



Fact Sheet

June 2011

Ricochet Area Munitions Response Site

Draft Final Remedial Investigation Report Summary

Introduction

The National Guard conducted a remedial investigation (RI) at the Ricochet Area Munitions Response Site (MRS) in State Game Lands 211. The 8,002-acre site is located between Second and Stony Mountains within eastern Dauphin County and northern Lebanon County in south central Pennsylvania. State Game Lands 211 are owned by the Commonwealth of Pennsylvania and managed by the Pennsylvania Game Commission. The Ricochet Area MRS lies north of the Fort Indiantown Gap Military Reservation, Annville, PA.

Status of the Draft Final RI Report

The National Guard submitted the draft final RI report to the Pennsylvania Department of Environmental Protection (PADEP) and U.S. Environmental Protection Agency (EPA) for review. PADEP's and EPA's comments and questions will be addressed and then the document will be finalized.

Purpose of the RI

The purpose of the RI was to collect sufficient data to determine the nature and extent of munitions and explosives of concern (MEC) and munitions constituents (MC). The RI results will be used to develop and evaluate remedial alternatives and provide cleanup recommendations as part of the feasibility study (FS).

Overview of RI Field Work

The RI field work focused on visual and geophysical surveys of a representative portion of the site to identify areas of MEC and munitions debris (MD) and soil sampling for MC. Field work occurred March through May 2010 and March 2011. The cumulative acreage surveyed in transects and grids was 374 acres across the entire site. Soil sampling consisted of eight samples collected from beneath MEC items, nine samples collected after these MEC items were detonated, and background soil samples. Samples were analyzed for explosives and/or metals.

Results of the visual and geophysical surveys identified 13 MEC and 121 items of MD that were removed from

the site and/or destroyed. Cultural debris, totaling 594 items, was also recovered.

The 13 MEC items identified and disposed of included:

- Seven 75-mm (millimeter) high explosive projectiles, classified as unexploded ordnance (UXO).
- One 155-mm high explosive projectile (Disposed of by a U.S. Army Explosive Ordnance Disposal team).
- One 75-mm armor piercing high explosive projectile (UXO).
- Four MK-2A4 primers, classified as discarded military munitions.

Approximately 10% of the munitions items (including debris) found represent an explosive hazard. Most items, including the UXO, were located at or near the ground surface and at a maximum of 12 inches below the surface. The highest density of MEC and munitions debris is located between the ridgeline of Second Mountain and Stony Creek in the south-central portion of the site.

Soil analytical results showed no significant detections of explosives or metals above background or PADEP standards.

