

MILITARY MUNITIONS RESPONSE PROGRAM
National Guard Bureau
Non-Department of Defense,
Non-Operational Defense Sites (NDNODS)
Western Region Remedial Actions

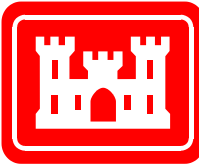
Leona Heights Rifle Range Munitions Response
Site (MRS) (CAHQ-013-R-01)
Alameda County, California (CA)

Informational Public Meeting

08 March 2022



Introductions



- **Project Team**

- **Army National Guard G-9 (ARNG)**

- Walter Gee, NDNODS Project Manager – (703) 607-7980
- Reuben Sendejas, Environmental Cleanup Specialist – (916) 369-4388

- **United States Army Corps of Engineers – Sacramento District**

- Jim Lukasko, Project Manager – (916) 557-5392
- Terra Salamida, Environmental Engineer – (916) 557-7180
- Kyle Lindsay, Project Geophysicist – (916) 557-6719

- **Weston Solutions, Inc.**

- Timothy Trego, Sr. Project Manager – (303) 729-6107
- Natalie Quiet, Project Team Lead – (303) 729-6124
- Leah Wills, Field Team Lead – (480) 477-4927

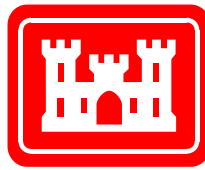
- **Stakeholder**

- **Regulatory Agency: CA Department of Toxic Substances Control**

- Tenaya Tuteur, Project Manager – (916) 255-6402



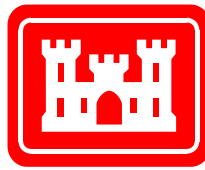
Meeting Agenda



- Site History
- Remedial Investigation (RI) Summary
- Feasibility Study (FS) Summary
- Proposed Plan (PP) Summary
- Record of Decision (ROD)
- Remedial Design (RD)/Remedial Action (RA)
- Land Use Controls (LUCs)
- Project Schedule
- Questions



NDNODS Implementation



Preliminary Assessment

Completed at the conclusion of NDNODS Inventory, September 2009.

Site Inspection

Completed in 2012.

Remedial Investigation

Field work completed in June 2016.
Final RI Report submitted in May 2017.

Feasibility Study

Final FS submitted in September 2017.

Proposed Plan

Public Notice 05 January 2018. Public Comment Period 05 January - 09 February 2018.

Record of Decision

ROD signed November 2018.

Remedial Design

Final RD Work Plan July 2019. Updated February 2022.

Remedial Action

RA Fieldwork May/June 2022.

Long Term Monitoring

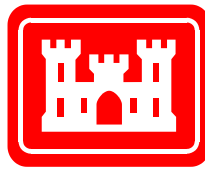
Begin October 2022.

