



Range 17 - Trap and Skeet Soil Operable Unit Remediation Update

Presented by :

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EA Engineering, Science, and Technology Inc., PBC

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Project Team and Stakeholders



- **U.S. Army (Army) – Office of the Assistant Chief of Staff for Installation Management, Base Realignment and Closure (BRAC) Division**
 - Markus Craig (Program Manager)
- **U.S. Army Corps of Engineers (USACE) - Baltimore District**
 - Andrea Graham (Project Manager)
 - Vernon Griffin (Safety and Health Specialist/Technical Reviewer)
 - Paul Greene (Ordnance and Explosives Safety Specialist)
- **Army – Fort George G. Meade (FGGM)**
 - Steve Cardon (Legacy BRAC Environmental Coordinator)
- **Ft Meade Restoration Advisory Board (RAB)**



Project Team and Stakeholders

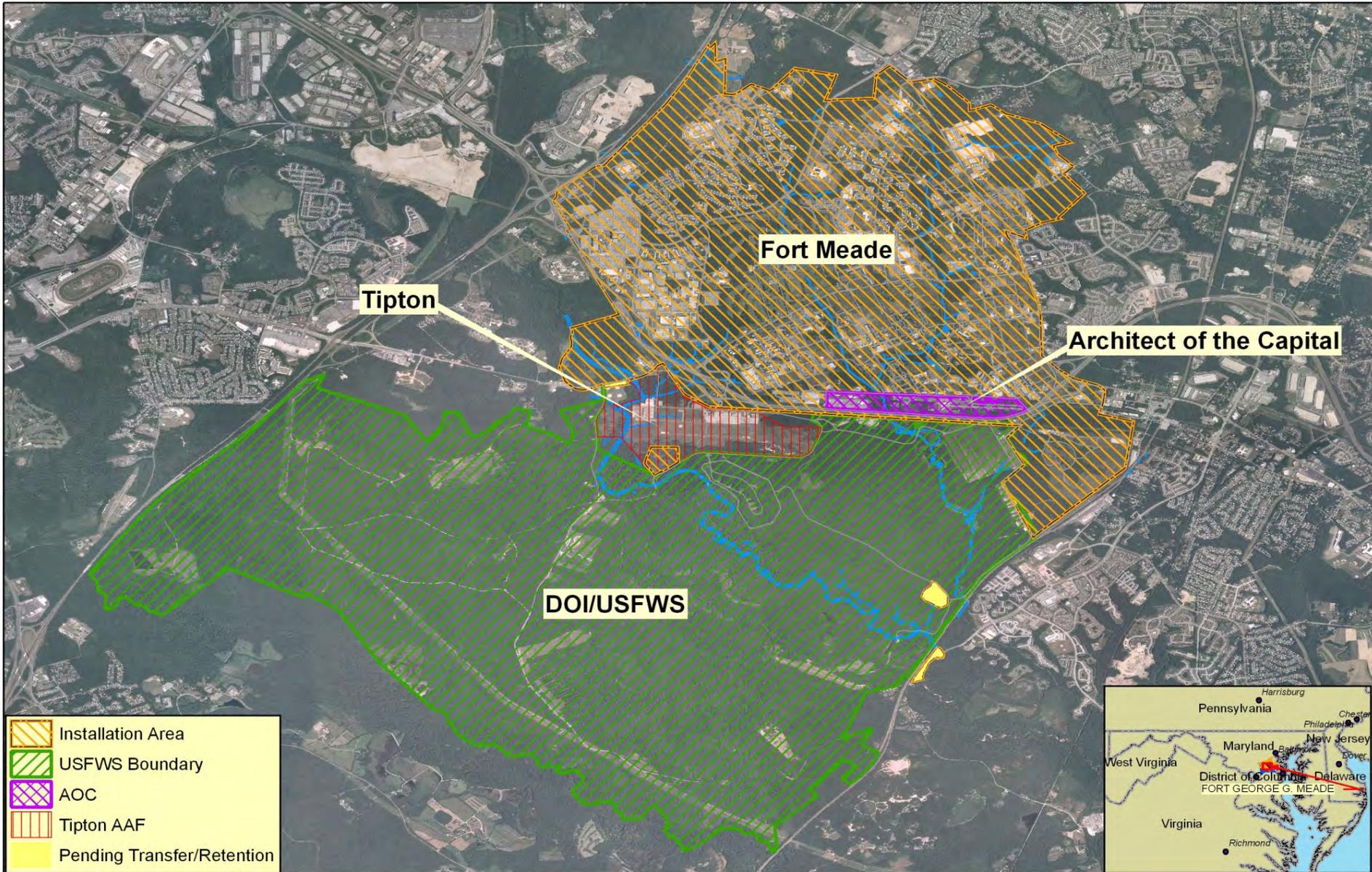


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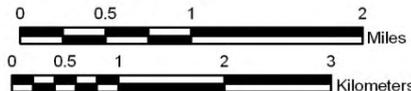
- **U.S. Environmental Protection Agency (EPA) – Region 3**
 - Bob Stroud
- **Maryland Department of the Environment (MDE)**
 - Dr. Elisabeth Green
- **U.S. Fish and Wildlife Service (FWS)**
 - Brad Knudsen
- **EA Engineering, Science, and Technology, Inc., PBC (EA) (Contractor)**
 - Brenda Herman (EA Program Manager)
 - Dave Mercadante (EA Project Manager)
 - Mike Hertz (EA Senior Scientist)