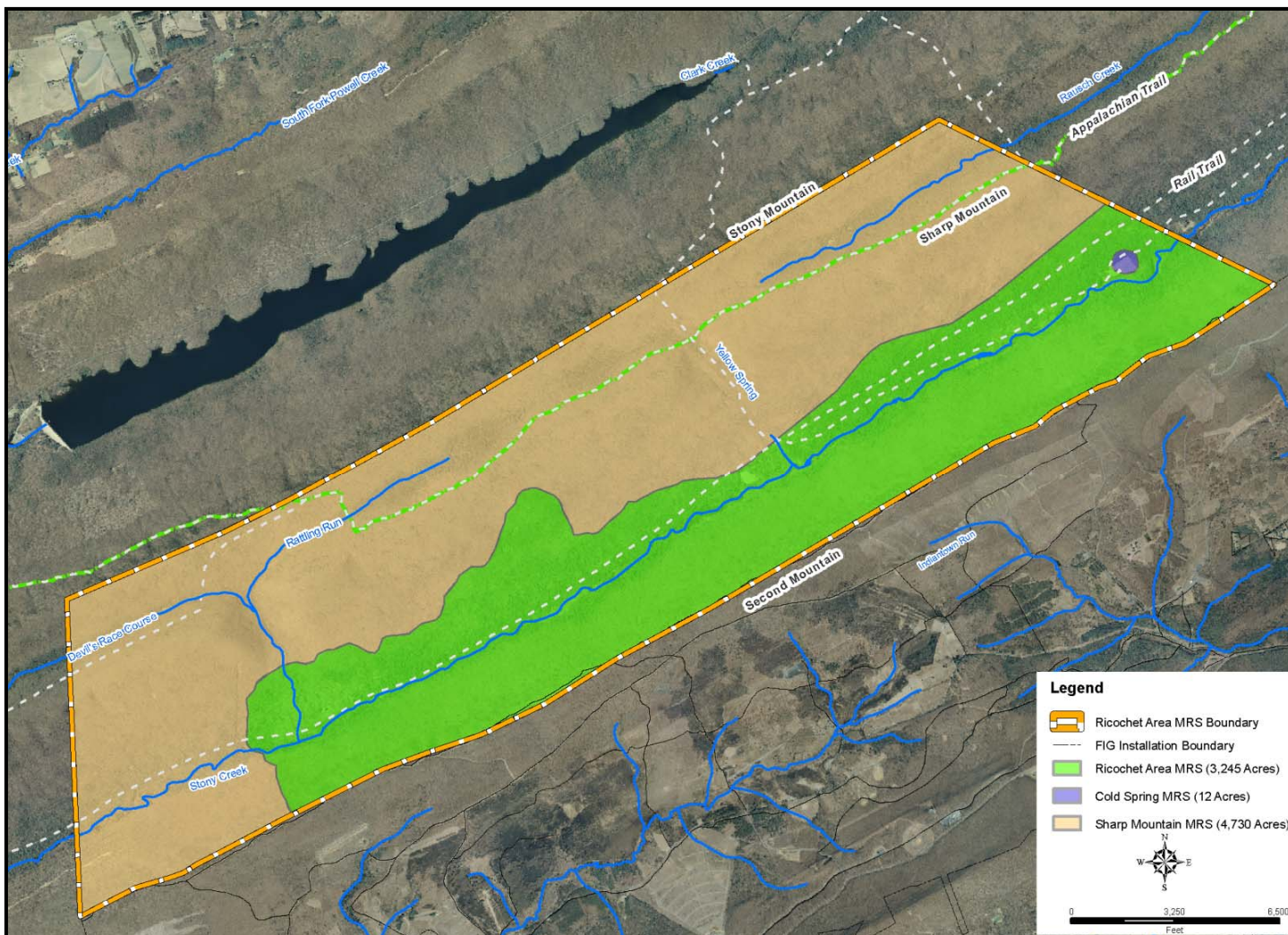
Human Health and Ecological Risks

A Human Health Risk Assessment (HHRA) and Screening Level Ecological Risk Assessment (SLERA) were performed to evaluate the potential risk associated with MC. The HHRA exposure and toxicity assessment concluded that no remedial action was necessary to protect public health, welfare, or the environment based on the current and intended future use of the site (i.e., recreational visitors and site workers).

The SLERA concluded that the potential ecological risk for populations from MC in soil is low.

Remedial Action Objectives

Based on the Remedial Investigation results, the following subdivisions of the Ricochet Area MRS and remedial action objectives were developed for the protection of human health and the environment:



Proposed Ricochet Area Munitions Response Site Designations

- **Ricochet Area MRS** – This MRS consists of 3,245 acres located along the northern slope of Second Mountain into the valley between Second and Sharp Mountains and encompassing both the Rail Trail and Stony Creek. The Ricochet Area MRS is recommended for further remedial alternative evaluation as part of the FS to be protective of human health.
- **Cold Spring MRS** – This MRS consists of 12 acres located at the Cold Springs clearing. The Cold Spring MRS is recommended for further remedial alternative evaluation as part of the FS to be protective of human health.
- **Sharp Mountain MRS** – This MRS consist of the 4,730 acres comprising the southern slope and top of Sharp Mountain. No further action is recommended for the Sharp Mountain MRS based on the lack of MEC and MD observed during the RI.

