

**Meeting Minutes
April 26, 2012**

Project: Former Camp Butner Restoration Advisory Board (RAB)

Date: April 26, 2012, 4:00 – 5:30 PM

Place: Butner Town Hall
415 Central Avenue
Butner, North Carolina 27509

Attendees:

The table below presents a list of the attendees to the April 26, 2012, RAB meeting, and Attachment 1 provides the attendance roster.

Name	Organization
Colonel Steve Baker	U.S. Army Corps of Engineers (USACE) Wilmington District
Ray Livermore	USACE Wilmington District
Sam Colella	USACE Wilmington District
Chris Cochran	USACE Huntsville Center
Julie Hiscox	USACE Savannah District
Michael Bauman	USACE Savannah District
Derek Anderson	HydroGeoLogic, Inc. (HGL)
Jessica Berg	HGL
Marti Morgan	North Carolina Department of Environment and Natural Resources (NC DENR)
Vicky Cates	Town of Butner (Chair woman)
Tommy Marrow	Town of Butner (Town Manager)
Tom Lane	Town of Butner (Mayor)
Hope Taylor	Clean Water for N.C.
Richard Veazey	Citizen of Granville County

Prepared By: Jessica Berg and Derek Anderson

Topic: RAB Meeting 18

Introduction

Vicky Cates called the meeting to order and requested an introduction of all meeting attendees. Minutes from the April 28, 2011, meeting were approved following the introduction.

RI Update

Ray Livermore, USACE provided an introduction of Derek Anderson and HGL. Derek Anderson began the presentation (see attachment 2) with an overview of the Munitions and Explosives of Concern (MEC) safety and provided an introduction of the Remedial Action (RI)/

Feasibility Study (FS) goals and objectives. Mr. Anderson also identified the project delivery team as the USACE, NC DENR, and HGL. Chris Cochran, USACE, indicated at this time that questions and comments should be noted during the course of the meeting as they are discussed during the slide presentation.

Mr. Anderson continued with the presentation and identified the project team, provided an overview of the Formerly Used Defense Site program and the Military Munitions Response Program (MMRP) project process. At this time, Marti Morgan from the NC DENR inquired whether the prior work followed the MMRP process. This was followed by a discussion of the MMRP project process and Mr. Livermore indicated that the EE/CA completed for the former Camp Butner served as a Site Investigation and the USACE is now proceeding with the RI/FS and is following the CERCLA process mandated by Congress. Ms. Cochran also noted that an Archive Search Report and an Archive Search Report addendum have been completed to which Mr. Livermore added that both provide the historical information available in a Preliminary Assessment (PA). It was noted that all these documents are available for review on the Camp Butner website.

Ms. Cochran referred the attendees to Slide 7 and commented on the importance of public involvement as shown in the slide and that the RI/FS phase, as well as the Remedial Design (RD) phase, will require the most input from the public. Mr. Livermore added that a Proposed Plan would be completed between the RI/FS and RD phases and would involve another meeting and comment period whereby the public and RAB members would have an opportunity to be involved with the decision-making process.

Mr. Anderson continued the presentation by presenting examples of MEC that may be present on former Camp Butner property. An overview of past investigations was presented, followed by a brief discussion of the ESTCP pilot study completed in 2011. The meeting attendees discussed the technology used for the study and discussed available technologies that may be used for the former Camp Butner project.

HGL's Mr. Anderson provided a review of the RI/FS objectives and tasks as identified in Slide 11 and identified the areas to be addressed, including the Flame Thrower Range (FTR) and Hand Grenade Range (HGR). Mr. Anderson noted however, that the FTR and HGR would not require any field work because these two sites have been previously characterized. Ms. Morgan requested additional clarification as to whether the sites had been cleared 100 percent. Mr. Livermore provided an overview of the previous work completed at these sites, and Mr. Anderson indicated that enough information was available to characterize the sites within the RI/FS. The National Guard property was also discussed and it was noted that the National Guard property is included as a result of the nature of the National Guard's training. Mr. Colella requested clarification as to whether characterized areas would be excluded from the RI/FS investigation. Mr. Livermore and Mr. Anderson indicated that formerly characterized areas would, in fact, be excluded from the RI/FS field efforts. It was also noted that any unexploded ordnance (UXO) discovered during the field efforts would be detonated in place by the contractor. Mr. Anderson indicated that the effect on residential areas was anticipated to be minimal since formerly cleared areas completed as part of the EE/CA and/or Removal Actions would not be investigated.

Ms. Cochrane noted that an Explosives Site Plan (ESP) was being developed to address all possible safety concerns. The USACE Huntsville Center and USACE Wilmington District are currently reviewing the ESP and would obtain final approval, which would be a 3 to 4-week process.

