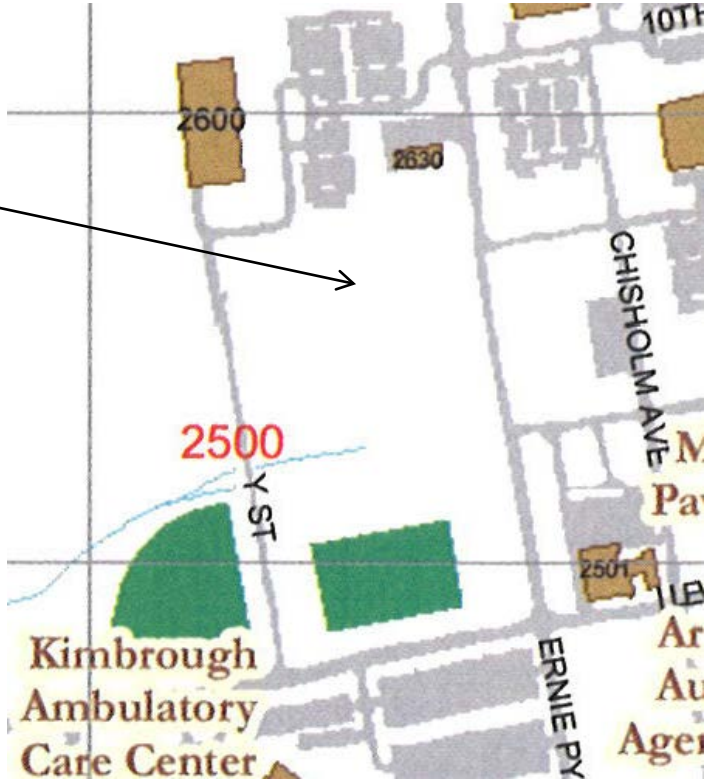
Site Y

Site Y Location on Ft Meade



Site Y

- Located east of Y Street.
- Last RAB update was 15 November 2012.



Site History

- One-acre uncontrolled dumpsite
- Demolition debris and soil from an unknown source were placed on Site Y between the years of 1999 and 2001.
- Identified as an Area of Interest (AOI) when waste was observed on the ground surface in 2012.

Site History (continued)

- 14 May 2012, MDE Site Complaint Number SC-O-12-SW-251 issued by MDE Land Management Administration Solid Waste Program.
- 19-20 June 2012, U.S. Army Installation Command completed Site Y Waste Pile Characterization
  - concluded there is no toxicity or Resource Conservation and Recovery Act (RCRA) waste on site and
  - no human health risk except arsenic exceeded its Regional Screening Level (RSL).

sample locations in purple.

Site History (continued)

- March 2013 Site Y Cleanup Plan (Plexus).
- 29 April 2013, soil samples characterized for waste disposal - non-hazardous waste.
- July - August 2013 over 3,100 tons of waste and concrete removed.
- Confirmatory samples collected and analyzed for VOCs, SVOCs, Pesticides, Herbicides, and RCRA Metals.
- Benzo(a)pyrene detected above MDE residential cleanup standards at one location.

sample locations in purple.

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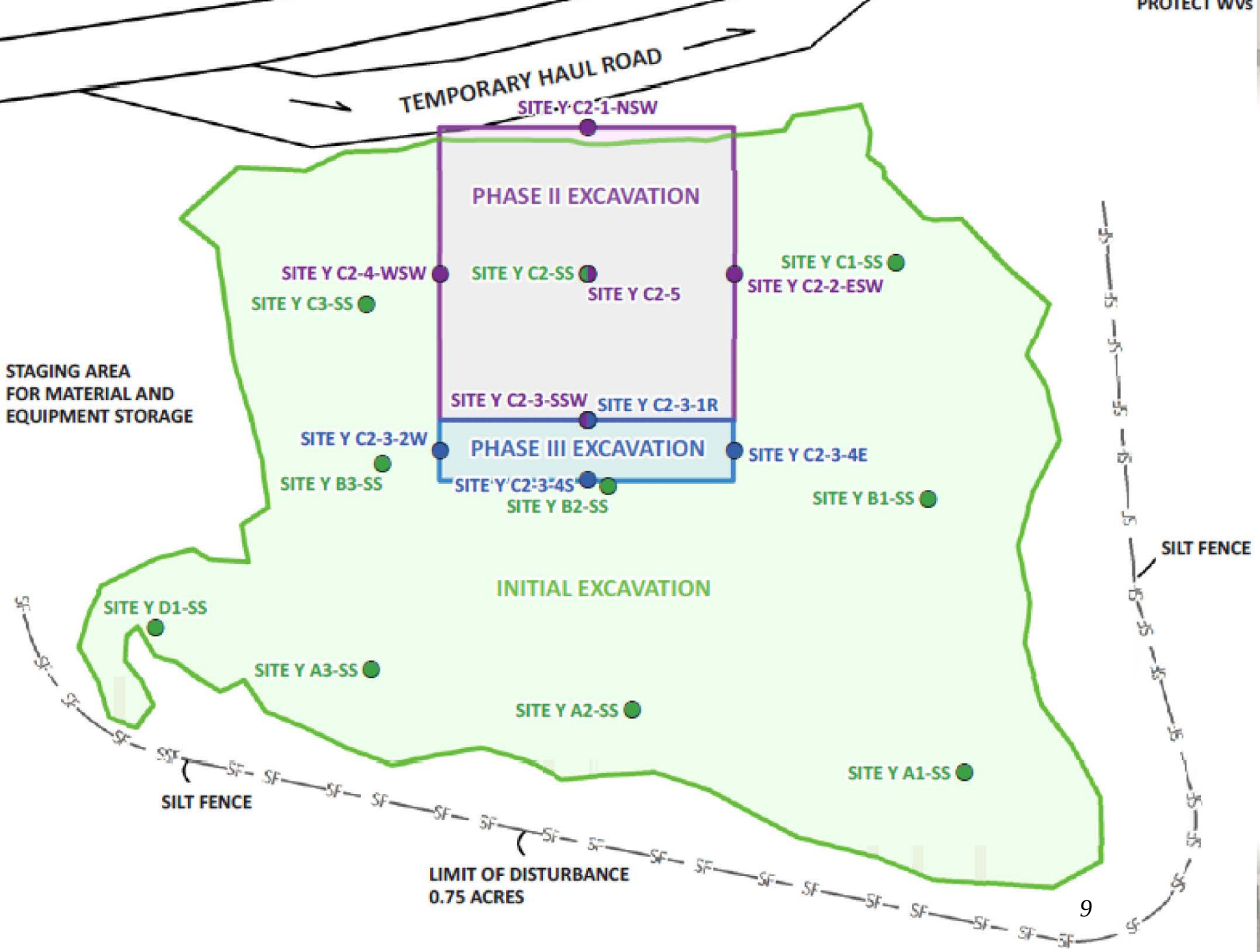
Site History (continued)