Outline of the CERCLA Process

CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act



Leona Heights Rifle Range Site History



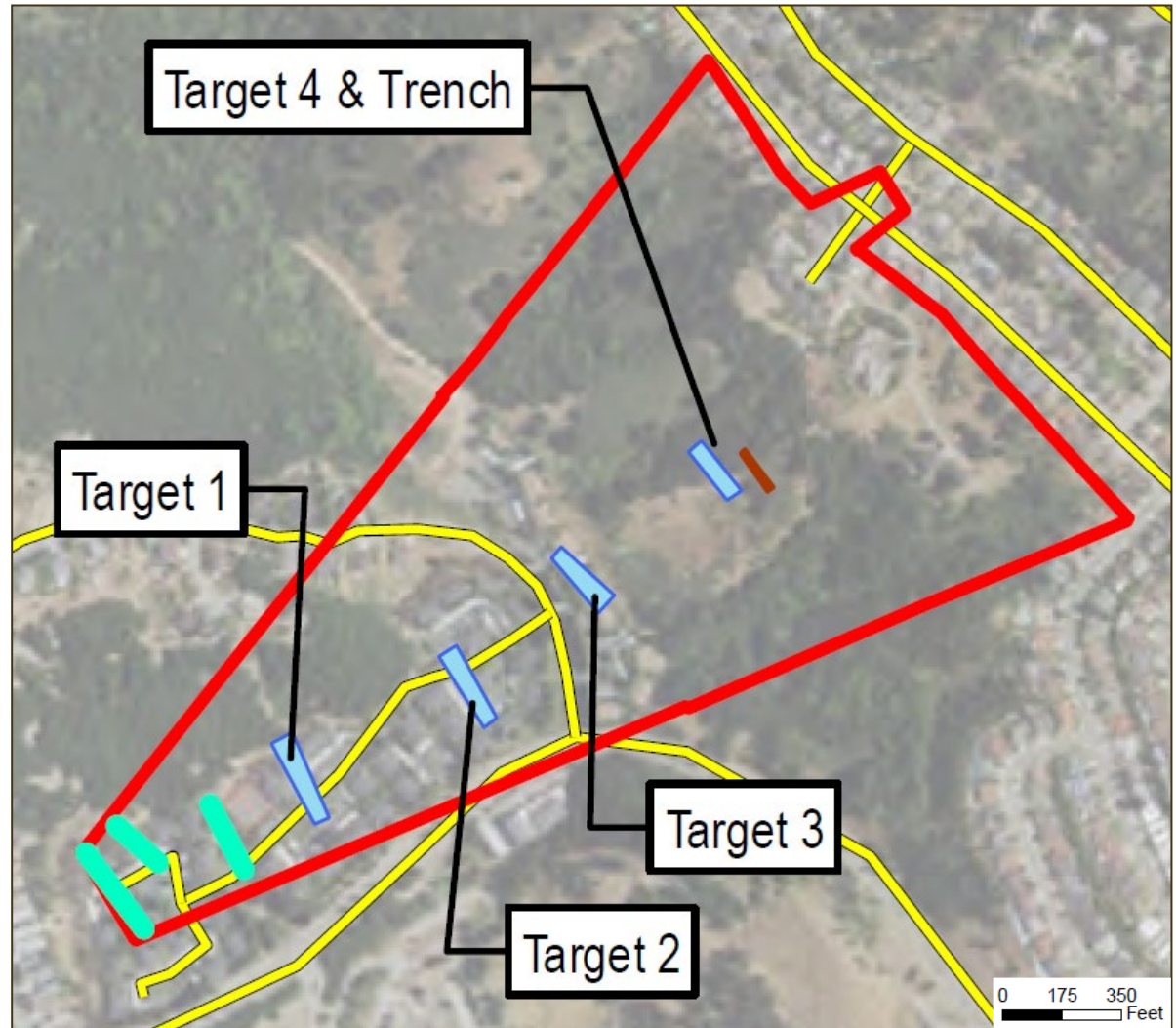
- Former Military Munitions Related Activities:

- The MRS was used by CA ARNG units for artillery and mortar practice from approximately 1913-1920.
- The MRS was then used as a small arms range beginning in 1920.



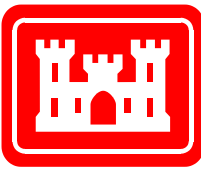
Legend

- Firing Line
- Target Area
- Target System Trench
- Road





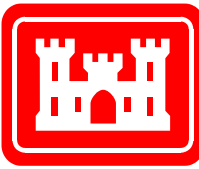
Leona Heights Rifle Range Informational Public Meeting



