



# Fort Indiantown Gap, Pennsylvania Military Munitions Response Program



## Ricochet Area Munitions Response Site Proposed Plan

21 June 2012

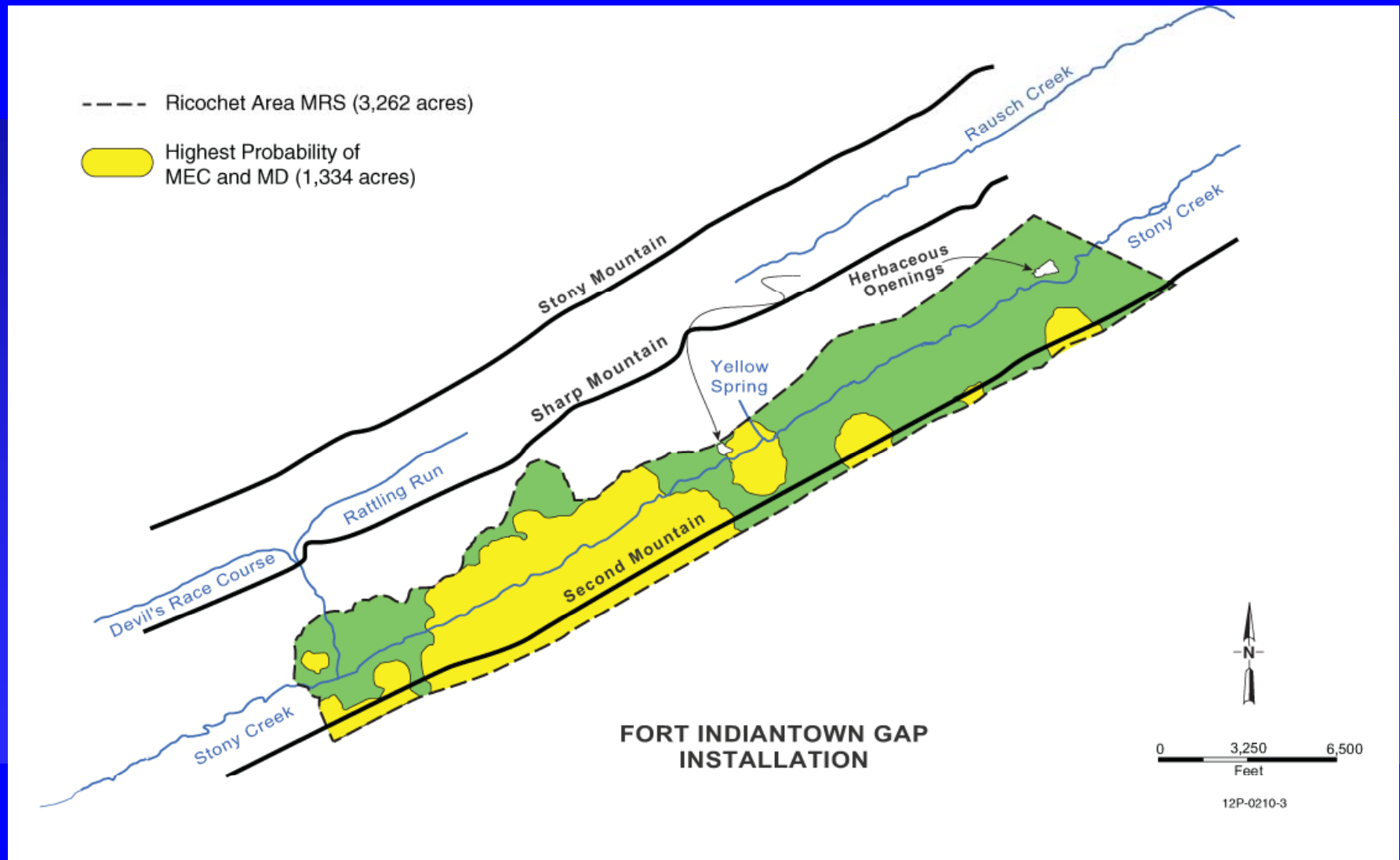


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# Proposed Plan Overview

- Describes the various cleanup alternatives proposed for the Ricochet Area MRS
- Identifies the proposed cleanup alternative
- Provides the public an opportunity to comment on the proposed cleanup alternative

# Ricochet Area Munitions Response Site



# Cleanup Objective

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

# Feasibility Study Summary

- Finalized in January 2012
- Develops and analyzes cleanup alternatives
- Five cleanup alternatives were evaluated

