



Fort George G. Meade

Base Realignment and Closure (BRAC) Active Restoration Sites

RAB Update
28 Jan 2010



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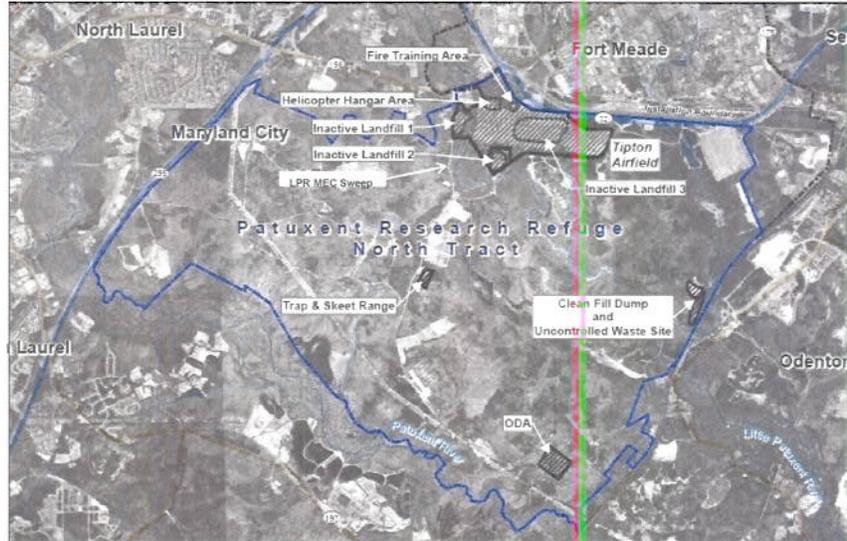
BRAC Active Restoration Program Sites

- Tipton Airfield Parcel
 - Groundwater Operable Unit (OU) LTM
 - Inactive Landfill 1
 - Inactive Landfills 2 and 3
 - Little Patuxent River UXO Sweep Segment
- Ordnance Demolition Area (ODA)
- Clean Fill Dump (CFD)
- Trap & Skeet Range 17
- High Explosive Impact and Disposal Area



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Active BRAC Environmental Restoration Sites



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Tipton Airfield Parcel Groundwater OU Sites FGGM-10 and FGGM-31



- **Background**
 - 1998 and 1999 RODs; no further action for soils, biennial GW monitoring; 5-yr reviews
 - Delisted from NPL (Nov 1999) and transferred to Ann Arundel County (Jul 2001)
 - GW Operable unit includes airfield sites and 3 inactive landfills
 - Fire Training Area (FTA)
 - Helicopter Hanger Area (HHA)
 - Inactive Landfill No. 1 (approx 16 acres)
 - Inactive Landfill No. 2 (approx 10 acres)
 - Inactive Landfill No. 3 (approx 78 acres)
- **Status**
 - Biennial LTGM conducted 2009
 - 5-yr review conducted 2009



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TAP GW OU LTM Update

- **2009 Biennial LTGM conducted June 15 through July 1**
 - **Eleven wells – Parameters varies by well**
 - VOCs
 - Benzene, 1,1,2,2-TCA, CCl₄
 - Semi-VOCs
 - Naphthalene; bis-2-ethylhexylphthalate (B2EHP)
 - Metals
 - arsenic; iron; manganese
 - **2009 Biennial LTGM Draft Report submittal scheduled early Feb 2010 to regulatory agencies and other stakeholders for comment and review**



TAP MEC LUCs LTM Site FGGM-85



- Includes ILF No. 1, ILF No. 2, and ILF No. 3, and a portion of the Little Patuxent River (LPR)
- **Background - Various ordnance-related surveys & removals**
 - 1994 Ordnance Survey to 6-inch depth
 - 1995 through 1998 Ordnance Clearance
 - All accessible areas searched to 4-foot depth
 - Excluded: Inactive landfill areas, paved surfaces, and wetlands
 - 1,548 ordnance items and 33 tons of rubble debris recovered
 - 1998 ordnance removal from airfield swales previously flooded (420 items recovered)
- **Status**
 - MEC LUC annual maintenance activity annual visual sweeps of ILFs No. 1 & 2 conducted June 2009
 - Annual MEC Sweeps of a portion of the LPR conducted August 2009