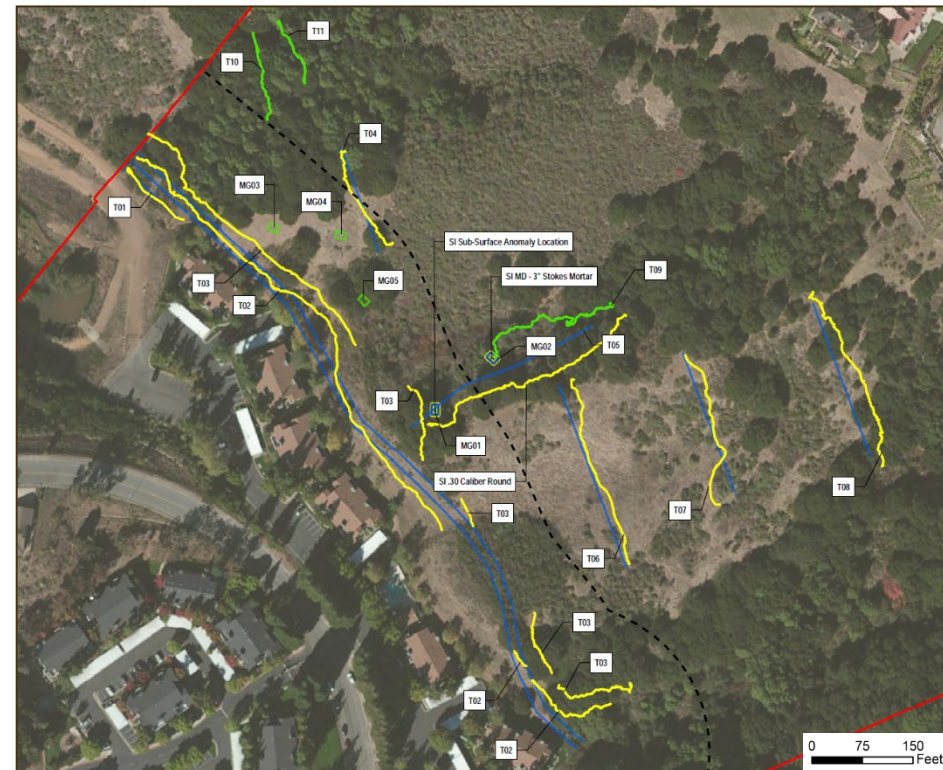
RI Summary
May 2017



RI Summary



- **Field work conducted 06 June through 17 June 2016**
 - Field work consisted of transects and mini-grids in accessible areas (limited by topography and vegetation):
 - 11 transects investigated
 - 5 mini-grids investigated
- **Geophysical Investigation Identified 351 Anomalies**
 - Munitions and Explosives of Concern (MEC) = 0 items
 - Munitions Debris (MD) = 4 items
 - Small Arms Ammunition = 245 items
 - Non-Munitions Debris = 102 items
- **Munitions Constituents (MC) Sampling – USEPA Method 8330B**
 - Explosives were not detected in any of the pre- or post-detonation samples.
 - Metals were not detected above reporting limits during the SI and the MRS was designated No Further Action for MC.

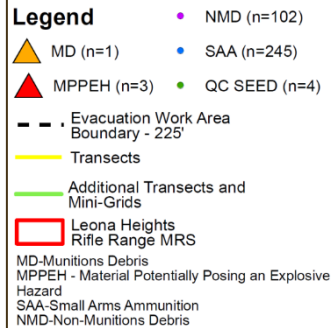
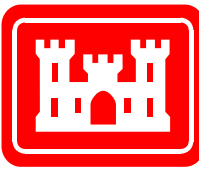


Legend

- Evacuation Work Area Boundary - 225'
- Yellow line Actual Transects & Mini-Grids
- Blue line Proposed Transects and Mini-Grids
- Green line Additional Transects and Mini-Grids
- Red outline Leona Heights Rifle Range MRS

