



FINAL

Operational Range Assessment Program Phase I Qualitative Assessment Report Fallon Training Site, Nevada

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 the Fallon Training Site 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.

The Fallon Training Site, constructed on 1 June 2000, occupies approximately 131.97 acres of land located east of Highway 95, approximately 27 miles southeast of the city of Fallon, in Churchill County, Nevada. According to the Army Range Inventory Database-Geodatabase (ARID-GEO) (2007), the operational range footprint includes seven operational ranges consisting of four live-fire ranges, an indirect firing point, a helipad, and an observation tower. The Fallon Training Site is owned by the U.S. Navy and is located within the boundaries of the U.S. Navy's Naval Air Station (NAS) Fallon Bravo-19 (B-19) range. The installation is located within a hydrologically closed basin surrounded by the Blow Sand Mountains on the northeast and the Terrill Mountains on the southwest.

The Fallon Training Site is used by the Nevada Army National Guard (NVARNG) primarily for small arms training. While the U.S. Navy has priority over the range, NVARNG maintains and operates the Fallon Training Site for firing practice and marksmanship qualification. Munitions use at the four live-fire ranges and the indirect firing point consists of small, medium, and large caliber munitions as well as medium caliber practice munitions (ARID-GEO, 2007).

Potential sources of MCOC at the Fallon Training Site consist of firing lines, localized areas surrounding targets, and the indirect firing point. The impact area associated with the indirect firing point is not considered as a source area because it is located off-range on the NAS Fallon B-19 range. Other potential source areas include historical impact areas and a small arms firing range that may have been present prior to the construction of the Fallon Training Site. In general, potential MCOC from these source areas can potentially impact the soil.

Primary source media identified at the ranges include surface soils. Migration mechanisms for potential MCOC at the ranges are unlikely. Therefore, off-range transport of potential MCOC is unlikely via surface water and groundwater pathways.

Only the area to the south of the Fallon Training Site is considered for a source receptor interaction because both the Fallon Training Site and NAS Fallon B-19 range share the same southern boundary. No potential human receptors (e.g., potable water, recreational areas) are located in the off-range vicinity. No potential ecological receptors (i.e., species of concern, threatened and endangered species, and sensitive environments) are located in the off-range vicinity.

The seven operational ranges at Fallon Training Site are categorized as Unlikely.

Unlikely – Five-Year Review

Seven ranges at Fallon Training Site are categorized as Unlikely, totaling 131.97 acres. These ranges consist of four live-fire ranges, an indirect firing point, a helipad, and an observation tower. 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 Fallon Training Site

Category	Total Number of Ranges and Acreage	Source(s)	Pathway(s)	Human Receptors	Ecological Receptors	Conclusions and Rationale
Unlikely	7 operational ranges; 131.97 acres	Firing lines, localized areas surrounding targets, indirect firing point, historical impact areas, and small arms firing range	None, given no recharge areas, poorly drained soils, topographic and geologic setting, low precipitation, and high evapotranspiration rate	Not evaluated (no pathways identified)		Re-evaluate during the five-year review. No receptors were identified.