For More Information

Administrative Record File and Information Repository

Copies of the final technical and other project documents

are available to the public at the Annville Free Library and the Pennsylvania Department of Military and Veterans Affairs Website:

Annville Free Library
216 East Main Street
Annville, PA 17003

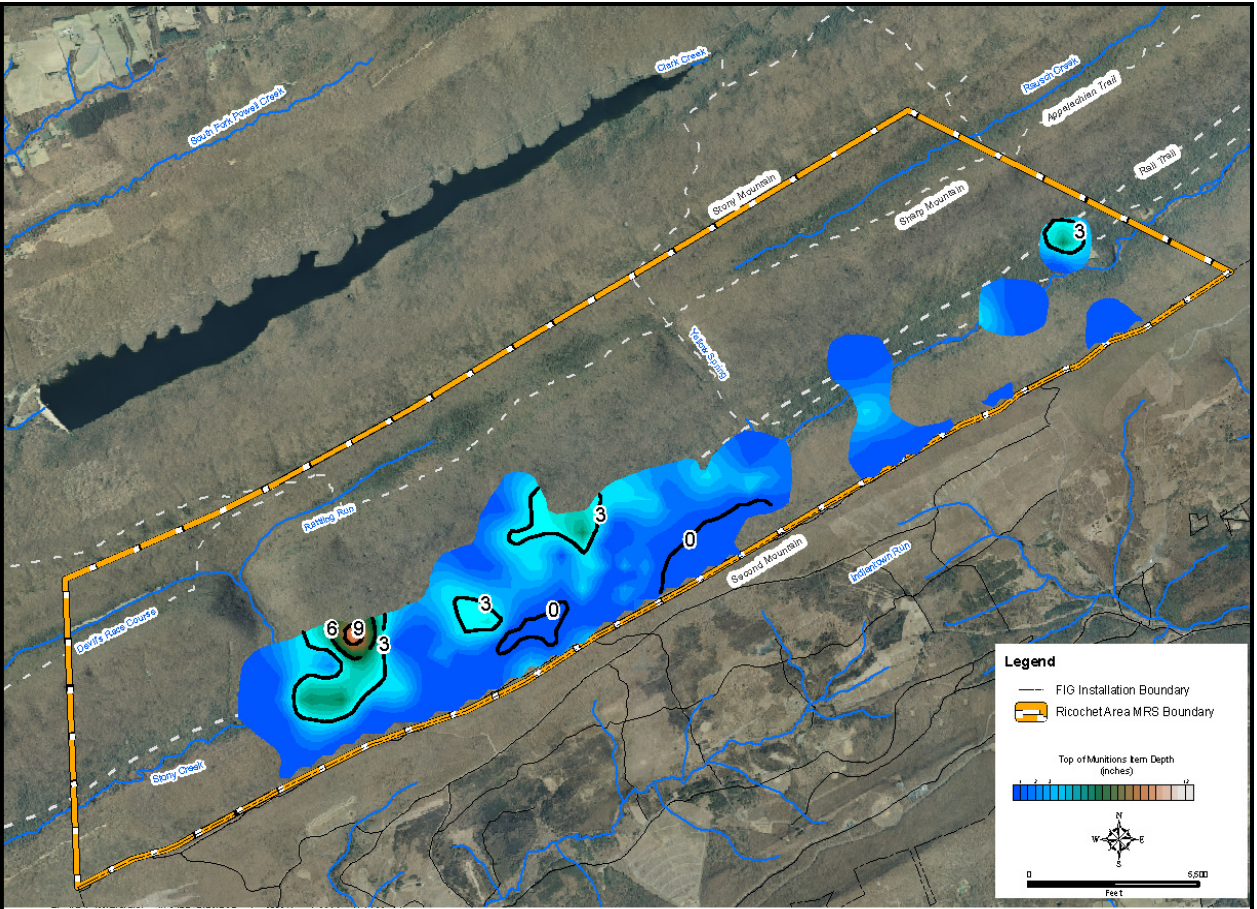
Ricochet Area MRS Project Website

<http://www.dmva.state.pa.us> Click on “Featured Topics,” then click on “Ricochet Area”

