

# Leona Heights Rifle Range Military Munitions Response Program

## Remedial Action Information Sheet

Oakland, CA  
January 2022



### Introduction

The Army National Guard - Directorate, California Army National Guard, and U.S. Army Corps of Engineers are conducting a Remedial Action (RA) at the Leona Heights Rifle Range – Leona Canyon Regional Open Space Preserve (ROSP) Munitions Response Site (MRS). The RA is a phase of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) process. The process is long-term and includes a series of steps: investigation, evaluation of cleanup options, public comment period on preferred cleanup plan, decision document, and the actual cleanup as needed at each phase. The RA is being conducted under the Department of Defense's Military Munitions Response Program (MMRP).

### Where is the Leona Heights Rifle Range MRS?

The Leona Heights Rifle Range – Leona Canyon ROSP MRS is approximately seven miles southeast of Downtown Oakland, Alameda County, California. The boundary of the MRS was designated in the Record of Decision (ROD) (WESTON, 2018). The ROD is part of the CERCLA process and completes the Decision Document requirement for the MMRP-eligible sites.

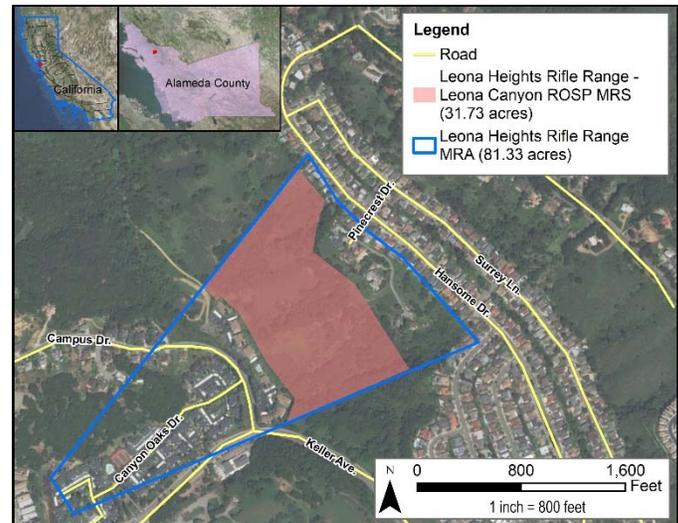
The 31.73-acre Leona Heights Rifle Range – Leona Canyon ROSP MRS is located along Keller Avenue and Campus Drive in the Sequoyah neighborhood. The historical range is located on land owned by the East Bay Regional Park District.

### What is the Military Munitions Response Program (MMRP)?

The MMRP program began in 2001, and addresses explosives safety, health, and environmental issues caused by past munitions-related activities at current and former military installations and adjacent properties. The program follows the requirements of the National Contingency Plan as set under the 1980 CERCLA and its amendments of 1986.

### What prompted the RA?

The Final State/Territory Inventory Report for California, the equivalent of a Preliminary Assessment in the CERCLA process, identified the historic munitions use at the Leona Heights Rifle Range MRS (81.33 acres). In 2012, a Site Inspection (SI) was conducted at the MRS to evaluate the



presence or absence of munitions and explosives of concern (MEC) and munitions constituents (MC) as a result of training activities.

During the SI, a 3-inch Stokes mortar was discovered at the surface on the eastern side of the Leona Canyon ROSP. The mortar was transported and disposed of by the Alameda County Sheriff's Office (ACSO) Explosives Ordnance Disposal (EOD) Squad. Although the mortar was identified as potential MEC, the responding ACSO EOD officer, following inspection, determined that it did not pose an explosive hazard. The mortar was taken to the ACSO EOD range for final disposition.

Sub-surface anomalies were also detected within the vicinity of the mortar during the SI; however, no intrusive investigation was performed to identify the anomalies. Therefore, the MRS was recommended for further investigation for MEC in an RI.

Analytical results did not indicate MC (explosives or metals) in concentrations above screening levels. As a result, the MRS was recommended for No Further Action (NFA) for MC in the Remedial Investigation (RI).

The objectives of the RI were to 1) assess the nature and extent of munitions items; 2) assess the explosive safety hazards; and 3) assess if there is any environmental contamination in the soil from munitions. To meet the

objectives, unexploded ordnance (UXO) qualified personnel walked transects and mini-grids with White's all-metals detectors to locate surface and sub-surface anomalies (potential MEC). UXO qualified personnel hand dug the anomaly locations to determine whether MEC and/or munitions debris (MD) were present. Of the 351 anomalies identified and investigated, one was MD (3-inch Stokes Mortar), three were material potentially presenting an explosive hazard (MPPEH), and the rest were small arms or non-munitions debris.

