



# Range 17 - Trap and Skeet Soil Operable Unit Remediation Update

Presented by :

Steve Cardon (Calibre)  
Fort Meade Legacy BRAC Office

21 May 2015



# 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)
- **U.S. Environmental Protection Agency (EPA) – Region 3**
  - Bob Stroud



# Project Team and Stakeholders (continued)

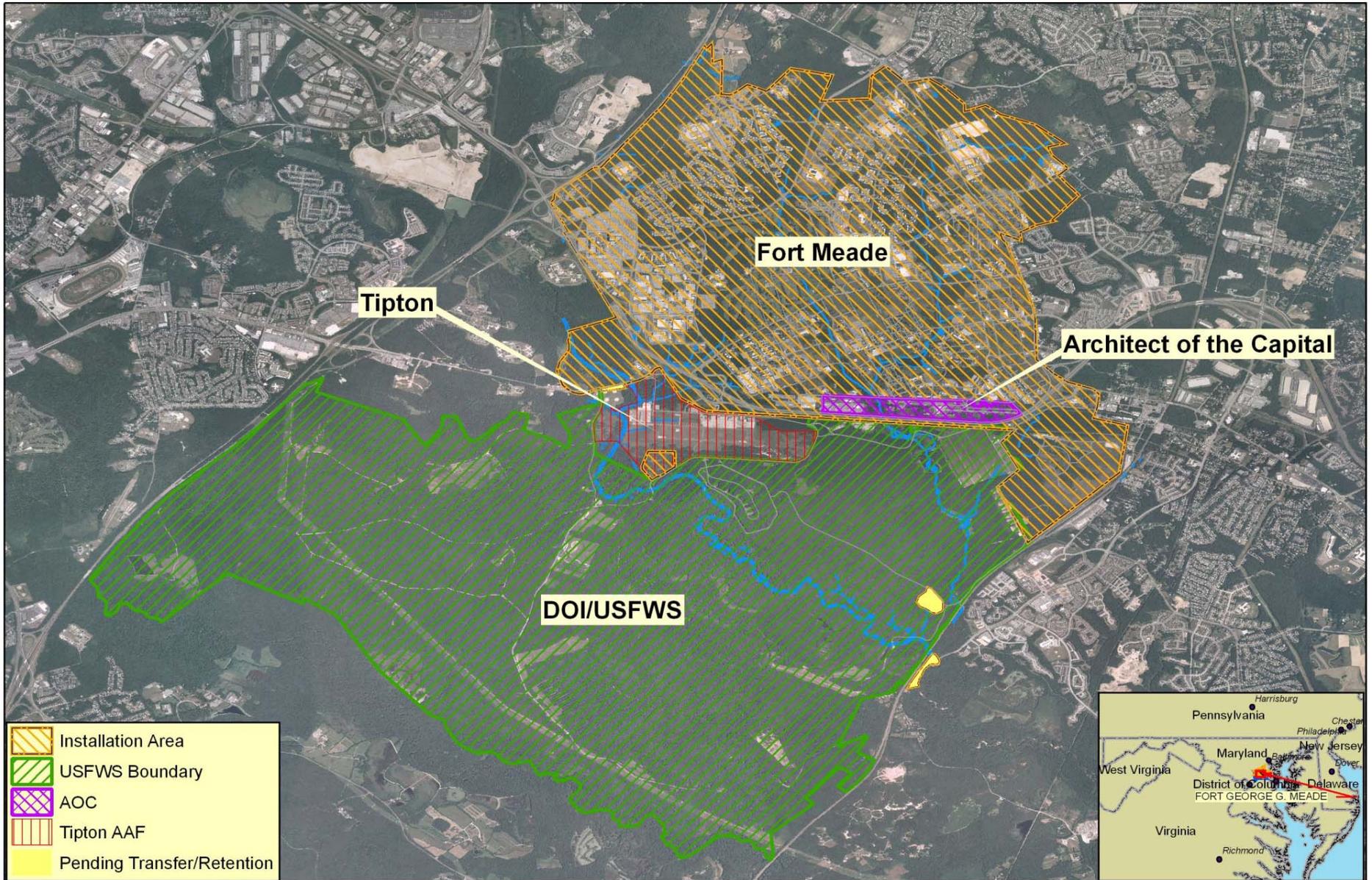


- **Maryland Department of the Environment (MDE)**
  - Dr. Elisabeth Green
- **U.S. Fish and Wildlife Service (FWS)**
  - Brad Knudsen
- **EA Engineering, Science, and Technology, Inc., PBC (EA)  
(Contractor)**
  - Brenda Herman (EA Program Manager)
  - Dave Mercadante (EA Project Manager)
  - Mike Hertz (EA Senior Scientist)
- **Ft Meade Restoration Advisory Board (RAB)**