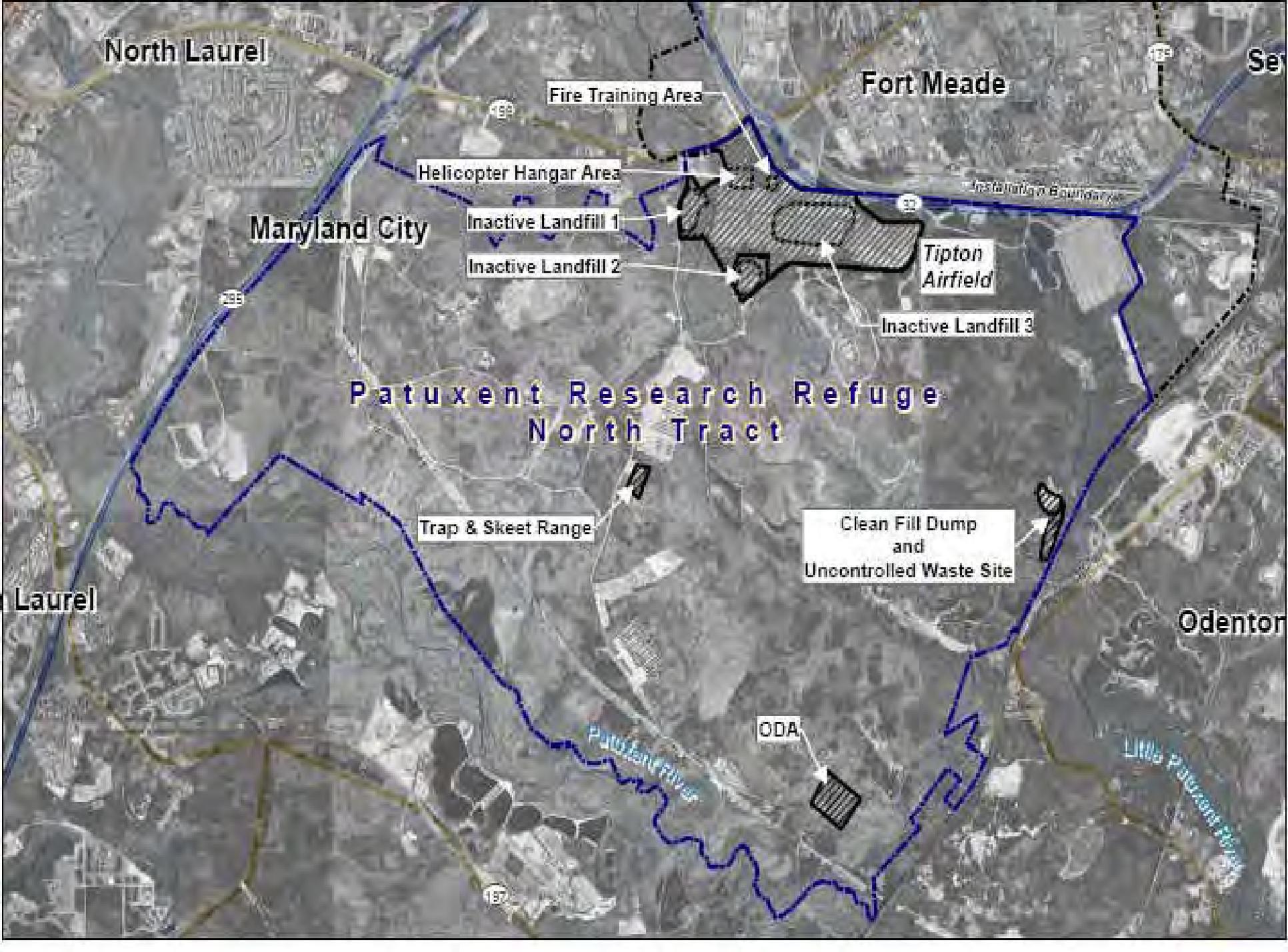
FT George G. Meade

Current and Former Properties



Created by:
 Office of the Assistant Chief of Staff for Installation Management (OACSIM)
 Base Realignment and Closure Division (BRACD)
 Data Source: Geographic Information System Repository (GISR),
 BRACD and Fort George G. Meade





North Laurel

Fort Meade

Maryland City

Fire Training Area

Helicopter Hangar Area

Inactive Landfill 1

Inactive Landfill 2

Tipton Airfield

Inactive Landfill 3

Patuxent Research Refuge