The three MPPEH items were 3-inch Stokes Mortars that were determined safe to move and transported to a safe location for demolition. Demolition of the items determined that they contained no high explosives and were reclassified as MD. All four MD items were found from 2 to 24-inches below ground surface (bgs).

No additional MC sampling was collected during the RI. However, discrete pre- and post-detonation samples were collected and no analytes were detected.

Information collected during the RI was used to fill data gaps, update the conceptual site model, and evaluate potential human health risks. Although MEC was not encountered during the SI or RI, utilizing the most conservative assumptions, there is a potentially complete pathway for human receptors to come into contact with MEC via intrusive and non-intrusive activities within the MRS. Since potential MEC is confined to one area, the RI recommended that the MRS be converted to a Munitions Response Area (MRA) and divided into two MRSs: the Leona Heights Rifle Range – Leona Canyon ROSP MRS that was recommended for further action for MEC and NFA for MC and required further evaluation in a Feasibility Study (FS), and the Leona Heights Rifle Range – Developed Area MRS that was recommended for NFA for both MEC and MC.

After the RI, the FS was conducted to develop, screen, evaluate, and compare remedial action alternatives. Four remedial alternatives were developed and screened for the Leona Heights Rifle Range – ROSP MRS: 1) No action; 2) Land use controls (LUCs); 3) LUCs and focused surface and subsurface (24-inches bgs) clearance; and 4) LUCs and complete surface and subsurface (24-inches bgs) clearance.

After the FS, the recommended alternative was presented in the Proposed Plan (PP) for Stakeholder and public concurrence. The PP recommended Alternative 3: LUCs and focused surface and subsurface (24-inches bgs) clearance. No public comments were received on the PP.

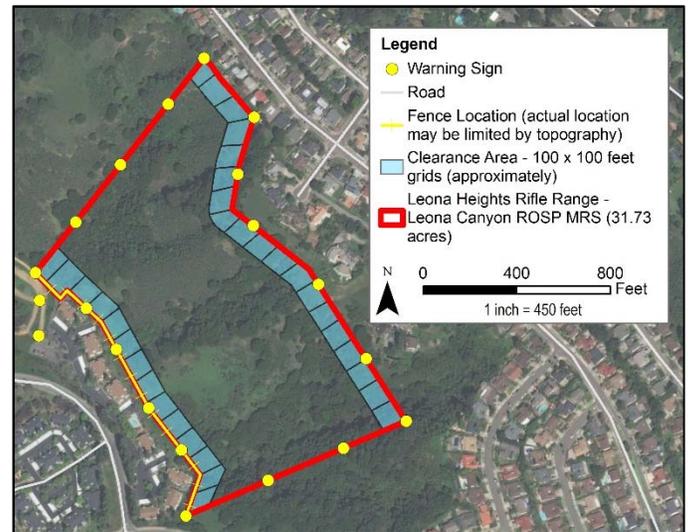
A ROD was written to present the chosen remedial action for the Leona Heights Rifle Range – Leona Canyon ROSP MRS.

**RA Field Work**

During the RA, focused areas (7.48 acres), will be cleared of MEC/MD within 100-foot buffer areas along the boundaries on the northeast and southwest borders of the MRS as these areas are considered most likely to be visited by human receptors. Vegetation will be cleared in these areas to within 6-inches of the ground surface to ensure regeneration of

vegetation and to ensure safe access for UXO qualified personnel. Due to the thick vegetation and steep terrain within the area between the 100-foot buffers, no clearance will be conducted. LUCs will be used to prevent public interaction with MEC/MD in these areas.

LUCs include placing up to 20 signs around the border of the MRS to inform the public of the possible dangers in the area and the placement of fencing along the southwest border of the MRS. Additionally, public information meetings and fact sheets/information pamphlets will be used to provide information to the public. Long-term monitoring (annual and Five-Year Reviews) will be used to ensure that protections remain in place at the MRS over time.



**Public Information**

Project related documents are available at the following locations:

**Administrative Record**  
 California Army National  
 Guard, ENV BOX 17  
 Military Department  
 9800 Goethe Rd,  
 Sacramento, CA 95827

**Information Repository**  
 Eastmont Public Library  
 7200 Bancroft, Suite 211  
 Oakland, CA

[www.westonsolutions.com/leona-heights/](http://www.westonsolutions.com/leona-heights/)

If you have any questions regarding the RA, please contact Reuben Sendejas, Army National Guard, at (916) 369-4388 or email to [reuben.r.sendejas.civ@army.mil](mailto:reuben.r.sendejas.civ@army.mil).

