



Fort Indiantown Gap, Pennsylvania Military Munitions Response Program



Ricochet Area Munitions Response Site Remedial Design and Action

9 October 2014

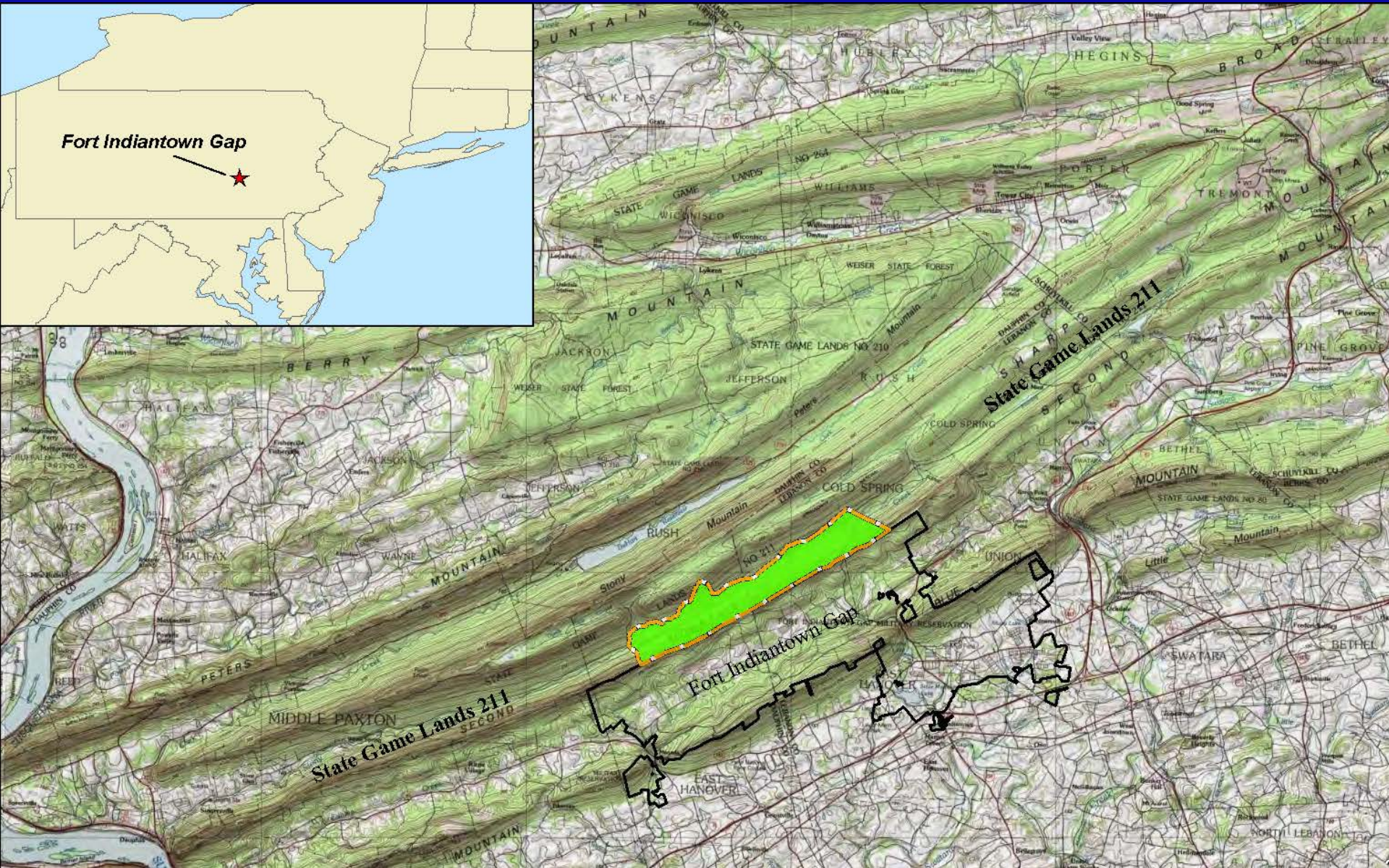


The Trusted Integrator for Sustainable Solutions

Overview

- CERCLA Timeline
- Remedial Action Objectives
- Remedial Design
- Removal Action Results
- Schedule/ Remaining Actions

