

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

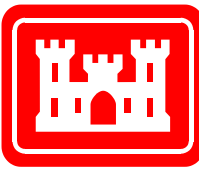
Leona Heights Rifle Range Munitions Response
Site (MRS)
(CAHQ-013-R-01), Alameda County, California

Informational Public Meeting

05 June 2019



Introductions



- **Project Team**

- **Army National Guard Directorate**

- Walter Gee, NDNODS Project Manager – (703) 607-7980
 - Reuben Sendejas, Project Manager (NGB CA POC) – (916) 369-4388

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

- Jim Lukasko, Project Manager – (916) 557-5392
 - Cheryl Webster, Project Geophysicist – (916) 557-7504

- **Weston Solutions, Inc.**

- Timothy Trego, Sr. Project Manager - (303) 729-6107
 - Shawn MacMillan, Project Team Lead – (808) 275-2901

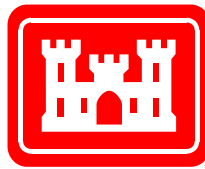
- **Stakeholder**

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

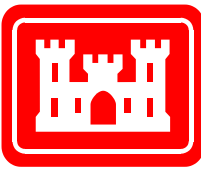
- Roman Racca, Munitions Response Coordinator – (916) 255-6407



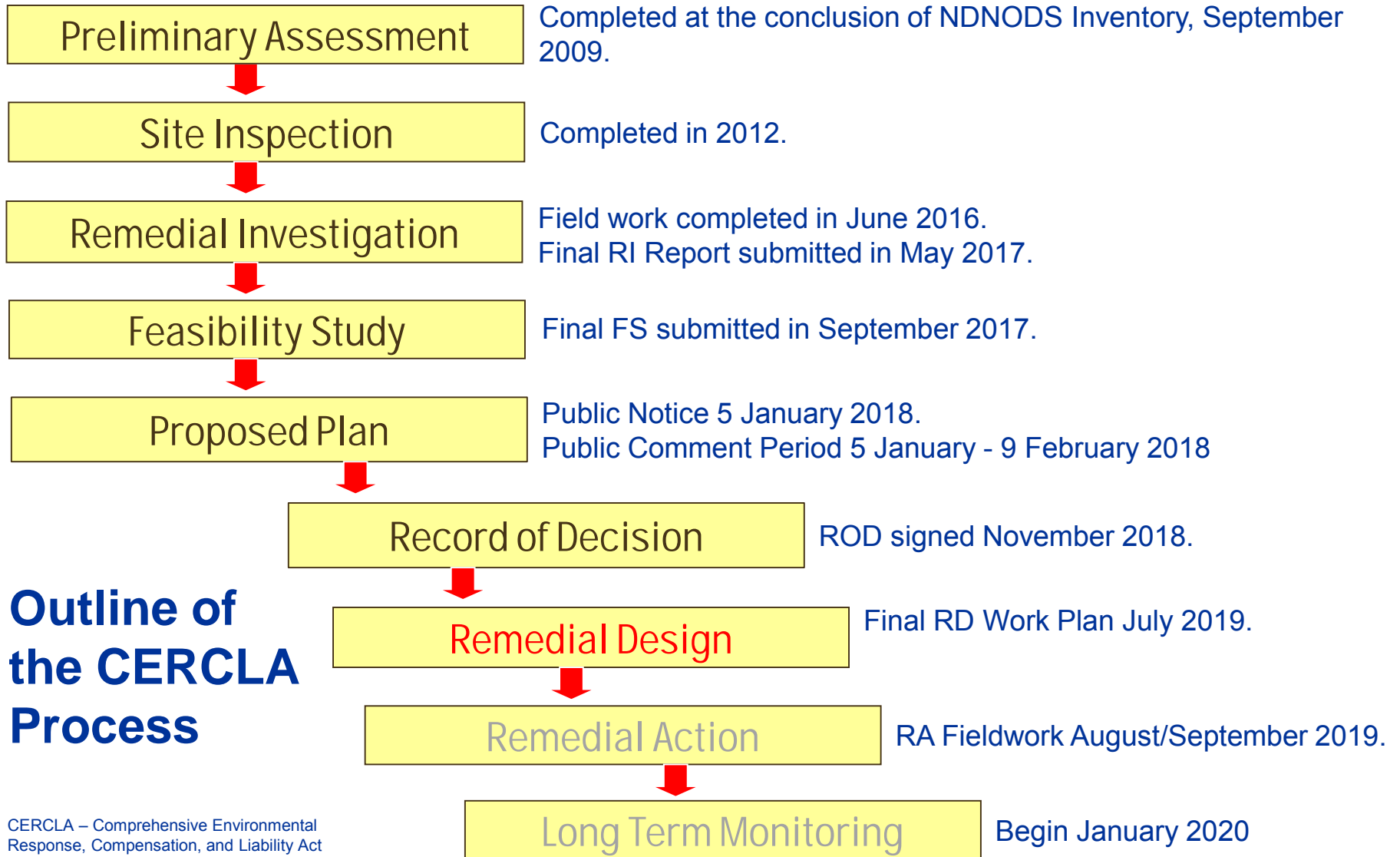
Meeting Agenda



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



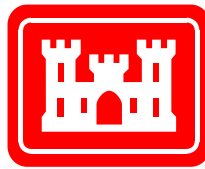
NDNODS Implementation



CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act



Leona Heights Rifle Range Site History



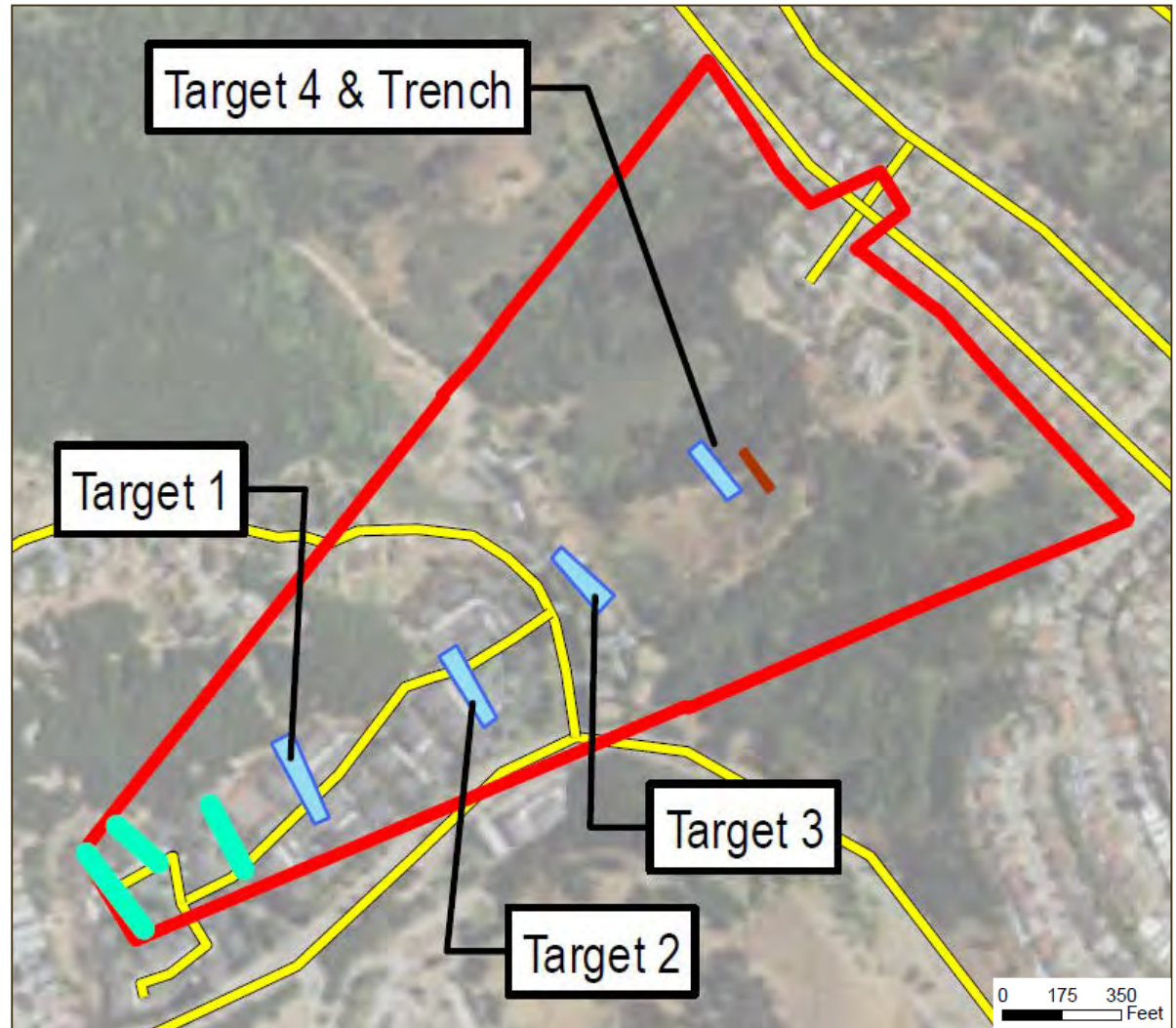
- **Former Military Munitions Related Activities:**