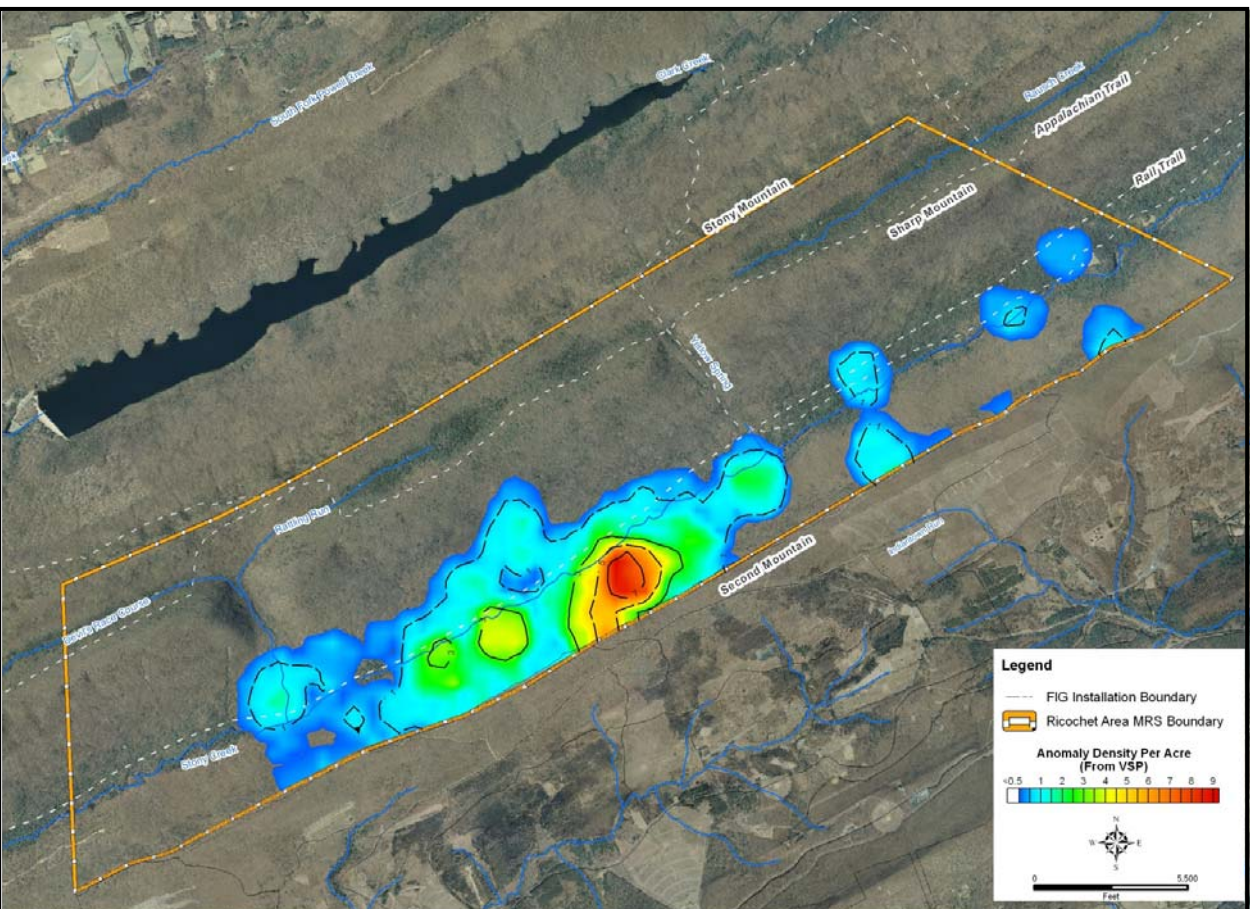
Questions regarding the Ricochet Area MRS project may be directed to Jo Anderson, Pennsylvania of Military and Veterans Affairs, Bureau of Environmental Management, at (717) 861-8181.

