

**Former Lowry Bombing and Gunnery Range
Arapahoe County, Colorado**

**FORMER LOWRY BOMBING AND
GUNNERY RANGE
ARAPAHOE COUNTY, COLORADO**

RESTORATION ADVISORY BOARD MEETING

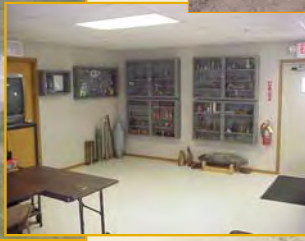
20 April 2011

U.S. Army Corps of Engineers – Omaha District



DISCUSSION TOPICS

- **Fieldwork update**
- **5-Year review**
- **2011 RAB meeting schedule**
- **Closing remarks**



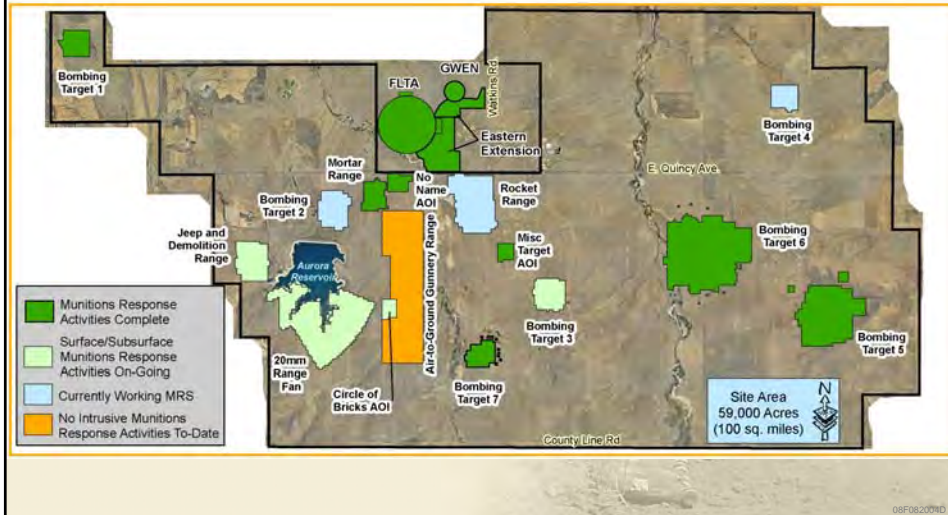
**THIS PROJECT
HAS WORKED
4,103 DAYS
WITHOUT LOST
TIME INJURY**

09F06207D

April 2011

Former Lowry Bombing and Gunnery Range Arapahoe County, Colorado

FIELDWORK UPDATE Known Munitions Response Sites



FIELDWORK UPDATE Current Team Distribution

- **Bombing Target 2** - 3 munitions response teams
- **Bombing Target 4** - 1 munitions response team
- **Rocket Range** - 1 munitions response team





April 2011

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| FIELDWORK UPDATE Project Status | |
|------------------------------------|------------|
| MRS | % Complete |
| Bombing Target #1 | 100% |
| Bombing Target #2 | 99% |
| Bombing Target #3 | 60% |
| Bombing Target #4 | 96% |
| Bombing Target #5 | 100% |
| Bombing Target #6 | 100% |
| Bombing Target #7 | 100% |
| Air-to-Ground Gunnery Range | 0% |
| Circle of Bricks AOI | 85% |
| Jeep / Demolition Range | 90% |
| Misc. Target AOI | 100% |
| Mortar Range | 100% |
| No Name AOI | 100% |
| Rocket Range | 95% |
| 20mm Range Fan | 68% |
| Area A | 100% |
| Area B | 49% |

Overall physical % complete is 72%

| FIELDWORK UPDATE Project Status | |
|--|--|
| <ul style="list-style-type: none"> ▪ 4,103 days without a lost time accident (never had one) ▪ Over 4,331 acres cleared ▪ Over 24,338 live items disposed of to date ▪ Over 1,442,746 inert items have been recovered (not including munitions scrap) ▪ Over 633,695 pounds (~317 tons) of munitions scrap recovered ▪ Over 286 tons of munitions scrap sent off-site for disposal | |
|  |  |