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



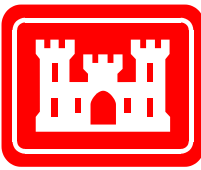
Legend

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





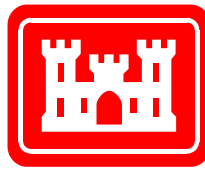
Leona Heights Rifle Range Informational Public Meeting



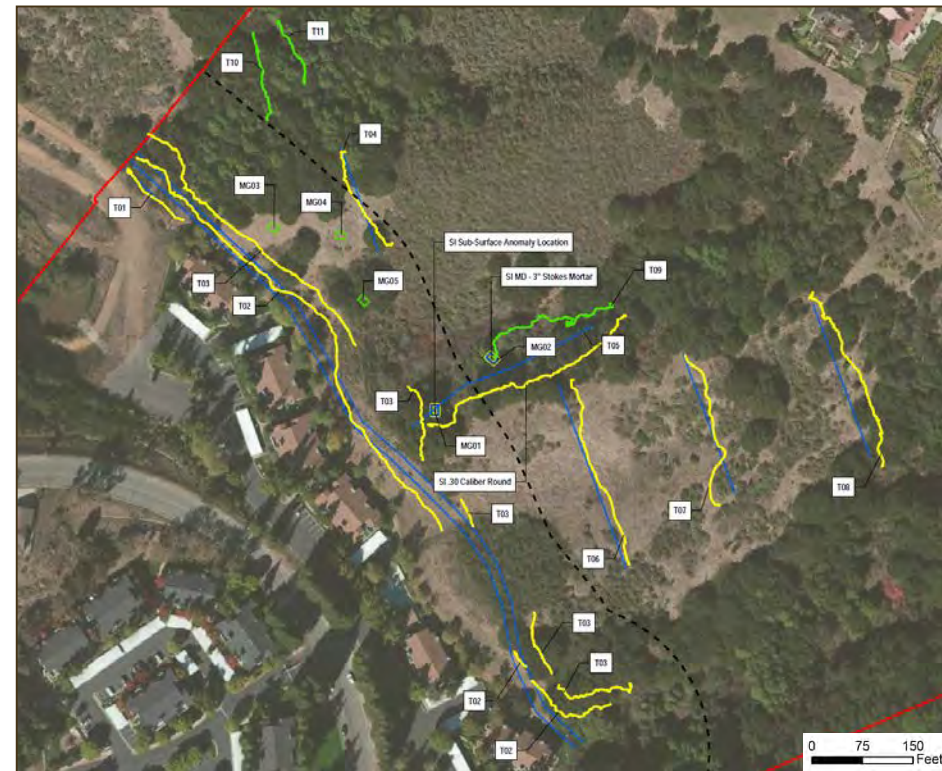
Remedial Investigation (RI) Summary May 2017



Remedial Investigation 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 (NMD) = 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 Site Inspection (SI) and the MRS was designated No Further Action (NFA) for MC.