Mr. Anderson described the process of conducting transects of the site property to which Ms. Morgan inquired as to whether only visual surveys were being conducted. Mr. Anderson elaborated that the field team would be using visual observations as well as a hand-held metal detector. Mr. Veazey stated that one problem that may be encountered is when personnel would shoot into the woods. He has, on some occasion, encountered "pristine" UXO in the woods. His concern is for deer hunters who may encounter these items in the woods. Mr. Veazey inquired as to whether it would be possible to use air technology to detect these items in wooded areas. Ms. Cochrane indicated that such technology has been considered and Mr. Livermore confirmed this technology to have been considered as part of the EE/CA, but that the technology does not work effectively in wooded areas. Following some discussion it was noted by Ms. Morgan that reviewing 1940s aerial photographs would be an effective way of seeing where training occurred and where bomb craters may be located.

Mr. Anderson continued the discussion on transects by identifying the planned site coverage. Regarding the amount of work to be conducted, Ms. Cochrane pointed out that the optimal approach was developed in collaboration by geophysical teams at HGL and at the USACE. Ms. Morgan asked whether the work plan would identify the prior work conducted, to which Mr. Livermore and Mr. Anderson answered in the affirmative.

In terms of environmental sampling, Mr. Anderson noted that 10 samples each would be collected for increment surface samples, discrete surface samples, discrete subsurface samples, discrete sediment samples from each MRS, and 10 samples each would be collected for background incremental samples and drinking water well samples at locations outside of the MRSs. Ms. Morgan requested information regarding the values being proposed for the work. Mr. Anderson noted that EPA and North Carolina values would be evaluated. Ms. Morgan stated that North Carolina does not have specific values for explosives, but the levels for metals would need to be considered, which was agreed by all attendees. Mr. Veazey requested additional clarification as to why sampling was being conducted since no "hazardous" materials were used at former Camp Butner. Ms. Cochrane explained that the USACE would be interested in identifying any hazardous materials that may be at high concentrations, such as TNT and lead. In addition, Ms. Cochrane noted that there have been no reports completed to date that show sampling data for contamination that may be present as a result of munitions.

There was a brief discussion regarding the completion of the project work plan, which was anticipated to be available for the State to review in mid-June. Mr. Livermore indicated that a TPP meeting would take place following the completion of the Draft Final Work Plan. Ms. Cochrane noted that the meeting did not necessarily need to occur in Butner; however, Mr. Livermore noted that to have the National Guard present at the meeting, it might be beneficial to hold the meeting in Butner.

Tommy Marrow asked if the USACE has ever investigated any ammunition dumps at the former Camp Butner. Ms. Morgan recalled an investigation at the lake that did not find anything. Mr. Marrow inquired about wooded areas to which Mr. Livermore answered that the USACE hopes to locate any ammunition dumps in wooded areas during the course of the current investigation. There was some discussion of mounds that have been seen in the woods and it was requested that any such mounds be identified to the USACE and they would be investigated. Colonel Baker noted that any disposal of ammunition may have been done following training exercises and would likely be along the route to the ammunition depot. Mr. Livermore noted that the "Lakeview" area has been identified as a possible area of concern and has been investigated and characterized. Mr. Marrow then asked about any ammunition dumps that may have resulted when the base closed. Ms. Cochrane agreed that burying ammunition would have been acceptable method of disposal during and after World War II and that by doing transects these areas would be identified.

Mr. Anderson concluded the presentation on the RI/FS with a summary of the upcoming field efforts and with a review MEC safety and where additional information regarding the site property may be obtained.

Ordnance Discovery Update

No new ordnance was discovered since the last RAB meeting on April 28, 2011.

School/Education Program Discussion

Mr. Livermore requested a brief discussion of the school/education outreach program to determine how current the program is. All attendees agreed that the next meeting should include a detailed discussion of the program and that safety and informational materials should be distributed in the schools again.

Public Questions

Colonel Baker asked the attendees of the meeting if there were any public sentiments the USACE should be aware of regarding the work being conducted at the former Camp Butner. Mayor Lane stated there to not have been much feedback from the public but noted that most community concern is from new residents who are not as familiar with the history of the area. Other questions from the public were addressed during the RI/FS presentation.

Closing/Action Items

Action items for the next meeting include a discussion of the school/education program and distributing materials to schools again.

Hope Taylor noted that informational material and internet-based activities should be geared to younger kids, as well as High School kids.

