

**FINAL  
OPERATIONAL RANGE ASSESSMENT PROGRAM  
PHASE I QUALITATIVE ASSESSMENT REPORT  
CHATFIELD RESERVOIR  
LITTLETON, COLORADO**

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Prepared for:

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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 Chatfield Reservoir 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 Colorado Army National Guard (COARNG) has conducted limited training activities at Chatfield Reservoir, which encompasses approximately 2,281 acres in Jefferson and Douglas counties. The site is located less than one mile south of the Denver metropolitan area on land owned and managed by the U.S. Army Corps of Engineers (USACE). The USACE leases the property to the Colorado Department of Natural Resources, which operates the area as Chatfield State Park. According to the Army Range Inventory Database-Geodatabase from 2005, the COARNG uses the entire 2,281 acres as one personnel and equipment drop zone. The first use of the site by the COARNG was in the late 1970s, and it is estimated that fewer than 30 training events have occurred.

The COARNG has used Chatfield Reservoir for communication relay training and drop zone training. No munitions have been used during communication relay training events. During drop zone training events, soldiers have parachuted out of helicopters into the reservoir; approximately three pyrotechnics have been used at some of the events to indicate wind direction to the jumpers. A review of available records and interviews with COARNG personnel indicate that fewer than 100 pyrotechnics have been used at Chatfield Reservoir over the past 30 years (Centennial TS Budget Analyst, pers. comm.). The use of pyrotechnics has been dispersed across the landing area, and all used pyrotechnics have been removed from the site. Because pyrotechnics use has been minimal and dispersed, there are limited sources of MCOC. Therefore, potential off-range migration pathways and potential off-range human and ecological receptors were not evaluated.

The single operational range at Chatfield Reservoir is categorized as Unlikely.

### **Unlikely – Five-Year Review**

The single range at Chatfield Reservoir is categorized as Unlikely, totaling 2,281 acres. This range consists of a drop zone and a communication relay training site. 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 Chatfield Reservoir**

Category	Total Number of Ranges and Acreage	Source(s)	Pathway(s)	Human Receptors	Ecological Receptors	Conclusions and Rationale
Unlikely	One operational range; 2,281 acres	Limited source—minimal military munitions use (pyrotechnics)	Not evaluated (limited source identified)			Re-evaluate during the five-year review. Limited source was identified.