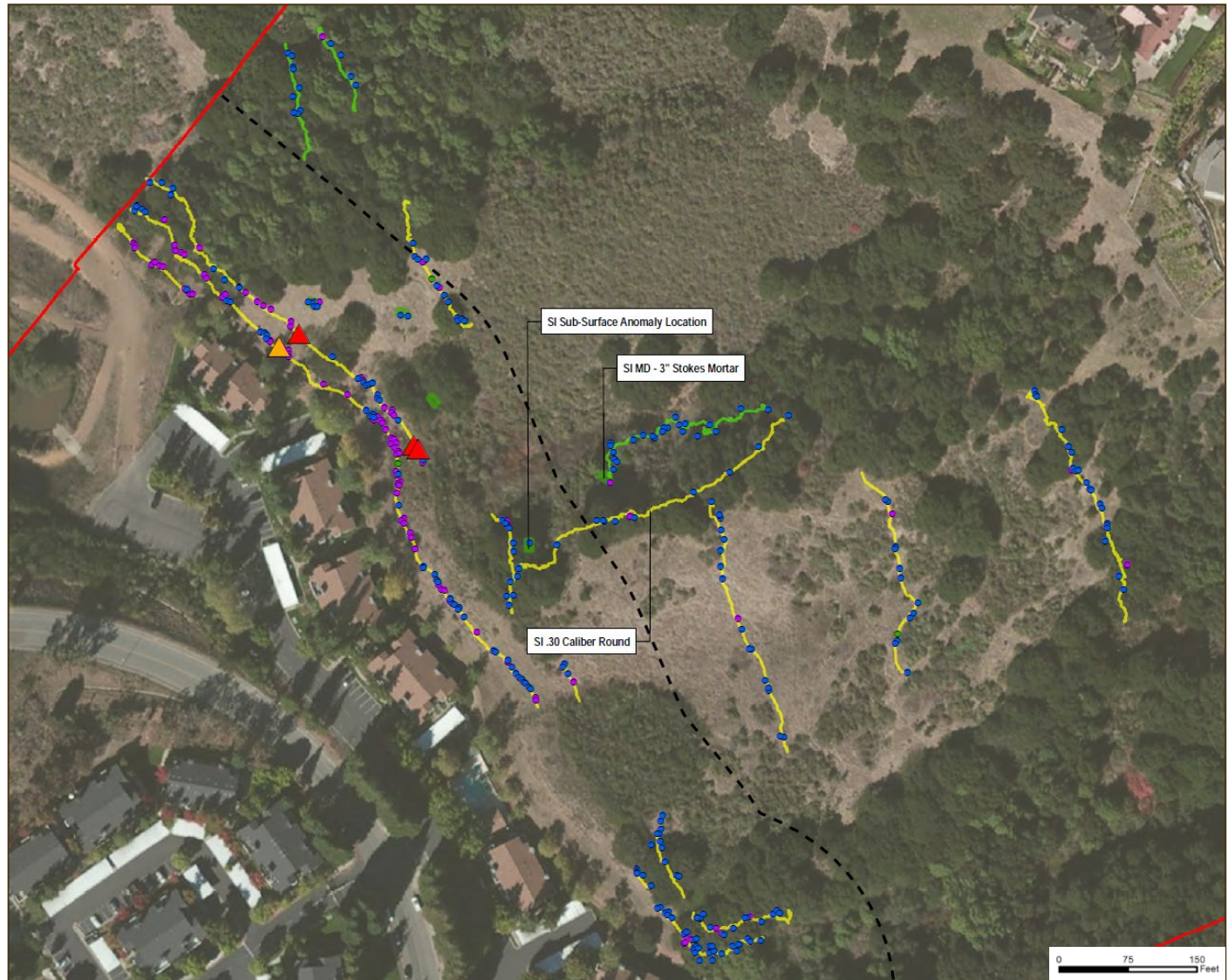


RI Summary



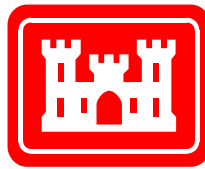
*Material Potentially Posing an Explosive Hazard (MPPEH) items classified as MD post demolition.

Quality Control seeds used to verify operator method and equipment functionality.





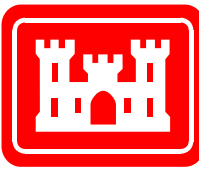
Leona Heights Rifle Range Informational Public Meeting



FS Summary
September 2017



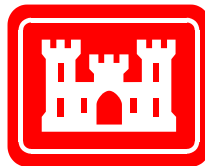
FS Summary



- Alternative 1: No action
- Alternative 2: LUCs
- Alternative 3: LUCs and focused surface and subsurface (24-inches below grounds surface [bgs]) clearance
- Alternative 4: LUCs and complete surface and subsurface (24-inches bgs) clearance.



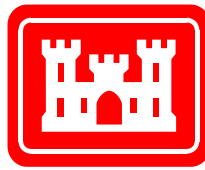
FS Summary: Comparative Analysis of Alternatives



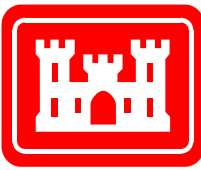
Detailed Criteria	Alternative 1	Alternative 2	Alternative 3	Alternative 4
	No Action Alternative (NAA)	LUCS	LUCs and Focused Surface and Subsurface (24-inches bgs) Clearance	LUCs and Complete Surface and Subsurface (24-inches bgs) Clearance
Description	Per the National Oil and Hazardous Substances Contingency Plan, the NAA is included for baseline comparison	Protecting receptors by limiting access to MEC using LUCs	Protecting receptors by removing potential MEC in focused areas and using LUCs	Protecting receptors by removing the potential MEC hazard across the MRS to 24-inches and implementing LUCs
Overall Protectiveness of Human Health and the Environment	0	1	2	2
Compliance with Applicable or Relevant and Appropriate Requirements	0	0	3	3
Long-Term Effectiveness and Permanence	0	1	2	3
Reduction of Toxicity, Mobility, or Volume through Treatment	0	0	2	3
Short-Term Effectiveness	3	2	1	0
Implementability	3	3	2	1
Cost (Total Present Value)	3 \$0	2 \$652,000	1 \$1,081,000	0 \$1,868,000
Total Score	9	9	13	12



Leona Heights Rifle Range Informational Public Meeting

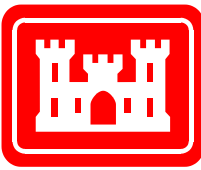


PP Summary
January 2018



PP Summary: Public Information

- Public Notice of the PP and Informational Public Meeting 05 January 2018 (Oakland Tribune)
- Public Comment Period 05 January through 09 February 2018
- Informational Public Meeting 10 January 2018 (Skyline Pizza, Oakland, CA)
- No Comments Received