The next RAB meeting was tentatively scheduled for Thursday, October 25, 2012, at the Butner Town Hall multi-purpose room. Mr. Livermore noted that the meeting date may be subject to change based on field activities.

At 5:40 p.m., Ms. Cates moved to adjourn and her motion was carried unanimously.

ATTACHMENT 1

U.S. Army Corps of Engineers, Wilmington District
Restoration Advisory Board Meeting

Project: Camp Butner Formerly Used Defense Site

Date: April 26, 2012

Place: Butner Town Hall Multi-Purpose Room, 415 Central Avenue, Butner, North Carolina

Name	Address	Affiliation (Private, Government, etc.)	Place Name on Mailing List (Yes or No)
Richard Veazey	4149 Range Rd Stem, NC 27581	Past-Chair	Yes
Marti Morgan		NC DENR	Yes
Julie Hiscox	USACE	SAVANNAH DIST	YES
Chris Cochran	USACE	Huntsville Center	Yes
Jessica Berg	HGL		
Derek Anderson	HGL	HGL	Yes
Vicky Cates	Town of Butner	Town Council	Yes
Tommy Morrow	Town of Butner		Yes
Hope Taylor	200/555 Jack Clement Rd, Stem Clean Water for NC	2758	Yes

U.S. Army Corps of Engineers, Wilmington District
Restoration Advisory Board Meeting

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Date: April 26, 2012

Place: Butner Town Hall Multi-Purpose Room, 415 Central Avenue, Butner, North Carolina

Name	Address	Affiliation (Private, Government, etc.)	Place Name on Mailing List (Yes or No)
Ray LIVERMORE	USACE	WILMINGTON DISTRICT	
Col Steve Baker	USACE	Wilmington Dist	
Michael Baum	USACE	Savannah District	
A.D. Locklear	GRANVILLE Co.		
Anthony Homerton	Perman Co		
W. H. Haverstick	Granville Co.		

ATTACHMENT 2

Remedial Investigation/Feasibility Study

**Former Camp Butner
Remedial Investigation (RI)/Feasibility Study (FS)**

US Army Corps of Engineers, Huntsville Center

US Army Corps of Engineers, Wilmington District

26 April 2012



US Army Corps of Engineers
BUILDING STRONG

Munitions and Explosives of Concern (MEC) Safety



RECOGNIZE

Military items can be
DANGEROUS.

RETREAT

DO NOT TOUCH IT!
Move away from the area.

REPORT

CALL 911.



Goals of the RI/FS

- **Protect Human Health and Welfare**
- **Protect and Preserve the Environment**
- **Manage Risk**