ABBREVIATIONS/ACRONYMS

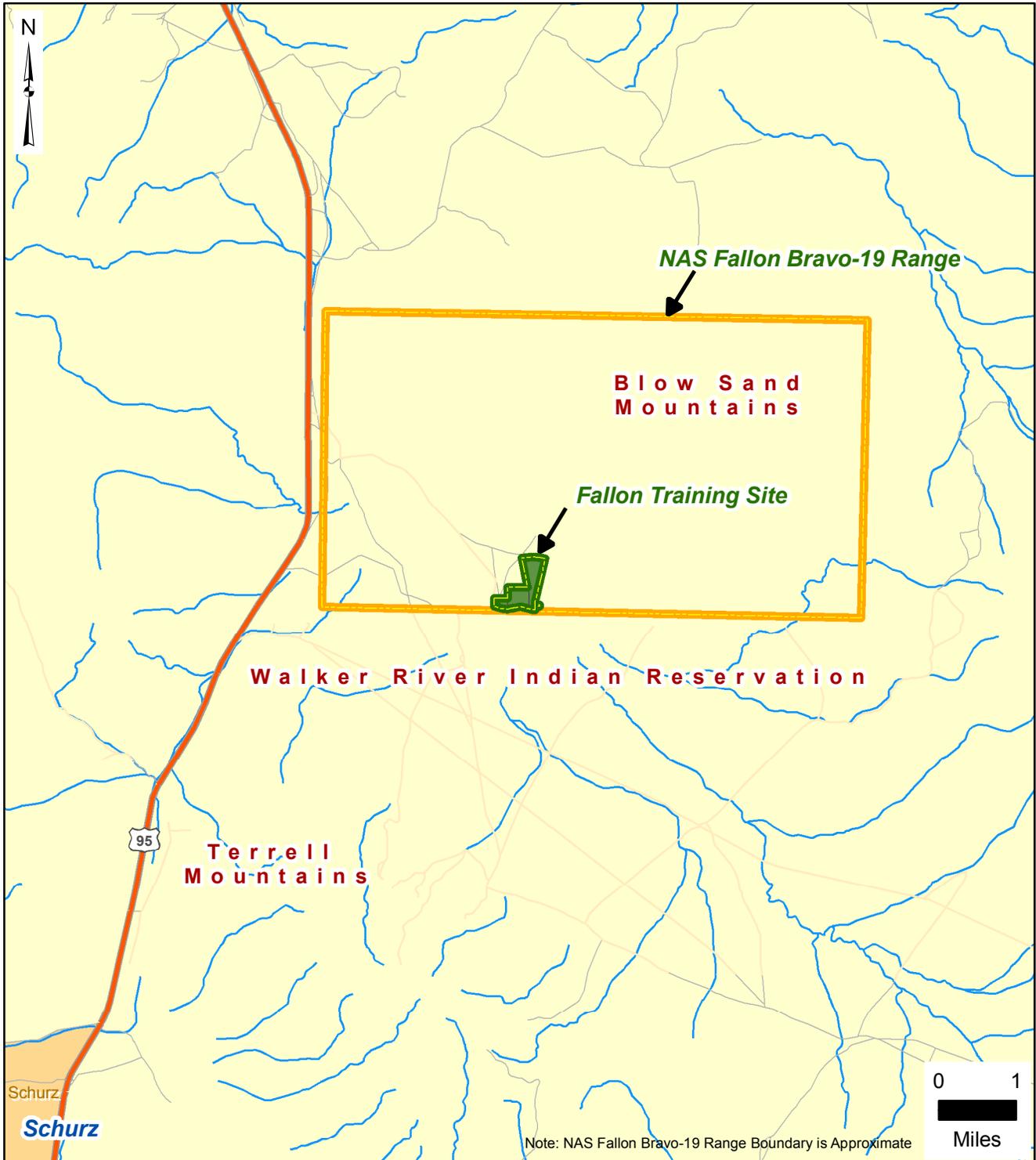
ARID-GEO	Army Range Inventory Database-Geodatabase
ATSDR	Agency for Toxic Substances and Disease Registry
B-19	Bravo-19
BLM	Bureau of Land Management
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CSM	Conceptual Site Model
DNT	Dinitrotoluene
DoD	Department of Defense
DODI	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.)
MCOG	Munitions Constituents of Concern
NAS	Naval Air Station
NDWR	Nevada Division of Water Resources
NG	Nitroglycerin
NRCS	Natural Resources Conservation Service
NVARNG	Nevada Army National Guard
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
SEAL	Sea, Air, and Land
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
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
WP	White Phosphorus
°F	Degrees Fahrenheit



**Operational Range Assessment Program
Phase I Qualitative Assessment
Fallon Training Site, NV**



**Figure 1-1
General Location for Fallon Training Site**



Installation Data

- Installation Boundary
- Operational Range Area
- NAS Fallon Bravo-19 Range Boundary

Highways

- Highway
- Local Road

Hydrology

- Streams
- Waterbody

Data Sources:

ARID-GEO, June 2007
ESRI, StreetMap, 2006

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