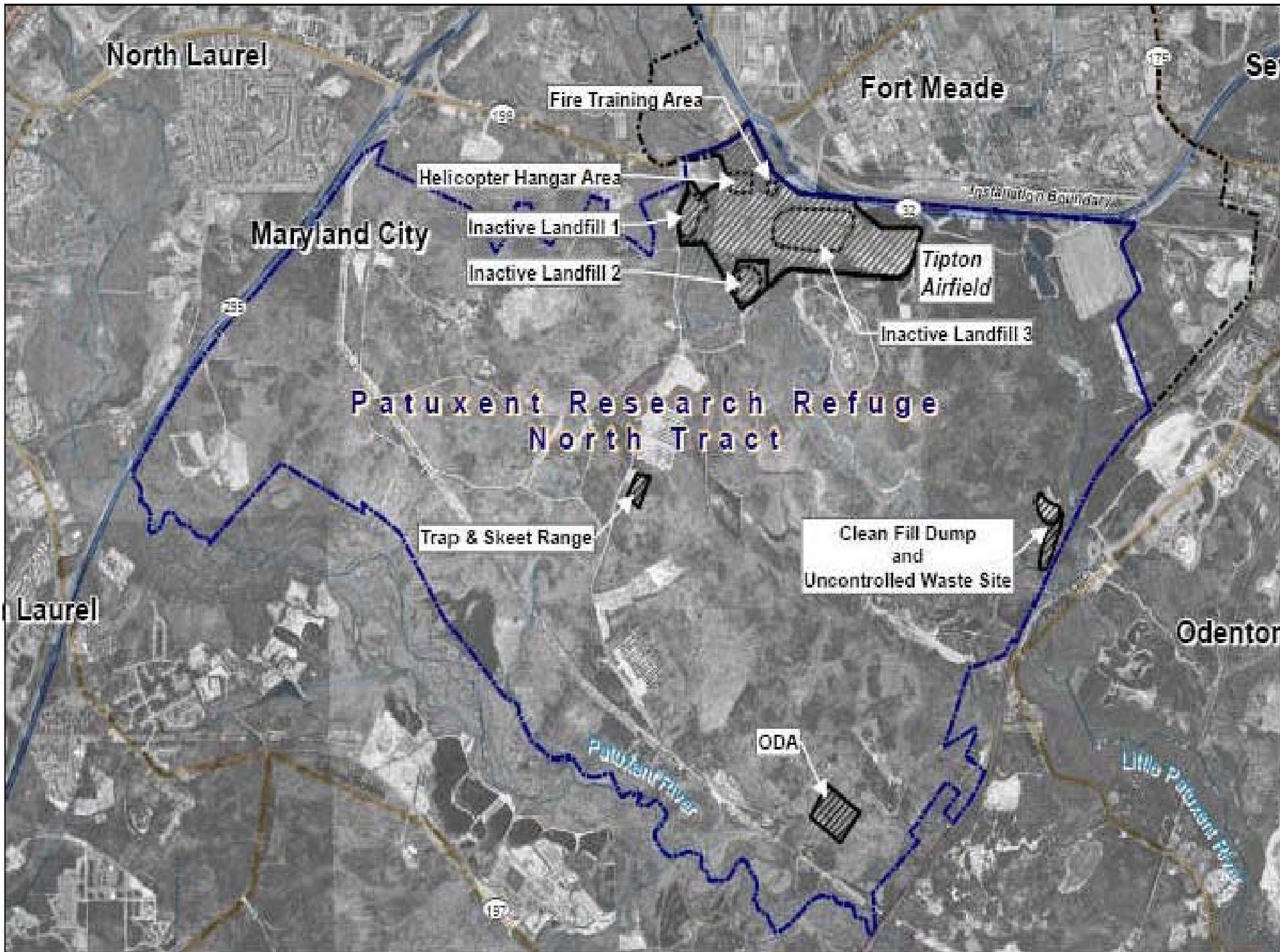
# FT George G. Meade

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







# 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).