TAP MEC LUCs LTM Update



- 2009 ILF No. 1 & 2 Maintenance Inspection - June 10, 2009
 - **Draft Report submitted to regulators Jan 15, 2010**
 - ILF No. 1 - Conclusion: Cap cover intact
 - ILF No. 1 - Recommendation: 1) Remove small woody shrubs, 2) Continue inspections
 - ILF No. 2 – Conclusion: 1) Cap cover intact, 2) Perimeter fence intact and security signs are intact and legible.
 - ILF No. 2 – Recommendation: 1) Remove overgrown vegetation on east, south, and west fence lines, 2) Continue inspections.
 - ✓ EPA comments rec'd Jan 28, 2010. MDE comments pending
 - Draft Report available for review at www.fortmeade-ems.org



Little Patuxent River Annual MEC Sweep

Inspection of the banks and bottom of a segment of the Little Patuxent River from the Old Forge Bridge to a point 400 ft south of Md Highway 198



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2009 Annual LPR LTM MEC Sweep Update



- **2009 Annual LPR LTM MEC Sweep conducted August 17 -19, 2009**
 - **Draft Report submitted to regulators Jan 15, 2010**
 - 101 items consisting of 97 2.36-inch rockets, and 4 expended rocket motors. All were confirmed to be expended practice rounds (Munitions Debris).
 - Copy of Draft Report available for public review at www.fortmeade-ems.org



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5-Yr Review for TAP LTM



- 1998 and 1999 RODs for Tipton Airfield Parcel call for 5-yr reviews
- 2009 5-yr Review concluded that implemented response actions, LUCs, and ICs remain protective of human health and the environment
 - 5-yr Review DF Report submitted to regulators April 2009. EPA did comment on this document due to the pending Explanation of Significant Difference (ESD) document
 - Copy of Draft Final Report available for public review

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TAP ROD Explanation of Significant Difference (ESD)



- As part of the Federal Facility Agreement: The Army will develop an ESD that will address a) the need for sweeps of ordnance; b) appropriate disposal of ordnance if discovered; and c) land use control requirements. Additional LUCs (if needed) will be incorporated into the ESD
 - 1991 7600-acre Transfer Agreement
 - June 1995 Explosives Safety Submission (ESS)
 - July 1998 DD and Nov 1998 Addendum;
 - Dec 1998 & June 1999 RODs;
 - July 2001 Quitclaim Deed for Surplus Airport Property (366 acres)
- All these documents contain (to some degree) language establishing MEC clearance and disposal procedures, MEC safety measures, and/or MEC LUCs & ICs for TAP
- The draft ESD is scheduled for stakeholder review and comment in May 2010.

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PRR-NT BRAC Active Restoration Program Sites



- Clean Fill Dump (FGGM 81)
- Trap & Skeet Range (FGGM 94)
- Ordnance Demolition Area (FGGM 20)
- High Explosive Impact and Disposal Area (FGGM-002-R-01)



Clean-fill Dump Groundwater OU FGGM-81



- **Background**
 - CFD is approx 8-acres located in east-central PRR-NT. Includes UWS (5-acres). Received construction and residential debris from 1972 to 1985
 - July 2000 Action Memorandum Safety Procedures for CFD
 - Sept 2000 Record of Decision (Biennial LTGM through FY16, LUCs and 5-yr Reviews)
 - Groundwater Operable Unit covers approximately 13 acres
 - GW OU - Low levels of CVOCs and metals
- **Status**
 - Biennial LTGM conducted June 2008
 - 5-year LTM review completed in 2005



CFD Well Locations & Shallow GW Flow





CFD GW OU Biennial LTGM



- **Biennial LTGM conducted 2008**
 - Six wells sampled. Three VOCs (chloroform, TCE, and PCE) were detected at concentrations exceeding their MCLs. Arsenic exceeded its MCL in one well. Overall, concentrations were lower than the 2006 biennial LTGM results.
- **DF Report submitted for regulatory and other stakeholders review April 2009**
 - Draft Report available for review at www.fortmeade-ems.org
- The Army has rec'd regulatory comments and is preparing the Final Report **scheduled for March 2010 submittal.**



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CFD 5-Yr Review



- **CFD 5-yr Review conducted May – July 2009**
 - Purpose to evaluate the implementation and performance of the remedy selected in the Sept 2000 ROD. (Biennial LTGM, LUCs for groundwater, future land use be compatible with probable presence of MEC)
 - Conclusion: Selected remedy continues to be protective of human health and the environment. Continue LTGM.
- **CFD 5-yr Review DF Report submitted for regulatory and other stakeholders review August 2009**
 - Draft Report available for review at www.fortmeade-ems.org
- The Army has rec'd regulatory comments and is preparing the Final Report **scheduled for March 2010 submittal.**