North Tract

Trap & Skeet Range

Clean Fill Dump
and
Uncontrolled Waste Site

ODA

Odenton

Patuxent River

Little Patuxent River



Range 17 Trap & Skeet – History



- **Background**

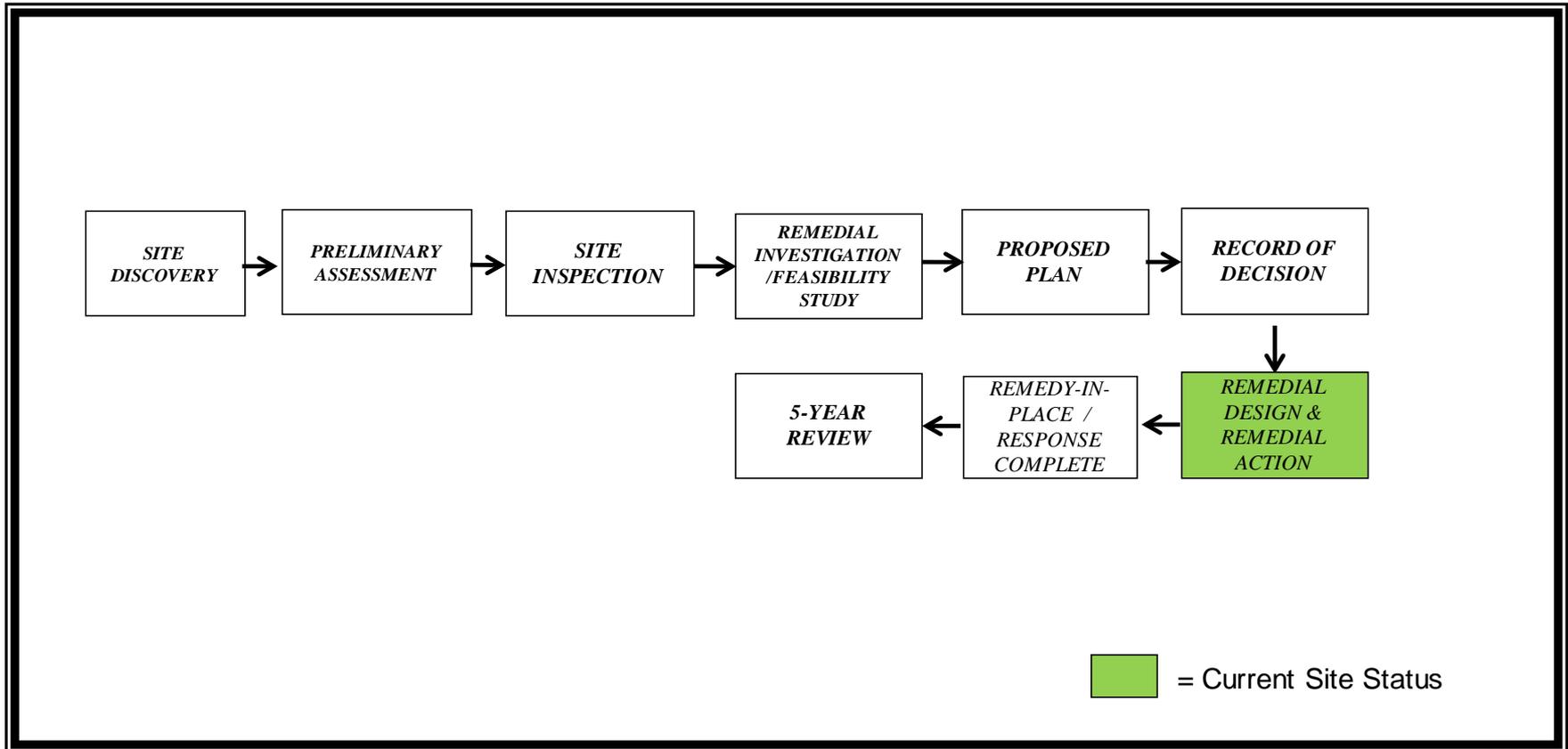
- As part of BRAC, approximately 8,100-acres was transferred from FGGM to Department of the Interior (DOI) in the early 1990s.
- FWS manages property as part of the Patuxent Research Refuge – North Tract (PRR-NT).
- Former T&S Range 17 occupies approximately 20 acres in the PRR-NT.