Ricochet Area Munitions Response Site



CERCLA Timeline

- 2003 – Closed, Transferred, and Transferring Inventory
- 2007 & 2008 – Site Inspection
- 2011 – Remedial Investigation
- 2012 – Feasibility Study
- 2013 – Record of Decision
- 2014 – Remedial Design



Remedial Action Objectives

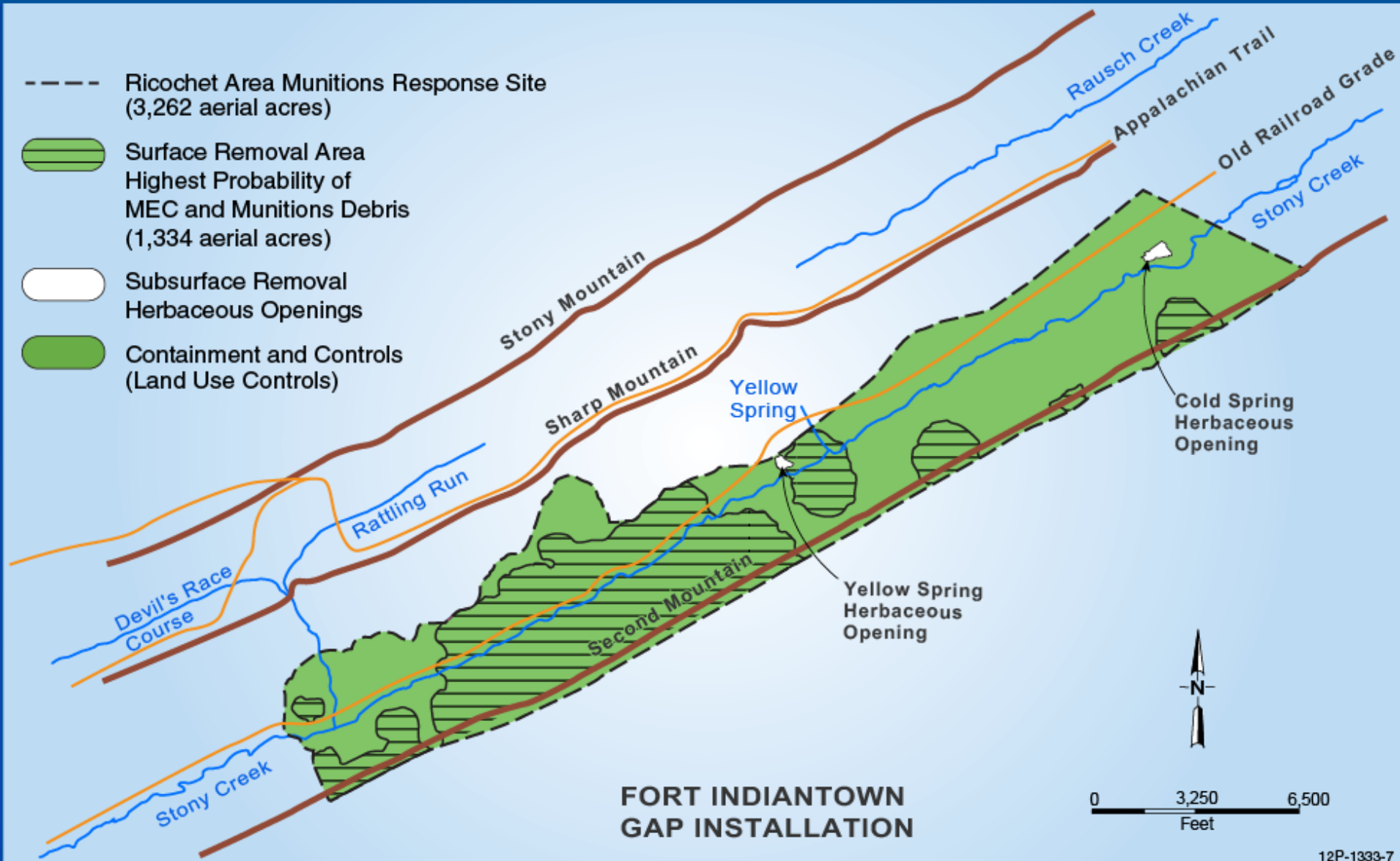
- Reduce explosive safety hazards and ensure protection of human health, public safety, and the environment
- Minimize exposure to:
 - The public while maintaining access for recreational activities
 - Pennsylvania Game Commission personnel and contractors

