

Camp Navajo  
Stakeholder Advisory Group

Thursday, February 14, 2008  
Camp Navajo  
Bellemont, AZ

**Minutes**

**Members in attendance:**

Lee Luedeker, AGFD  
Randy Wilkinson, NGB  
Shannon Clark, Coconino National Forest  
Nicole Coronado, ADEQ  
LTC Adrian Nagel, Camp Navajo  
Karen Underhill, community member

**Members absent:**

Tom Britt, community member  
Shaula Hedwall, USFWS  
Kurt Novy, City of Flagstaff  
Glenn Morrison, community member  
Tina Williams, Coconino National Forest

**Interested Parties:**

Tom Parker, Camp Navajo  
MAJ Brian Saunders, NGB  
Diana Deming, ADEQ

**Guests:**

Joellen Meitl, ADEQ  
Dana Downs-Heimes, CH2M Hill  
Pat Wiegand, Brown & Caldwell  
Jason Hurd, Intrinsic

The following acronyms may be used throughout this document

ADEMA	Arizona Department of Emergency and Military Affairs
ADEQ	Arizona Department of Environmental Quality
AGFD	Arizona Game & Fish Department
AZARNG	Arizona Army National Guard
BRAC	Base Realignment and Closure
CDC	Contained Detonation Chamber
CERCLA	Comprehensive Environmental Response, Compensation, & Liability Act
COPC	Contaminants of Potential Concern
DoD	Department of Defense
EDMS	Electronic Data Management System
EE/CA	Engineering Evaluation/Cost Analysis
ERA	Ecological Risk Assessment
FOASA	Former Open Air Storage Area
FRA	Final Removal Action
FSP	Field Sampling Plan
FWPDBA	Former White Phosphorous Detonation and Burn Area (Chemical Canyon)
HHRA	Human Health Risk Assessment
IAP	Installation Action Plan
IRA	Interim Removal Action
IRP	Installation Restoration Program
HERA	Human Health & Ecological Risk Assessment
LTM	Long Term Management
MAP	Management Action Plan
MC	Munitions Constituents
MD	Munitions Debris
MEC	Munitions and Explosives of Concern

MRA	Munitions Response Area
MRS	Munitions Response Site
MWP	Master Work Plan
NAAD	Navajo Army Depot
NAU	Northern Arizona University
NGB	National Guard Bureau
OB/OD	Open Burn/Open Detonation
ORS	Ordnance Related Scrap
PBC	Performance Based Contract
PCP	Post Closure Plan
ppb	parts per billion
QA	Quality assurance
QAPP	Quality Assurance Project Plan
QC	Quality control
RCRA	Resource Conservation and Recovery Act
RC	Response Complete
RI/FS	Remedial Investigation/Feasibility Study
RIP	Remedy in Place
ROD	Record of Decision
SAG	Stakeholder Advisory Group
SRL	Soil remediation level
SSHP	Site Safety and Health Plan
TPP	Technical Project Planning
USACHPPM	U.S. Army Center for Health Promotion and Preventive Medicine
USEPA	U.S. Environmental Protection Agency
USFS	U.S. Forest Service
USFWS	U.S. Fish & Wildlife Service
USGS	U.S. Geological Survey
UXO	Unexploded Ordnance
WMM	Waste Military Munitions

The following matters were discussed, recommended, and/or decided.

**1. *Welcome, Introductions and Announcements***

Lee Luedeker opened and asked everyone to introduce themselves before addressing the action items from the October 2007 meeting. Before contacting USFS about using their room for the June meeting, Lee suggested that a time be set for the meeting. Those present agreed to hold the June meeting at 6 p.m. Lee reported that the AGFD researcher for the permeability elk studies on the I-17 corridor agreed to make a presentation at the June meeting if he is available.

As updates to SAG membership, Lee reported that Tom Britt has had health issues but wants to continue his role with SAG once his health issues are resolved. Also, Glenn Morrison is still interested in participating with SAG unless there are objections from the group. Lee asked if there were any objections, and there were none.

Randy Wilkinson reported that he received an email from Stacy Duffy; she said she was very thankful to receive the recent gift of the bird house, and she misses the teamwork that she shared with SAG to strive for what's best for Camp Navajo. Stacy has returned to school to pursue her love of veterinary science.

**2. *2007 MEC Surface Removal Project***

Dana Downs-Heimes, CH2MHill, provided a status report on the MEC removal project, and her presentation can be reviewed on the project website. The MEC characterization report for NAAD

20 is final, and the MEC characterization reports for NAAD 01 and NAAD 02/03 are being reviewed by ADEQ. Dana explained that the draft reports and comments go back and forth with ADEQ multiple times to ensure the data and processes are correct. Characterization activities on NAAD 20 are complete, and no removal action is required.

The fieldwork on the surface MEC removal project was completed on December 12, 2007. Draft MEC removal reports have been submitted to NGB for MRA 01 and MRA 02, as well as a draft MRA 20 EE/CA report. Open detonation of stored MEC was conducted from February 7 - 11, 2008, and the inventory is now zero. The question was asked if the persistent snow cover has compromised the schedule. Dana said the field work was done, but the snow was a challenge. During detonations, the snow reduces the fire risk.

Dana noted that there are exclusion areas in MRA 01 and MRA 02, which were found by a survey team and confirmed by a QC specialist to be too steep for access such as canyons and cut banks. The exclusion areas were inspected visually but not directly accessed.

The question was asked: how do you determine how deep to excavate the pits? Dana explained that they excavate until they stop finding metals with magnetometers.

Dana provided an update about the status of the QC/QA process. Last summer there was an issue with a subcontractor and a lot of uninvestigated anomalies. They weren't investigating all of the beeps on the magnetometer. A meeting was held in October regarding the correction of sweep techniques. The subcontractor went back in the field and reinvestigated all grid cells in question. Inspection teams and government QA confirmed the grids were properly swept.

Dana explained the comprehensive Quality Control/Quality Assurance process. The contractor sweeps the entire area of a grid cell. CH2MHill performs QC inspections by systematically sweeping 10% of that grid cell. Finally, the government QA representative inspects another 10% of the grid cell and gives the final approval for the work.

