

# Leona Heights Rifle Range Military Munitions Response Program Remedial Action Field Work

## Information Sheet

Oakland, CA  
July 2022



### Introduction

The Army National Guard G9, California Army National Guard (collectively referred to as the “ARNG”), and U.S. Army Corps of Engineers conducted a Remedial Action (RA) at the Leona Heights Rifle Range – Leona Canyon Regional Open Space Preserve (ROSP) Munitions Response Site (MRS) located approximately seven miles southeast of Oakland, Alameda County, California. The 31.73-acre MRS is located along Keller Avenue and Campus Drive. The boundary of the MRS was designated in the Record of Decision (Weston Solutions, Inc. [WESTON], 2018) and is located on land owned by the East Bay Regional Park District (EBRPD).

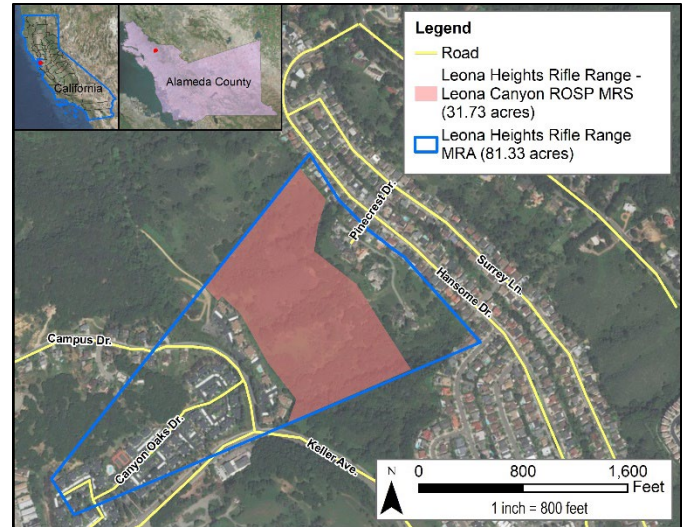
### Community Awareness Measures

Prior to the commencement of the RA field work, a public information meeting was held on 8 March 2022 to outline the upcoming field work and address questions from the public. A door hanger and flyer were passed out in the Ridgemont Skyline condominiums and Sequoyah neighborhood to alert residents of this meeting over 30 days prior to the start of field work. The door hanger, Fact Sheet and a copy of the public meeting presentation were also posted on the project website listed at the end of this Fact Sheet for public access.

### RA Field Work

Implementation of the RA consisted of focused surface and subsurface (24 inches below ground surface [bgs]) clearance of munitions and explosives of concern (MEC)/munitions debris (MD) and installation of land use controls (LUCs) and was completed on 3 June 2022. The RA field work began on 5 May 2022 with site preparations to include vegetation and fence removal (943 feet of longstanding wire fence), surveying of MRS boundaries, placement of 100-foot by 100-foot grids within the 100-foot buffer areas along the boundaries on the northeast and southwest borders of the MRS, evacuation door hanger placement on affected residences in preparation for the intrusive investigation, and temporary Leona Canyon Trail closure.

During the site preparation, areas within the MRS where slopes were greater than 30 degrees were determined to be inaccessible due to safety concerns with working with munitions on steep terrain. Therefore, accessible areas (3.66 acres) were cleared of vegetation and 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 was cleared in the accessible 100-foot buffer areas to within 6 inches of the ground surface to ensure regeneration of vegetation and safe access for unexploded ordinance (UXO) qualified personnel. Due to the thick vegetation and steep terrain within the area between the 100-foot buffers, no clearance was conducted. LUCs were installed to prevent public interaction with potential remaining MEC/MD in these areas.

Prior to the RA clearance work, 48-hour and 24-hour evacuation door hangers were placed on residences within the hazard fragmentation distance (HFD) (225 feet) of the munition of concern at the MRS (3-inch Stokes Mortar). As the clearance work began, several residents in the Ridgemont Skyline condominiums were unwilling to voluntarily evacuate for the several hours needed to perform mag and dig operations. Therefore, mag and flag operations were performed, which consisted of UXO qualified personnel walking transects with Schonstedt metal detectors to locate surface and subsurface anomalies (potential MEC) and placing a plastic pin flag at the anomaly location.