Ricochet Area MRS Project Schedule

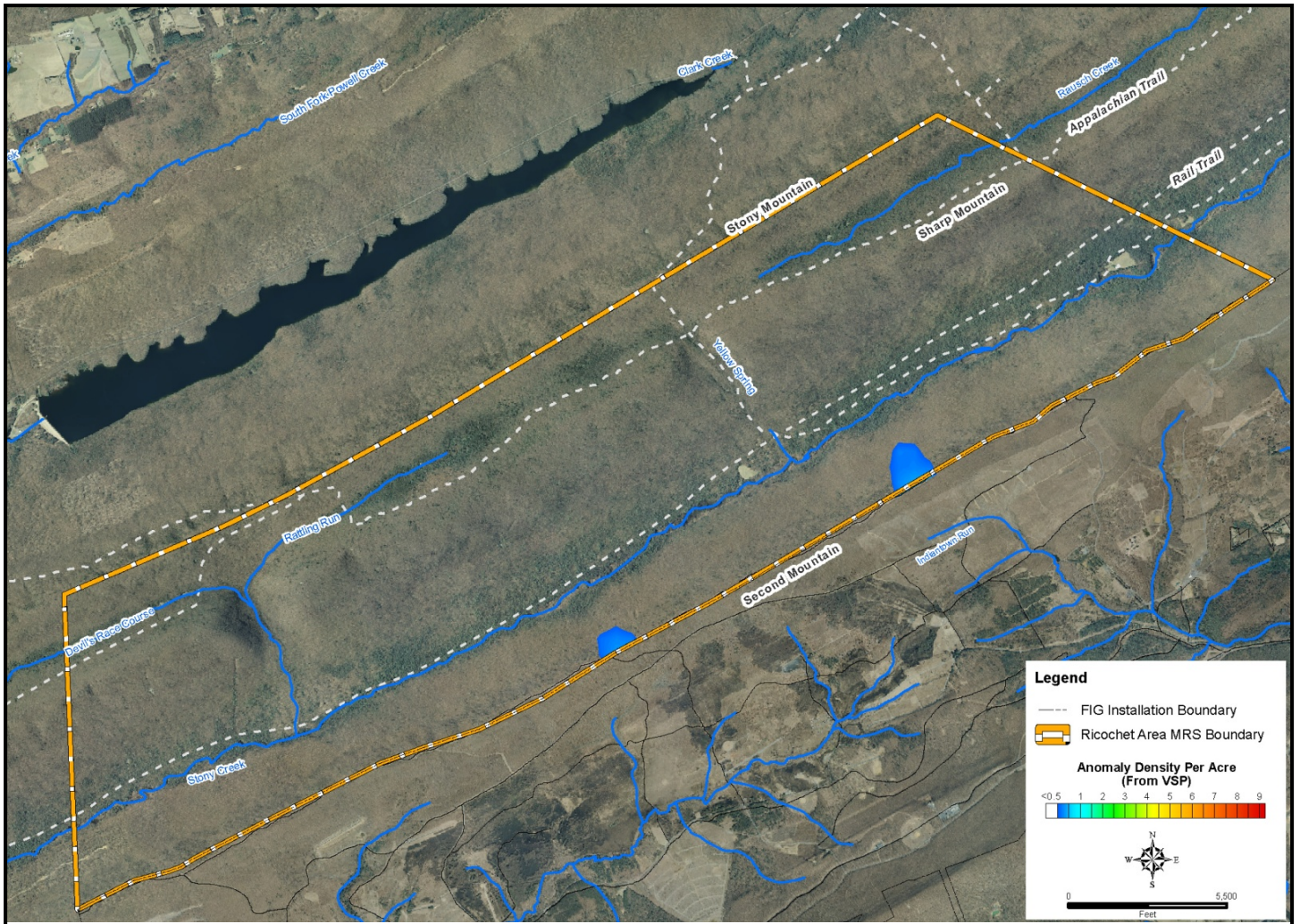
- 2007-2008 – Site Inspection
- October 2009-February 2010 – Project planning
- March-May 2010 – RI field work
- June 2010-May 2011 – Prepare RI report
- June-July 2011 – Finalize RI report
- 2011- 2012 – Prepare feasibility study



Depth Distribution of Munitions Items



Calculated Densities – Category 1-2-3



Calculated Densities – Category 1