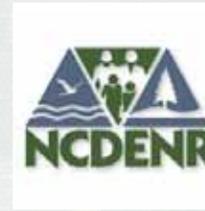
Project Delivery Team

US Army Corps of Engineers



US Army Corps
of Engineers

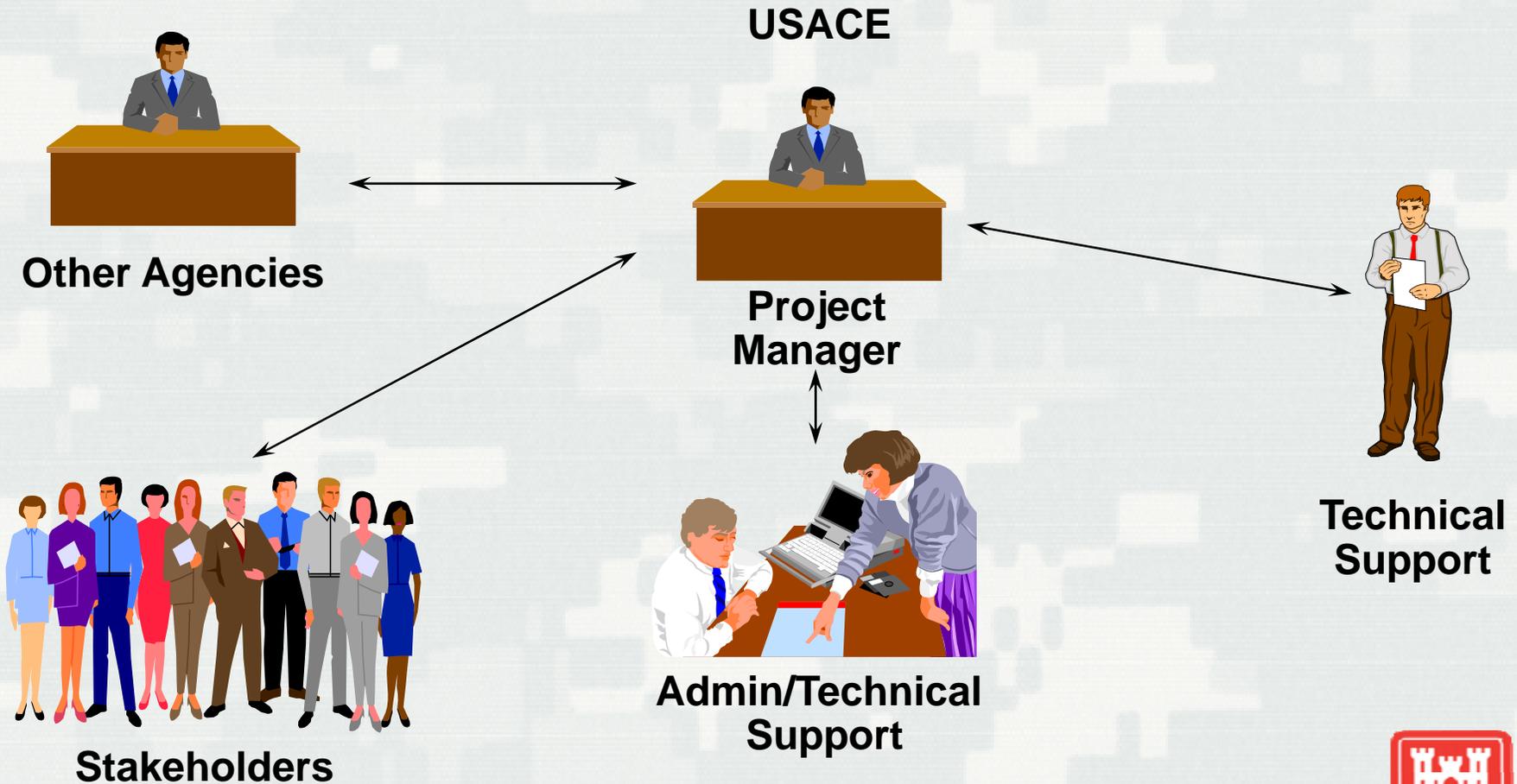
North Carolina Department of
Environment and Natural
Resources



HydroGeoLogic, Inc. (HGL)



Project Team Composition

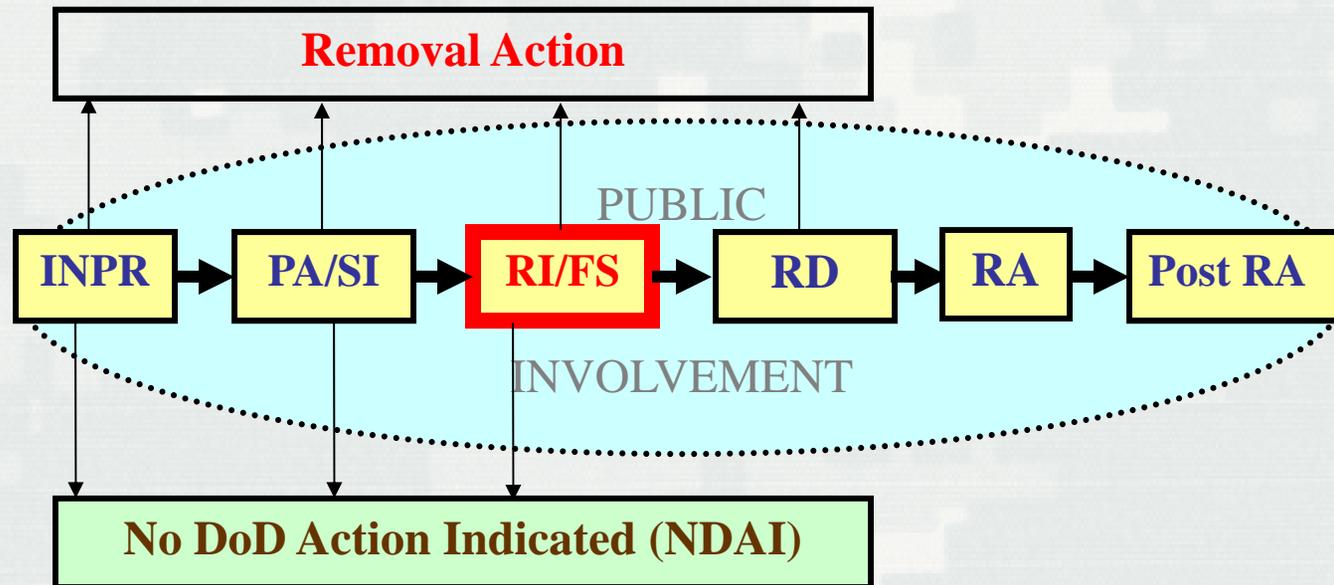


FUDS Program

- **Congress established the Formerly Used Defense Sites (FUDS) Program in 1986.**
- **The USACE manages the FUDS program for the Department of Defense (DoD).**