- **Site History**

- PRR-NT was former training range, potential for presence of munitions and explosives of concern (MEC).
- Range 17 opened in the mid-1970s. Operated by FWS from 1991 until closure in 1999.
- Former activities have resulted in surface and subsurface soil contamination by lead shot, metals (lead, arsenic, and antimony) and target clay pigeon fragments containing polycyclic aromatic hydrocarbons (PAHs).



Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Process





Record of Decision – September 2014



Documented the remedial goal for protection of human health and the environment from lead in soil as 260 parts per million (ppm). Excavation and disposal of soil with lead concentrations exceeding 260 ppm. No soil preliminary remediation goals were derived for arsenic, antimony, and lead shot because these are co-located with the lead contamination.

Documented the remedial goal for protection of human health and the environment from PAHs in surface soil within the DU1 and DU4 boundaries. Excavation and disposal of PAH impacted soil to a depth of 12-inches below ground surface (bgs).

Documented LUCs* for the Soil OU:

- Prohibit disturbance of surface or subsurface soils without appropriate explosive ordnance disposal support and written approval of Army
- Prohibit residential development of the T&S Range 17 without further evaluation of residential exposure risks

* Final Land Use Control Remedial Design for T&S Range 17, Jan 2016



Site Layout RI/FS (2014)



Legend

- PAH Contamination
- Lead Contamination to 6'
- Lead Contamination from 6-12'
- Skeet Station
- Trap Station
- Berm
- Ephemeral Drain