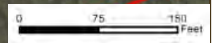
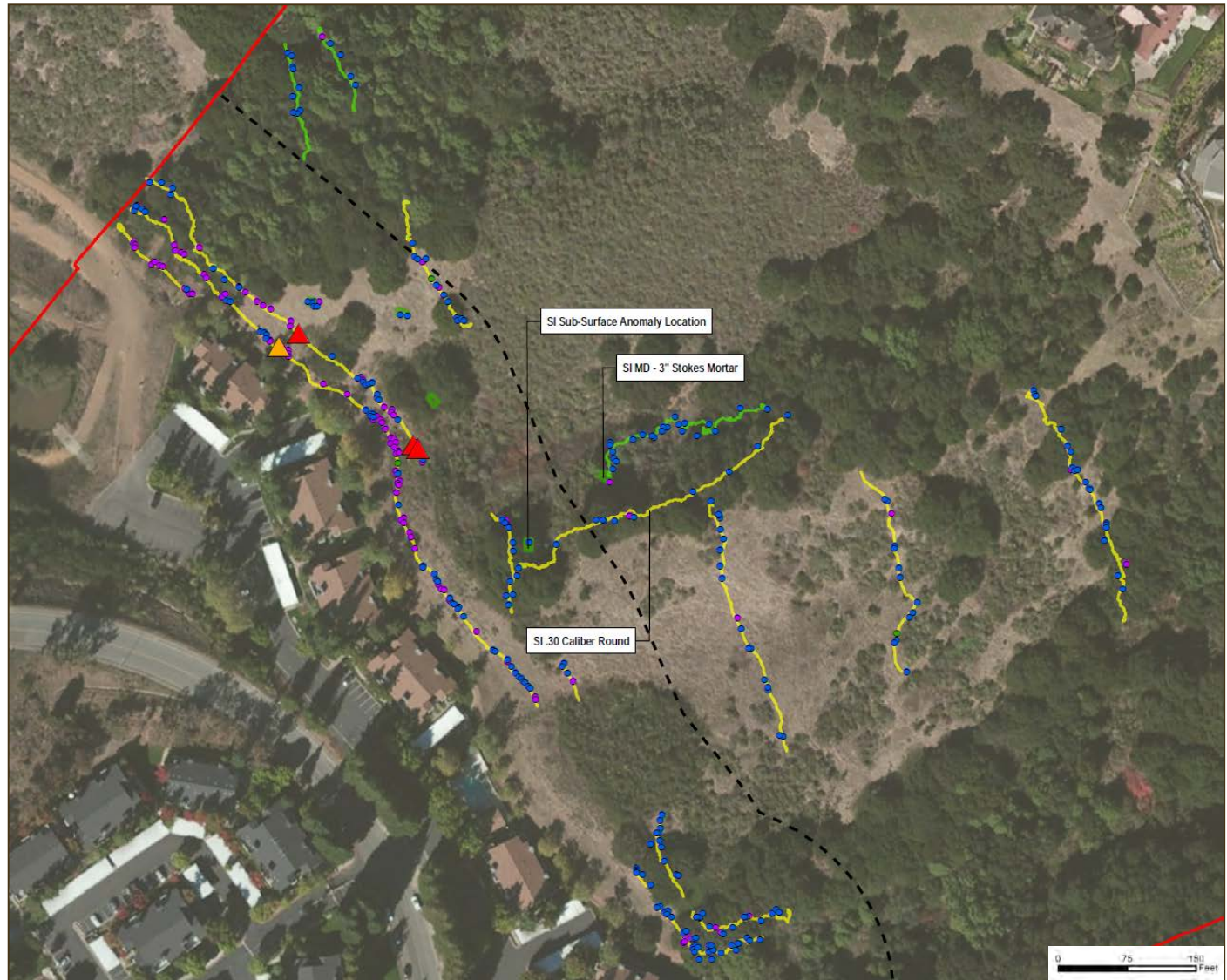
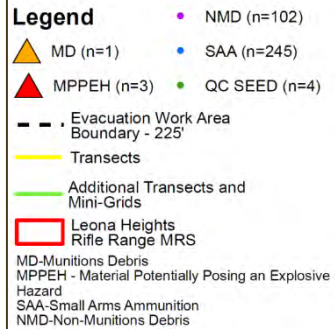
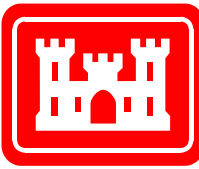