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FIELDWORK UPDATE Bombing Target 1

- **Munitions response effort is considered essentially complete**
 - ✓ Surface clearance performed over 163 acres
- **No live items found**
- **Summary of types of items found to date:**

✓ 100 lb Practice Bomb

- **Remaining activities include:**

- ✓ After Action Report
- ✓ Regulatory concurrence
- ✓ Formalize land use controls to address / limit future intrusive activities:
 - Property deed restrictions
 - Educational programs
 - Access restrictions
 - Signage



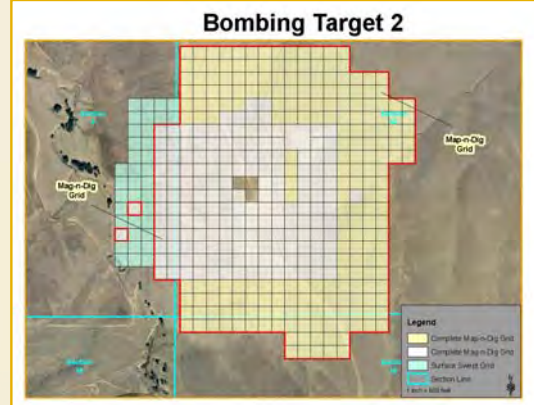
FIELDWORK UPDATE Bombing Target 2

- **Munitions response effort is considered 99% complete**
- **541 live items found to date**
- **Summary of types of items found to date:**

- ✓ 3 lb and 100 lb Practice Bombs
- ✓ 6, 10, and 100 lb Incendiary Bombs
- ✓ Booster and Booster Cup
- ✓ Burster Tube
- ✓ Detonating Cord Conduit
- ✓ Primer Detonator
- ✓ Misc. Fuzes
- ✓ M1A1 PDM
- ✓ Igniter Tube
- ✓ 20mm and 37mm Projectiles
- ✓ 2.25" Rocket
- ✓ Signal Illumination
- ✓ Small Arms

- **Remaining activities include:**

- ✓ 3 mag-and-dig grids (target center)
- ✓ Post-removal verification (PRV)
- ✓ Final USACE QA
- ✓ Site-Specific Final Report
- ✓ Regulatory concurrence



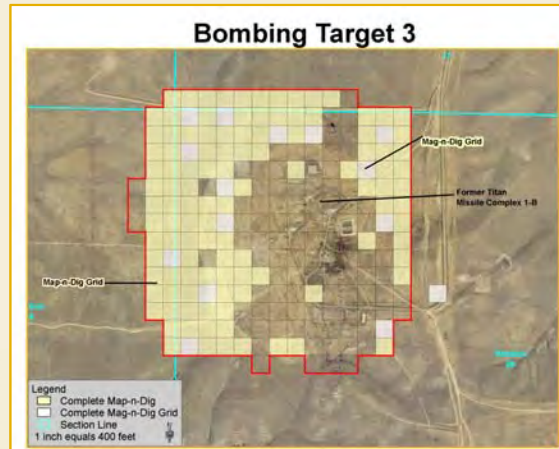
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FIELDWORK UPDATE Bombing Target 3

- Munitions response effort is considered 60% complete
- 1 live item found to date
- Summary of types of items found to date:

- ✓ 3 lb, 50 lb, and 100 lb Practice Bombs
- ✓ 10 lb Incendiary Bomb
- ✓ Booster Cup
- ✓ Detonating Cord Conduit
- ✓ Primer Detonator
- ✓ Misc. Fuzes
- ✓ 2.25" Rocket
- ✓ Small Arms