Remedial Design Phases

- Surface removal action: Removal of exposed or partially exposed MEC across 1,334 acres of the munitions response site
- Subsurface removal action: Removal of surface and subsurface MEC across 11 acres of the Cold Spring and Yellow Spring Herbaceous Openings
- Containment and Controls: Land use controls

Remedial Design Phases

- Ricochet Area Munitions Response Site (3,262 aerial acres)
- ▨ Surface Removal Area Highest Probability of MEC and Munitions Debris (1,334 aerial acres)
- Subsurface Removal Herbaceous Openings
- Containment and Controls (Land Use Controls)



**FORT INDIANTOWN
GAP INSTALLATION**

0 3,250 6,500
Feet

Site Preparation and Mobilization

- Boundary surveys completed to define removal action areas
- Grid system established across each removal action area for navigation and tracking



Boundary Survey and Grid System

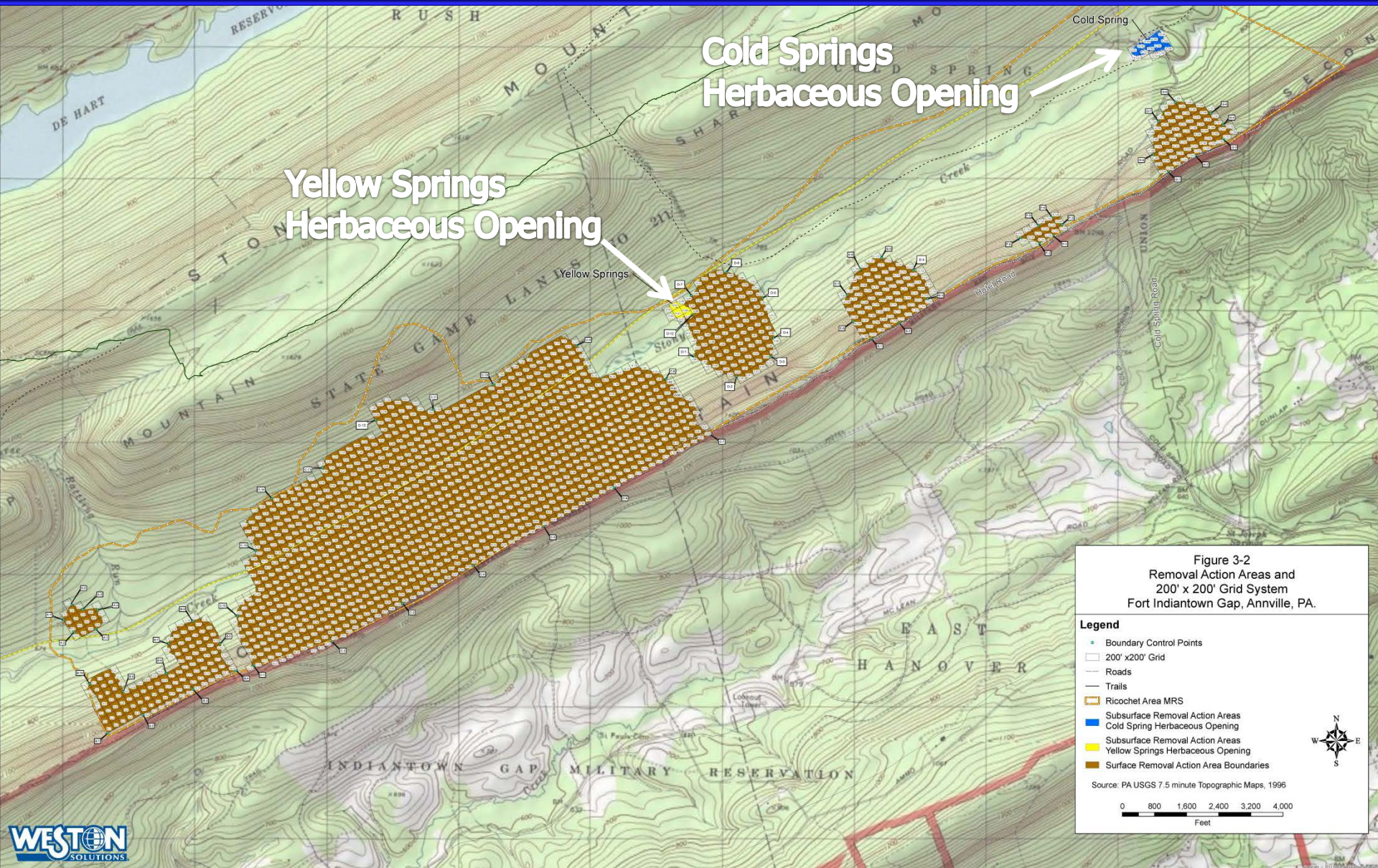
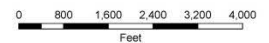