Brown & Caldwell is preparing a work plan for soil stockpile management at NAAD 02 and NAAD 09C. An amendment is being prepared for the Explosives Safety Submission report which will address the handling and disposal of those soils.

Additional questions were asked: Has a hunter or trespasser ever encountered dangers in the area? Someone remembered a hunter getting lost in the area in 1970 and writing his will and testament on a wall, but nothing else has happened. Public safety is one of ADEQ's primary concerns.

How big are blasts from fuzes? Not very big, although fuzes are the most dangerous element.

Have contacts from backhoes or other equipment ever caused a detonation? No. Measures are taken for safety.

### **3. NAAD 02 and 09C Removal Actions**

Pat Wiegand, Brown and Caldwell, updated the group on the NAAD 02 and 09C removal actions. The PowerPoint presentation is posted on the project website.

NAAD 02 is a 200-acre site where demilitarization of munitions by open detonation and burning occurred from the 1940s to 1994. The final RI report was signed off by ADEQ in May 2007. IRA field activities, completed in March 2007, generated approximately 2,400 cubic yards of soil. An updated HERA, completed in August 2007, confirmed that the IRA successfully mitigated contaminants. The IRA objective was successfully met in NAAD 02. Approximately 700 cubic yards of soil was processed and sent off-site for disposal in December 2007. An After Action Report is in preparation for submittal to ADEQ in late February 2008. Final on-site management

of the remaining 1,700 cubic yards of soil will be addressed in a separate stockpile management work plan currently in preparation..

NAAD 09C is a 2.1 acre site used for burning and consolidation of burned materials from the 1940s through the 1990s. Site clean-up activities have been continuing since 2004 and have been reported in past SAG meetings.

Residual contaminants in soil are very low, and only one location required additional excavation. Re-sampling indicated that the contaminants had been removed. In addition to soil, significant volumes of metal debris (primarily banding) was recycled in late 2005 and sent off-site. All ordnance-related scrap was managed, shredded and sent off site for smelting and final disposal. MEC items were stored until the recent detonation event. All MEC recovered items have now been destroyed.

Non-routine waste, including drums with residual oils and lead-based paints, were sent off site as hazardous waste in March for disposal. Only 400 yards of the stockpiled soil exceeded non-residential levels and had to be screened and sent off site with NAAD 02 soil in December. The draft completion report is currently being revised to address ADEQ comments and to include the off-site management activities from December 2007. Final on-site management of the remaining 11,600 cubic yards of soil will be addressed in a separate stockpile management work plan currently in preparation.

#### On-site Soil Management Activities

A work plan is currently in preparation to address the on-site stockpiled soil from NAAD 02 and NAAD 09C. The work plan will be submitted to ADEQ in early March 2008. The plan is to use the soil to backfill existing pits within NAAD 02 to eliminate risk from surface water pathways and to avoid the accumulation of surface water in open pits. Field activities are anticipated to begin in May 2008.

As part of the on-site activities, additional sampling will be done during the screening process to confirm there are no residual contaminants that exceed nonresidential soil remediation levels. Surface soil samples were collected in the stockpile/processing areas prior to the removal actions, and samples will be collected once the stockpiled soils have been removed, to demonstrate that placement of stockpiled soil in those areas has not adversely effected the pre-existing soil.

#### **4. OB/OD Program Update & Upcoming Fieldwork**

MAJ Saunders, NGB, provided an OB/OD Area Program Update, including an update on ROD status, closure strategy, site status, CERCLA to RCRA process, near-term goals and long-term goals, future land use and land use controls. The PowerPoint presentation is posted on the project website.

NGB and ADEQ have agreed to prepare various RODs in lieu of Decision Documents, because RODs are more stringent and legally defensible than are DDs. Proposed Plans and RODs will be prepared for the sites listed below, except that a Proposed Plan will not be required for the MKM sites. The responsible contractor is in parentheses.

- 7 OB/OD Area CERCLA Sites (MKM)
- 4 OB sites (AMEC)
- 28 "IRP Buyout Sites," 18 "IRP Non-Buyout Sites," 7 "IRP Ineligible Sites," and 5 "IRP LTM Sites" (Brown & Caldwell)
- NAAD 02, NAAD 03, and NAAD 13 (Brown & Caldwell)
- 3 MRA Sites (CH2M Hill)

Upcoming Proposed Plans and RODs will be available at the NAU Cline Library and on the Camp Navajo website.

Site Closure Status: The following table summarizes the status of all sites as of February 14, 2008. Bold text indicates a correction to the status presented at the October 2007 SAG meeting.

Site	Type	Fieldwork	R1/RSE	HHRA	ERA	DD	PP	ROD
01	CERCLA	Complete	Final	___	Final	Draft	N/A	Draft
02	RCRA	Complete	Final	Future	Future	N/A	Future	Future
03	CERCLA	Complete	Final	___	Final	Draft	Future	Future
04	CERCLA	Complete	Final	___	Final	Draft	N/A	Draft
05	RCRA	Complete	Final	Final	Final	N/A	Future	Future
06	RCRA	Complete	Final	Draft	Final	N/A	Future	Future
07	CERCLA	Complete	Final	Final	Final	Draft	N/A	Draft
08A	CERCLA	Complete	Final	___	Final	Draft	<b><i>N/A</i></b>	<b><i>Draft</i></b>
08B	RCRA	Complete	Final	Final	Final	Draft	Future	Future
09A	CERCLA	Complete	Final	___	Final	Draft	N/A	Draft
09C	RCRA	Complete	Final	___	___	Final	N/A	ESD
09D	RCRA	Complete	Final	___	Final	Draft	Future	Future
10	CERCLA	Complete	Final	___	Final	Draft	N/A	Draft
13	RCRA	Complete	Final	Final	___	Draft	Future	Future
20	CERCLA	Complete	Final	Final	___	N/A	Future	Future
E76	CERCLA	Complete	Final	___	___	Draft	N/A	Draft

The closure strategy includes the following:

- Use the CERCLA risk-based cleanup process to investigate, remediate and close out all OB/OD Area sites.
- Separate the chemical contamination issue from the munitions and explosives of concern issue, and address MEC as separate operable units.
- Focus closure of RCRA interim status permits on sites that were operated under interim status.
- RCRA Closure and Post Closure.