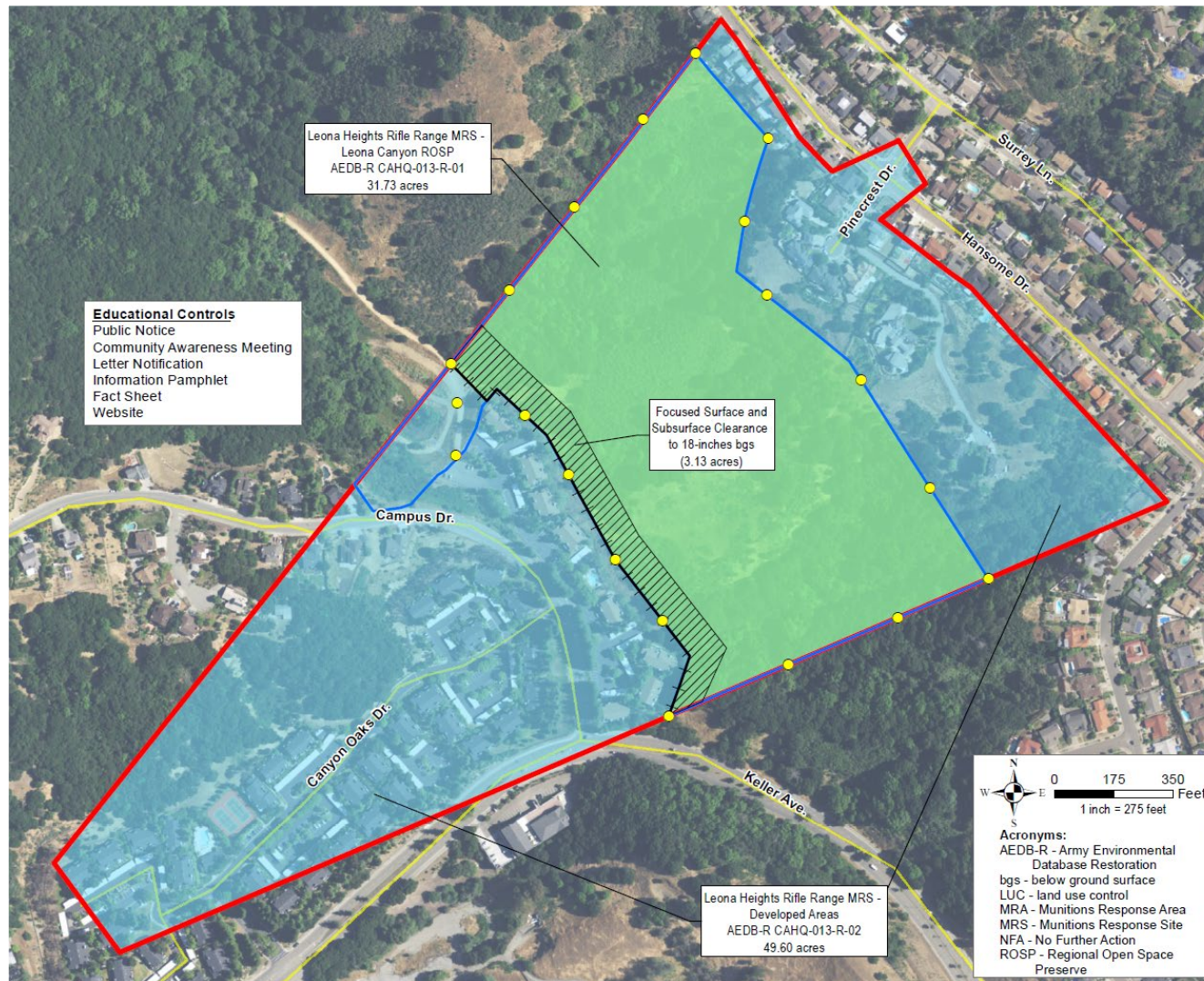
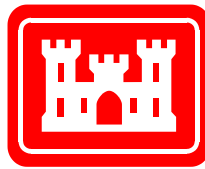
PP Summary: Preferred Alternative

Alternative 3: LUCs and Focused Surface and Subsurface Clearance

- LUCs: Engineering and Educational Controls
 - Warning Signs - located at access points to the Leona Canyon Regional Open Space Preserve (ROSP) (portion of the MRS recommended for further action in the RI) and along the MRS boundaries at approximately 300-foot intervals totaling 20 signs.
 - Fencing – located along the southwestern border between the Leona Canyon ROSP and adjacent residential areas.
 - Public Notice.
 - Community Awareness Meeting.
 - Letter Notification, Informational Pamphlet, and Fact Sheet.
- Annual Inspections and Five-Year Reviews
- Surface and subsurface clearance to 24-inches bgs in the focused 100-foot buffer area (3.13 acres) between the Leona Canyon ROSP and the condominiums (toe of slope).
 - Vegetation thinning
 - Analog geophysical methods



PP Summary: Preferred Alternative



Legend

- Warning Sign
- + Fence (actual location may be limited by topography)
- Road
- ▨ Surface and Subsurface Clearance to 18-inches bgs (3.13 acres)
- Leona Heights Rifle Range MRS - Leona Canyon ROSP (31.73 acres) AEDB-R CAHQ-013-R-01
- Leona Heights Rifle Range MRS - Developed Area (NFA Area - 49.60 acres) AEDB-R CAHQ-013-R-02
- ▭ Leona Heights Rifle Range MRA
- ▭ Leona Canyon ROSP

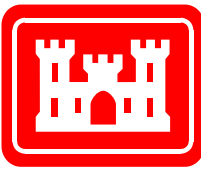
Alternative 3: LUCs and Focused Surface and Subsurface Clearance



Acronyms:
AEDB-R - Army Environmental Database Restoration
bgs - below ground surface
LUC - land use control
MRA - Munitions Response Area
MRS - Munitions Response Site
NFA - No Further Action
ROSP - Regional Open Space Preserve