- Remaining activities include:
 - ✓ 10 map-and-dig grids (boundary)
 - ✓ Designate area applicable for land use controls
 - ✓ Post-removal verification (PRV)
 - ✓ Final USACE QA
 - ✓ Site-Specific Final Report
 - ✓ Regulatory concurrence

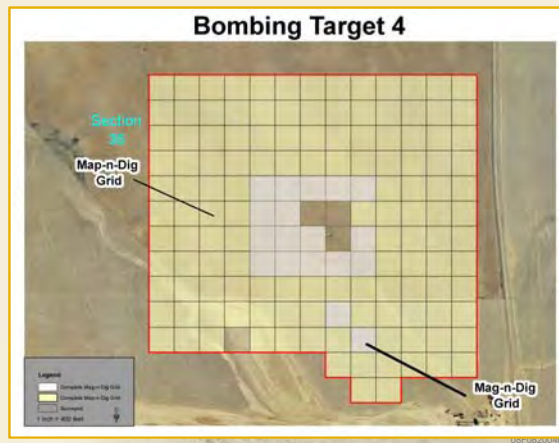


FIELDWORK UPDATE Bombing Target 4

- Munitions response effort is considered 96% complete
- 15 live items found to date
- Summary of types of items found to date:

- ✓ 3 lb and 100 lb Practice Bombs
- ✓ 100 lb GP Bomb
- ✓ Misc. Fuzes
- ✓ 20mm Projectile
- ✓ 37mm Projectile
- ✓ M38 Spotting Charge
- ✓ 2.25" Rocket
- ✓ Small Arms

- Remaining activities include:
 - ✓ 1 map-and-dig grid (boundary)
 - ✓ 3 mag-and-dig grids (target center)
 - ✓ Post-removal verification (PRV)
 - ✓ Final USACE QA
 - ✓ Site-Specific Final Report
 - ✓ Regulatory concurrence



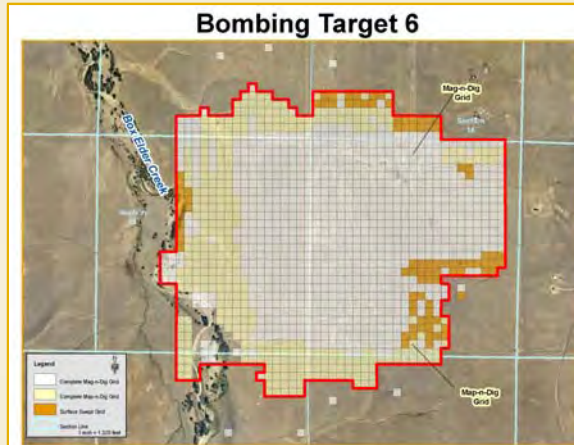
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FIELDWORK UPDATE Bombing Target 6

- Munitions response effort is considered essentially complete
- 1,162 live items found to date
- Summary of types of items found:

- ✓ 4 lb and 10 lb Incendiary Bombs
- ✓ 3 lb and 100 lb Practice Bombs
- ✓ M15 WP Grenade
- ✓ M1A1 PDM
- ✓ M1A1 Spotting Charge
- ✓ 20mm and 37mm Projectiles
- ✓ Detonating Cord Conduit
- ✓ Misc. Fuzes
- ✓ Booster
- ✓ Burster Tube
- ✓ Igniters/Igniter Tubes
- ✓ T55E1 Mechanical Time Fuze
- ✓ 2.25" Rocket
- ✓ Fuze Adapter for Clusters
- ✓ M125 – Simulant Filled
- ✓ Small Arms

- Remaining activities include:
 - ✓ Post-removal verification (PRV)
 - ✓ Final USACE QA
 - ✓ Site-Specific Final Report
 - ✓ Regulatory concurrence