Near and long-term goals:

Spring 2008

- RCRA Post Closure Plan to ADEQ
- EE/CAs to ADEQ
  - MRA 20 (March 24, 2008)
  - MRA 01 (June 17, 2008)
  - MRA 02 (August 27, 2008)
- Amended ESS to DDESB
- SSWPs & Site Walk

#### Summer 2008

- Start fieldwork
- Finalize MRA 20 EE/CA
- Start MRA 20 Proposed Plan
- B&C and AMEC PPs
- MRA 02/MRS B outside of DA Waiver Area
  - Surface sweep for MEC
- Fence Removal (RR Tank & Metz Tank)
- On-site Soil Management Project
  - NAAD 20 and NAAD 09C stockpiled soils
    - Continuation of 2007 off-site soil management project
  - Screen soil (Mechanical screening)
  - Characterization for ADEQ requested analyses
  - Place soil in OD Pits

#### Fall 2008

- IRA & soil Management Reports
- AMEC RODs (B&C RODs pending funding)
- Start MRA 20 ROD
- Finalize MRA 01 & 02 EE/CAs
- Start MRA 01 & 02 Proposed Plans
- ESS for "Final Response" to DDESB
- ICM Waiver amendment to DAC-SF

#### Winter 2008

- Start MRA 01 & 02 RODs

#### Spring 2009

- Finalize all RODs
- Submit RCRA Post Closure Permit Application and Post Closure Plan

#### Summer 2009

- Conduct FRA
  - Work stipulated from EE/CAs and/or RODs
  - i.e. NAAD 03 Surface/Sub-surface MEC sweep
  - i.e. 2' bls MEC sweep for firebreak along road
  - Installation of LUCs (signs, etc.)

#### Fall 2009

- Write FRA reports
- CERCLA Closure
- RCRA Post-Closure Care

#### Future Land Use

The DA Waiver Area will have significant impacts on Future Land Use and could affect EOD Training. Potential uses outside the Waiver Area include unit level dismantled maneuver training,

unit level fire training, land navigation training, wild land fire prevention and protection, land management, cultural resource management, maintenance of RCRA Post-Closure LUCs, installation security patrols, and hunting by permit.

Potential uses inside the Waiver Area include UXO construction support required for targets, an emergency demolitions area and an EOD training area. Additional cleanup may be required. The question was asked: will there be armored vehicles operating out there? Not for target practice; they usually use a model made of plywood.

#### Proposed Post-Closure Care

LUCs will include restricted access area, annotations to the Camp Navajo Master Plan and to INRMP and ICRMP, MEC awareness training, dig permits and signs. We will continue monitoring for and responding to MEC discoveries. We will conduct annual inspections of signs, fences and roads. We will continue groundwater monitoring. We will conduct five-year reviews to include MEC surveys, MC surveys, and regulations/records reviews.

We will continue updating the Administrative Record and the EDMS. The server location may change to Camp Navajo or Papago Park. The servers are currently under an AMEC contract and located in Massachusetts. To prevent hazards, we will continue routine installation security and environmental protocols as well as DDESB/DoD/Army regulations.

Following MAJ Saunders' presentation, LTC Adrian Nagel addressed the group. He referred to an article in 2/13/08 *The Daily Sun* regarding the Camp Navajo Enhanced Use Lease (EUL) and proposed industrial park. He read the short article and said it was mostly accurate. The land exchange with Fort Huachuca fell through, and Bob Penn with the Corps of Engineers is working toward land exchanges with other agencies.

LTC Nagel announced that the Camp Navajo Executive Council will be meeting on February 22. MAJ Saunders will make a presentation to the Council with project updates.

A question was asked about the area of Camp Navajo in which the industrial park would be located. LTC Nagel described an area parallel to the BNSF tracks, just to the south of the tracks. He said that no leases have been signed, but that several businesses were interested. Interested businesses include a federal development agency out of Washington DC that is working with Flagstaff locals who want to build an ethanol plant; a biomass plant; a log cabin manufacturer who wants to move from Payson; and DPS. The industrial park will be implemented in phases, from east to west in the proposed area.

The question was asked if they are expanding troops at Camp Navajo. LTC Nagel said they are. As of October 2007, Camp Navajo is classified as a collective training center, which can help them draw more funding. The facility qualifies as a maneuver training center light. They are currently focusing on needed upgrades such as replacing the water distribution system and seeking a congressional project to upgrade the electrical distribution system. Camp Navajo also plans to build a new fire station. They have an MP and engineer unit designated under funding "Grow the Army," and design is started for a new state of the art facility just east of the chapel.

NGB is a component of the Army, and Camp Navajo gets funded based on our development plans. We are located far away from the majority of troops in Arizona, but there is a lot of emphasis at the national level to make Camp Navajo a premier training site in Arizona.

A question was asked if there would be additional fencing requirements related to training activities. LTC Nagel said they have started the NEPA process for the master plan. He also said Camp Navajo is interested in buying land outside the southern and eastern boundaries. LTC Nagel announced that he would be at Camp Navajo for one more year.

## **5 Next SAG Meeting**

SAG meetings for 2008 will be held on June 12 and October 9. The June meeting will be at 6 p.m. The conference room at the Coconino National Forest office has been reserved. The office is located in Flagstaff at 1824 S. Thompson St., between West Route 66 and University Ave., west of Woodlands Village Blvd. The first 2009 meeting will be held on February 12.

**6. Call to the Public**

No members of the public were present.