Figure 3-2
Removal Action Areas and
200' x 200' Grid System
Fort Indiantown Gap, Anville, PA.

Legend

- Boundary Control Points
- 200' x 200' Grid
- Roads
- - - Trails
- ▭ Ricochet Area MRS
- ▨ Subsurface Removal Action Areas
- ▨ Cold Spring Herbaceous Opening
- ▨ Subsurface Removal Action Areas
- ▨ Yellow Springs Herbaceous Opening
- ▭ Surface Removal Action Area Boundaries

Source: PA USGS 7.5 minute Topographic Maps, 1996



Remedial Action - Surface Removal

- Work was performed from May – July 2014
- Magnetometers were used to support MEC and munitions debris detection
- Full coverage surveys were performed in accessible areas
- Visual surveys were completed in difficult terrain
- Exposed MEC were removed and destroyed, munitions debris was inspected and recycled

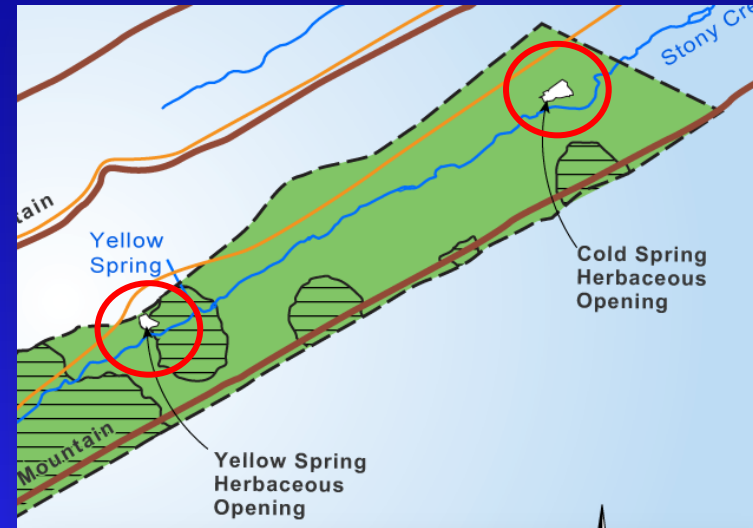


Remedial Action - Surface Removal

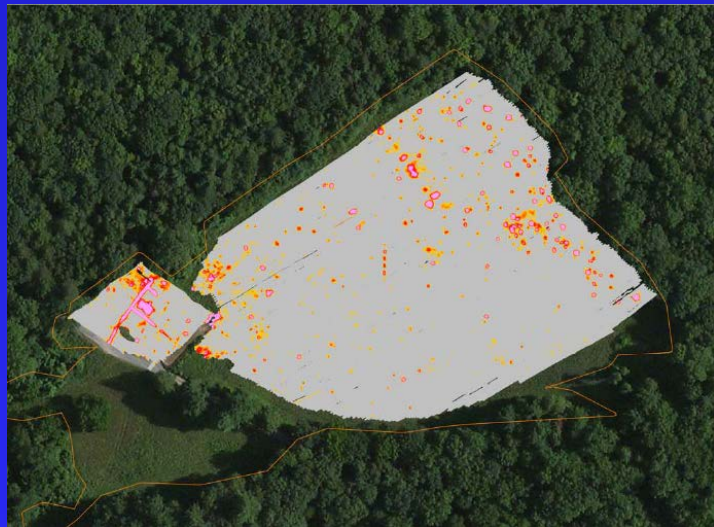


Removal Action - Subsurface Removal

- Digital geophysical surveys were performed to detect MEC and munitions debris in the subsurface
- Full coverage surveys were completed at both herbaceous openings
- Digital data were processed and analyzed to identify individual metal items and potential burial pits
- Approximately 1,000 locations were intrusively investigated