# Cleanup Alternatives

- Alternative 1: No action
- Alternative 2: Containment and controls
- Alternative 3: Surface removal of munitions with containment and controls
- Alternative 4: Focused surface and subsurface removal of munitions with containment and controls
- Alternative 5: Removal of munitions to detection depth with containment and controls

## Evaluation Criteria – Compared to Each Alternative

1. Overall protection of human health and the environment
2. Compliance with applicable or relevant and appropriate requirement (ARARs)
3. Long-term effectiveness and performance
4. Reduction of toxicity, mobility, or volume
5. Short-term effectiveness
6. Implementability
7. Cost
8. State (support agency) acceptance
9. Community acceptance

# Cleanup Alternative 1

- No Action
  - Baseline for comparison to the other proposed alternatives
  - No action will be taken to locate, remove, and dispose of munitions
  - No implementation of programs to inform the public of explosives hazards
  - Cost: \$0



# Cleanup Alternative 2

- Containment and Controls
  - Reduce exposure risk through public awareness
  - Containment and controls may include:
    - Brochures and fact sheets
    - Signs and information added to printed material
    - Notifications included with permits and contracts
    - Awareness videos
  - Cost: \$181,998

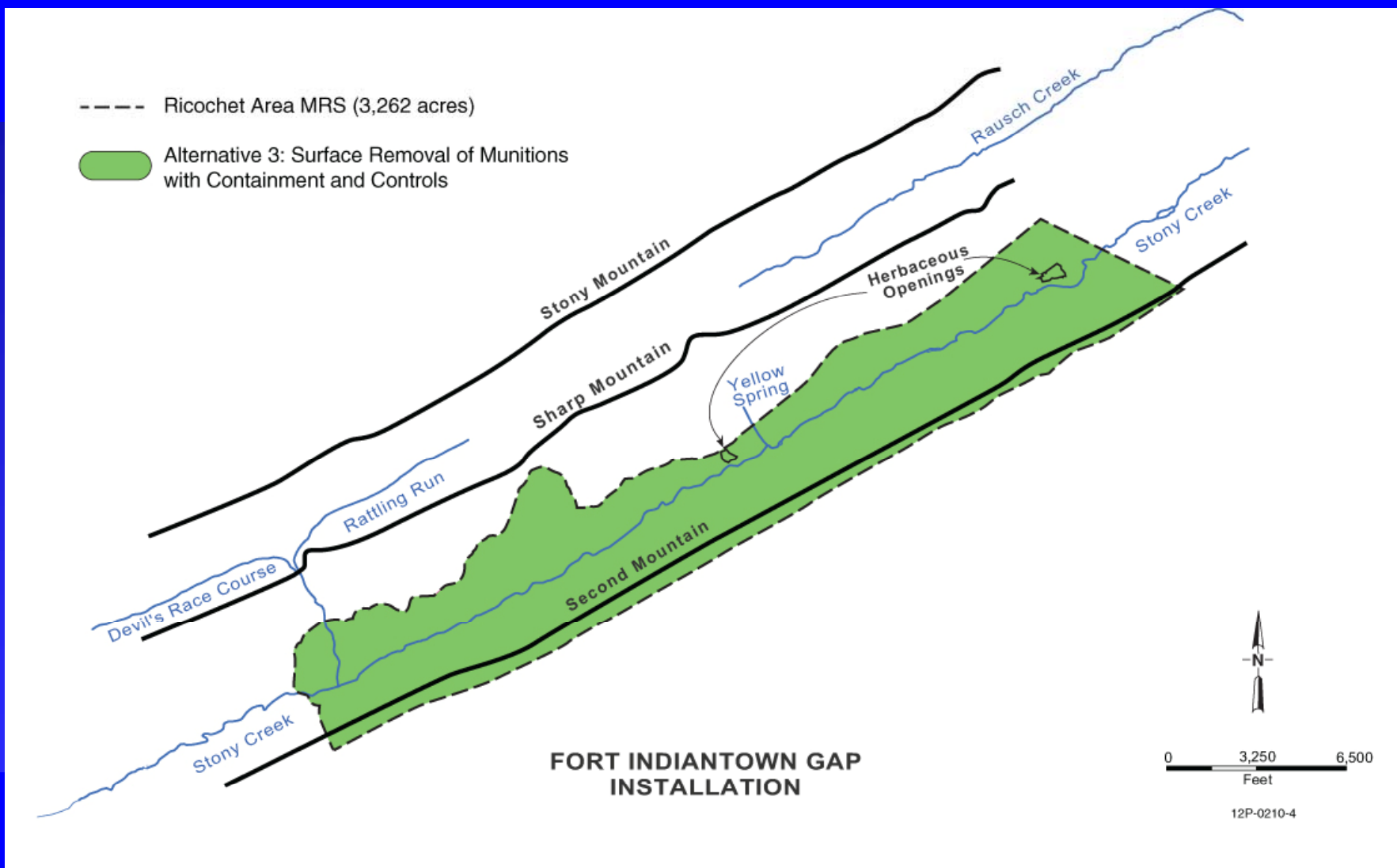


# Cleanup Alternative 3

- Surface Removal of Munitions with Containment and Controls
  - Removal of munitions detected on the ground surface across the entire 3,262 acre MRS with magnetometer instrument
  - Munitions in the subsurface will not be removed
  - Brush clearing as needed for accessibility
  - This alternative also includes containment and controls
  - Cost: \$16,182,335