The ARNG and WESTON subsequently accommodated the residents by developing and executing a consecutive evacuation schedule by building based on anomaly densities

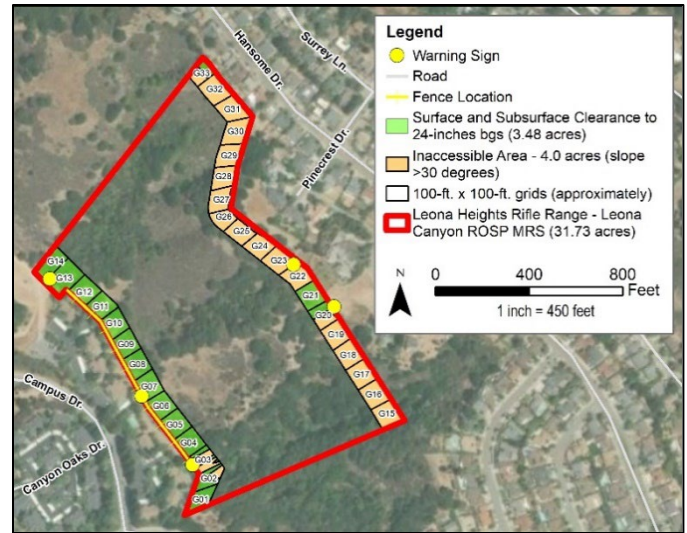
detected in each grid during the mag and flag operations. As the scheduled evacuation time approached for each building/residence, WESTON and ARNG representatives went door-to-door within the evacuation zones to make certain all residents had voluntarily withdrawn from the area. The Leona Canyon Trail was also closed from the trailhead to the northwest corner of the MRS as teams worked within the grids where the HFD crossed the trail and trailhead parking lot.

UXO qualified personnel returned to the flagged anomaly locations and hand dug each one to determine whether MEC and/or MD were present. Over 329 items were investigated and removed. Of these, 13 were MD (one 3-inch Stokes Mortar, Practice; five pieces of frag from 3-inch Stokes Mortar, Practice; three fuze parts from 3-inch Stokes Mortar, Practice; one body of a 75 millimeter (mm), Shrapnel, MK1, projectile; and three pieces of frag from a 37mm LE Mk 1, Practice), four were material potentially presenting an explosive hazard (MPPEH), and the rest were small arms or non-munitions debris. The four 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 items were found from the ground surface down to 24 inches bgs.

A total of three incremental sampling method soil post-detonation samples were collected, and no explosives were detected above the laboratory reporting limits. Concentrations of the munitions constituents metals analyzed (antimony, copper, lead, and zinc) were detected in all samples; however, none exceed the screening levels.

LUCs included placement of warning signs along the border of the MRS to inform the public of the possible dangers remaining in the area and the replacement of fencing along the southwest border of the MRS. A total of five warning signs were installed at approximately 4 feet above the ground surface on poles at two locations (grids G22/23 and G20) along the eastern MRS boundary and one location (grid G13) along the western MRS boundary. Two signs were affixed to the new chain link fence at approximately four feet above the ground surface along the western MRS boundary (in grids G03 and G07). The signs were placed at locations where pedestrians would be expected to enter the MRS and would be easily viewable. Approximately 943 feet of black poly-coated chain-link fence was installed at the toe of slope along the EBRPD property boundary located behind the Ridgemont Skyline condominiums to catch any potential remaining munitions that may surface through erosion and migrate downslope and to deter people from entering the MRS and potentially contacting any remaining munitions.

The warning signs and 4-foot-high chain-link fence styles were selected by the EBRPD and placed along and within their property boundary in the Leona Canyon ROSP. The ARNG is responsible for the monitoring and maintenance of the warning signs and fencing as described in the Land Use Control Implementation Plan (LUCIP) (WESTON, 2020) for the MRS.



A Remedial Action Completion Report documenting the details of the remedial action field work will be prepared by WESTON and placed in the publicly accessible Information Repository.

### Long-Term Monitoring

The ARNG is responsible for conducting long-term monitoring (LTM) of the LUCs installed at the MRS as described in the LUCIP (WESTON, 2020). LTM includes annual and Five-Year Reviews, conducted by ARNG, to ensure that protections for human health and the environment remain in place at the MRS over time. Annual reviews will include visual inspection of the MRS to confirm that actual land use is consistent with the allowable land uses, ensure that no activities are taking place that are prohibited by LUCs, and inspect signage and fencing associated with the MRS for readability and damage. If the signage and/or fencing is found to be deficient, the Army will work with the State and repairs will be made such that their proper functions are restored.

### Public Information

Project related documents are available at the following locations:

**Administrative Record**  
*California Army National Guard, ENV BOX 17*  
*Military Department*  
*9800 Goethe Road*  
*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).