Legend

- Evacuation Work Area Boundary - 225'
- Actual Transects & Mini-Grids
- Proposed Transects and Mini-Grids
- Additional Transects and Mini-Grids
- Leona Heights Rifle Range MRS



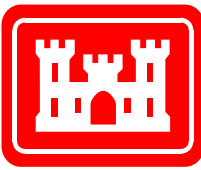
Remedial Investigation Summary



QC seeds used to verify operator method and equipment functionality.



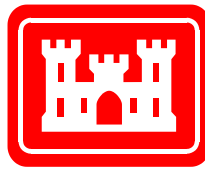
Leona Heights Rifle Range Informational Public Meeting



Feasibility Study (FS) Summary September 2017



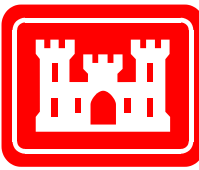
Summary of FS Alternatives



- Alternative 1: No action
- Alternative 2: Land use controls (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.



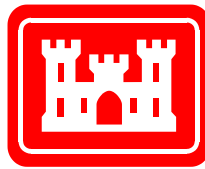
Comparative Analysis of Alternatives



	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Detailed Criteria	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



Proposed Plan (PP)

Public Notice of the PP and Information Public Meeting 05 January 2018 (Oakland Tribune)

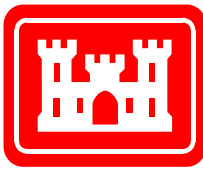
Public Comment Period 05 January through 09 February 2018

Informational Public Meeting 10 January 2018 (Skyline Pizza, Oakland, CA)