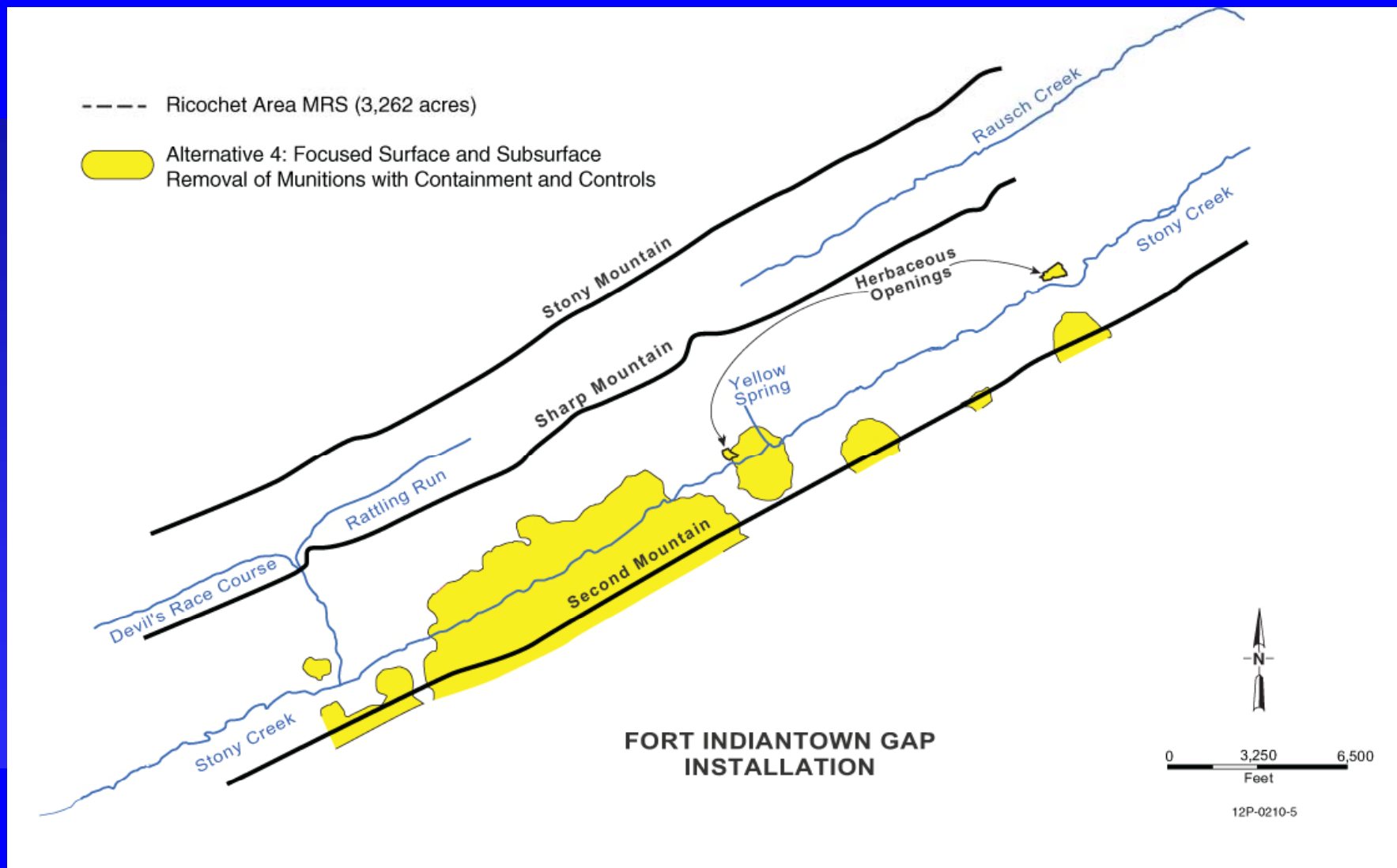
# Cleanup Alternative 3



# Cleanup Alternative 4

- Focused Surface and Subsurface Removal of Munitions with Containment and Controls
  - Surface removal in locations with the highest probability of encountering munitions (1,334 acres)
  - Removal of munitions to detection depth within herbaceous openings (11 acres)
  - Brush clearing as needed for accessibility
  - This alternative also includes containment and controls and construction support as needed for timber management
  - Cost: \$6,757,826