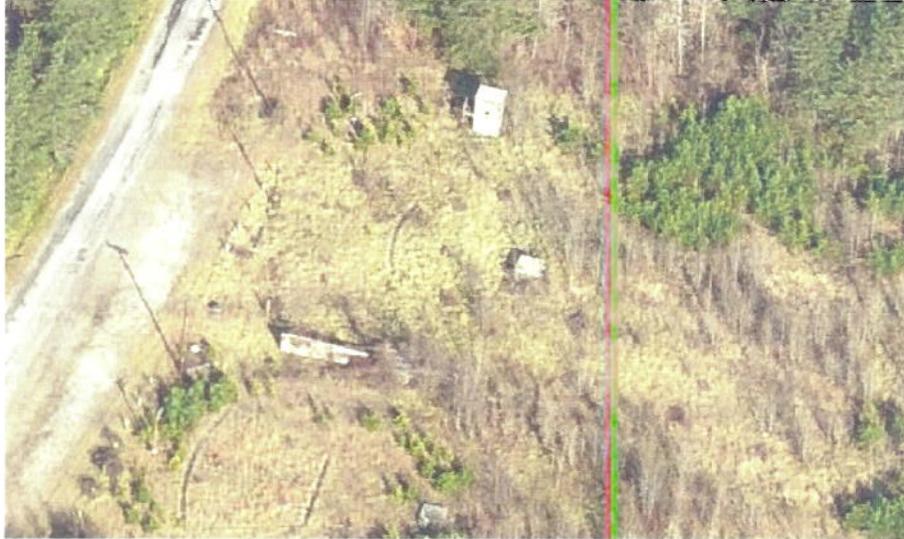
Former Trap and Skeet Range FGGM-94



- **Background**
 - Part of 8,398 acres transferred to DOI - operations ended in late 1990's
 - 2004 ecological risk assessment (ERA) prepared by USFWS
 - Data gaps exist - Pb shot, As, groundwater
- **Status**
 - Remedial Investigation currently ongoing
 - Remedial Action – TBD based upon RI / FS
- **Milestones**
 - Remedy in-place: FY11 (estimated)
 - Response complete: FY11 (estimated)

