



FINAL

Operational Range Assessment Program Phase I Qualitative Assessment Report Fort Eustis, Virginia

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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EXECUTIVE SUMMARY

PURPOSE

This qualitative assessment, hereinafter referred to as Phase I Assessment, evaluates Fort Eustis' 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 Review¹:** 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

To facilitate the qualitative analysis, MCOC sources, potential environmental pathways off range, and potential off range human and/or ecological receptors associated with the ranges at Fort Eustis were evaluated as appropriate. Each range was then placed into one of several descriptive groups that meet the criteria for the Unlikely category.

The 33 operational ranges at Fort Eustis that were included in the qualitative assessment have been placed into the following category:

- **Unlikely** – All of the 33 ranges consisting of small arms ranges, training and maneuver areas, one impact area, and historic areas of concern totaling 5,386 acres are considered to be unlikely.

These findings are summarized in **Table ES-1**.

¹ 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.

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

Category	Group Identification	Total Number of Ranges and Acreage	Source(s)	Pathway(s)*	Human Receptors*	Ecological Receptors*	Recommendations (Future Steps)
Unlikely	Limited source	21 operational ranges; 2,894 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 pathways present	12 operational ranges; 2,492 acres	Firing points, impact area, and small arms firing	Surface water	None	None	Re-evaluate during the five-year review.
* Indicates the specific pathways of concern.							

ABBREVIATIONS/ACRONYMS

ARID-GEO	Army Range Inventory Geodatabase
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CSM	Conceptual Site Model
DNT	Dinitrotoluene
DoD	Department of Defense
DODD	Department of Defense Directive
DODI	Department of Defense Instruction
GIS	Geographic Information System
H/E	Human/Ecological
HMX	Cyclotetramethylenetetranitramine
LS	Limited or No Source Munitions
MCOC	Munitions Constituents of Concern
MGW	Munitions/Groundwater
MPU	Migration Pathway Unlikely
MSW	Munitions/Surface Water
MSWGW	Munitions/Surface Water and Groundwater
ORAP	Operational Range Assessment Program
PETN	Pentaerythritoltetranitrate
RDX	Cyclotrimethylenetrinitramine
RFMSS	Range Facility Management Support System
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 Center
USATHAMA	U.S. Army Toxic and Hazardous Materials Agency
USEPA	United States Environmental Protection Agency

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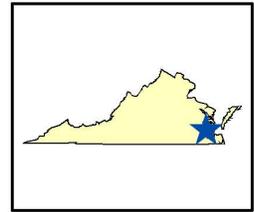
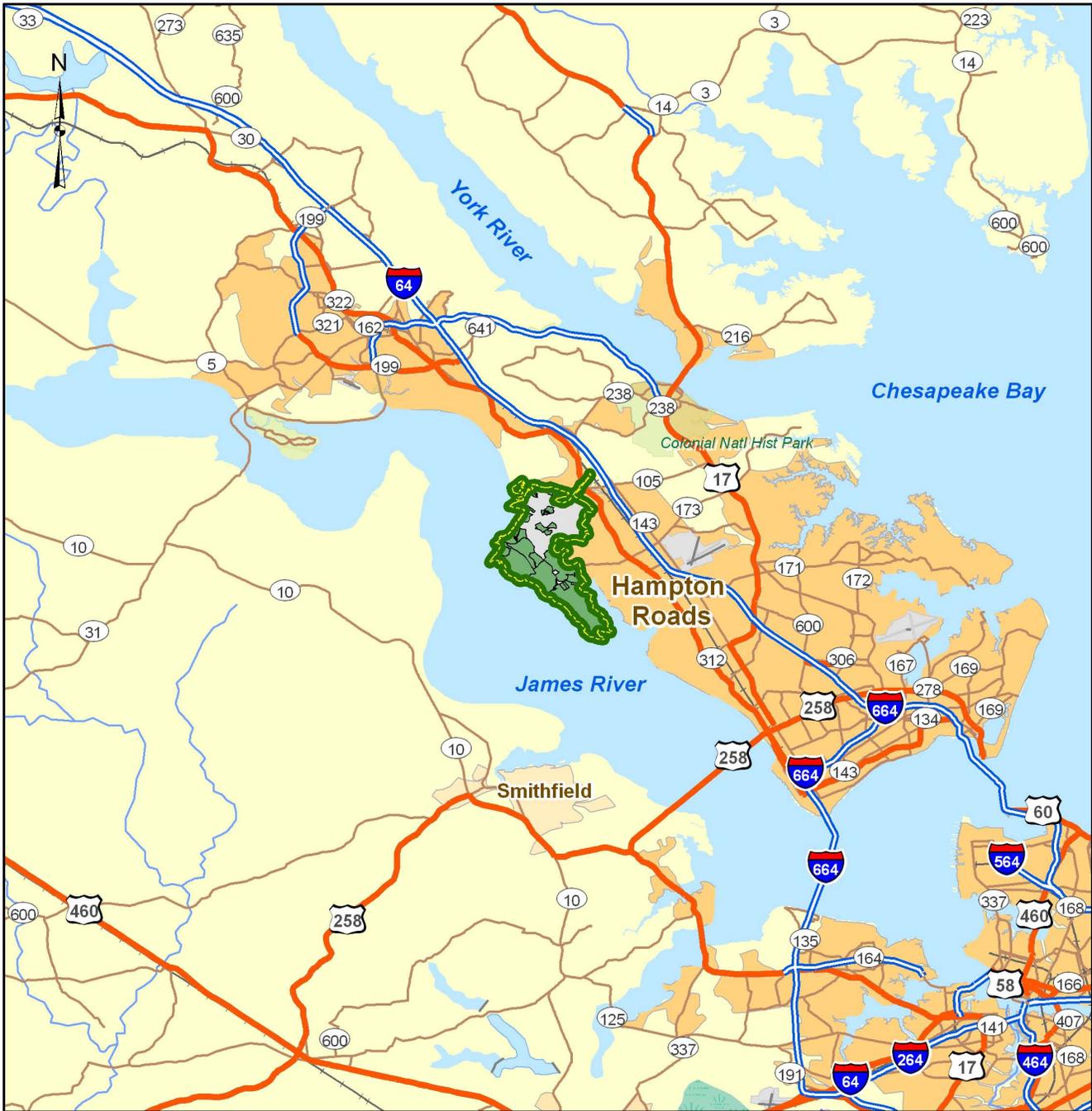


Figure 1-1
General Location of Fort Eustis



Legend

-  Installation Boundary
-  Operational Ranges
-  Non-Operational Area



Data Source: ESRI, 2005; ARID-GEO, 2006

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