No Comments Received



Proposed Plan Selected Alternative: Leona Canyon ROSP

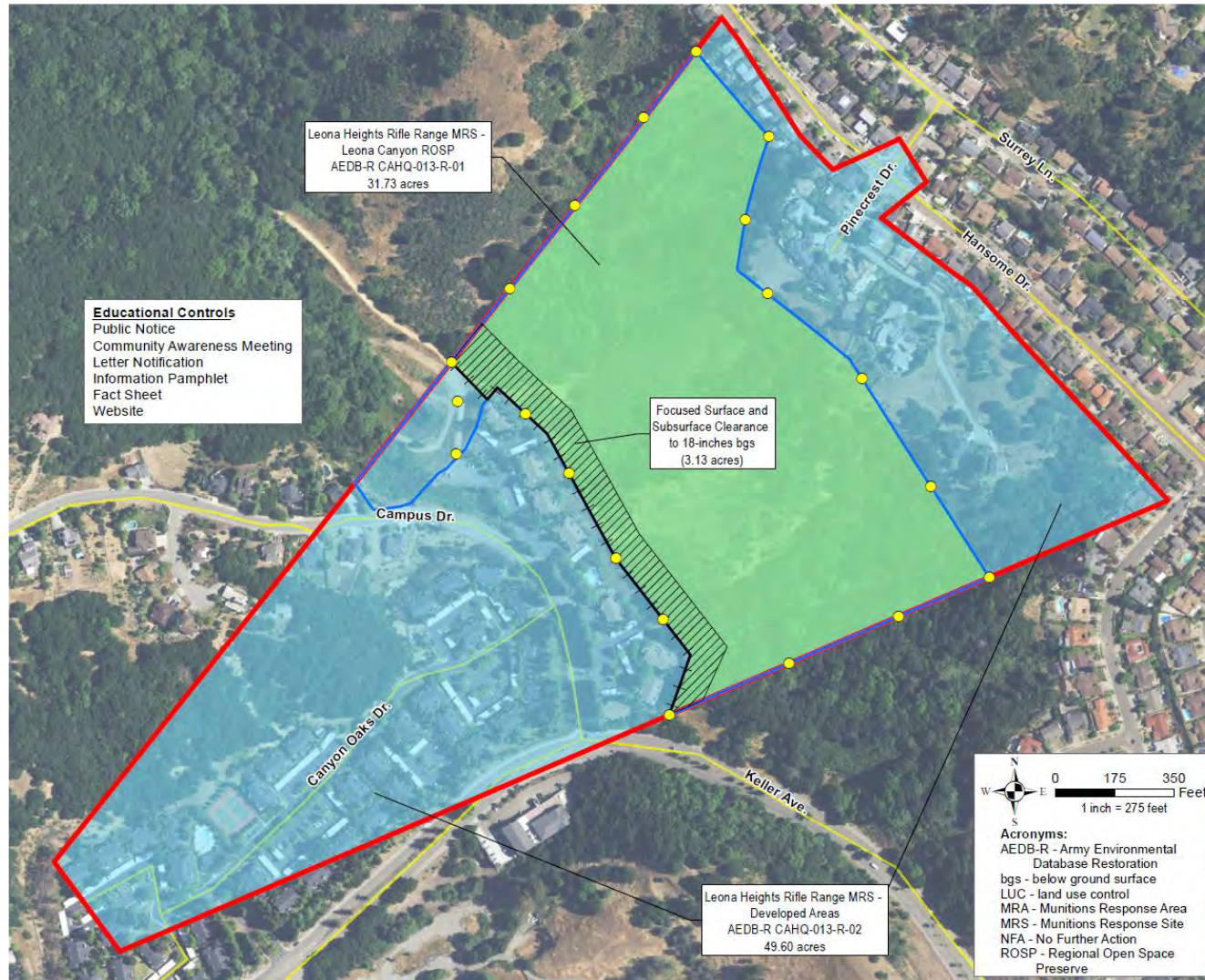
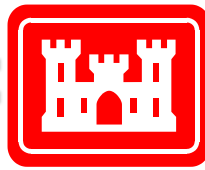


Alternative 3: LUCs and Focused Surface and Subsurface Clearance

- LUCs: Engineering 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 areas.
- LUCs: Educational Controls
 - Public Notice;
 - Community Awareness Meeting; and
 - 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



Proposed Plan Selected Alternative: Leona Canyon ROSP



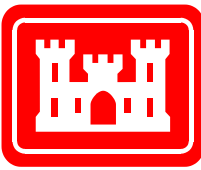
Legend

- 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



Leona Heights Rifle Range Informational Public Meeting

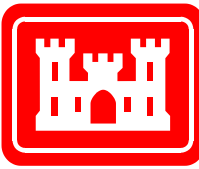


Record of Decision (ROD)

Signed November 2018



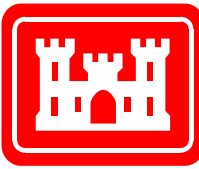
Record of Decision



- Description of Selected Remedy
 - Surface and subsurface removal of DoD military munitions 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 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.
 - LUCs: Educational Controls
 - Public Notice;
 - Community Awareness Meeting; and
 - Letter Notification, Informational Pamphlet, and Fact Sheet;
 - Annual Inspections and Five-Year Reviews



Record of Decision



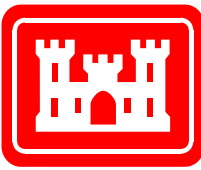
Legend

- 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.