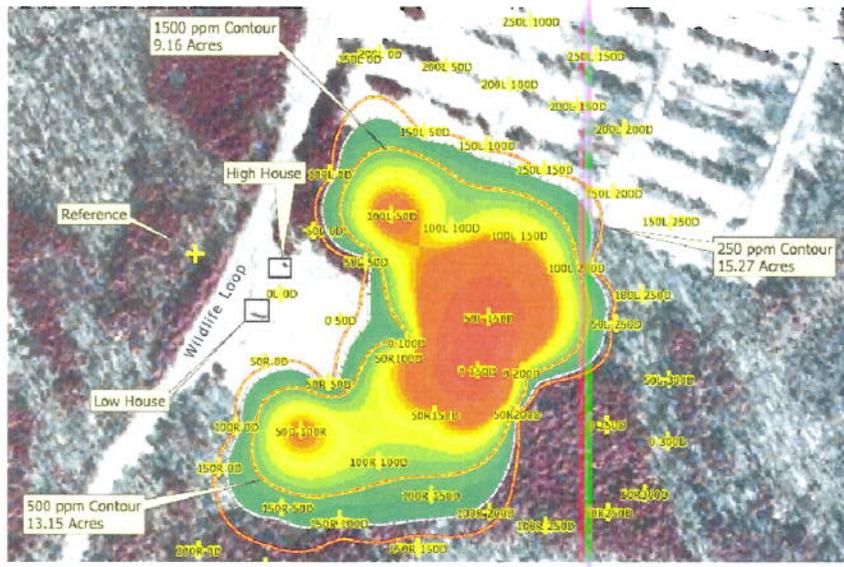


Trap and Skeet Range FGGM-94



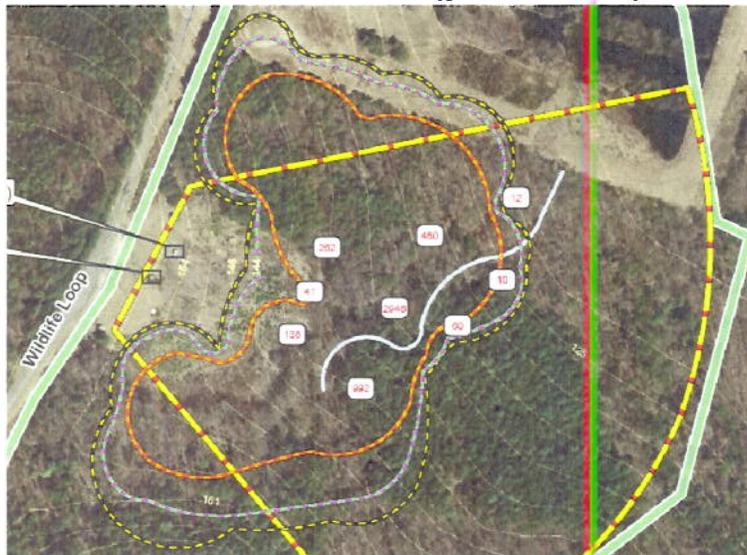
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Soil Lead (mg/kg)



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Lead Shot (pellets / ft²)



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Range 17 Trap & Skest Remedial Investigation

- **Draft Final RI WP, Sampling and Analysis Plan (SAP) and Project Management (PMP) submitted Sept 11, 2009 for regulatory review and comment.**
- **Final RI WP, SAP, PMP submitted Oct 28, 2009.** This document is available for review at

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- Contractor (URS) conducted Pb soil and Pb shot count sampling Nov – Dec 2009. Data is currently being validated.
- MW installation and GW sampling scheduled for March 2010.



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Ordnance Demolition Area FGGM-20

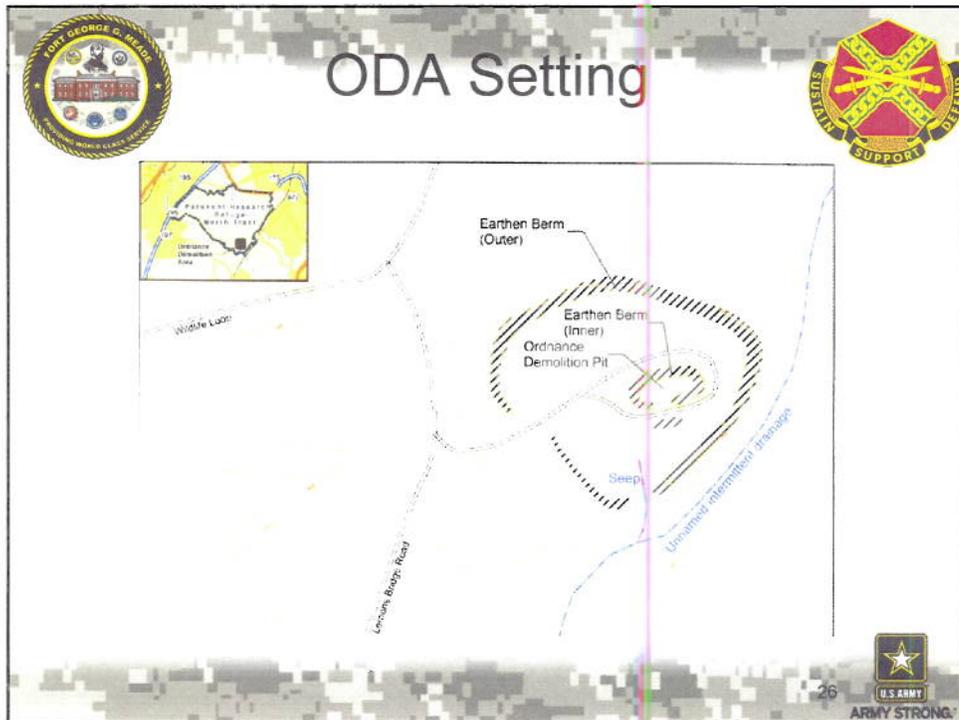


- **Background**
 - Located in Southeast boundary PRR-NT. 2.5-acre site built in early 1960s, operations ended in 1980s (est.)
 - Explosive limit - 5 lbs (target and donor)
 - GW has low levels of VOCs, cadmium, RDX, TNT, DNT
- Dec 2005 Army Decision Document (MNA with LUCs)
 - Annual GW monitoring – to 2012 (estimated)
 - Biennial GW monitoring - 2013 through 2017 (estimated)
- **Status:**
 - EPA concurred with FS. Did not sign Decision Document
 - Decision Document to be resubmitted as a ROD



