



FINAL

Operational Range Assessment Program Phase I Qualitative Assessment Report Camp Mabry, 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 Camp Mabry 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 Mabry is located in northwestern Austin, in Travis County, Texas. The installation is bounded by Loop 1 (MoPac Expressway) to the east and partially bounded by 35th Street to the south. Residential areas bound the installation to the north, west, and southwest. Lake Austin (Colorado River) is located approximately one-half mile to the west of the installation.

Camp Mabry consists of 362.53 acres of land including two operational ranges (one light and one heavy maneuver training area) encompassing 199.88 acres and a 162.65-acre cantonment area. No military munitions are used at the current operational ranges. However, between 1906 to the early 1950s, six small caliber munitions firing ranges were located on the heavy maneuver training area. Source media includes soils associated with the firing line, localized areas near target areas, and impact berms. Potential surface water pathways via Taylor Creek and shallow unconfined groundwater pathways are present leading off of the installation. Source interaction with human and ecological receptors is potentially complete via these pathways for receptors located down gradient. Receptors include individuals engaged in recreational activities near Lake Austin, palustrine wetlands, and threatened and endangered species located downstream. Nevertheless, transport of MCOC is limited by site-specific characteristics that reduce the potential for leaching and metal mobility. The centralized collection of lead detected in the upper portion of the soil profile suggests that there is a lack of lead migration within the vadose zone. In addition to this limited transport, on-range metal concentrations were detected below human exposure limits for soil and groundwater. These findings indicate that although source-receptor interactions are potentially complete, it is unlikely that potential MCOC will reach levels off-range that pose an unacceptable risk to human health or the environment. Additionally, all six firing ranges have been approved by Texas Commission on Environmental Quality regulators for closure. The two operational ranges at Camp Mabry are categorized as Unlikely.

Unlikely – Five-Year Review

One range at Camp Mabry is categorized as Unlikely, totaling 199.88 acres. This range consists of a light maneuver training area and a heavy maneuver training area. 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 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 Camp Mabry

Category	Total Number of Ranges and Acreage	Source(s)	Pathway(s)	Human Receptors	Ecological Receptors	Conclusions and Rationale
Unlikely	2 operational ranges; 199.88 acres	No current munitions use / historical small caliber firing ranges (i.e., firing line, localized areas near target areas, and impact berms)	Surface water (i.e., Taylor Creek and Colorado River) and groundwater (i.e., discharge to Taylor Creek from shallow aquifer)	Individuals engaged in recreational activities near Lake Austin	Wetlands and threatened and endangered species located downstream	Re-evaluate during the five-year review. Source associated with historical ranges is unlikely to reach levels off-range that pose an unacceptable risk to identified receptors due to the detected levels of metals on-range coupled with site-specific characteristics (e.g., alkaline soil pH, soil capping, and intermittent drainage).

