



FINAL

Operational Range Assessment Program
Phase I Qualitative Assessment Report
U.S. Army Garrison Fort Devens, Massachusetts
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 U.S. Army Garrison Fort Devens (Fort Devens) 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 Devens is located in north-central Massachusetts, approximately 35 miles northwest of Boston, Massachusetts. The 4,817-acre installation includes 72 operational ranges covering 4,813 acres and 3.5 acres designated as non-operational areas. The operational range area at the installation consists of maneuver and training areas, firing ranges, demolition ranges, and impact areas. Fort Devens provides a range of training opportunities for Army Reserve and National Guard units from across New England.

Primarily, MCOC source areas identified at Fort Devens are located within firing ranges, the demolition range, the duded impact area, and historical ranges in current maneuver and training areas. In general, MCOC from primary source areas potentially impact the following source media: soil (e.g., firing points, impact berms, impact areas surrounding targets, burn pits) and surface water / sediment (e.g., direct deposition into streams and wetlands).

Based on current and historical military munitions usage at Fort Devens and a review of potential migration pathways and potential human and/or ecological receptors, none of the 72 ranges were identified as having the potential for off-range migration of MCOC that may affect human and/or ecological receptors. Shallow groundwater, recharged within the operational ranges, likely discharges to the two primary water bodies within the operational range or directly to on-range wetlands associated with the Nashua River. Surface water draining the operational ranges flows off-range through wetlands, eventually joining the Nashua River. However, the natural ecological processes associated with a wetland and pond system such as that found at Fort Devens would likely inhibit downstream migration of potential MCOC at levels that may pose an unacceptable risk to human health and the environment.

The 72 operational ranges at Fort Devens are categorized as Unlikely.

Unlikely – Five-Year Review

Seventy-two ranges at Fort Devens are categorized as Unlikely, totaling 4,813 acres. These ranges consist of impact areas, small and medium arms ranges, demolition areas, and maneuver and training 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 Fort Devens

Category	Total Number of Ranges and Acreage	Source(s)	Pathway(s)	Human Receptors	Ecological Receptors	Conclusions and Rationale
Unlikely	33 operational ranges; 1,968 acres	Firing points, impact areas, demolition areas, small arms ranges, and historical ranges (small arms, demolition, hand grenade, and flame thrower ranges)	New Cranberry Pond, Slate Rock Brook, and wetlands associated with the Nashua River	Residents down gradient, local and off-range residents, and recreational users of the Nashua River	Wetlands and threatened and endangered species in the Nashua River	Re-evaluate during the five-year review. The natural ecological processes associated with the wetland and pond system found at Fort Devens would likely inhibit downstream migration of potential MCOC.
	39 operational ranges; 2,845 acres	No source – limited or no military munitions use	Not evaluated (no source was identified)			Re-evaluate during the five-year review. No source was identified.