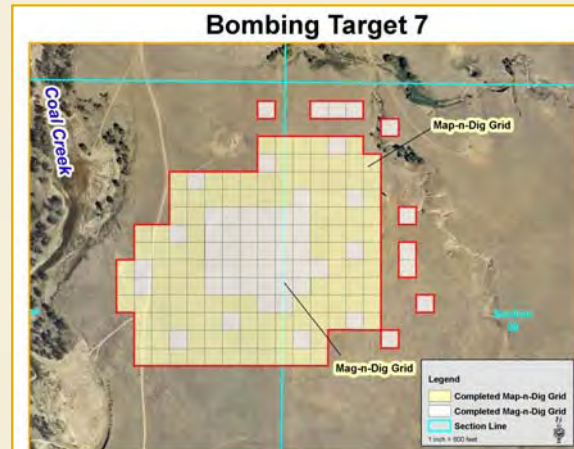


FIELDWORK UPDATE Bombing Target 7

- Munitions response effort is considered essentially complete
- 4 live items found to date
- Summary of types of items found:

- ✓ 3 lb, 50 lb, and 100 lb Practice Bombs
- ✓ Misc. Fuzes
- ✓ 20mm Projectile
- ✓ 2.25" Rocket
- ✓ 2.75" Rocket Motor
- ✓ Small Arms
- ✓ Spotting Charge
- ✓ War Head Rocket
- ✓ 100 lb Demo Bomb

- Remaining activities include:
 - ✓ Final USACE QA
 - ✓ Site-Specific Final Report
 - ✓ Regulatory concurrence

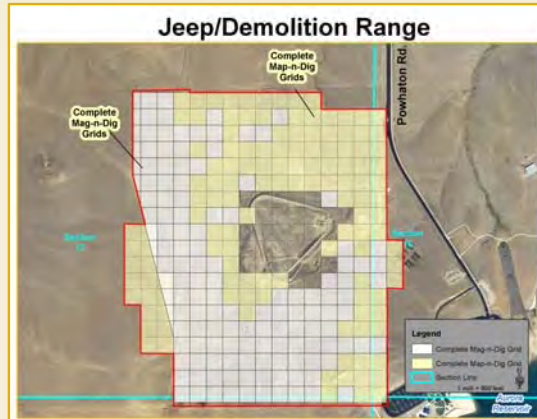


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FIELDWORK UPDATE Jeep/Demolition Range

- Munitions response effort is considered 90% complete
- 20,222 live items found to date
- Summary of types of items found to date:

- ✓ 3 lb, 4 lb, 10 lb, 20 lb, and 100 lb Practice Bombs
- ✓ 4 lb and 10 lb Incendiary Bombs
- ✓ Misc. Fuzes
- ✓ Booster Cup
- ✓ Burster Tube
- ✓ Igniter Tube
- ✓ Illuminating Cartridge
- ✓ Mortar 60mm HE
- ✓ 20mm and 30mm Projectiles
- ✓ Rockets
- ✓ Bomblet M83
- ✓ Small Arms



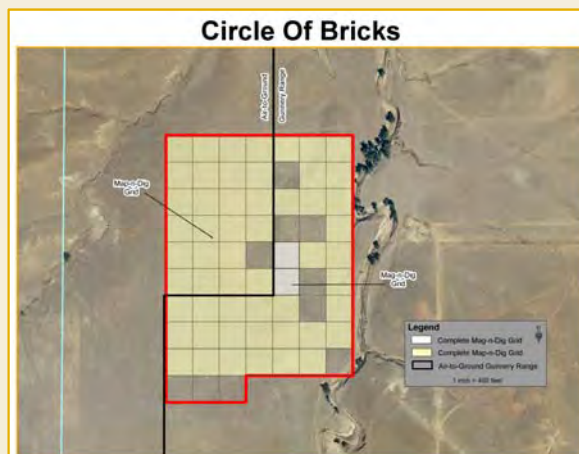
- Remaining activities include:
 - ✓ Post-removal verification (PRV) for the area outside of the berm
 - ✓ 30 grids for large scale earth moving and manual/mechanical screening
 - ✓ OB/OD pits to be excavated to depth (17 known pits)
 - ✓ Final USACE QA
 - ✓ Site-Specific Final Report
 - ✓ Regulatory concurrence