ABBREVIATIONS/ACRONYMS

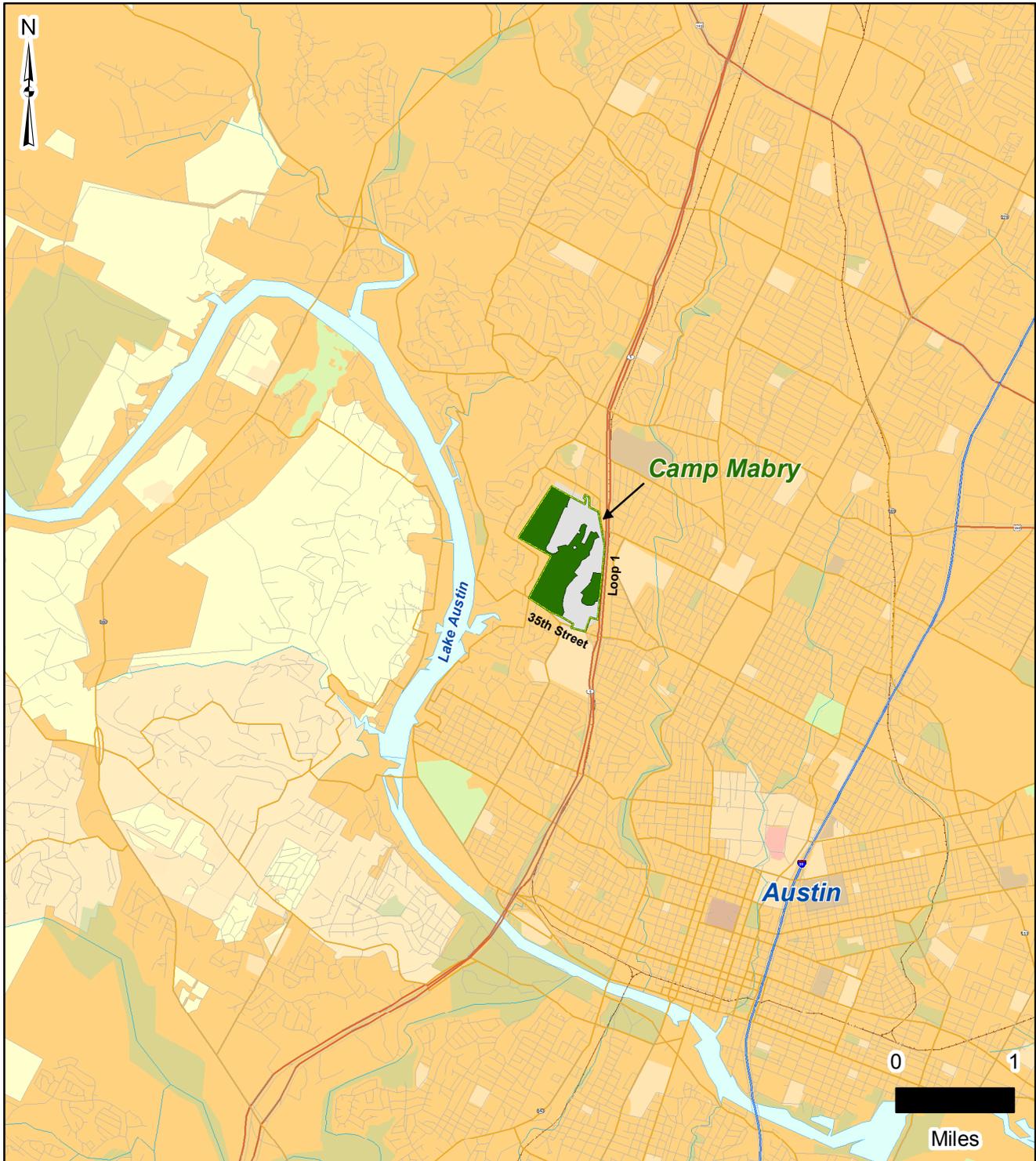
ARID-GEO	Army Range Inventory Database-Geodatabase
BEG	Bureau of Economic Geology
BFZ	Balcones Fault Zone
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CSM	Conceptual Site Model
DoD	Department of Defense
DODI	Department of Defense Instruction
E	Ecological receptors identified. (This refers to range grouping; pathway designation always precedes E designation.)
ESRI	Environmental Systems Research Institute, Inc.
GIS	Geographic Information System
GMI	Geo-Marine, Inc.
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.)
LS	Limited Source
M	Munitions used. (This refers to range grouping; M designation always precedes applicable pathway.)
MCL	Maximum Contaminant Level
MCOOC	Munitions Constituents of Concern
NG	Nitroglycerin
NRCS	Natural Resources Conservation Service
OpTech	Operational Technologies Corporation
ORAP	Operational Range Assessment Program
PCL	Protective Concentration Level
ppm	Parts per million
PU	Pathway unlikely or incomplete. (This refers to range grouping; M designation always precedes PU designation.)
RFMSS	Range Facility Management Support System
	Synthetic Precipitation Leaching Procedure
SW	Surface water pathway identified. (This refers to range grouping; M designation always precedes SW designation.)
TCEQ	Texas Commission on Environmental Quality
TXARNG	Texas Army National Guard
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
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
°F	Degrees Fahrenheit



Operational Range Assessment Program
Phase I Qualitative Assessment
Camp Mabry, TX



Figure 1-1
General Location of Camp Mabry



Installation Data

- Installation Boundary
- Operational Area
- Cantonment Area

Transportation

- Highway
- Major Road
- Local Road

Hydrology

- Rivers/Streams
- Waterbody

Data Sources:
ARID-GEO, June 2007
ESRI, StreetMap, 2006

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