Leona Heights Rifle Range Informational Public Meeting

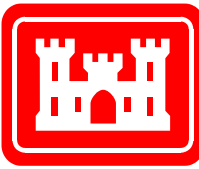


ROD Summary

Signed November 2018



ROD Summary

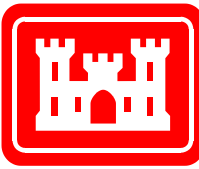


- Description of Selected Remedy

- Surface and subsurface removal of MEC within a 100-foot buffer at the toe of slope along the southwest and top of slope along the northeast boundaries of the Leona Canyon ROSP totaling 7.48 acres.
 - Vegetation thinning
 - Analog geophysical methods
- LUCs: Engineering and Educational Controls
 - Warning Signs - located at access points to the Leona Canyon ROSP and along the MRS boundaries at approximately 300-foot intervals totaling 20 signs.
 - Fencing – located along the southwestern border between the Leona Canyon ROSP and adjacent residential area.
 - Public Notice.
 - Community Awareness Meeting.
 - Letter Notification, Informational Pamphlet, and Fact Sheet.
- Annual Inspections and Five-Year Reviews



ROD Summary



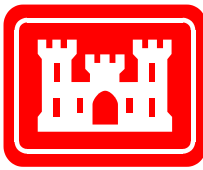
Legend

- Warning Sign
- Fence (actual location may be limited by topography)
- Road
- 100 x 100 feet grids (approximately)
- Surface and Subsurface Clearance to 24-inches bgs (7.48 acres)
- Leona Heights Rifle Range - Leona Canyon ROSP MRS (31.73 acres)

ITS – Instrument Test Strip used 2x daily to verify operator method and equipment functionality.



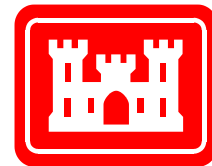
Leona Heights Rifle Range Informational Public Meeting