FIELDWORK UPDATE Circle of Bricks AOI

- Munitions response effort is considered 85% complete
- 11 live items found to date
- Summary of types of items found to date:

- ✓ 50 lb and 100 lb Demolition Bombs
- ✓ 100 lb Practice Bomb
- ✓ Misc. Fuzes
- ✓ 20mm and 37mm Projectiles
- ✓ 2.25" Rocket
- ✓ Small Arms

- Remaining activities include:
 - ✓ 10 map-and-dig grids
 - ✓ Post-removal verification (PRV)
 - ✓ Final USACE QA
 - ✓ Site-Specific Final Report
 - ✓ Regulatory concurrence



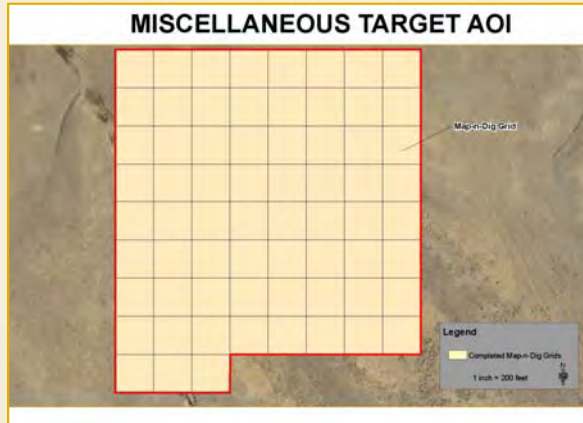
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FIELDWORK UPDATE Misc. Target AOI

- Munitions response effort is considered essentially complete
- 1 live item found to date
- Summary of types of items found to date:

- ✓ 100 lb Practice Bomb
- ✓ Misc. Fuzes
- ✓ 20mm Projectile
- ✓ 2.25" Rocket
- ✓ Small Arms

- Remaining activities include:
 - ✓ Post-removal verification (PRV)
 - ✓ Final USACE QA
 - ✓ Site Specific Final Report
 - ✓ Regulatory concurrence

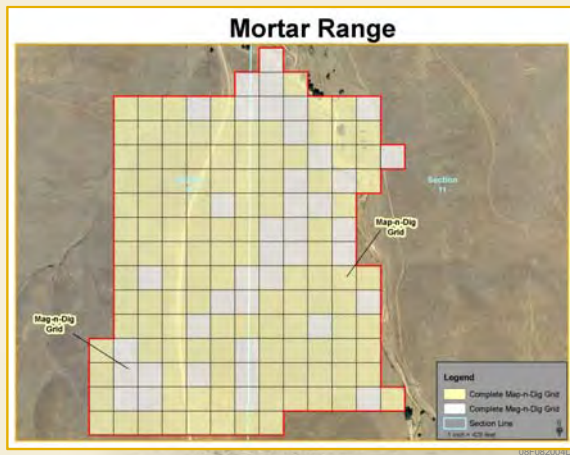


FIELDWORK UPDATE Mortar Range

- Munitions response effort is considered essentially complete
- 12 live items found to date
- Summary of types of items found:

- ✓ 3 lb and 100 lb Practice Bombs
- ✓ Detonating Cord Conduit
- ✓ Booster Cup
- ✓ Misc. Fuzes
- ✓ 60mm Mortar
- ✓ 20mm Projectile
- ✓ 37mm Projectile
- ✓ M38 Spotting Charge
- ✓ Small Arms

- Remaining activities include:
 - ✓ Post-removal verification (PRV)
 - ✓ Final USACE QA
 - ✓ Site Specific Final Report
 - ✓ Regulatory concurrence