# SAG Meeting Presentation



## OB/OD Area Closure Program

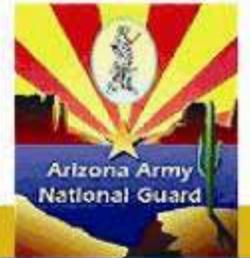
Surface MEC Interim Removal Action  
OB/OD Area  
Camp Navajo  
Bellemont, Arizona

February 14, 2008 SAG Meeting

**CH2MHILL**



# Project Summary



## Status of MEC Characterization Reports

### 2007 Field Activities

### Soil Stockpile Management

- B&C to present details

### 2008 Project Activities



# MEC Characterization Report



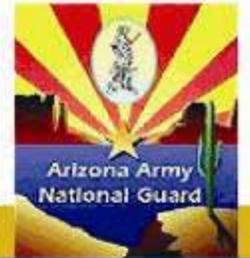
## MEC Report Status

### NAAD 20

- ADEQ concurrence on 16 July 2007
- Report final



# MEC Characterization Report



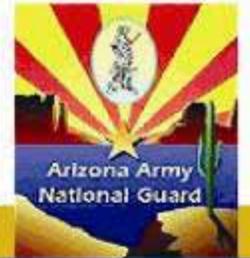
## MEC Report Status

### NAAD 01

- ADEQ initial comments received August 20, submitted RTC October 29, 2007
- ADEQ follow-up comments received December 12, 2007, submitted RTC December 20, 2007
- ADEQ follow-up comments received January 8, 2008, submitted RTC January 22, 2008 and discussed during TPP on January 24



# MEC Characterization Report



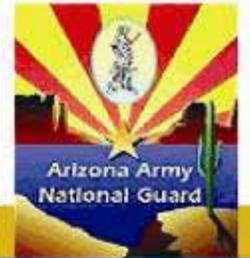
## MEC Report Status

### NAAD 02/03

- ADEQ initial comments received September 24, 2007, submitted RTC November 28, 2007
- ADEQ follow-up comments received December 27, 2007, submitted RTC January 2, 2008
- ADEQ follow-up comments received January 17, 2008 and discussed during TPP on January 24. RTC submittal pending results of TPP discussion



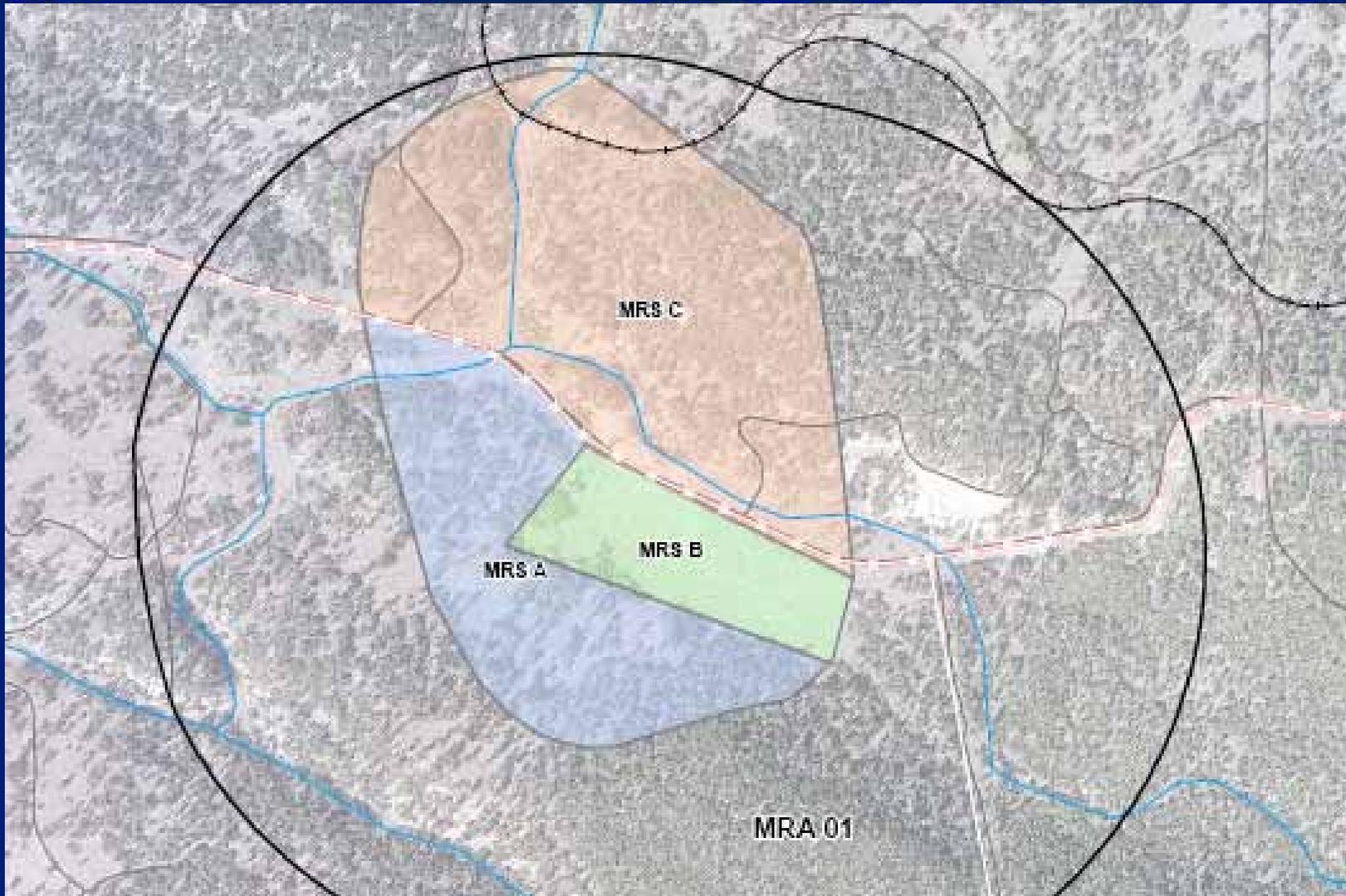
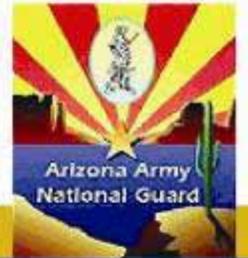
# MEC Characterization Report



- MRA 01** - MRS A 63 acres
- MRS B 27 acres
- MRS C 113 acres
- MRA 02** - MRS A1 177 acres
- MRS A2 12 acres
- MRS A3 13 acres
- MRS B 856 acres
- MRS C-South 120 acres
- MRA 20** - 40 acres