# Site Layout



## Legend

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

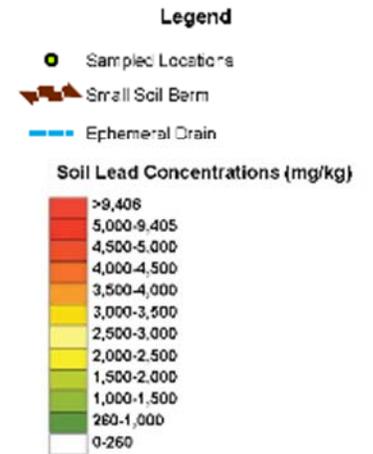
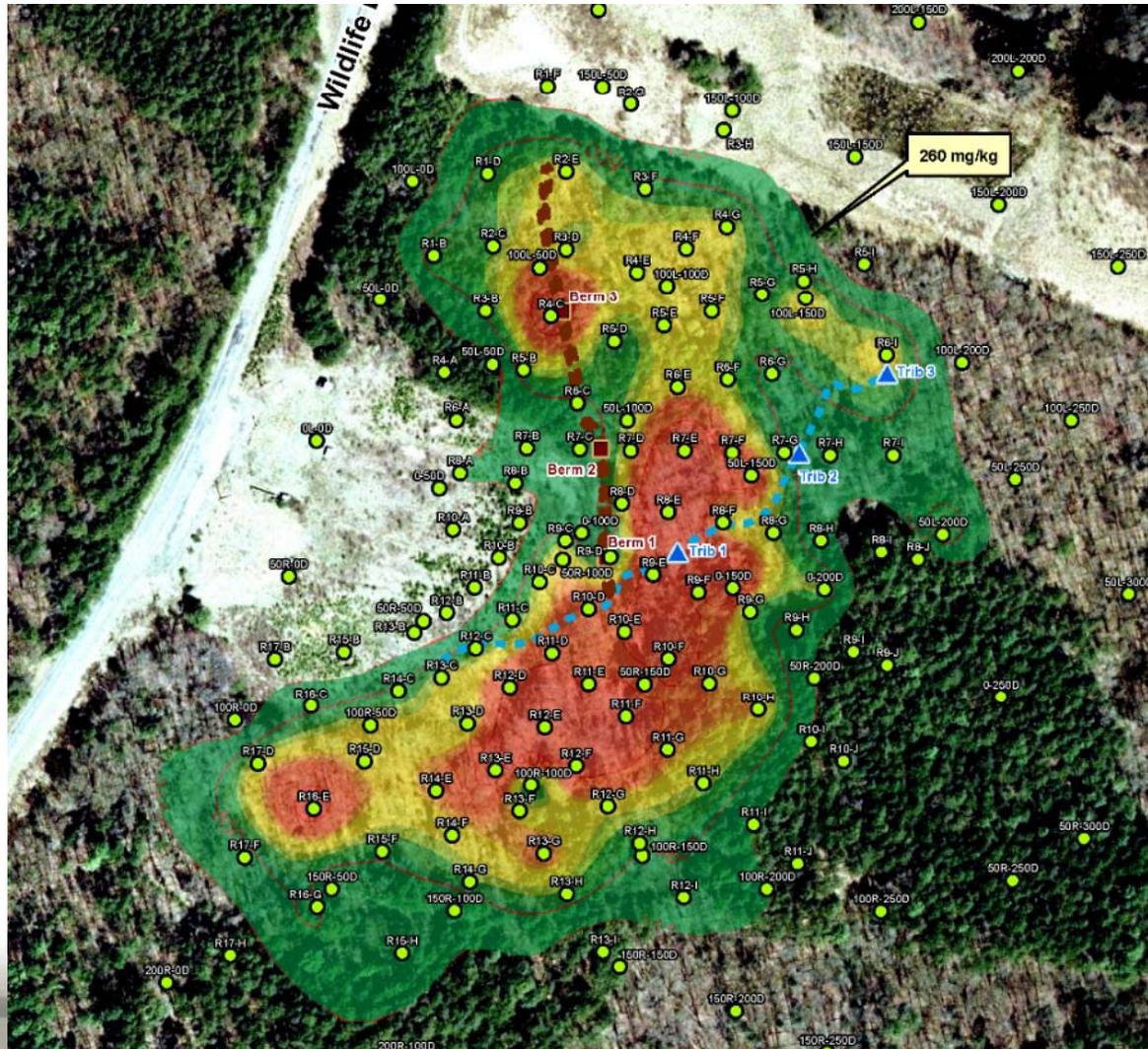
DU Decision Unit