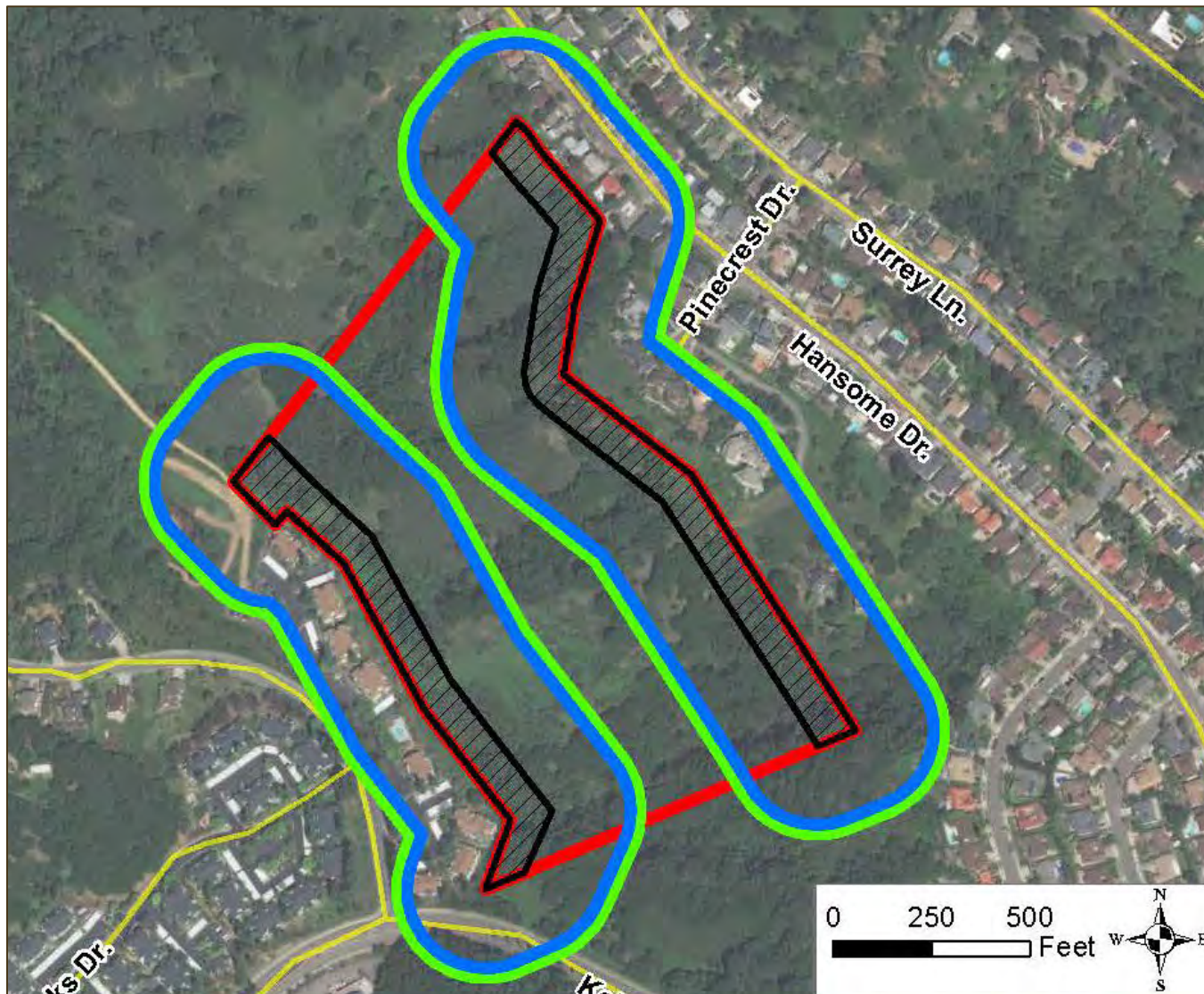
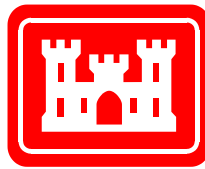
Leona Heights Rifle Range Informational Public Meeting