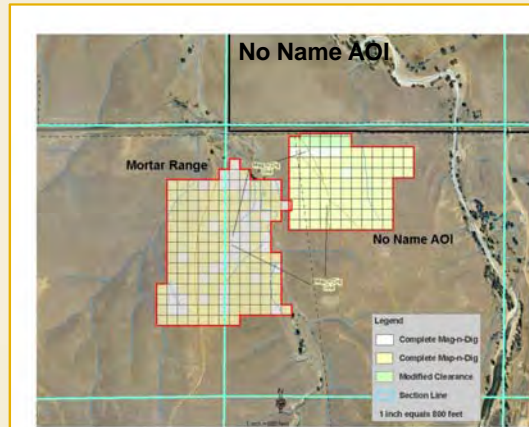
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FIELDWORK UPDATE No Name AOI

- Munitions response activities are considered essentially complete
- 60 live items found to date
- Summary of types of items found:

- ✓ 3 lb Practice Bomb
- ✓ Practice Grenade Bodies
- ✓ Smoke Grenade Bodies
- ✓ Cartridge Photoflash
- ✓ Illuminating Cartridge
- ✓ 20mm Projectile
- ✓ 37mm Projectile
- ✓ Small Arms

- Remaining activities include:
 - ✓ Post-removal verification (PRV)
 - ✓ Final USACE QA
 - ✓ Site Specific Final Report
 - ✓ Regulatory concurrence

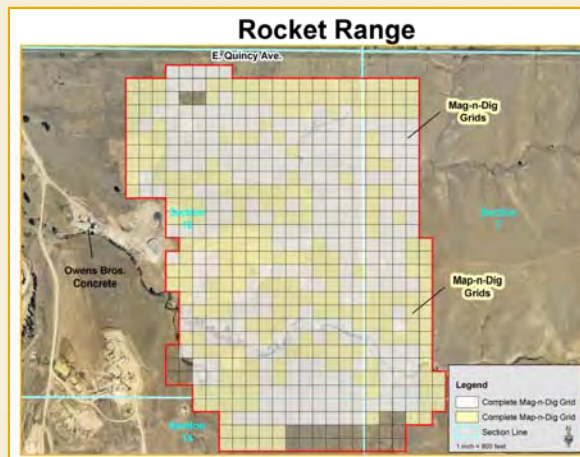


FIELDWORK UPDATE Rocket Range

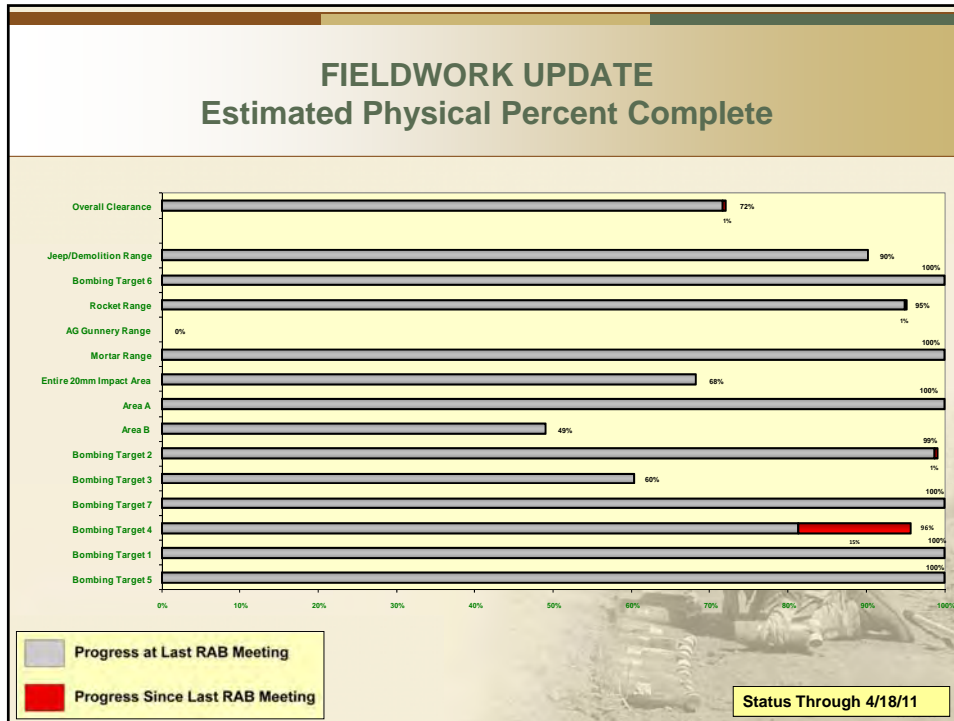
- Munitions response effort is considered 95% complete
- 504 live items found to date
- Summary of types of items found to date:

