

**FINAL  
OPERATIONAL RANGE ASSESSMENT PROGRAM  
PHASE I QUALITATIVE ASSESSMENT REPORT  
89th REGIONAL READINESS COMMAND SUNFLOWER LOCAL  
TRAINING AREA  
DE SOTO, KANSAS**

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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. This Phase I Assessment evaluates the operational range area at the 89th Regional Readiness Command (RRC) Sunflower Local Training Area (LTA) 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 75.23-acre 89th RRC Sunflower LTA is located in rural northwestern Johnson County, Kansas, about 25 miles west of Kansas City, Missouri, five miles southwest of De Soto, Kansas, and 13 miles southeast of Lawrence, Kansas. All 75.23 acres of the 89th RRC Sunflower LTA are considered operational range area. Military activities on the 89th RRC Sunflower LTA are limited to small unit operations and field training exercises. Most training consists of driver training, bivouac, night operations, equipment familiarization, and other small unit exercises using blank ammunition and limited pyrotechnics, simulators, and smoke munitions. The site is used approximately 50 days per year (Burns & McDonnell, 2005). Live-fire ammunition use is prohibited on the LTA (U.S. Army Reserve, 2003).

The area occupied by the 89th RRC Sunflower LTA was privately owned from 1885 until 1942, when the United States was granted ownership and the area became part of the Sunflower Army Ammunition Plant (SFAAP) (Versar, 2003). From 1942 to 1961, the area occupied by the 89th RRC Sunflower LTA was located on the periphery of the SFAAP, remained undeveloped, and had no documented munitions manufacturing, testing, or waste disposal actions (89th RRC, 2006; GSA, 1999; SFAAP, 2004; Versar, 2003). The Army Reserve obtained the current 89th RRC Sunflower LTA area from the SFAAP in 1961 and has used the property for small unit operations and field training exercises since then (89th RRC, 2006; ARID-GEO, 2006).

The operational range at the 89th RRC Sunflower LTA is categorized as Unlikely.

### **Unlikely – Five-Year Review**

One range at the 89th RRC Sunflower LTA is categorized as Unlikely, totaling 75.23 acres. This range is a training and maneuver 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.