Remedial Design (RD) / Remedial Action (RA)



Remedial Design Remedial Action

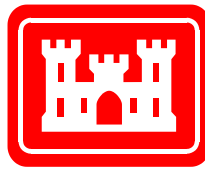


Legend

- 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



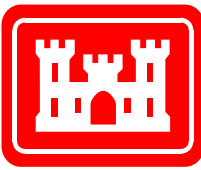
Remedial Design Remedial Action



- Voluntary evacuations requested during intrusive work within the 225 foot hazardous fragmentation distance (HFD).
 - Community meeting, property owner meeting, and contact information collection (05 June 2019).
 - Information disseminated to residents within the exclusion zone (EZ) 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).



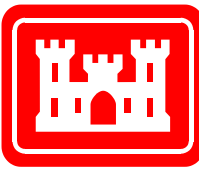
Leona Heights Rifle Range Informational Public Meeting



Land Use Controls (LUCs)



Leona Heights Rifle Range LUCs

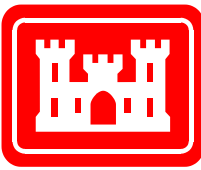


****Example sign, subject to change through regulatory review process.****





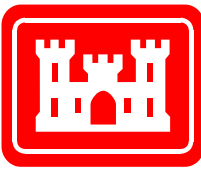
Leona Heights Rifle Range Informational Public Meeting



Project Schedule



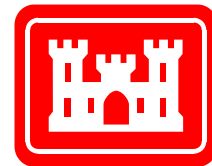
Schedule



- ✓ Final Community Relation Plan – April 2019
- ✓ Informational Public Meeting – 05 June 2019
- Final Land Use Control Implementation Plan – July 2019
- Final Remedial Action QAPP Work Plan – July 2019
- Remedial Action Fieldwork – August/September 2019



Leona Heights Rifle Range Information Repositories



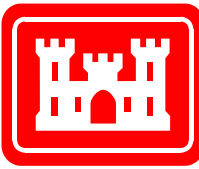
Eastmont Library
7200 Bancroft Ave, Suite 211
Oakland, CA 94605
510-615-5726

Hours:
Monday 9:00 am to 7:00 pm;
Tuesday – Thursday 9:00 am to 5:30 pm;
Friday 12:00 am 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.

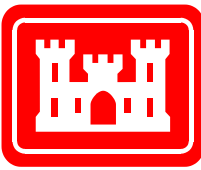
Retreat: Do not touch, move or disturb it, but carefully leave the area the way you entered.

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/>

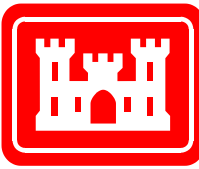


Questions?





Acronyms



AEDB-R	Army Environmental Database – Restoration	NDNODS	Non-Department of Defense, Non-Operational, Defense Sites
bgs	Below Ground Surface	NFA	No Further Action
CA	California	NGB	National Guard Bureau
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	NMD	Non-Munitions Debris
EZ	Exclusion Zone	POC	Point of Contact
FS	Feasibility Study	PP	Proposed Plan
HFD	Hazardous Fragmentation Distance	QAPP	Quality Assurance Project Plan
LUC	Land Use Control	RA	Removal Action
MC	Munitions Constituents	RD	Remedial Design
MD	Munitions Debris	RI	Remedial Investigation
MEC	Munitions and Explosives of Concern	ROD	Record of Decision
MRS	Munitions Response Site	ROSP	Regional Open Space Preserve
MRSP	Munitions Response Site Prioritization Protocol	SI	Site Inspection
NAA	No Action Alternative	USEPA	United States Environmental Protection Agency
		UXO	Unexploded Ordnance