- ✓ 3 lb and 100 lb Practice Bombs
- ✓ 4 lb Incendiary Bomb
- ✓ Electric Squib
- ✓ Misc. Fuzes
- ✓ Igniter
- ✓ 81mm Mortar HE
- ✓ 20mm and 75mm Projectiles
- ✓ 2.25" Rocket
- ✓ 2.75" and 3.5" Rocket Motors
- ✓ Primer Detonator
- ✓ War Head Rocket
- ✓ 500 lb GP Bomb
- ✓ Small Arms

- Remaining activities include:
 - ✓ 2 mag-and-dig grids (NE corner)
 - ✓ 25 map-and-dig grids (boundary)
 - ✓ Post-removal verification (PRV)
 - ✓ Final USACE QA
 - ✓ Site Specific Final Report
 - ✓ Regulatory concurrence



Former Lowry Bombing and Gunnery Range Arapahoe County, Colorado



FIVE-YEAR REVIEW

**Five-Year Recurring Review
Military Munitions Response Action
Former Lowry Bombing and Gunnery Range**

08F062078D

Former Lowry Bombing and Gunnery Range Arapahoe County, Colorado

FIVE-YEAR REVIEW

▪ Regulatory requirement:

- ✓ CERCLA (42 USC 9601 et seq.)
- ✓ NCP (40 CFR 300 et seq.)

▪ Trigger date for FLBGR:

- ✓ 12/2006 – date of final Site-Specific Final Report for NTCRA at BT5

▪ Overall objectives:

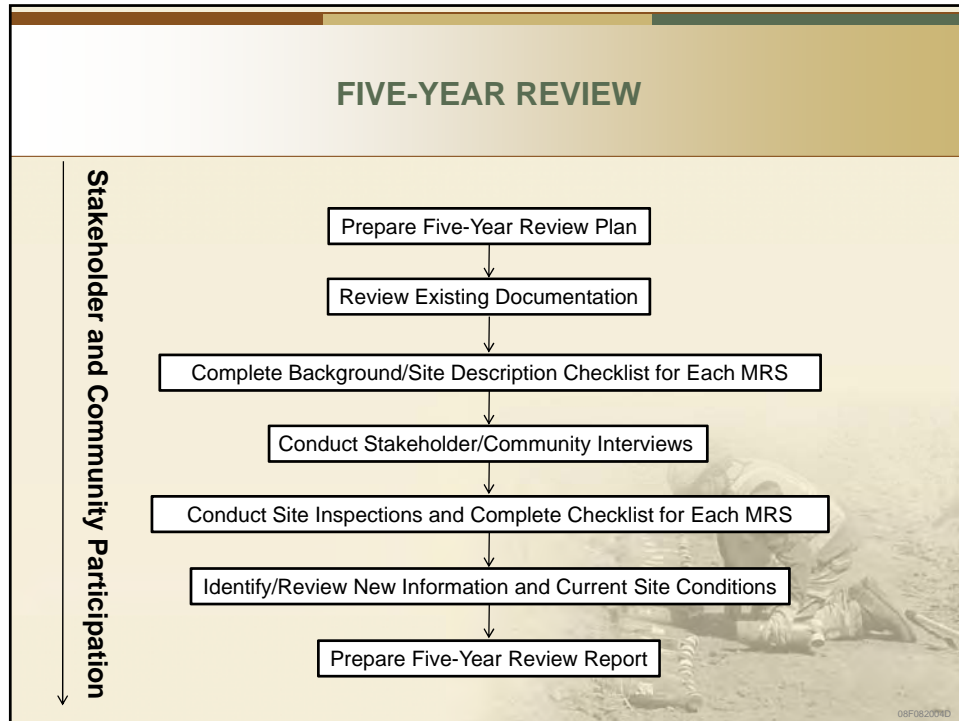
- ✓ Determine if the response action continues to minimize explosive safety risk and be protective of human health, safety, and the environment
- ✓ For ongoing response actions, determine if conditions that could result in unacceptable risks are being controlled