RD/RA

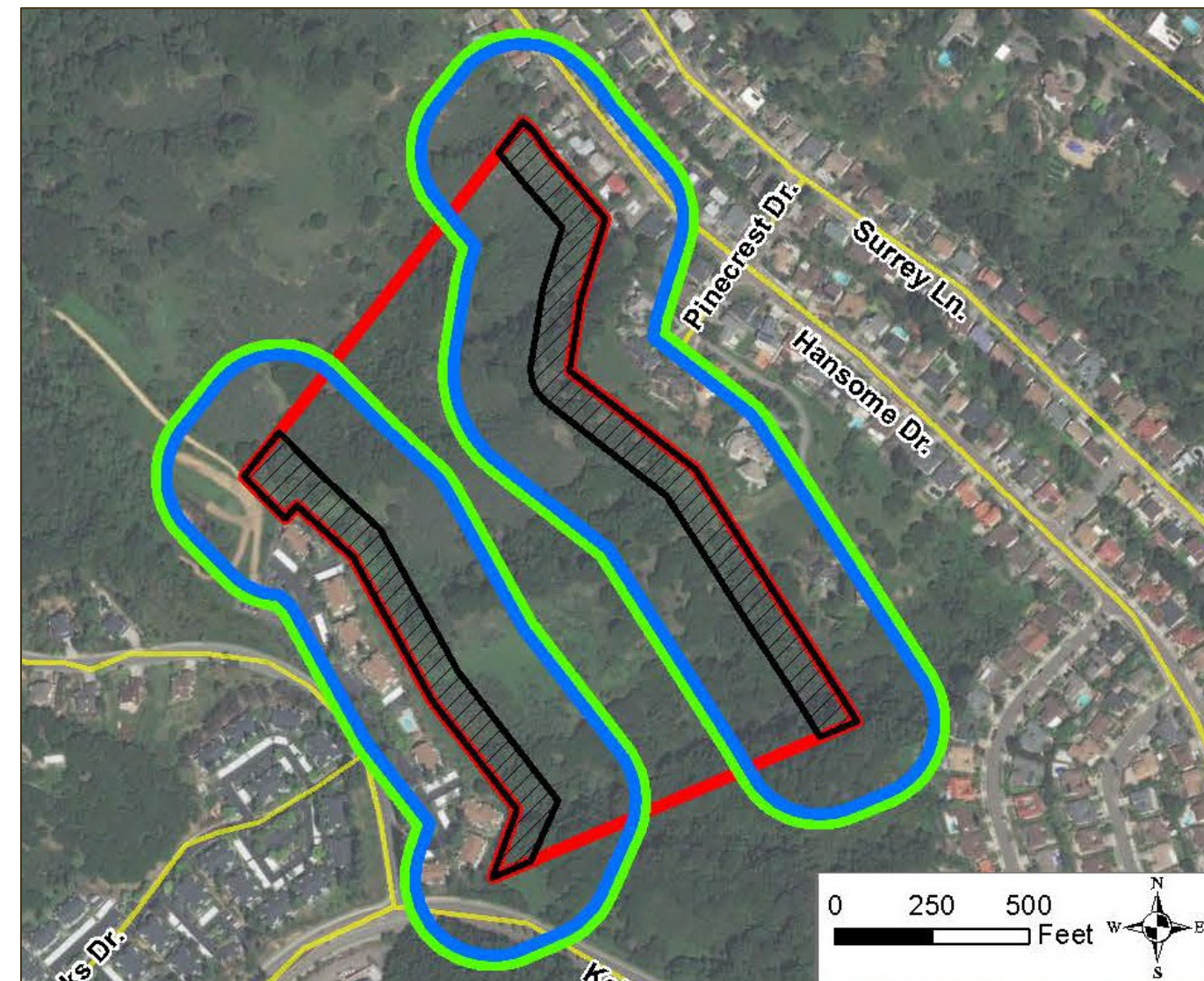


RD/RA



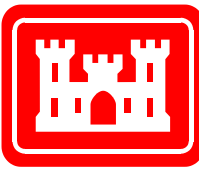
Legend

- Road
- 100-foot Buffer Area, Focused Clearance (7.48 acres)
- Intentional Detonations Using Engineering Controls (200 feet)
- Hazardous Fragment Distance (225 feet)
- Leona Heights Rifle Range MRS (31.73 acres) AEDB-R CAHQ-013-R-01





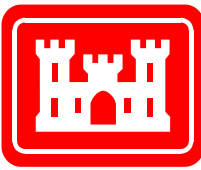
RD/RA



- Voluntary evacuations requested during intrusive work within the 225-foot hazardous fragmentation distance.
 - Community meeting, property owner meeting, and contact information collection (05 June 2019 and 08 March 2022).
 - Information disseminated to residents within the exclusion zone describing the planned temporary withdrawal and soliciting questions.
 - Timed to minimize disruptions and provide maximum advanced notice.
 - Evacuations requested from 0800 through 1700 during the weekday (no weekend work is planned at this time).



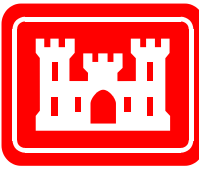
Leona Heights Rifle Range Informational Public Meeting



LUCs



LUCs



DANGER

**HAZARDOUS
MATERIAL**

KEEP OUT

FOR QUESTIONS, PLEASE CALL:
916-854-3440

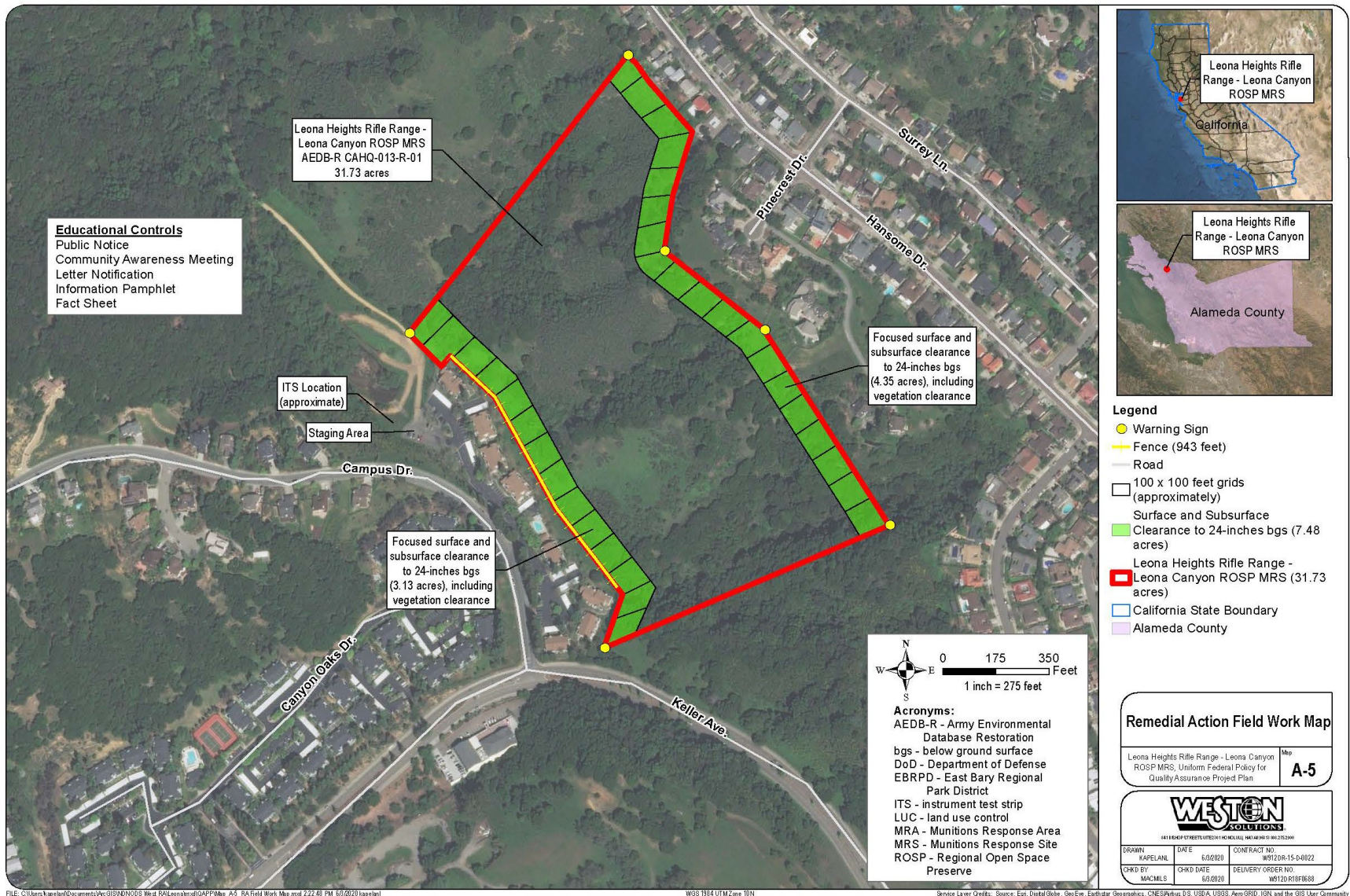
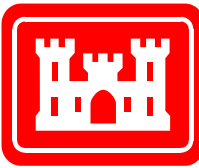
Ask for the:
Environmental Programs Directorate
Re: Leona Heights