ABBREVIATIONS/ACRONYMS

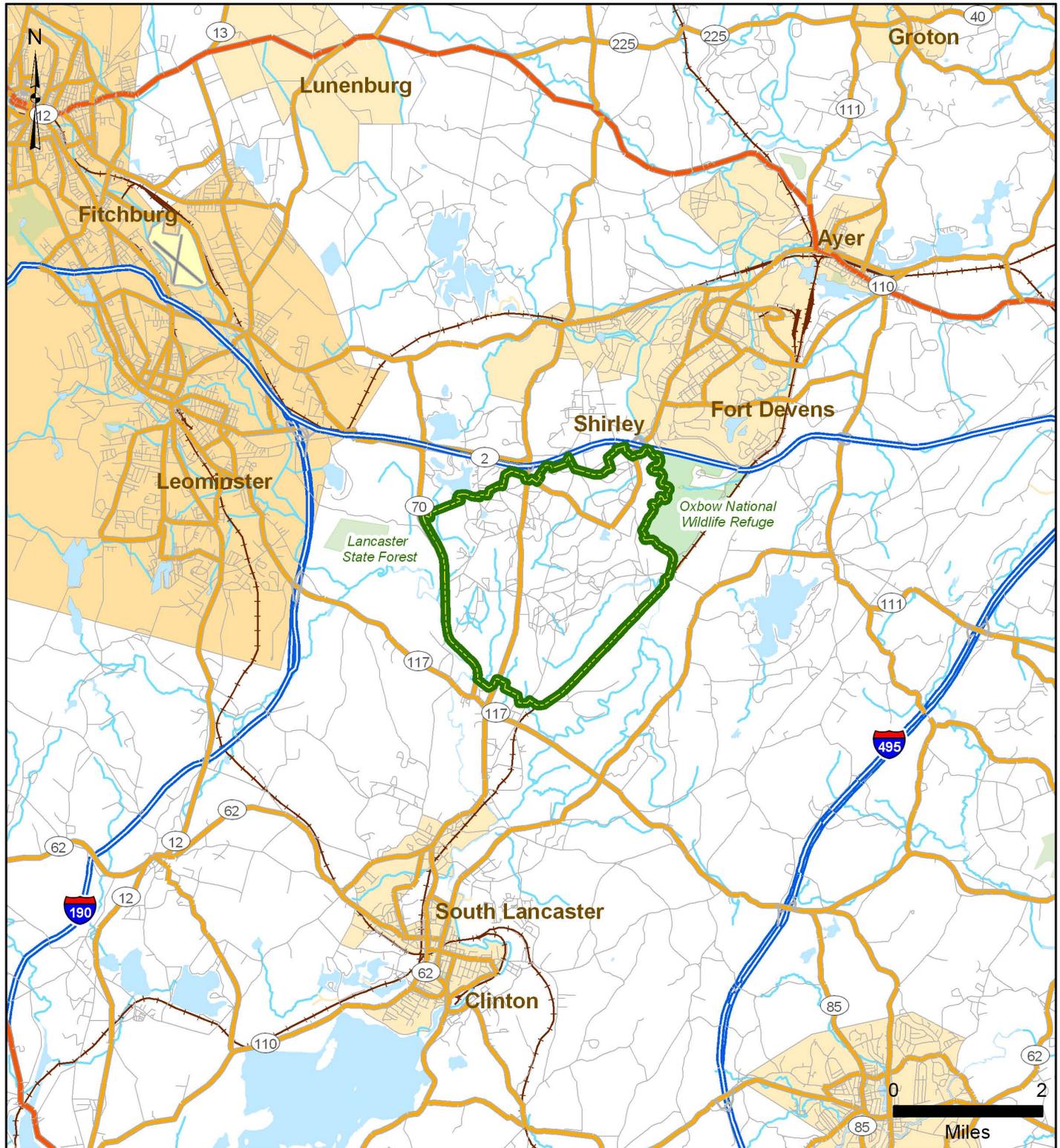
AOC	Area of Concern
ARID-GEO	Army Range Inventory Geodatabase
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CSM	Conceptual Site Model
DNT	Dinitrotoluene
DoD	Department of Defense
DODI	Department of Defense Instruction
E	Ecological receptors identified. (This refers to range grouping; pathway designation always precedes E designation.)
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
LS	Limited Source.
M	Munitions used. (This refers to range grouping; M designation always precedes applicable pathway.)
MC	Munitions Constituents
MCOOC	Munitions Constituents of Concern
µg/g	Microgram per Gram
µg/L	Microgram per Liter
NG	Nitroglycerin
ORAP	Operational Range Assessment Program
PETN	Pentaerythritoltetranitrate
PU	Pathway unlikely or incomplete. (This refers to range grouping; M designation always precedes PU designation.)
RDX	Cyclotrimethylenetrinitramine
RFMSS	Range Facility Management Support System
SPM	South Post Monitoring
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 (formerly Center)
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey



Operational Range Assessment Program
Phase I Qualitative Assessment
Fort Devens, MA



Figure 1-1
General Fort Devens Location



Installation

-  Installation Boundary

Data Sources:
ARID-GEO 2007, ESRI StreetMap USA 2005

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