# Cleanup Alternative 4



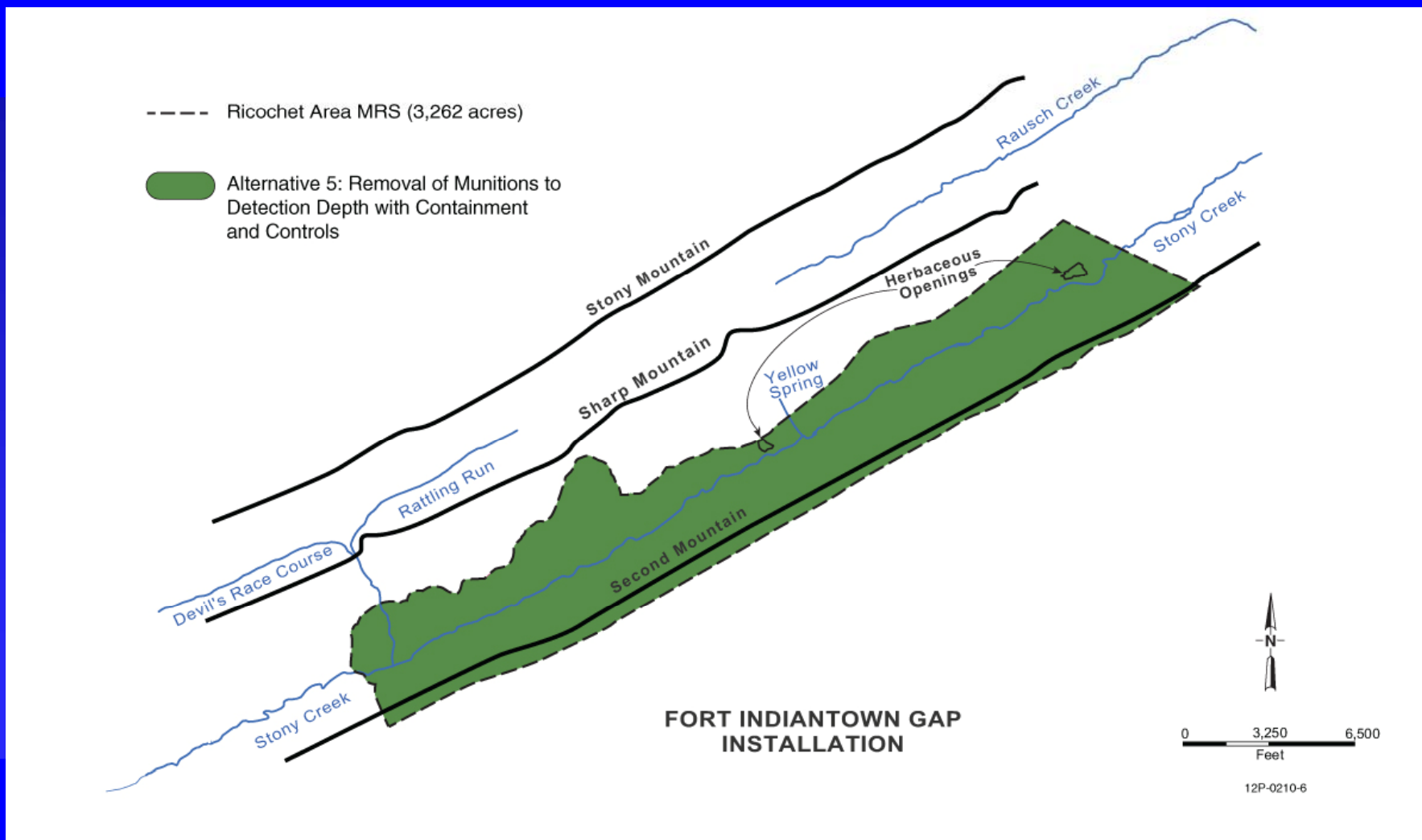
# Cleanup Alternative 5

- Removal of Munitions to Detection Depth with Containment and Controls
  - Removal of munitions to detection depth across the entire 3,262 acre MRS
  - Brush clearing as needed for accessibility
  - This alternative also includes containment and controls
  - Cost: \$24,315,156