DU Decision Unit
 Data/Map Source: URS
 2014

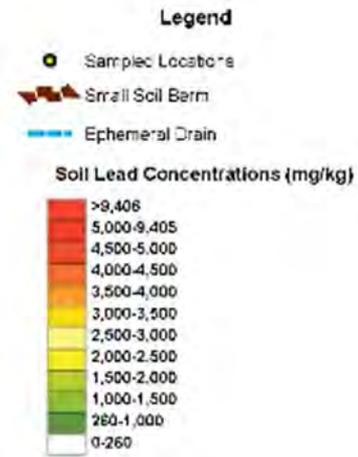
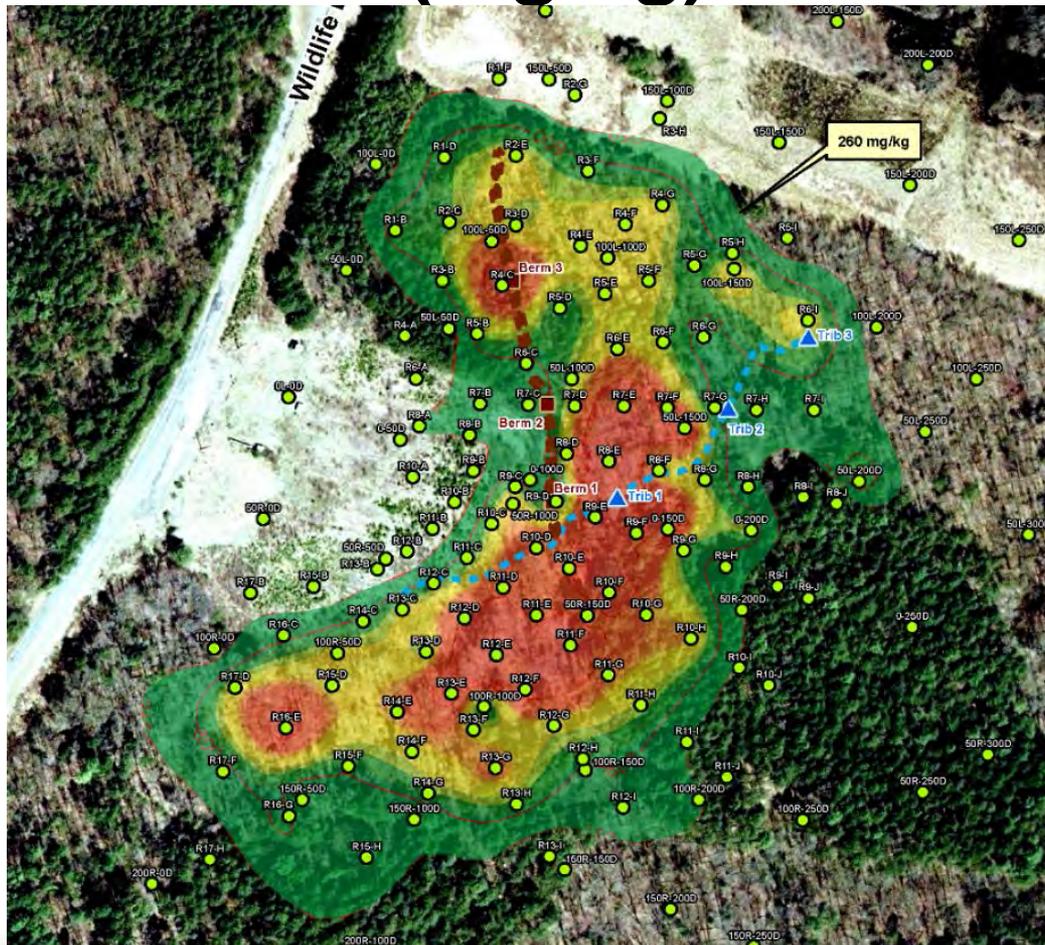


Site Layout Pre-RA Sampling





Soil Lead Concentrations 0- to 3-inch Interval Results (mg/kg)



Data/Map Source: URS
2014



Project Status



Achieve approved response complete (RC) for the Soil Operable Unit (OU)

- **Phase 1: Work Plans**

- Remedial Action Work Plan (RAWP)
- Explosives Safety Submission (ESS) and Addendum No. 1
- Accident Prevention Plan (APP)/Site Safety and Health Plan (SSHP)
- Erosion and Sediment (E&S) Control Plan and Modification No. 1
- Forest Stand Delineation Report
- Forest Conservation Plan

Document approvals obtained between 9/15/2015 and 2/25/2016



Project Status



- **Phase 2: Site Preparation and MEC Investigation/Removal**
 - Site/Boundary Survey – Completed 9/15/2015
 - Light Undergrowth Clearing – Completed 9/11/2015
 - MEC clearance to 18-inches – Completed 3/17/2016
 - Install E&S controls – Completed 4/13/2016
 - Onsite structure demolition – Completed 5/19/2016
 - Tree clearance and mulching – Completed on 6/30/2016



Project Status



- **Phase 3: Excavation and Offsite Disposal: May – Nov 2016**
 - Excavation of impacted soil and RAO confirmation sampling
 - Excavated soil physically screened by UXO technicians to confirm MEC removal prior to offsite shipment
 - Non-hazardous disposal (off-site stabilization of soil could be required)
- **Phase 4: Site Restoration: Nov 2016 – Mar 2017**
 - Site restoration – backfill, regrading, seeding, tree planting
- **Phase 4: Removal Action Closure Report (RACR): Mar 2017**
 - Removal Action Closure Report
 - Achieve approved Response Complete



Site Conditions Prior to Remediation





MEC Demolition Shot





Excavation Progress





Points of Contact



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QUESTIONS ?