MMRP Project Process



MMRP: Military Munitions Response Program

INPR: Inventory Project Report

PA: Preliminary Assessment

SI: Site Inspection

RI/FS: Remedial Investigation/Feasibility Study

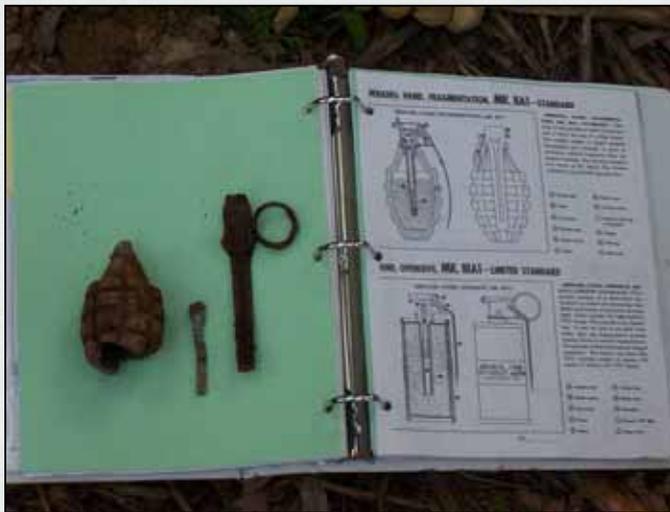
RD: Remedial Design

RA: Remedial Action



Munitions and Explosives of Concern (MEC)

Our focus is minimizing the safety hazards from MEC remaining at this FUDS site.



MK II Hand Grenade



81mm Mortar



60mm Mortar



37mm Projectile



Munitions and Explosives of Concern (MEC)



75mm Projectile



M9A1 Rifle Grenade



M8 3.5-inch Rocket



M6 2.36-inch Rocket



Past Investigations

- **Engineering Evaluation (EE)/Cost Analysis (CA) 2001**
 - ▶ An EE/CA evaluated 77 acres including 330 grids throughout MRS Range Complexes 1 and 2.
- **GIS-Based Historical Photographic Analysis 2001**
 - ▶ An analysis of 1943, 1945, and 1949 aerial photos identified MEC-related features (e.g., crater fields, bombing targets, etc.).
- **Removal Actions (RAs) 2003, 2004, 2006, 2008-2010**
 - ▶ RAs covered approximately 20 acres at the Flame Thrower Range, 26 acres at the Lakeview Subdivision, and 250 parcels (averaging 1.75 acres each) throughout Range Complexes 1 and 2.
- **ESTCP Pilot Study 2011**
 - ▶ An advanced technology study covered 30 acres for detection of 37mm, 105mm, and 155mm projectiles.



