



FINAL

Operational Range Assessment Program Phase I Qualitative Assessment Report Fort Bliss, Texas

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



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EXECUTIVE SUMMARY

The United States (U.S.) Army is conducting qualitative assessments at operational ranges to meet the requirements of Department of Defense 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 (ORAP). This Phase I Assessment evaluates the operational range area at Fort Bliss 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.

Fort Bliss is a 1,114,337-acre facility located in western Texas and southern New Mexico. Fort Bliss is a U.S. Army Training and Doctrine Command installation and is the largest maneuver area in the Army. Data obtained from Fort Bliss Integrated Training Area Management identified 287 ranges encompassing an operational area of 1,096,014 acres. A total of 18,323 acres were also identified as non-operational acreage. Training activities conducted at Fort Bliss include the use of maneuver and training areas, firing and launch sites, instrumentation sites, firing ranges, impact areas, and a demolition range.

Primarily, MCOC sources at Fort Bliss consist of small and medium caliber firing ranges, multi-purpose use ranges, hand grenade ranges, artillery and mortar firing sites, missile launch sites, and impact areas. In addition, MCOC sources from historical firing points and impact areas were identified. In general, MCOC from source areas potentially impact soil source media (e.g. impact berms and impact areas surrounding targets).

Surface water is primarily limited to ephemeral streams originating within operational ranges which infiltrate or evaporate before exiting operational areas. Therefore, groundwater is considered the only potential pathway for off-range migration of MCOC from source areas at Fort Bliss. Ranges containing potential MCOC sources were identified in recharge areas for the Tularosa Basin and Hueco Bolson aquifer.

Based on current and historical military munitions usage at Fort Bliss and a review of potential pathways and potential human and/or ecological receptors, no ranges were identified as having the potential for off-range migration of potential MCOC that may affect human and ecological receptors. The deep ground water table, limited annual precipitation, and high evaporation rates in the region minimize the potential for off-range migration of potential MCOC.

The 287 operational ranges at Fort Bliss are categorized as Unlikely.

Unlikely – Five-Year Review

Two hundred eighty-seven ranges at Fort Bliss are categorized as Unlikely, totaling 1,099,380 acres. These ranges consist of firing ranges, firing sites, impact areas, instrumentation sites, launch sites, maneuver and training areas, and a demolition range. Based upon a review of readily available information, ranges where there is sufficient evidence to show that there are no known releases or source-receptor interactions off-range 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 Fort Bliss

Category	Total Number of Ranges and Acreage	Source(s)	Pathway(s)	Human Receptors	Ecological Receptors	Conclusions and Rationale	
Unlikely	287 operational ranges; 1,099,380 acres	No source—limited or no military munitions use	Not evaluated (no source identified)			Re-evaluate during the five-year review. No source was identified.	
		Firing ranges, firing sites, launch complexes, impact areas, historical firing ranges, historical impact areas, and historical demolition range	No sources located within recharge areas for Tularosa Basin and Hueco Bolson aquifer	Not evaluated (migration pathways unlikely to be complete)			Re-evaluate during the five-year review. Migration pathways are unlikely.
		Firing range, firing sites, and current and historical impact areas	Recharge to Tularosa Basin and Hueco Bolson aquifer	None	None		Re-evaluate during the five-year review. No receptors were identified.
		Impact areas, firing ranges, historical firing sites, and impact areas	Recharge to Tularosa Basin and Hueco Bolson aquifer	Users of down gradient water supply wells	None		Re-evaluate during the five-year review. The deep ground water table, limited annual precipitation, and high evaporation rates minimize the potential for off-range migration of potential MCOC.

ABBREVIATIONS/ACRONYMS

AAA	Anti-aircraft Artillery
AM	Amino
ARID-GEO	Army Range Inventory Database-Geodatabase
bgs	Below ground surface
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CSM	Conceptual Site Model
DNB	Dinitrobenzene
DNT	Dinitrotoluene
DoD	Department of Defense
DODI	Department of Defense Instruction
E	Ecological receptors identified. (This refers to range grouping; pathway designation always precedes E designation.)
ENV	Environmental
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.)
HMX	Cyclotetramethylenetetranitramine
ISC	Interstate Stream Commission
ITAM	Integrated Training Area Management
LS	Limited Source
M	Munitions used. (This refers to range grouping; M designation always precedes applicable pathway.)
MCOC	Munitions Constituents of Concern
µg/L	Micrograms per liter
mg/L	Milligrams per liter
NB	Nitrobenzene
NG	Nitroglycerin
NT	Nitrotoluene
ORAP	Operational Range Assessment Program
OSE	Office of the State Engineer
PETN	Pentaerythritoltetranitrate
PU	Pathway unlikely or incomplete. (This refers to range grouping; M designation always precedes PU designation.)
RCRA	Resource Conservation and Recovery Act
RDX	Cyclotrimethylenetrinitramine
RFMSS	Range Facility Management Support System
SW	Surface water pathway identified. (This refers to range grouping; M designation always precedes SW designation.)
TNB	Trinitrobenzene
TNT	Trinitrotoluene
TWDB	Texas Water Development Board
U.S.	United States
USACE	United States Army Corps of Engineers