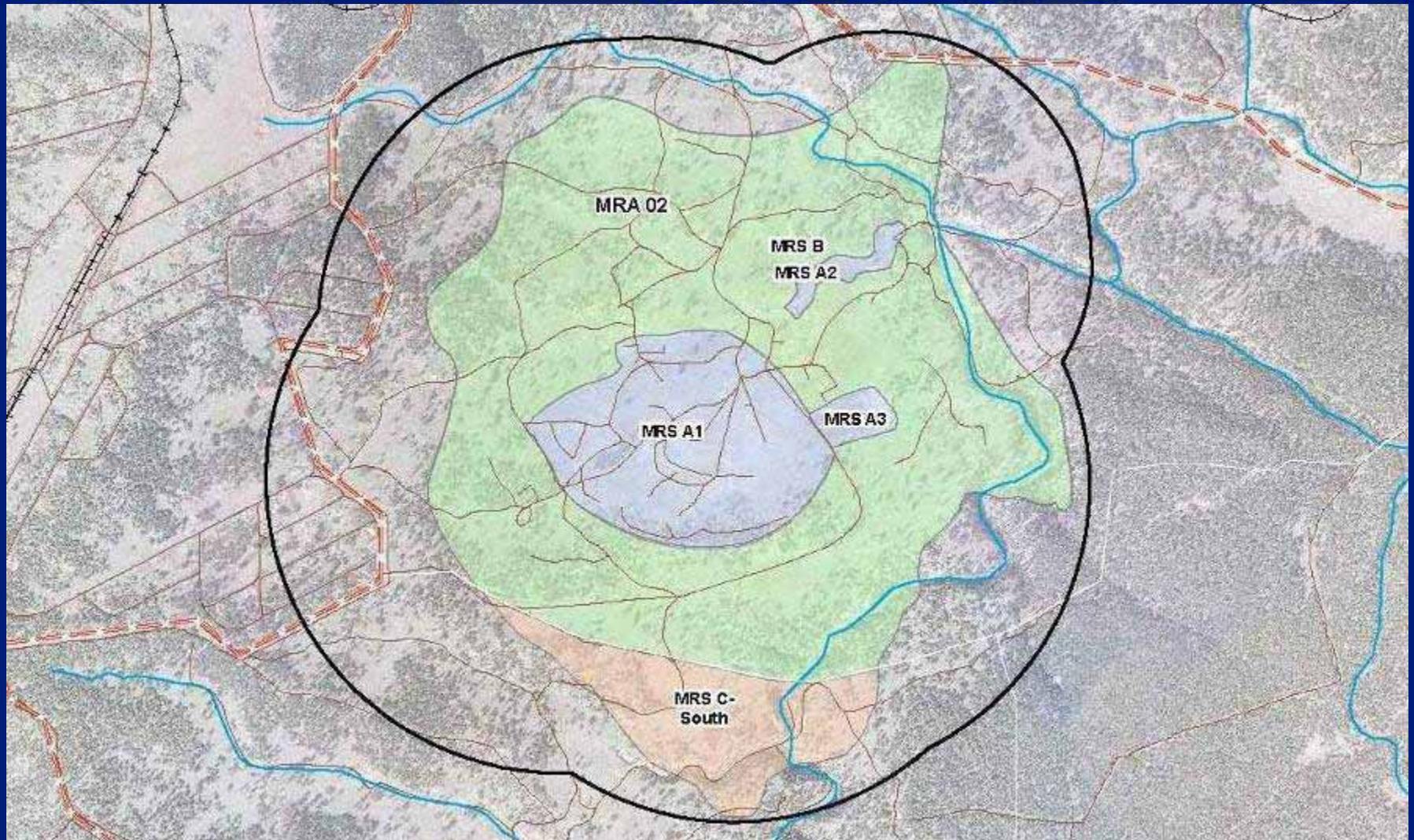
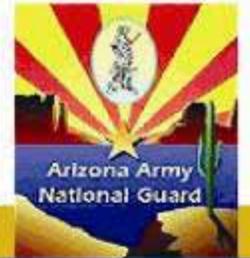