- An additional 525 tons removed.
- September 2013 collected post-excavation confirmatory samples.
- Another exceedance of benzo(a)pyrene.
- An additional excavation of 225 tons
- October 2013 confirmatory samples indicated the second source was removed, but another exceedance of benzo(a)pyrene on the new south wall.

sample locations in purple.

Site History (continued)

- The exposure point concentration (EPC) of benzo(a)pyrene was determined with a 95% Upper Confidence Limit (UCL95).
- Resulting UCL95 was calculated at below the MDE residential target concentration.
- No further excavation was required to address benzo(a)pyrene.
- Fill brought in to restore the site.
- February 2015, Final Removal Completion Report for Site Y Soil Disposal.


PROTECT WVs
TEMPORARY HAUL ROAD
SITE Y C2-1-NSW
PHASE II EXCAVATION
SITE Y C2-4-WSW
SITE Y C2-SS
SITE Y C2-5
SITE Y C1-SS
SITE Y C2-2-ESW
SITE Y C3-SS
STAGING AREA
FOR MATERIAL AND
EQUIPMENT STORAGE
SITE Y C2-3-SSW
SITE Y C2-3-1R
SITE Y C2-3-2W
PHASE III EXCAVATION
SITE Y C2-3-4E
SITE Y B3-SS
SITE Y C2-3-4S
SITE Y B2-SS
SITE Y B1-SS
SILT FENCE
INITIAL EXCAVATION
SITE Y D1-SS
SITE Y A3-SS
SITE Y A2-SS
SITE Y A1-SS
SILT FENCE
LIMIT OF DISTURBANCE
0.75 ACRES

PA/SI

- Subsurface soil and groundwater had not been investigated at Site Y and; therefore, were assessed under the PA/SI through monitoring wells and subsurface soil samples.
- 27 May 2015 Final PA/SI Work Plan Addendum submitted to MDE and EPA.

sample locations in purple.

PA

- Three separate surface soil risk-based screenings performed:
- post-excavation surface soil prior to backfilling - cumulative cancer risk = 3.2×10^{-6} and cumulative non-cancer hazard estimate = 0.6. topsoil - cumulative cancer risk = 3.3×10^{-5} and the highest target organ hazard index = 0.4.
- combined post-excavation surface soil and topsoil - cumulative cancer risk = 3.3×10^{-5} and the highest target organ hazard index = 0.7.

SI

- 2 June 2015, URS advanced 2 borings at Site Y, collected 4 subsurface soil sample and installed 2 monitoring wells.
- No elevated PID readings or signs of staining were noted during boring advancement.
- 17 June 2015, URS collected groundwater samples from the monitoring wells.

sample locations in purple.

Phase II Excavation
Phase III Excavation
Site Y-1
Site Y
Site Y-2
Ernie Pyle Street

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SI (continued)

- Shallow subsurface soil
  - The MDE residential cleanup standard for benzo(a)pyrene is 22 µg/L.
  - PIDs cannot detect PAHs in soil in the lower ppb range.
  - A subsurface soil sample was collected at both locations from the two-to-four foot depth (below the “fill”) and analyzed for PAHs.

sample locations in purple.

PA/SI (continued)

- The deeper subsurface soil and the groundwater samples were analyzed for the same parameters that the confirmatory samples were analyzed for: VOCs, SVOCs, metals, mercury, herbicides, pesticides, and PCBs.
- Soil sample preliminary results – no exceedances of PAH, VOC, SVOC, pesticide, or herbicide action levels.

sample locations in purple.

Questions?

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Acronyms and Abbreviations

- EPA – U.S. Environmental Protection Agency
- EPC – exposure point concentration
- MDE – Maryland Department of the Environment
- ppb – parts per billion
- PID – Photoionization Detector
- RAB – Restoration Advisory Board
- RCRA – Resource Conservation and Recovery Act
- RSL – Regional Screening Level
- SVOCs – Semi-volatile Organic Compounds
- UCL95 – 95% Upper Confidence Limit
- USACHPPM – U.S. Army Center for Health Promotion and Preventive Medicine
- VOCs – Volatile Organic Compounds

Points of Contact

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