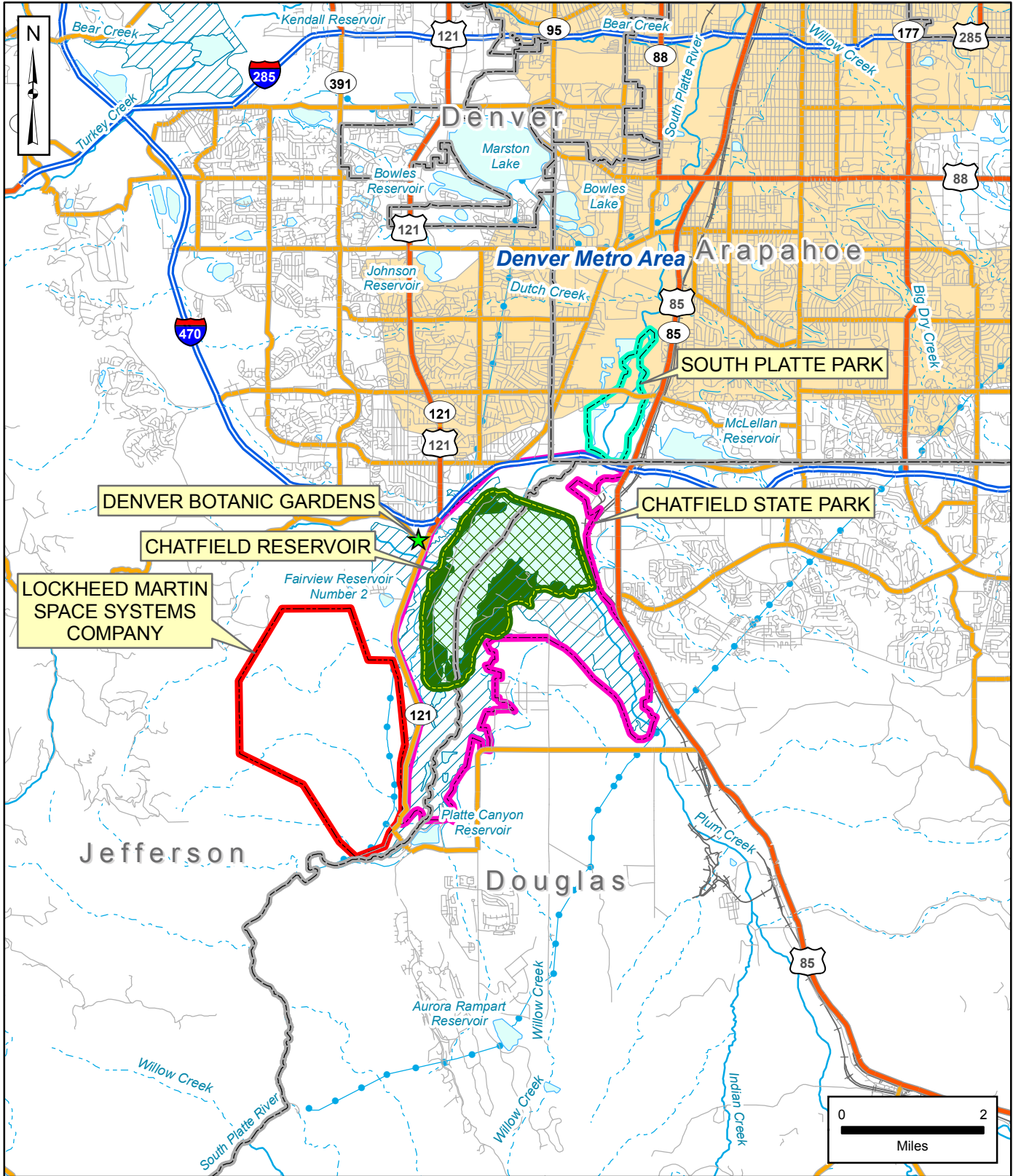
## ABBREVIATIONS/ACRONYMS

ARID-GEO	Army Range Inventory Database-Geodatabase
amsl	Above Mean Sea Level
bgs	Below Ground Surface
cfs	Cubic Feet per Second
COARNG	Colorado Army National Guard
CO DNR	Colorado Department of Natural Resources
CSM	Conceptual Site Model
DoD	Department of Defense
DODI	Department of Defense Instruction
DODIC	Department of Defense Identification Codes
E	Ecological receptors identified. (This refers to range grouping; pathway designation always precedes E designation.)
gpm	Gallons per Minute
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
lb	Pound
LS	Limited Source
M	Munitions used. (This refers to range grouping; M designation always precedes applicable pathway.)
MCOC	Munitions Constituents of Concern
ORAP	Operational Range Assessment Program
PU	Pathway unlikely or incomplete. (This refers to range grouping; M designation always precedes PU designation.)
SW	Surface water pathway identified. (This refers to range grouping; M designation always precedes SW designation.)
TNT	Trinitrotoluene
ug/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
°F	Degrees Fahrenheit



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**Operational Range Assessment Program  
Phase I Qualitative Assessment  
Chatfield Reservoir, CO  
Figure 1-1  
Chatfield Reservoir Location**



**Installation**

- Installation Boundary
- Operational Area
- Operational Area (Water Portion)

**Hydrology**

- River/Stream (Perennial)
- Stream (Intermittent)
- Canal/Ditch
- Aqueduct
- Water Body
- Inundation Area

**Transportation**

- Interstate
- Highway
- Major Road
- Local Road
- Railroad

**Administrative**

- County Boundary
- Urbanized Area

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

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