# MRA 01 (NAAD 01)



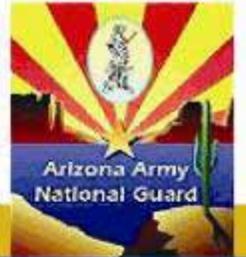


# MRA 02 (NAAD 02/03)



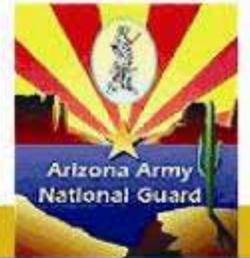


# MRA 20 (NAAD 20)





# 2007 Field Activities



## Surface MEC Removal Project

Final Work Plan submitted September 28

Location Survey Activities completed August 7

Surface MEC Removal Field Activities

- MRA 01 MRS A, MRS B & MRS C
- MRA 02 MRS C-South

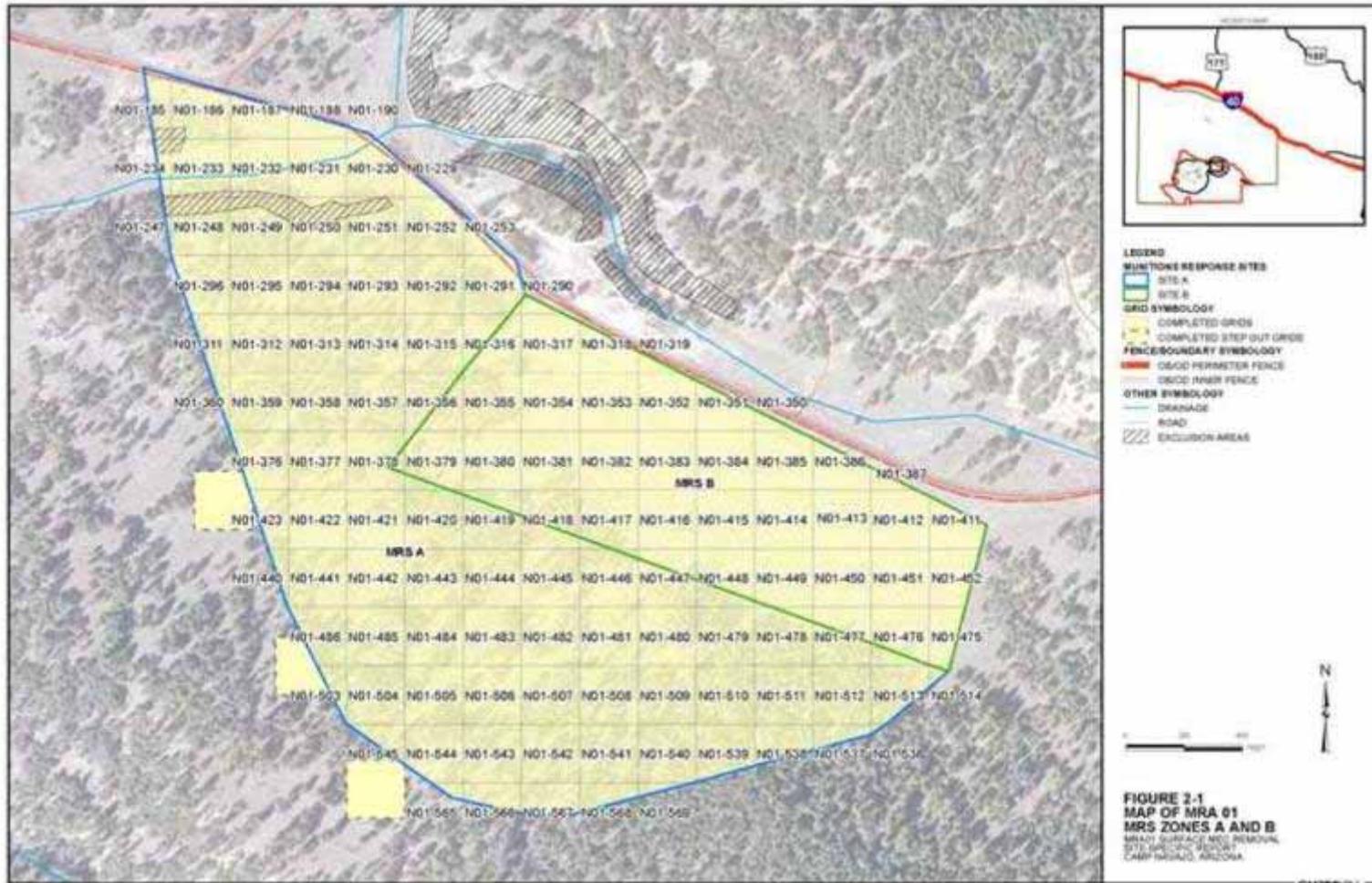
MEC Consolidation/Disposal

QC/QA Inspections

Fieldwork Completed – December 12, 2007

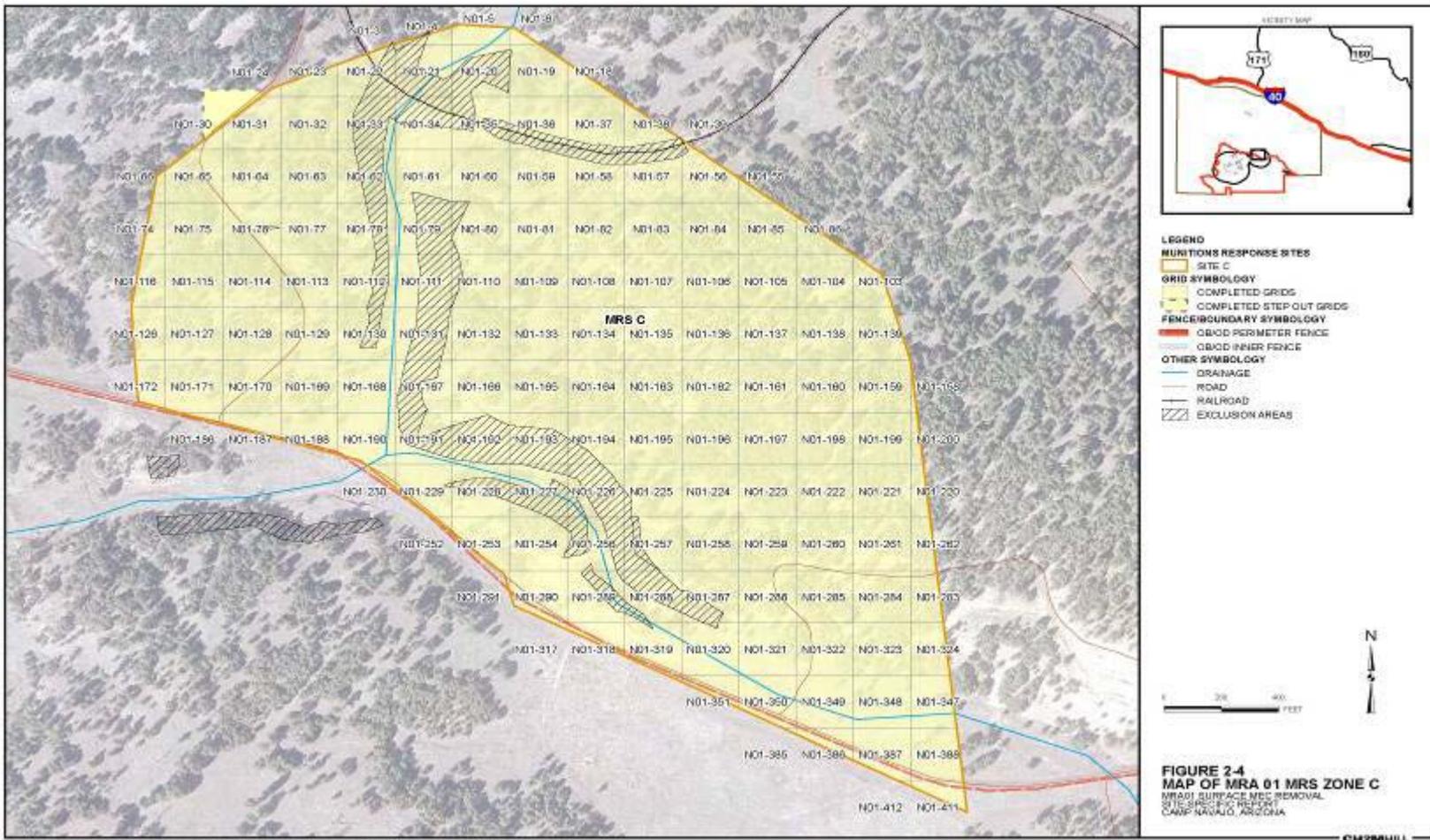


# 2007 Field Activities



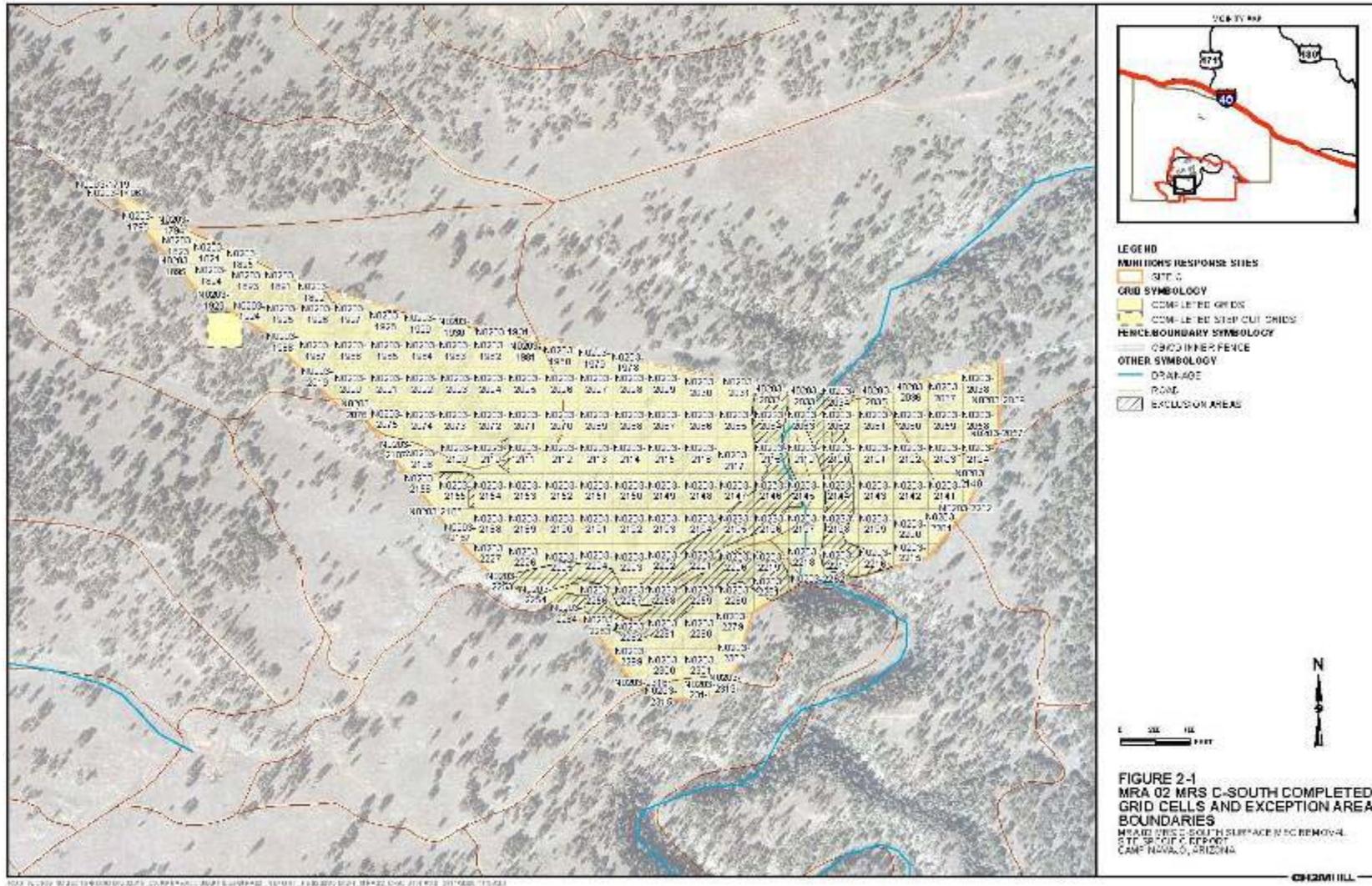


# 2007 Field Activities



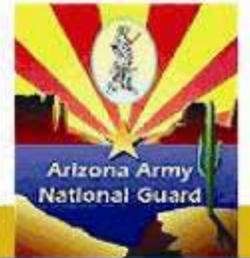


# 2007 Field Activities





# 2007 Field Activities



Total Grid Cells & Grid Cell Units	Grid Cells & Grid Cell Units Swept	QC/QA Inspections	MEC Items Found	Date Completed
<b>MRA 01 MRS C</b>				
119	119	119	11	Nov 27 2007
<b>MRA 01 MRS B</b>				
42	42	42	43	Dec 5 2007
<b>Primary Source Area OD Pit #10 (EMM Investigation)</b>			0	Dec 6 2007
<b>MRA 01 MRS A</b>				
82	82	82	39	Dec 5 2007
<b>MRA 02 MRS C-South</b>				
167	167	167	25	Dec 12 2007



NOI-A-315-2000-1,2,4

2000  
4  
1982



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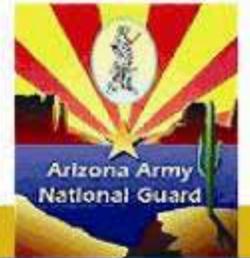
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# 2008 Project Activities

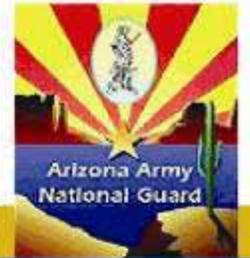


## Reports

- Client Draft MRA 01 MEC Removal Report submitted February 8
- Client Draft MRA 02 MEC Removal Report to be submitted February 15
- Client Draft MRA 20 EE/CA Report submitted February 8