Removal Action - Subsurface Removal

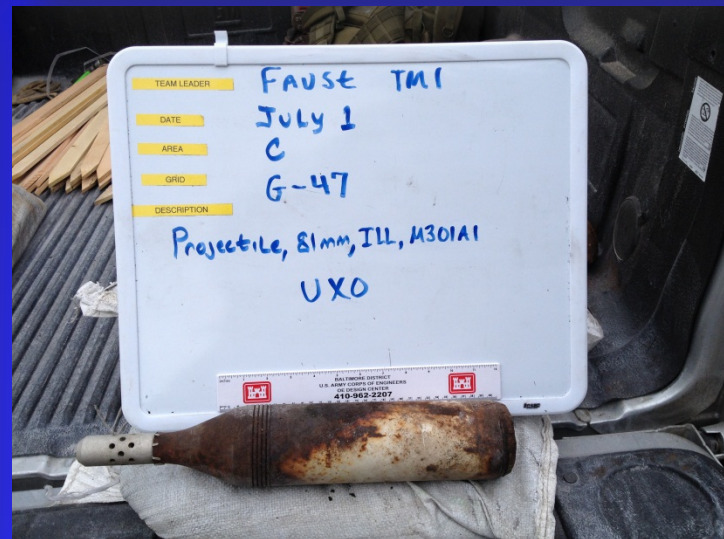


Remedial Action - Results

- The removal action was completed within 108 work days
- 60 unexploded ordnance were recovered during surface removal action activities
- 7 discarded military munitions were recovered during subsurface removal activities
- More than 9,400 pounds of munitions debris were removed, inspected and recycled



Remedial Action - Results



Containment and Controls / Land Use Controls

- Signs were installed at key access points to State Game Land 211
- Brochures/Awareness Bulletins are prepared and ready for distribution
- Awareness video is being produced

FOR YOUR INFORMATION POTENTIAL MUNITIONS



37 mm Projectile



105 mm Projectile



37, 75 and 155 mm Projectiles

What do I do if I find munitions or a suspicious item?
FOLLOW THE 3Rs OF EXPLOSIVES SAFETY

Recognize: Munitions are dangerous.

Retreat: Do not touch, move, or disturb item. Mark area appropriately for responders.

Report: **FIRST CALL 911** with description and location of item.

Public Awareness

The Ricochet Area Munitions Response Site is located within State Game Lands 211. Munitions may be present due to historical training activities conducted at Fort Indiantown Gap. Munitions pose an explosive hazard if touched, moved, or disturbed.

If you see munitions or a suspicious item, follow the 3Rs: Recognize, Retreat, and Report.

For More Information:

 Pennsylvania National Guard
Public Affairs Office
Building 8-41, Fort Indiantown Gap
Annville, PA 17003-5092
717-861-8829

 Pennsylvania Game Commission
Southeast Regional Office
253 Snyder Road
Reading, PA 19605
610-926-3136

After Action Report

- Project activities and operations
- MEC removal action results
- Quality control activities and results
- Dig sheet data
- MEC disposition/ accountability records



Schedule/ Remaining Actions

- Final Report – Winter 2014
- CERCLA 5-Year Reviews
- Construction support as required by the Pennsylvania Game Commission

The United States Army

Presents

Sergeant WOOF

PROTECT
yourself and family,
friends and community.
LEARN and FOLLOW
the **3Rs**

RECOGNIZE: Realize that you may have found ammo

RETREAT: Do not touch, move or disturb ammo—
carefully leave the area, but do not run

REPORT: Tell a parent or other adult to call 911



<https://www.denix.osd.mil/uxosafety>



Fort Indiantown Gap, Pennsylvania Military Munitions Response Program



Questions?



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SOLUTIONS.

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