RI/FS Objectives and Tasks

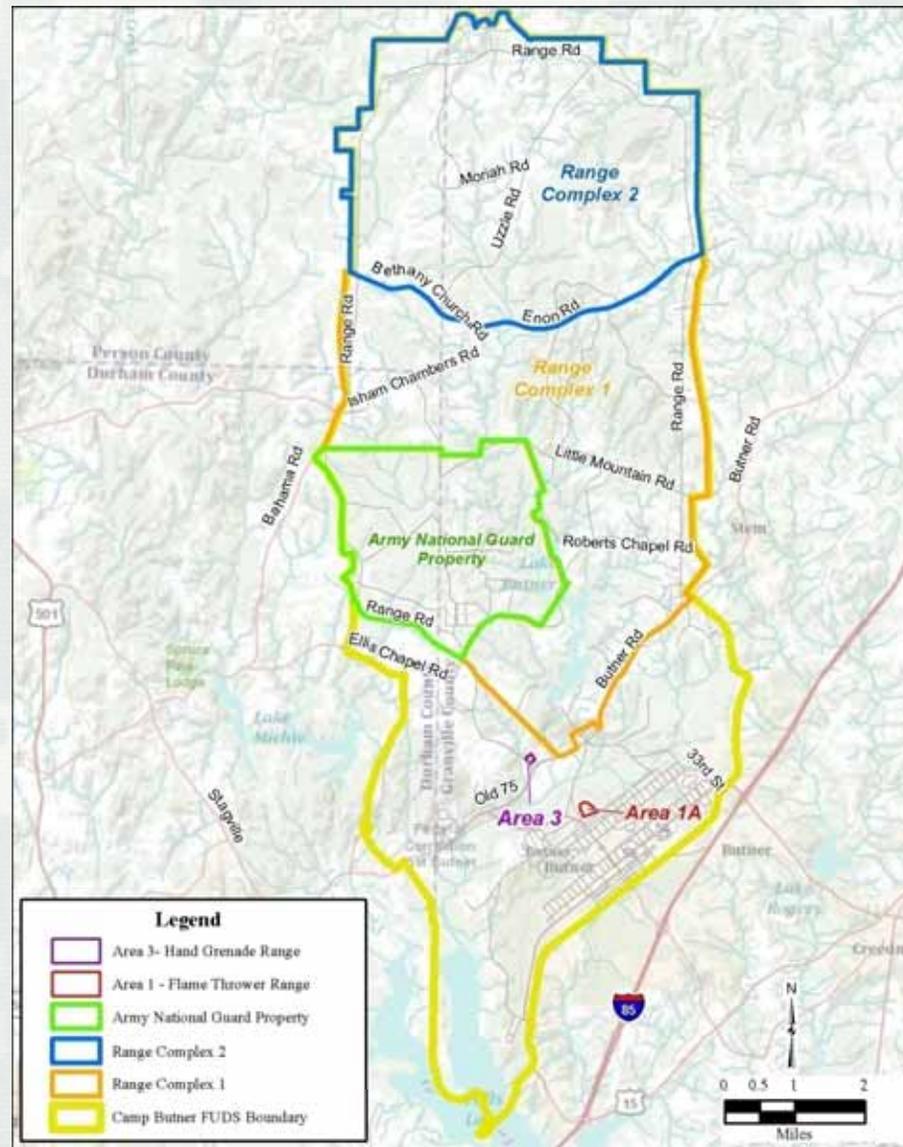


Define the **NATURE** and **EXTENT** of MEC Contamination

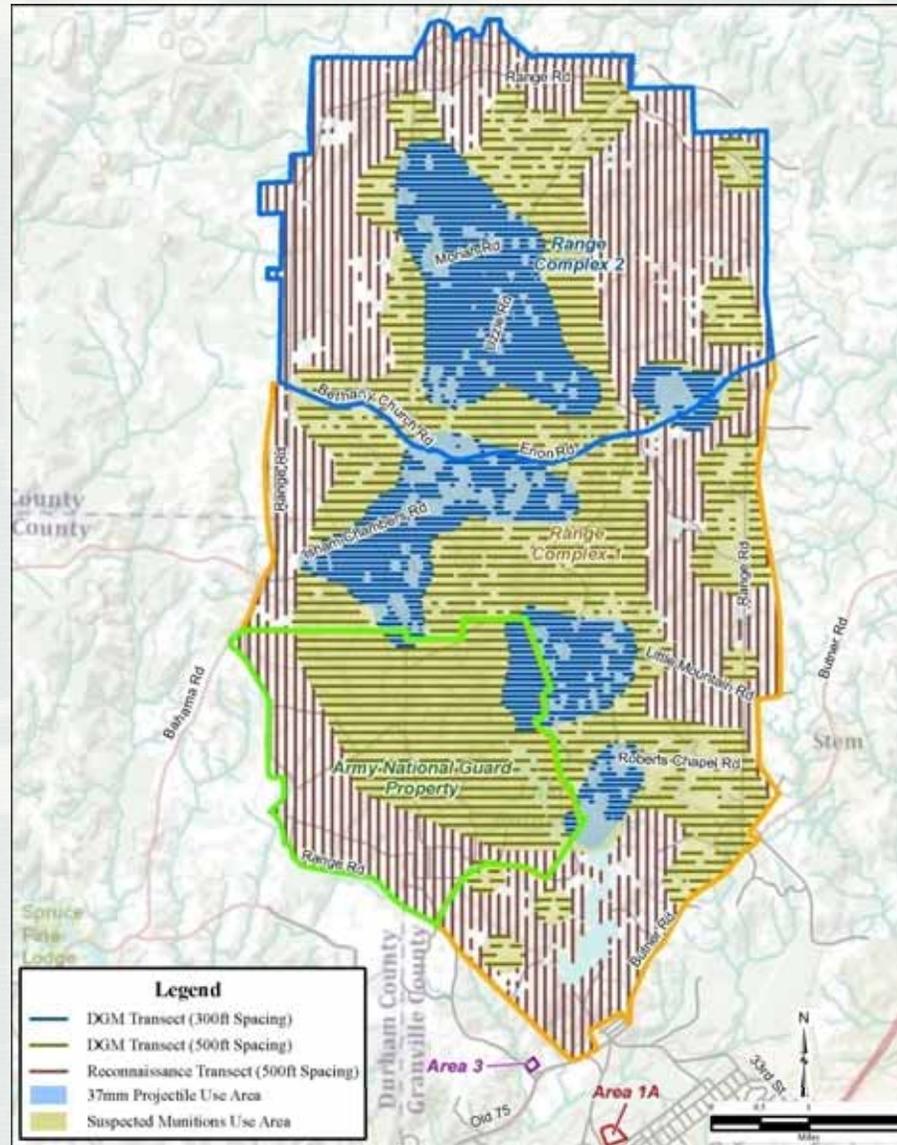
- Brush clearing
- DGM transect survey
- DGM grids survey followed by intrusive investigation within grids
- Environmental sampling for munitions constituents (MC)