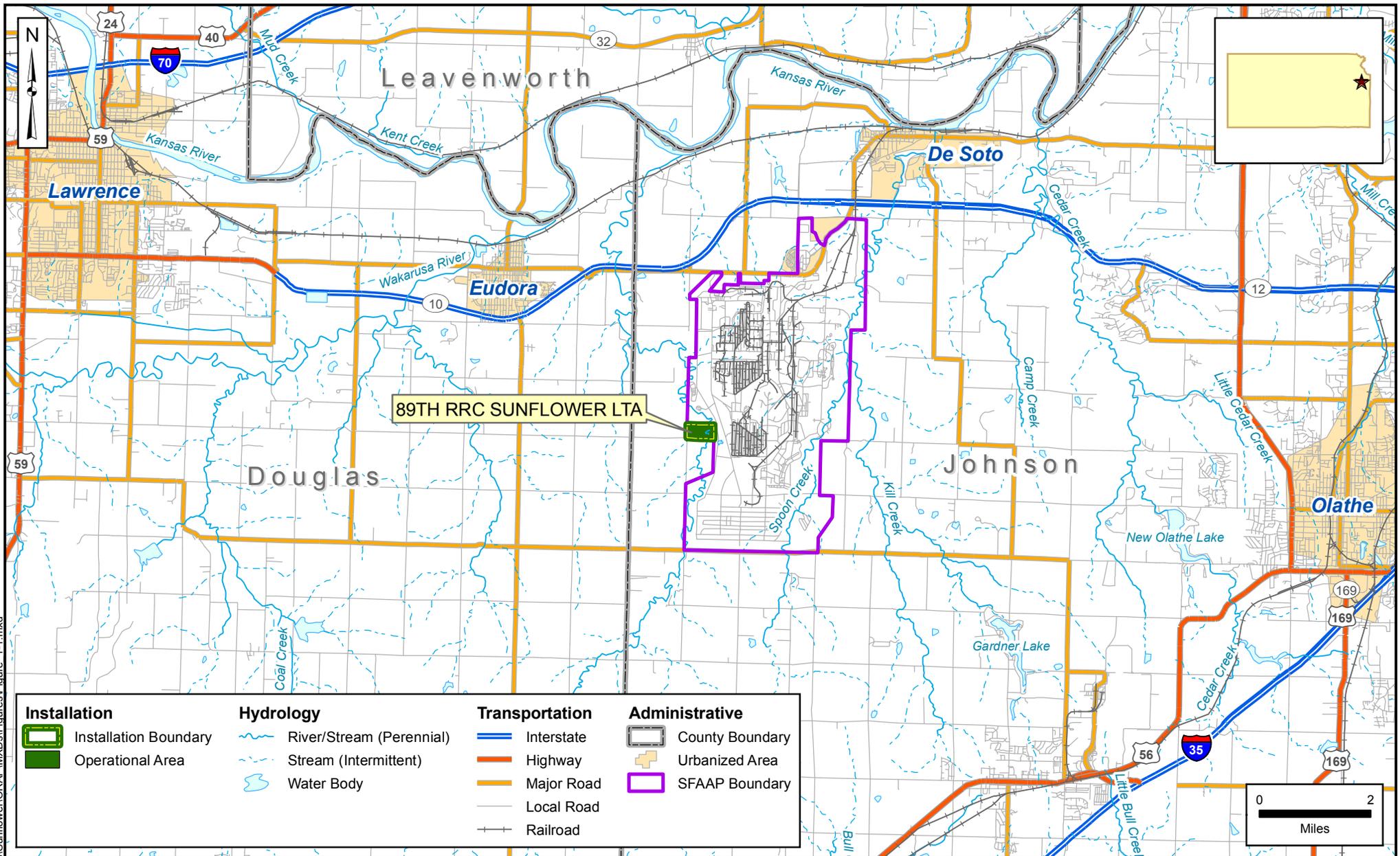
**Table ES-1: Summary of Findings and Conclusions for the 89th RRC Sunflower LTA**

Category	Total Number of Ranges and Acreage	Source(s)	Pathway(s)	Human Receptors	Ecological Receptors	Conclusions and Rationale
Unlikely	One operational range; 75.23 acres	No source—limited or no military munitions use	Not evaluated (no source identified)			Re-evaluate during the five-year review. No source was identified.

## ABBREVIATIONS/ACRONYMS

AERO	Army Environmental Reporting Online
amsl	Above Mean Sea Level
ARID-GEO	Army Range Inventory Database-Geodatabase
bgs	Below Ground Surface
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.)
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.)
HUC	Hydrologic Unit Code
LS	Limited Source
LTA	Local Training Area
M	Munitions used. (This refers to range grouping; M designation always precedes applicable pathway.)
MCOC	Munitions Constituents of Concern
ORAP	Operational Range Assessment Program
PETN	Pentaerythritoltetranitrate
PU	Pathway unlikely or incomplete. (This refers to range grouping; M designation always precedes PU designation.)
READ	Repository of Environmental Army Documents
RFMSS	Range Facility Management Support System
RRC	Regional Readiness Command
SFAAP	Sunflower Army Ammunition Plant
SW	Surface water pathway identified. (This refers to range grouping; M designation always precedes SW designation.)
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
°F	Degrees Fahrenheit

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**Operational Range Assessment Program  
Phase I Qualitative Assessment  
89th RRC Sunflower LTA, KS**

**Figure 1-1  
General 89th RRC Sunflower LTA Location**

Data Sources:  
AEC, ARID-GEO, 2006  
ESRI, StreetMap USA, 2005  
Tetra Tech, SFAAP Supplemental EA, 2004

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