FIVE-YEAR REVIEW

▪ Scope:

- ✓ Assess all 15 MRS's at the FLBGR
- ✓ Answer the following technical assessment questions for each MRS:
 - Is the response action functioning as intended (meeting its objectives)?
 - Are the assumptions used at the time of the response action selection still valid?
 - Does any new information indicate that the previously selected response action no longer minimizes explosives safety risks or is no longer protective of human health, safety, and the environment, considering the best available technology?

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FIVE-YEAR REVIEW

▪ **Community and Stakeholder Involvement:**

- ✓ Public notice announcing implementation of the Five-Year Review – ran with April RAB meeting public announcements:
 - *I-70 Scout* and the *Aurora Sentinel*
- ✓ Five-Year Review kick-off meeting and overview – in conjunction with April RAB meeting
- ✓ A copy of the Five-Year Review Plan is available for review:
 - Aurora Public Library (14949 East Alameda Drive, Aurora, CO 80012)
 - Download from the project website www.fbgr.org
- ✓ Interviews with:
 - USACE and contractor technical staff
 - CDPHE and USEPA
 - City, County, State agencies
 - Current and past RAB members
 - Land owners and lessees
 - Adjacent HOAs

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FIVE-YEAR REVIEW

▪ Community and Stakeholder Involvement:

- ✓ A 30-day public review and comment period will be held for the draft final version of the Five-Year Review report:
 - The draft final version will be available after the draft report is reviewed and approved by the Office of Counsel, USACE – Omaha District, and concurrence is received from CDPHE and USEPA
 - The draft final report will be available on the project website and in the Information Repository located at the Aurora Public Library
 - Public notices will be run in the *I-70 Scout* and the *Aurora Sentinel* announcing the availability of the document and the public review and comment period
 - A public meeting, in conjunction with the RAB, will be held during the public review and comment period
- ✓ A responsiveness summary will be prepared to address any significant public comments received

FIVE-YEAR REVIEW

▪ Anticipated Schedule:

- ✓ Pre-review public meeting (April 20th 2011)
- ✓ Community and stakeholder interviews (April – June 2011)
- ✓ Individual site inspections (April – June 2011)
- ✓ 30-day public comment period for draft final report (October 2011)
- ✓ Public meeting for draft final report (October 19th 2011)
- ✓ The Five-Year Review report to be finalized by the end of 2011
 - The final Five-Year Review report will be added to the Information Repository at the Aurora Public Library and the Administrative Record at the project site
- ✓ Subsequent reviews will be conducted no later than 5 years from the signature date of the previous Five-Year Review report

▪ Questions?

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2011 RAB MEETING SCHEDULE

Restoration Advisory Board 2011 Meeting Schedule



2011 RAB MEETING SCHEDULE

- **Meetings are held quarterly**
- **Meetings are scheduled for the 3rd Wednesday of the month:**
 - ✓ July 20, 2011
 - ✓ October 19, 2011
- **Primary location for RAB meetings:**
 - ✓ USACE Site Compound
- **Alternate locations for RAB meetings:**
 - ✓ Arapahoe County Fairgrounds
 - ✓ Doubletree Hotel
 - ✓ Aurora Public Library



April 2011

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THE END

- Your next RAB meeting is scheduled for July 20, 2011 (6:00-8:30pm) at the USACE Site Compound

