

**FINAL  
OPERATIONAL RANGE ASSESSMENT PROGRAM  
PHASE I QUALITATIVE ASSESSMENT REPORT  
CAMP BUTNER  
BUTNER, NORTH CAROLINA**

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Prepared for:

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## ABBREVIATIONS/ACRONYMS

amsl	Above Mean Sea Level
ARID-GEO	Army Range Inventory Database-Geodatabase
bgs	Below Ground Surface
cal	Caliber
CSM	Conceptual Site Model
DoD	Department of Defense
DODI	Department of Defense Instruction
DWEL	Drinking Water Equivalent Level
E	Ecological receptors identified. (This refers to range grouping: pathway designation always precedes E designation.)
FCG	Facility Category Group
FUDS	Formerly Used Defense Sites
FY	Fiscal year
GIS	Geographic Information System
GW	Groundwater pathway identified. (This refers to range grouping: M designation always precedes GW designation.)
H	Human receptors identified. (This refers to range grouping: pathway designation always precedes H designation.)
HE	High explosive
HMX	Cyclotetramethylenetetranitramine
JFHQ NC	Joint Forces Headquarters North Carolina
LS	Limited Source
M	Munitions use. (This refers to range grouping: M designation always precedes applicable pathway.)
MCL	Maximum Contaminant Level
MCOC	Munitions Constituents of Concern
mg/kg	Milligram per kilogram
mm	Millimeter
NCARNG	North Carolina Army National Guard
N/A	Not applicable
ND	Nondetect
ORAP	Operational Range Assessment Program
PRG	Preliminary Remediation Goal
PU	Pathway unlikely or incomplete. (This refers to range grouping: M designation always precedes PU designation.)
RDX	Cyclotrimethylenetrinitramine
RFMSS	Range Facility Management Support System
SDZ	Surface Danger Zone
SW	Surface water pathway identified. (This refers to range grouping: M designation always precedes SW designation.)
TNT	Trinitrotoluene
U.S.	United States
USACE	United States Army Corps of Engineers
USACHPPM	United States Army Center for Health Promotion and Preventive Medicine
USAEC	United States Army Environmental Command
USEPA	United States Environmental Protection Agency

USGS	United States Geological Survey
WWII	World War II
°F	Degrees Fahrenheit
µg/L	Micrograms per liter

## EXECUTIVE SUMMARY

The United States (U.S.) Army is conducting qualitative assessments at operational ranges to meet the requirements of Department of Defense (DoD) policy and to support the U.S. Army Sustainable Range Program. The operational range qualitative assessment (hereinafter referred to as Phase I Assessment) is the first phase of the U.S. Army Operational Range Assessment Program. This Phase I Assessment evaluates the operational range area at Camp Butner to assess whether further investigation is needed to determine if potential munitions constituents of concern (MCOC) are or could be migrating off-range at levels that may pose an unacceptable risk to human health or the environment. In conducting the Phase I Assessment, MCOC sources, potential off-range migration pathways, and potential off-range human and ecological receptors are evaluated as appropriate.

Camp Butner occupies approximately 4,880 acres in Durham and Granville counties, North Carolina, with almost equal portions of the installation in each county. The installation lies approximately four miles northwest of the town of Butner, 15 miles northeast of Durham, and 35 miles northwest of Raleigh, North Carolina. The primary mission of Camp Butner is to serve as a major training area for the North Carolina Army National Guard; other DoD active duty and Reserve Component units; and other federal, state, and local government law enforcement agencies.

An Operational Range Inventory Sustainment update was submitted to the U.S. Army Environmental Command in July 2006 (ARID-GEO [2006]). ARID-GEO (2006) identified 27 operational range areas encompassing approximately 4,550 acres. A total of approximately seven acres was identified as other than operational acreage; therefore, the total installation acreage identified in ARID-GEO is approximately 4,560 acres. It should be noted that acreage discrepancies were identified between ARID-GEO (2006) and the actual installation acreage of 4,880: ARID-GEO (2006) did not include a parcel of other than operational area that is currently owned by Camp Butner (parcel is greater than 300 acres). Two types of training activities occur at Camp Butner: live-fire weapons training and light maneuver exercises. The site is used primarily during inactive duty training weekends and, occasionally, for extended weekday periods, up to and including 15-day annual training periods.

The 27 operational ranges at Camp Butner are categorized as Unlikely.

### **Unlikely – Five-Year Review**

Twenty-seven ranges at Camp Butner are categorized as Unlikely, totaling approximately 4,550 acres. These ranges consist of small arms ranges, training and maneuver areas, and other training areas (including a helipad and bivouac areas). Ranges where, based upon a review of readily available information, there is sufficient evidence to show that there are no known releases or source-receptor interactions on ranges that could present an unacceptable risk to human health or the environment are categorized as Unlikely. Ranges categorized as Unlikely are required to be re-evaluated at least every five years. Re-evaluation may occur sooner if significant changes (e.g., change in range operations or site conditions, regulatory changes) occur that affect determinations made during this Phase I Assessment.

**Table ES-1** summarizes the Phase I Assessment findings.

**Table ES-1: Summary of Findings and Conclusions for Camp Butner**

Category	Total Number of Ranges and Acreage	Source(s)	Pathway(s)	Human Receptors	Ecological Receptors	Conclusions and Rationale
Unlikely	2 operational ranges; 2 acres	No source – limited or no military munitions use	Incomplete (no source identified)			Re-evaluate during the five-year review. (Based on current munitions use, no source area was identified.)
	10 operational ranges; 428 acres	Current small arms firing and training areas and historical munitions use	Incomplete (no pathway identified)			Re-evaluate during the five-year review. (Current munitions use indicates that a source area is present; however, no pathway was identified.)
	3 operational ranges; 434 acres	Current small arms firing and training areas and historical munitions use	Surface water (Lake Butner) and groundwater	Residents downstream	Wetlands and threatened and endangered species downstream	Re-evaluate during the five-year review. (Sampling data indicate no off-range MCOC at levels unacceptable to human health or the environment.)
	12 operational ranges; 3,686 acres	Historical munitions use	Surface water (Lake Butner) and groundwater	Residents downstream and down gradient	Wetlands and threatened and endangered species downstream	Re-evaluate during the five-year review. (Sampling data indicate no off-range MCOC at levels unacceptable to human health or the environment.)