****Example fencing. Actual fencing will
not include metal bar on top.****

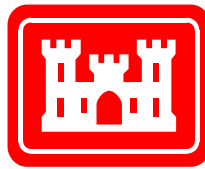


LUCs





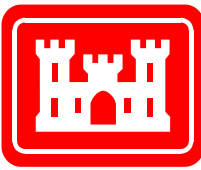
Leona Heights Rifle Range Informational Public Meeting



Project Schedule and Information Repositories



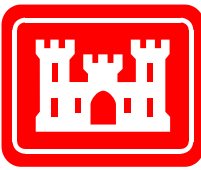
Schedule



- ✓ Final Community Relations Plan – April 2019
- ✓ Informational Public Meeting – 05 June 2019
- ✓ Final Land Use Control Implementation Plan – July 2020
- ✓ Final RA Quality Assurance Project Plan (QAPP) Work Plan – July 2020
- Final RA QAPP Work Plan Update – February 2022
- Informational Public Meeting – 08 March 2022
- Remedial Action Fieldwork – May/June 2022



Information Repositories



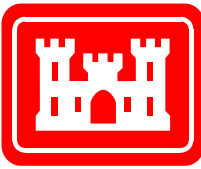
Eastmont Library
7200 Bancroft Ave, Suite 211
Oakland, CA 94605
510-615-5726

Hours:
Monday 9:00 am to 7:00 pm;
Tuesday – Thursday 9:00 am to 5:30 pm;
Friday 12:00 pm to 5:30 pm;
Saturday & Sunday Closed

Electronic Documents Record Website:
www.westonsolutions.com/leona-heights/



Safety



Remember the 3 Rs

Recognize: Recognize when you may have encountered a munition and the potential danger.

Retreat: Do not touch, move or disturb it, but carefully leave the area the way you entered.

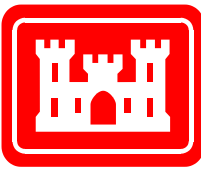
Report: Call 911! Immediately notify local law enforcement of what you saw and where you saw it.

Additional Unexploded Ordnance Safety (UXO Safety)

located on DENIX <http://www.denix.osd.mil/uxo/>

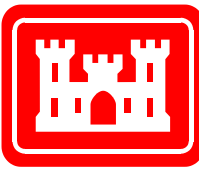


Questions?





Acronyms



ARNG	Army National Guard	MRS	Munitions Response Site
bgs	Below Ground Surface	NAA	No Action Alternative
CA	California	NDNODS	Non-Department of Defense, Non-Operational, Defense Sites
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	PP	Proposed Plan
FS	Feasibility Study	QAPP	Quality Assurance Project Plan
ITS	Instrument Test Strip	RA	Remedial Action
LUC	Land Use Control	RD	Remedial Design
MC	Munitions Constituents	RI	Remedial Investigation
MD	Munitions Debris	ROD	Record of Decision
MEC	Munitions and Explosives of Concern	ROSP	Regional Open Space Preserve
MPPEH	Material Potentially Posing an Explosive Hazard	USEPA	United States Environmental Protection Agency