Data/Map Source: URS  
2014





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

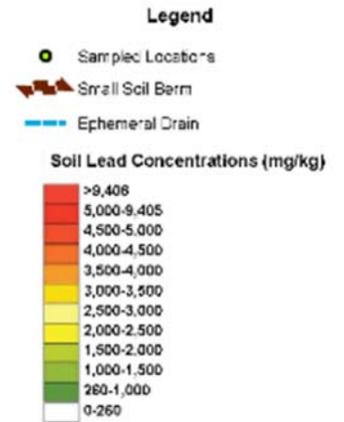


Data/Map Source: URS  
2014





# Soil Lead Concentrations 3- to 6-inch Interval Results (mg/kg)

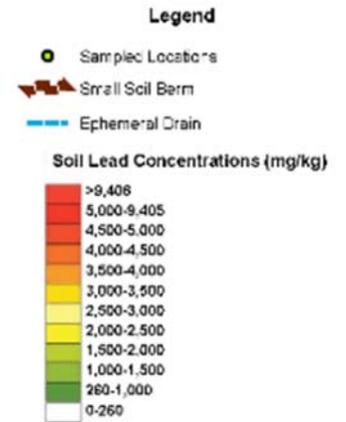


Data/Map Source: URS  
2014





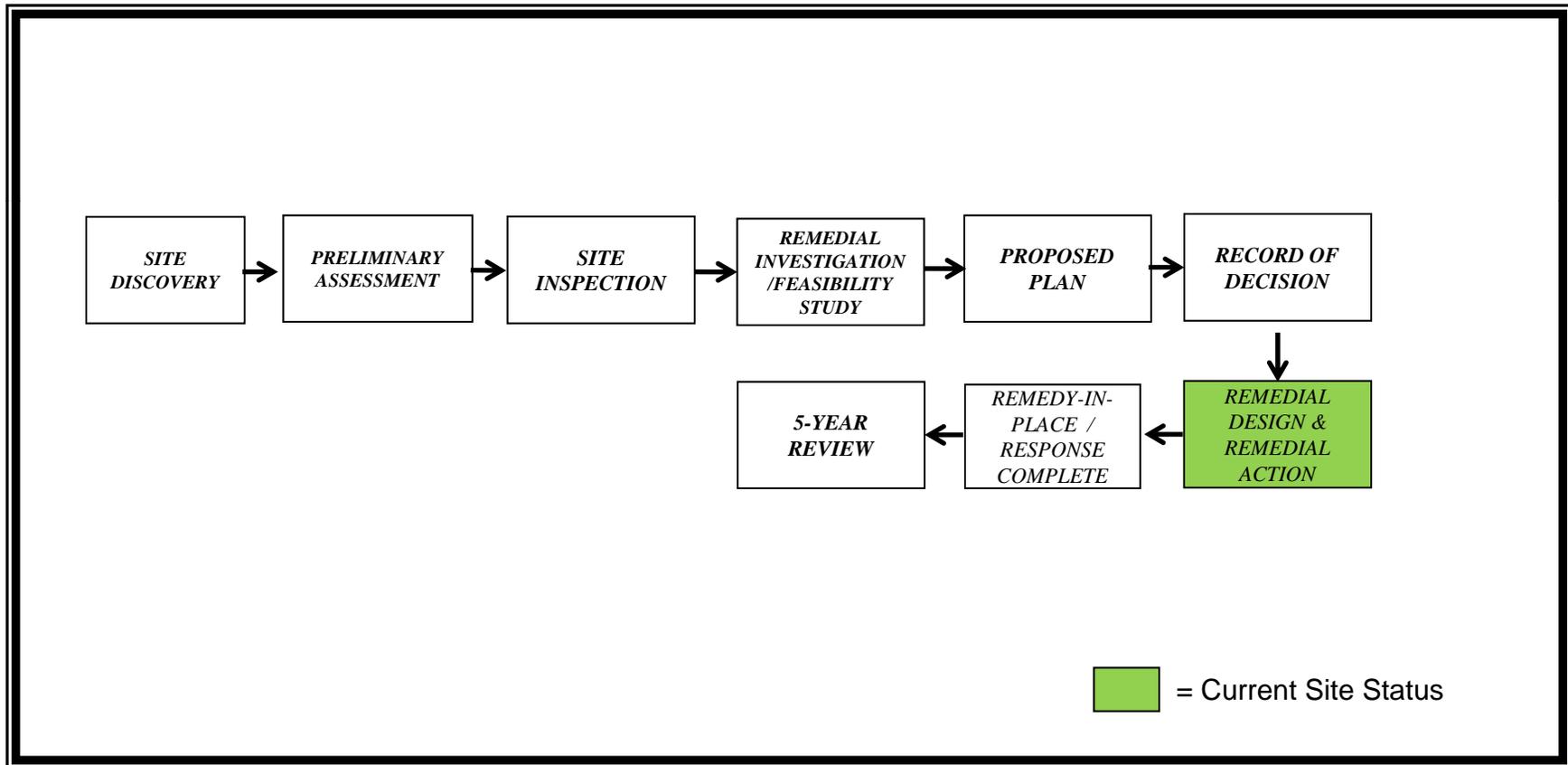
# Soil Lead Concentrations 6- to 9-inch Interval Results (mg/kg)



Data/Map Source: URS  
2014



# 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



# Project Scope



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

### • Phase 1: Work Plans

- Remedial Action Work Plan (RAWP) - Underway/In progress
- Explosives Safety Submission (ESS) – Completed
- Accident Prevention Plan (APP)/Site Safety and Health Plan (SSHP) - Underway/In progress
- Erosion and Sediment (E&S) Control Plan - Underway/In progress
- Forest Stand Delineation Report – Completed
- Forest Conservation Plan – Underway/In progress



# Project Scope



- **Phase 2: Site Preparation and MEC Investigation/Removal: June – August 2015**
  - Site/Boundary Survey
  - Install E&S controls
  - Light Undergrowth Clearing
  - MEC clearance to 18 –inches
  - Tree clearance and mulching (as required)





# Project Scope



- **Phase 3: Excavation and Offsite Disposal : August – December 2015**
  - Onsite structure demolition
  - Excavation of impacted soil and RAO Confirmation Sampling
  - Excavated soil through screener to confirm MEC removal prior to offsite shipment
  - Off-site soil stabilization and non-hazardous disposal
- **Phase 4: Site Restoration : April – May 2016**
  - Site restoration – backfill, regrading, seeding, tree planting
- **Phase 4: Removal Action Closure Report (RACR) : June 2016**
  - Removal Action Closure Report
  - Achieve approved Response Complete



# Work Completed to Date



- ESS Submitted for USACE/DDESB Review - approved 15 May 2015
- Final Work Plan submitted 30 April 2015
- APP/SSHP - Submitted for USACE/Army Review
- Final FSD submitted 08 May 2015
- Draft FCP submitted 11 May 2015
- Revised Draft Final ESCP Plan submitted - 08 May 2015



# Points of Contact



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# QUESTIONS ?