Munitions Response Sites (MRSs)



Transects



- Reconnaissance transects will be conducted outside of Suspected Munitions Use Areas and will be spaced 500 feet apart.
- Digital geophysical mapping (DGM) transects will be conducted within Suspected Munitions Use Areas and will be spaced at 300 feet in areas where 37mm projectiles are expected and 500 feet where all other munitions are expected.
- Grid locations will be based on transect survey results.



Planned Site Coverage

	Response Munitions Site*	Number of Grids	Miles of DGM Transects	Miles of Reconnaissance Transects
Remedial Investigation	Range Complex 1	158	110	67
	Range Complex 2	133	98	85
	Army National Guard	77	52	29

*The Flame Thrower Range and Hand Grenade Range were sufficiently characterized during previous field activities. No additional fieldwork is anticipated in these areas.



Brush Clearing

Transects and grids will be cleared of vegetation to facilitate intrusive operations.



Surveying



Transect and grid locations will be recorded with GPS survey instruments.



Digital Geophysical Mapping



EM61-MK2

Data Logger

GPS for Positioning

Single 1-meter Coil



Intrusive Investigation Team



Instrument Operator
(Detects Anomalies
using a Metal
Detector)

UXO Technician
(Excavates
Anomalies using a
Shovel)

Data Logger
(Records Intrusive
Results)



Environmental Sampling



Soil Sampling



Sediment Sampling



Soil Sampling



Environmental Sampling

	Munitions Response Site*	Incremental Surface Samples	Discrete Surface Samples ⁺	Discrete Subsurface Samples ⁺	Discrete Sediment Samples ⁺	Background Incremental Samples and Drinking Water Well Samples
Remedial Investigation	Range Complex 1	10	10	10	10	10
	Range Complex 2	10	10	10	10	
	Army National Guard	10	10	10	10	