ODA Location Map





ODA GW OU 2009 Annual LTGM

- **Biennial LTGM conducted June 2009**
 - Eight MWs sampled. All explosive detections and most VOCs (chloroform, TCE, and PCE) were from the four wells within the demolition site berm.
 - PCE detected in 3 wells above MCL: 7.5 ug/L (MW-1), 22 g/L,(MW-3), and 7.9 ug/L (MW-4).
 - TCE detected in MW-3 above MCL: 5.6 ug/L (MW-3)
 - RDX detected in MW-1 at its RAO limit (20 ug/L)
 - DNT detected in MW-1 above its RAO limit (0.8 ug/L) at 0.98 ug/L.
 - GW detections show overall downward trend
- **ODA GW OU 2009 Annual Draft LTGM Report on hold pending regulatory comments to ODA Revised Draft Proposed Plan**



ODA Rescission of 2005 Army Decision Document



- As part of the Federal Facility Agreement: The Army rescinded the December 2005 DD in Nov 09 and submitted a Revised Draft Proposed Plan (PP) in Dec 09. The Revised Draft PP formulates the current ongoing remedial action selected in the September 2002 Focused Feasibility Study.
- The Revised Draft Proposed Plan is available for public review at www.fortmeade-ems.org
 - MDE comments to Draft Final PP rec'd Jan 25, 2010. EPA comments scheduled for submittal late Feb 2010.
- Next up: Final Proposed Plan (May 2010), Draft ROD (June 2010) and Final ROD (Aug 2010)

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HE Impact Area and Disposal (FGGM-002-R-01)

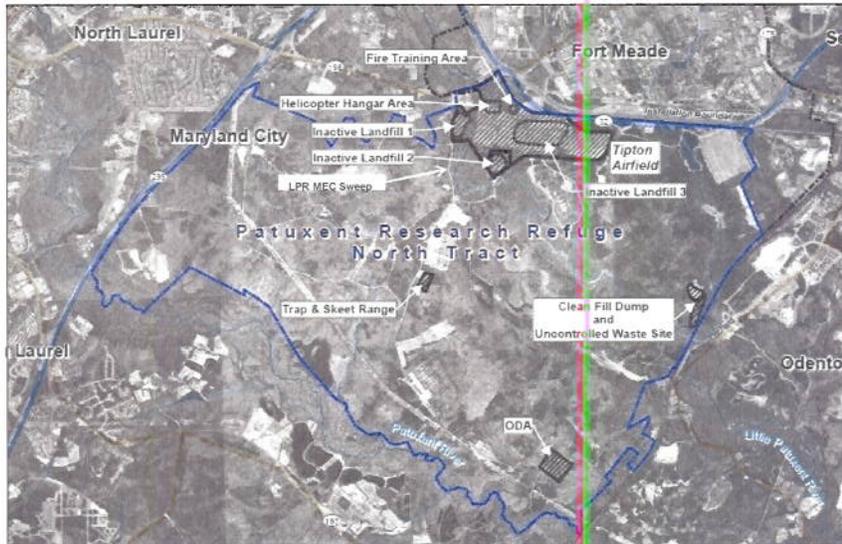


- **Background**
 - 1989 - Enhanced Preliminary Assessment
 - 1992/1993 - Ordnance survey and removal: upper 6 inches over 8100-acre PRR-NT and 1000-acre (Tipton Airfield Parcel and CSL).
 - 2001 - Engineering Evaluation/Cost Analysis for NTCRA
 - July 2000 and August 2001 established enforcement of UXO LUCs
 - 2003/2004 UXO NTCRA
 - UXO cleared to 26 inches on most trails and areas
 - UXO cleared to 4 feet in 24 high use areas
 - Education program for site workers and recreational users
- **Status**
 - 5-year review completed April 2009
 - PP and ROD to be submitted



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PRR-NT NTCRA 5-Yr Review



- **PRR-NT NTCRA 5-yr Review conducted Nov - Dec 2009**
 - Purpose to evaluate the implementation and performance of the NTCRA remedy.
 - Conclusion: NTCRA remedy functioning as intended. No reports of MEC at any of the 24 NTRC AOCs have occurred. PRR UXO education program continues to protect hunters and recreational visitors.
- **NTCRA 5-yr Review DF Report submitted April 2009.** DF Report available for review at www.fortmeade-ems.org
- The Army has rec'd regulatory comments and is preparing the Final Report scheduled for Feb 2010 submittal.
- **WHATS NEXT:** The Army will formulize the GW and MEC LUCs for the HE Impact and Disposal Area in a Proposed Plan (Sept 2010) and ROD (Dec 2010)



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