

# FINAL Operational Range Assessment Program Phase I Qualitative Assessment Report FORT HUACHUCA, ARIZONA

U.S. Army Operational Range Assessment Program Qualitative Operational Range Assessments

Prepared for: U.S. Army Environmental Command and U.S. Army Corps of Engineers Baltimore District





Final Operational Range Assessment Program Phase I Qualitative Assessment Range Assessment Reports will be released beginning in March 2008 per the Direction of Army Headquarters. The cover page of this Report reflects the official finalization date. The date on subsequent pages/figures reflects the date upon which this document's conclusions are based.



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## ABBREVIATIONS/ACRONYMS

ARID-GEO	Army Range Inventory Geodatabase					
ARNG	Army National Guard					
bgs	Below Ground Surface					
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act					
CSM	Conceptual Site Model					
DEH	Directorate of Engineering and Housing					
DNT	Dinitrotoluene					
DoD	Department of Defense					
DODD	Department of Defense Directive					
DODI	Department of Defense Instruction					
DoE	Department of Energy					
DPTMS	Directorate of Plans, Training, Mobilization, and Security					
ENRD	Environmental and Natural Resources Division					
ft	Foot or Feet					
GIS	Geographic Information System					
H/E	Human/Ecological					
HMX	Cyclotetramethylenetetranitramine					
in.	Inch(es)					
ITAM	Integrated Training Area Management					
LS	Limited or No Source Munitions					
MC	Munitions Constituents					
MCOC						
MGW	Munitions Constituents of Concern					
MPU	Munitions/Groundwater Migration Pathway					
MFU	Migration Pathway Unlikely					
MSWGW	Munitions/Surface Water Migration Pathway					
OB/OD	Munitions/Surface Water and Groundwater Migration PathwaysOpen Burn/Open Detonation					
OB/OD ORAP						
PETN	Operational Range Assessment Program					
RCRA	Pentaerythritoltetranitrate					
RDX	Resource Conservation and Recovery Act					
RFMSS	Cyclotrimethylenetrinitramine					
SAM	Range Facilities Management Support System   Surface-to-Air Missile					
SAM SPRNCA						
	San Pedro River National Conservation Act					
TNT	Trinitrotoluene					
U.S.	United States					
USACE OD	United States Army Corps of Engineers					
USACE-OD	United States Army Corps of Engineers, Omaha District					
USACE-SD	United States Army Corps of Engineers, Sacramento District					
USACHPPM	United States Army Center for Health Promotion and Preventive Medicine					
USAEC	United States Army Environmental Center					
USAIC	United States Army Intelligence Center					
USASC	United States Army Signal Command					
USATHAMA	United States Army Toxic and Hazardous Materials Agency					
U.S.C.	United States Code					
USEPA	United States Environmental Protection Agency					

USFWS	United States Fish and Wildlife Service				
USPB	Upper San Pedro Basin				
UXO	Unexploded Ordnance				
WP	White Phosphorous				

## **EXECUTIVE SUMMARY**

### PURPOSE

This qualitative assessment, hereinafter referred to as Phase I Assessment, evaluates Fort Huachuca's operational range area 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. The Phase I Assessment results in the categorization of operational ranges as appropriate, as follows.

- **Referred Refer to Appropriate Cleanup Program:** Ranges with compelling evidence (e.g., sampling data) to indicate the presence of an off-range release that potentially poses an unacceptable risk to human health or the environment;
- **Inconclusive Phase II Quantitative Assessment Required:** Ranges where existing information either is insufficient to make a source-receptor interaction determination or indicates the potential for such interaction to be occurring; or
- Unlikely Five-Year Review<sup>1</sup>: 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 that could present an unacceptable risk to human health or the environment based on a review of the information available.

#### **SUMMARY OF FINDINGS**

The 85 operational ranges at Fort Huachuca that were included in the qualitative assessment have been placed in the following category.

• **Unlikely** – A total of 85 ranges consisting of live-fire training areas, non-live-fire training areas, historic artillery impact area, and firing points totaling 73,950 acres.

These findings, conclusions, and recommendations are summarized in Table ES-1.

<sup>&</sup>lt;sup>1</sup> All operational ranges must be periodically re-evaluated to determine if there is a release or substantial threat of release of MCOC from an operational range to an off-range area. Range groups categorized as Unlikely are to be re-evaluated at least every five years. Re-evaluation may occur sooner if significant changes (e.g., changes in range operations, site conditions, and regulatory changes) occur that affect determinations made during the Phase I Assessment.

Category	Group Identification	Total Number of Ranges and Acreage	Source(s)	Pathway(s)*	Human Receptors*	Ecological Receptors*	Recommendations (Future Steps)
Unlikely	Limited Source	53 operational ranges; 61,055 acres	No source – limited or no military munitions use	Not evaluated	Not evaluated	Not evaluated	Re-evaluate during the five-year review.
	Munitions used; surface water/sediment and groundwater pathways incomplete	32 operational ranges; 12,895 acres	Small, medium, and large caliber, grenades, obscurants, propellants, and riot control agents	Incomplete due to erosion control measures and depth to groundwater	Not evaluated	Not evaluated	Re-evaluate during the five-year review.
* Indicates	the specific pathways of co	ncern.					

#### Table ES-1: Summary of Findings, Conclusions, and Recommendations for Fort Huachuca