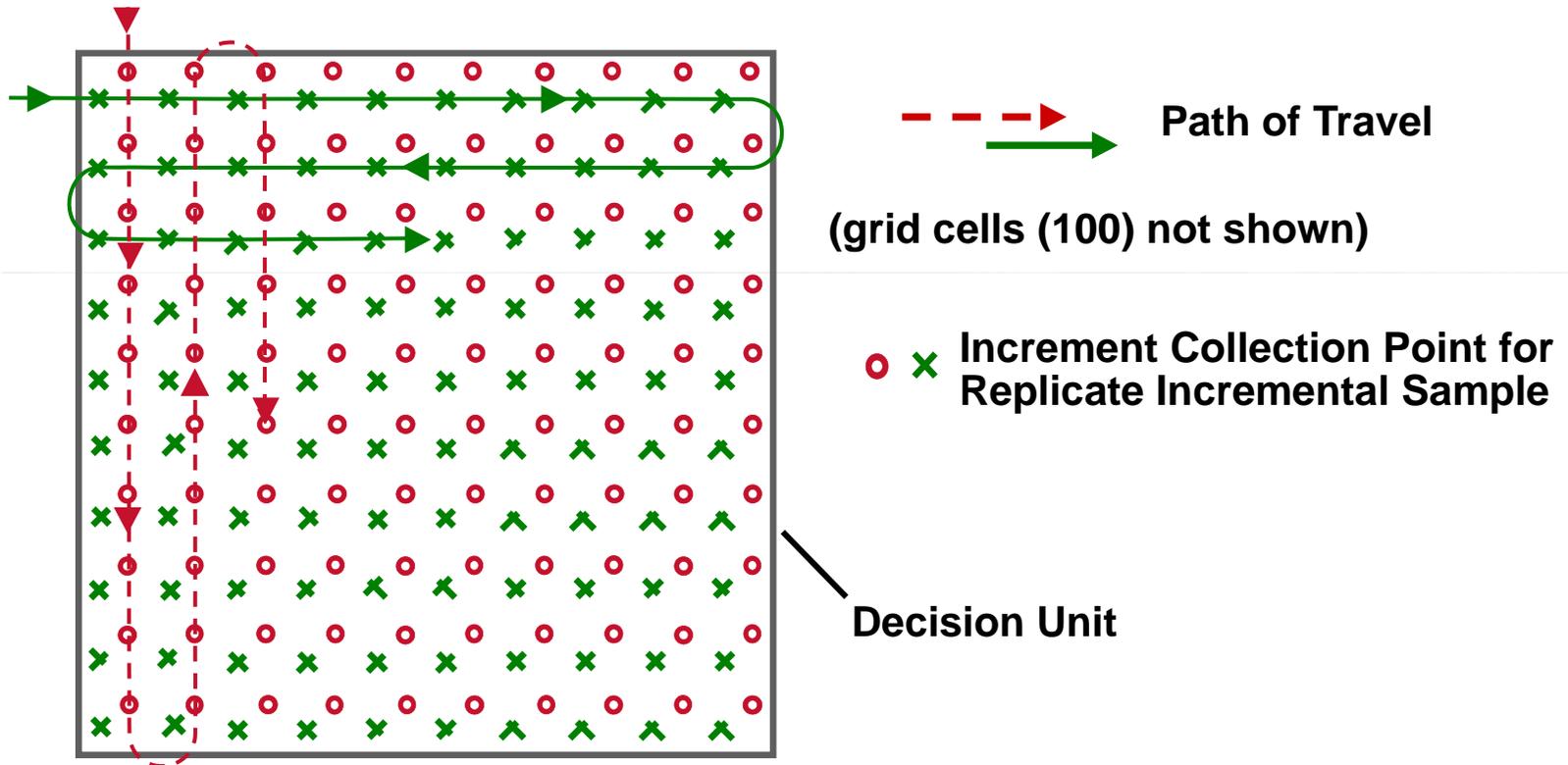
*The Flame Thrower Range and Hand Grenade Range were sufficiently characterized during previous field activities. No additional fieldwork is anticipated in these areas.

⁺Samples will be collected if incremental sample results exceed screening levels.



Environmental Sampling

Systematic Random Mode of Sub-sampling



Environmental Sampling

- Incremental sample (IS) sub-samples will be obtained with either a specialized coring device or a stainless steel trowel.
- Subsurface samples will be collected with a hand auger or similar.
- IS and discrete soil and sediment samples will be analyzed for explosives and select metals.*
- Background IS samples will be analyzed for select metals.*
- Background drinking water well samples will be analyzed for perchlorate and lead.

* copper, lead, antimony, and zinc



Remedial Investigation Report

- **Remedial Investigation**

- ▶ The first part will detail how the work was done and the findings.

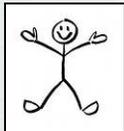
- **Risk Assessment**

- ▶ The second part will assess risk, specifically the following:



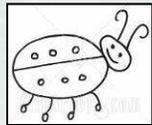
- MEC Risk

- ▶ Evaluates Risk to Humans Presented by Munitions



- Human Health Risk

- ▶ Evaluates Risk to Human Health Presented by Munitions Constituents



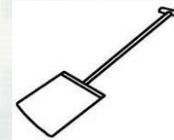
- Ecological Risk

- ▶ Evaluates Risk to the Environment Presented by Munitions Constituents



What's Next?

- RI/FS Work Plan: April 2012
- Secure Rights of Entry: April 2012–August 2012
- RI/FS Fieldwork: August 2012–October 2012*
- RI Report: December 2012*
- FS Report: February 2013*
 - ▶ Analyzes Remediation Alternatives
- Proposed Plan: May 2013*
 - ▶ Public Meeting
 - ▶ 30-Day Public Review
- Decision Document: August 2013*



* Pending Rights of Entry and Work Plan Approval



Review of Potential MEC Items



Review of MEC Safety



RECOGNIZE

**Military items can be
DANGEROUS.**

RETREAT

**DO NOT TOUCH IT!
Move away from the
area.**

REPORT

CALL 911.



How to Obtain More Information

Camp Butner Website

<http://www.saw.usace.army.mil/campbutner/index.htm>

Camp Butner Administrative Record

South Granville County Library
1550 S. Campus Drive
Creedmoor, North Carolina 27522

Public Affairs Office

U.S. Army Corps of Engineers–Wilmington District
69 Darlington Avenue
Wilmington, North Carolina 28403
(910) 251-4626
Email: ann.johnson@usace.army.mil

