





FINAL

Operational Range Assessment Program Phase I Qualitative Assessment Report Bog Brook/Riley Training Site, Maine

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





ABBREVIATIONS/ACRONYMS

ARID-GEO BRAC Base Realignment and Closure CERCLA Comprehensive Environmental Response, Compensation, and Liability Actor 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.) LS Limited Source. M Munitions used. (This refers to range grouping; M designation always precedes applicable pathway.) MCOC Munitions Constituents of Concern			
CERCLA Comprehensive Environmental Response, Compensation, and Liability AcCSM 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.) LS Limited Source. M Munitions used. (This refers to range grouping; M designation always precedes applicable pathway.)			
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.) LS Limited Source. M Munitions used. (This refers to range grouping; M designation always precedes applicable pathway.)			
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.) LS Limited Source. M Munitions used. (This refers to range grouping; M designation always precedes applicable pathway.)			
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.) LS Limited Source. M Munitions used. (This refers to range grouping; M designation always precedes applicable pathway.)			
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.) LS Limited Source. M Munitions used. (This refers to range grouping; M designation always precedes applicable 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.) LS Limited Source. M Munitions used. (This refers to range grouping; M designation always precedes applicable pathway.)			
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.) LS Limited Source. M Munitions used. (This refers to range grouping; M designation always precedes applicable pathway.)			
designation always precedes GW designation.) H Human receptors identified. (This refers to range grouping; pathway designation always precedes H designation.) LS Limited Source. M Munitions used. (This refers to range grouping; M designation always precedes applicable pathway.)			
H Human receptors identified. (This refers to range grouping; pathway designation always precedes H designation.) LS Limited Source. M Munitions used. (This refers to range grouping; M designation always precedes applicable pathway.)			
designation always precedes H designation.) LS Limited Source. Munitions used. (This refers to range grouping; M designation always precedes applicable pathway.)			
M Munitions used. (This refers to range grouping; M designation always precedes applicable pathway.)			
precedes applicable pathway.)			
MCOC Munitions Constituents of Concern			
11200 Manifold Conditions of Concern			
MEARNG Maine Army National Guard			
EDWP Maine Department of Environmental Health and Human Services, Divis			
of Environmental Health, and Drinking Water Program			
MGS Maine Geological Survey			
NOAA National Oceanic and Atmospheric Administration			
NRCS Natural Resources Conservation Service			
ORAP Operational Range Assessment Program			
Pathway unlikely or incomplete. (This refers to range grouping; M			
designation always precedes PU designation.)			
RFMSS Range Facility Management Support System			
SW Surface water pathway identified. (This refers to range grouping; M			
designation always precedes SW designation.)			
TS Training Site			
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			
USFS United States Forest Service			
USFWS United States Fish and Wildlife Service			
USGS United States Geological Survey			
°F Degrees Fahrenheit			

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 Bog Brook/Riley Training Site (TS) 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.

Bog Brook/Riley TS is an 806.74-acre facility consisting of two separate parcels: Bog Brook and Riley training sites. Bog Brook TS (212.14 acres) is located in the town of Gilead in southwestern Maine, approximately eight miles west of the town of Bethel and 3.5 miles east of the Maine and New Hampshire border. Riley TS (594.16 acres) is located seven miles north of Bog Brook TS in the town of Riley, Maine. Use of Bog Brook/Riley TS by the Maine Army National Guard (MEARNG) began in 1991.

The Army Range Inventory Database-Geodatabase (2007) identifies 10 operational ranges encompassing 796.72 acres (including two firing ranges and seven maneuver and training areas at Bog Brook TS and one maneuver and training area at Riley TS). In addition, 10.02 acres of non-operational area are located at Bog Brook TS.

MEARNG personnel indicated that no live-fire training is being or has been conducted at Bog Brook/Riley TS. Small caliber blanks and limited quantities of pyrotechnics/obscurants have been used during training exercises at Bog Brook TS. Riley TS was last used 10 years ago as a non-live-fire maneuver and training area. Small arms blanks were the only munitions used during training exercises at Riley. Therefore, there is a limited potential MCOC source present at Bog Brook/Riley TS.

The 10 operational ranges at Bog Brook/Riley TS are categorized as Unlikely.

<u>Unlikely – Five-Year Review</u>

The 10 ranges at Bog Brook/Riley TS are categorized as Unlikely, totaling 796.72 acres. These ranges consist of firing ranges and maneuver and training areas. Based upon a review of readily available information, ranges where 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 Bog Brook/Riley Training Site

Category	Total Number of Ranges and Acreage	Source(s)	Pathway(s)	Human Receptors	Ecological Receptors	Conclusions and Rationale
Unlikely	10 operational ranges;	No source—limited or no	Not evaluated (no source identified)			Re-evaluate during the five-year
	796.72 acres	military munitions use				review. No source was identified.