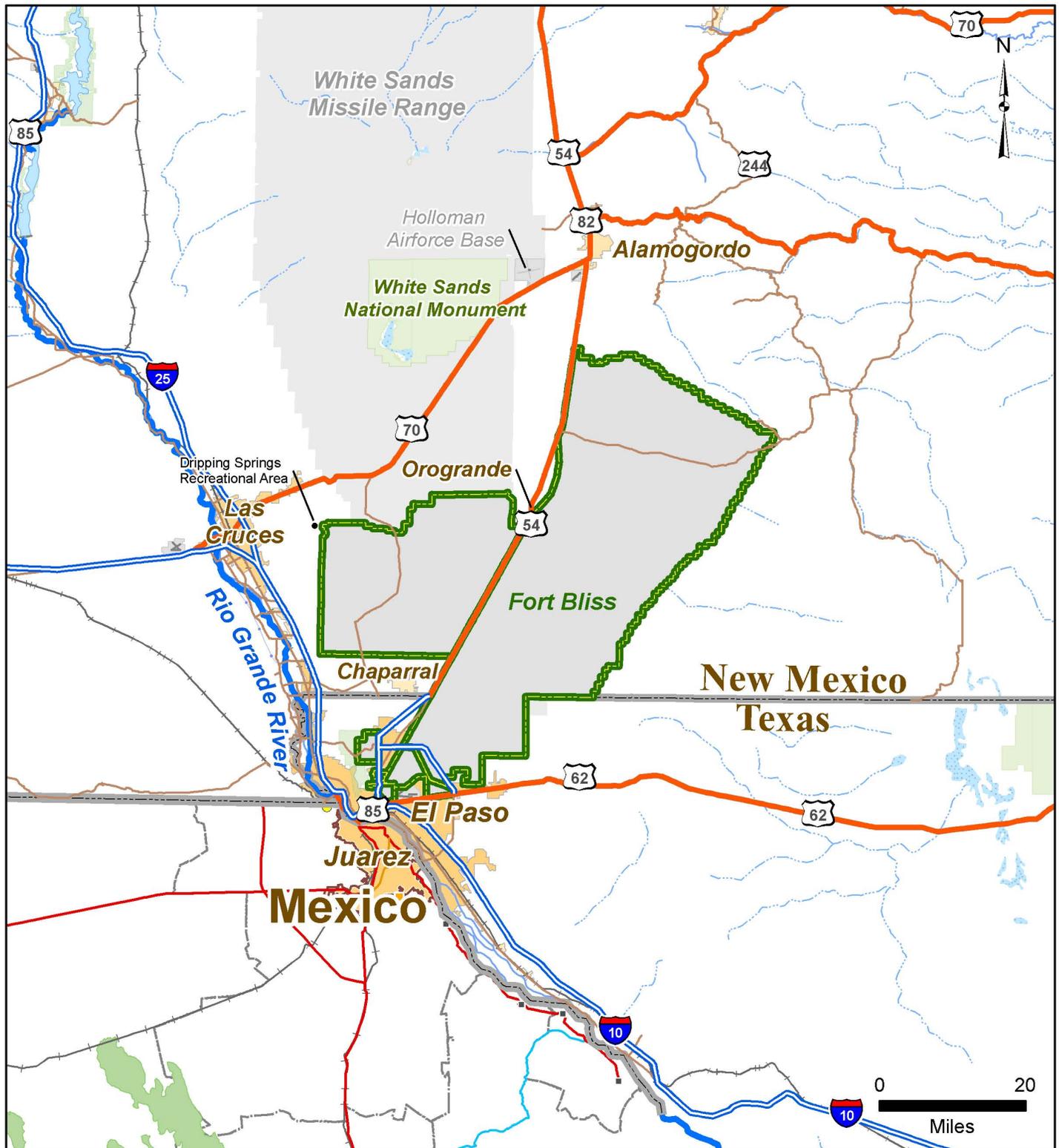
USACHPPM	United States Army Center for Health Promotion and Preventive Medicine
USAEC	United States Army Environmental Command
USEPA	United States Environmental Protection Agency
WP	White Phosphorus
WSMR	White Sands Missile Range
°F	Degrees Fahrenheit



Operational Range Assessment Program
Phase I Qualitative Assessment
Fort Bliss, TX



Figure 1-1
General Fort Bliss Location



Installation
 Installation Boundary

Data Sources:
 ARID-GEO 2006, ESRI StreetMap USA 2005
 ESRI Mexico Map 2006

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