# Cleanup Alternative 5



# Evaluation of Cleanup Alternatives

Evaluation Criteria	Alternative 1	Alternative 2	Alternative 3	Preferred	
				Alternative 4	Alternative 5
1. Overall protection of human health and the environment	■	□	■	■	■
2. Compliance with applicable or relevant and appropriate requirements	■	■	■	■	■
3. Long-term effectiveness and permanence	■	■	□	□	■
4. Reduction of toxicity, mobility or volume through treatment	■	■	□	□	□
5. Short-term effectiveness	■	■	□	□	□
6. Implementability	■	■	■	■	■
7. Cost	\$0	\$181,998	\$16,182,335	\$6,757,826	\$24,315,156
8. State regulator acceptance	Will be evaluated after public comment period.				
9. Community acceptance	Will be evaluated after public comment period.				

■ = Favorable, meets criteria

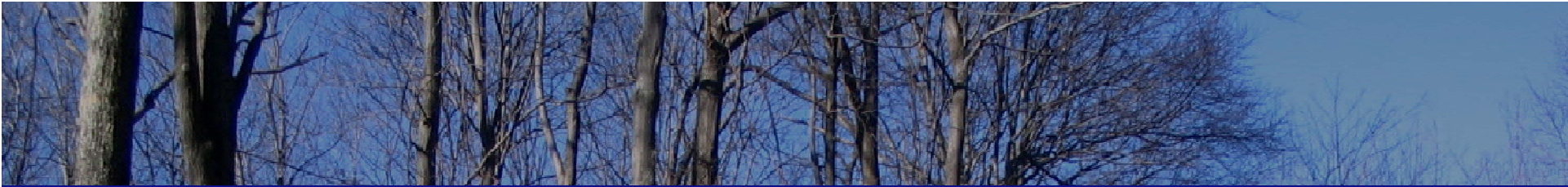
□ = Moderately favorable

■ = Not favorable, does not meet criteria

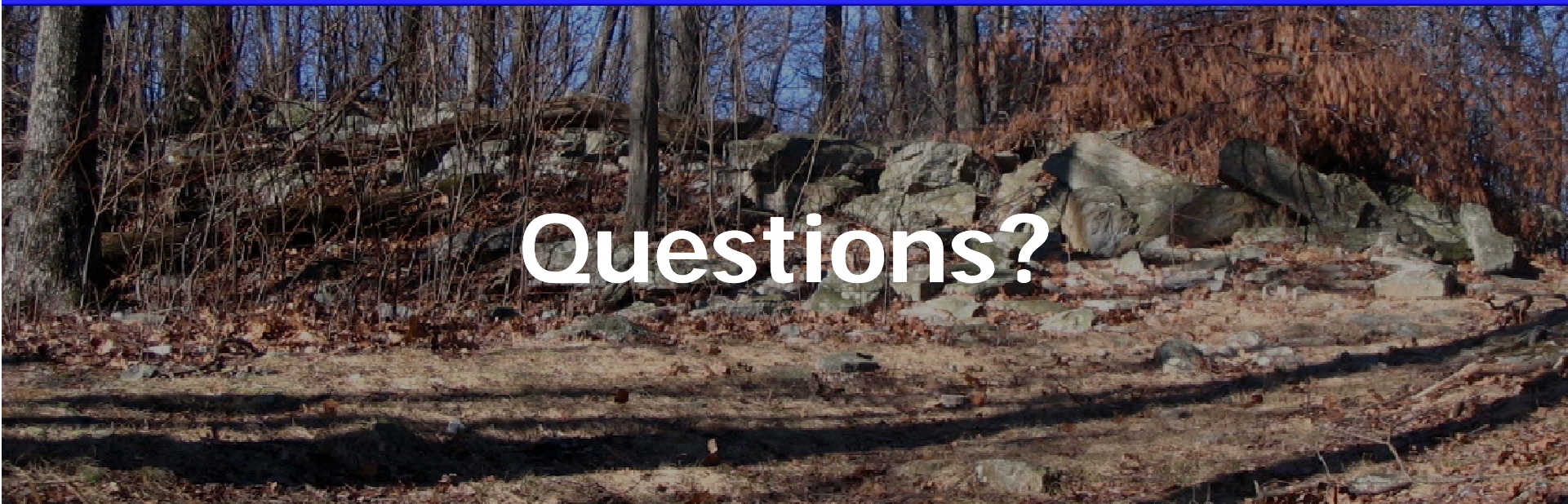


# Next Steps

- Public comment period June 7 to July 6, 2012
- Comments are used to evaluate the preferred alternative prior to deciding on the final cleanup strategy
- The selected alternative will be advertized and documented in a Record of Decision



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