

**FINAL  
OPERATIONAL RANGE ASSESSMENT PROGRAM  
PHASE I QUALITATIVE ASSESSMENT REPORT  
ORCHARD TRAINING AREA  
BOISE, IDAHO**

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Prepared for:

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## ABBREVIATIONS/ACRONYMS

°F	degrees Fahrenheit
amsl	Above Mean Sea Level
ARID-GEO	Army Range Inventory Database-Geodatabase
ARNG	Army National Guard
ASP	Ammunition Supply Point
bgs	Below Ground Surface
BLM	Bureau of Land Management
CSM	Conceptual Site Model
DEQ	Department of Environmental Quality
DNT	Dinitrotoluene
DoD	Department of Defense
DODI	Department of Defense Instruction
E	Ecological receptors identified. This is referring to range grouping, pathway designation always precedes E designation.
EMO	Environmental Management Office
FY	Fiscal Year
GIS	Geographic Information System
GW	Groundwater pathway identified. This is referring to range grouping, M designation always precedes GW designation.
H	Human receptors identified. This is referring to range grouping, pathway designation always precedes H designation.
HMX	Cyclotetramethylenetetranitramine
IDTL	Initial Default Target Level
JIC	Joint Installation Command
LS	Limited Source
M	Munitions used. This is referring to range grouping, M designation always precedes applicable pathway.
MATES	Mobilization and Training Equipment Site
MCOC	Munitions Constituents of Concern
mg/kg	Milligrams per kilogram
MGW	Munitions used. Groundwater pathway identified.
MGW (H/E)	Munitions used. Groundwater pathway identified (human and ecological receptors).
mm	Millimeter
MPU	Munitions used. Pathway unlikely.
MSW	Munitions used. Surface water pathway identified.
MSW (H/E)	Munitions used. Surface water pathway identified (human and ecological receptors).
MSWGW	Munitions used. Surface water and groundwater pathways identified.
MSWGW (H/E)	Munitions used. Surface water and groundwater pathways identified (human and ecological receptors).
N/A	Not Applicable
NCA	National Conservation Area
ORAP	Operational Range Assessment Program
OTA	Orchard Training Area
PETN	Pentaerythritoltetranitrate

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PU	Munitions used. Pathway unlikely or incomplete. This is referring to range grouping, M designation always precedes PU designation.
RDX	Cyclotrimethylenetrinitramine
RFMSS	Range Facility Management Support System
SW	Surface water pathway identified. This is referring to range grouping, M designation always precedes SW designation.
TNT	Trinitrotoluene
µg/L	Micrograms per liter
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
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WP	White Phosphorus
WWII	World War II

## 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. This Phase I Assessment evaluates Orchard Training Area's (OTA) 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. 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.

OTA comprises 138,051 acres of land that has been used by the Idaho Army National Guard (ARNG) since 1953. OTA is located in Ada and Elmore counties, Idaho, south of Interstate 84. It is situated in a sparsely populated area in the central portion of the western Snake River Plain and the Mountain Home Plateau, approximately 13 miles south of Gowen Field and 14 miles south of the city of Boise. OTA is a major training location for the Idaho ARNG and serves as an annual training site. The mission of OTA is to provide an established facility for use by any Reserve Component unit for specified periods of training. ARNG units in Idaho, as well as units from Nevada, Montana, Oregon, and Washington, regularly use the facility.

An Operational Range Inventory Sustainment update was submitted to the U.S. Army Environmental Command in July 2006. The Army Range Inventory Database-Geodatabase 2006 identified 145 operational range areas encompassing a total of 170,430 acres. Many of these range areas overlap so that the sum of the acreages for the individual ranges is greater than the total operational range area. The 145 ranges at OTA consist of 50 artillery firing points, one demolition range, one dudded impact area, seven field training activity ranges, 13 firing ranges, 13 helicopter landing pads, 34 maneuver ranges, 14 mortar firing points, one non-dudded impact area, two small arms ranges, and nine training areas.

The 145 operational ranges at OTA are categorized as Unlikely.

### **Unlikely – Five-Year Review**

One hundred forty-five ranges at OTA are categorized as Unlikely, totaling 170,430 acres. These ranges consist of artillery firing points, a demolition range, a dudded impact area, field training activity ranges, firing ranges, helicopter landing pads, maneuver ranges, mortar firing points, a non-dudded impact area, small arms ranges, 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 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, 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 OTA**

Category	Total Number of Ranges and Acreage	Source(s)	Pathway(s)	Human Receptors	Ecological Receptors	Conclusions and Rationale
Unlikely	55 operational ranges; 55,284 acres	No source – no military munitions use	Not evaluated (no source was identified)			Re-evaluate during the five-year review. No source was identified.
	90 operational ranges; 115,146 acres	Artillery firing points, demolition range, dudded impact area, firing ranges, mortar firing points, non-dudded impact area, small arms ranges, training areas	None		Not evaluated	Re-evaluate during the five-year review. No potential for migration off-range via groundwater or surface water.