# 2008 Project Activities

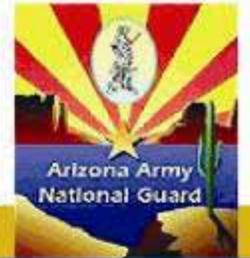


## Reports

- **Draft RCRA Post Closure Plan due week of February 11**  
UXO Awareness Materials developed in concert with Post Closure Plan
- **Client Draft MRA01 EE/CA Report due May 2**
- **Client Draft MRA 02 EE/CA Report due July 15**



# 2008 Project Activities



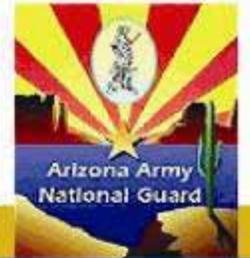
## Field Activities

### Open Detonation of Stored MEC

- Commercial explosives delivered January 31
- Project delay due to heavy snow accumulation
- First detonation February 7
- All detonation disposal complete February 11



# 2008 Project Activities



## 2008 Field Planning Activities

Technical Project Planning Meeting held January 24

Surface MEC Removal at MRA 02 MRS B

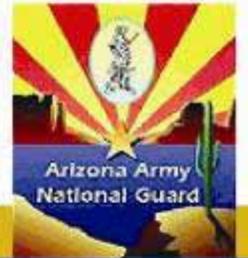
- Client Draft SSWP Addendum due March 21

Soil Stockpile Management at NAAD 02 and NAAD 09C

- Client Draft Work Plan in Preparation
- Client Draft Explosives Safety Submission Addendum in review

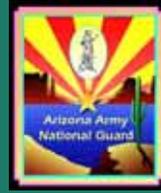


# Conclusion



Questions?





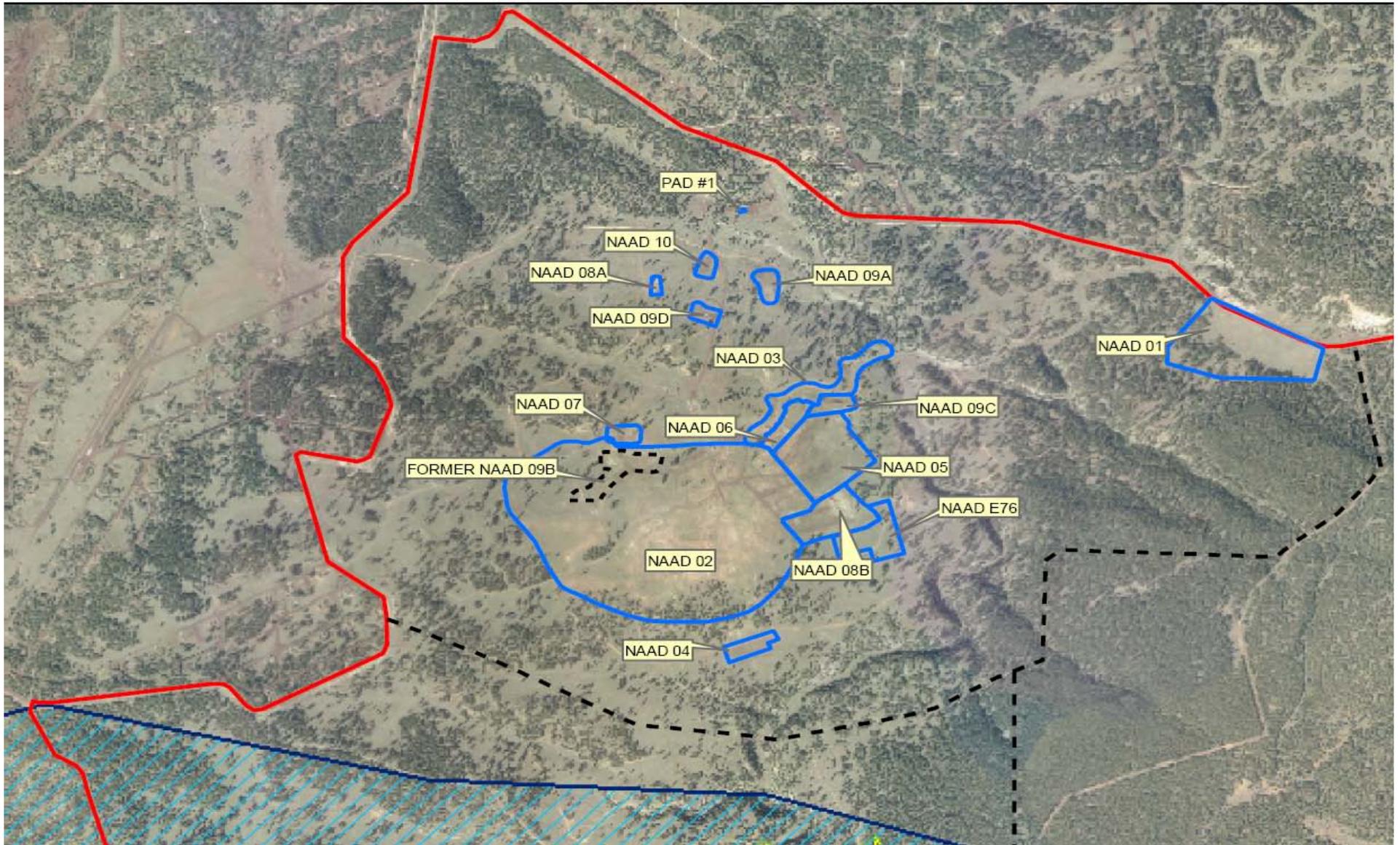
# Camp Navajo Brown & Caldwell NAAD 02 & 09C Project Status Stakeholder Advisory Group Meeting



February 14, 2008



# Locations of NAAD 02 and 09C





## NAAD 02 Project Status

- Final RI Report issued in April 2007 and was signed off by ADEQ in May 2007
- Risk assessment results indicated need to conduct an Interim Removal Action (IRA) at former NAAD 09B
- IRA field activities completed between August and December 2006 and in late March 2007 generating approximately 2,400 cubic yards (yd<sup>3</sup>) of soil.
- Confirmation sampling results indicate IRA successfully mitigated contaminants driving unacceptable risks
- Updated human-health and ecological risk assessments completed August 2007 confirmed these results.
- Approximately 700 yd<sup>3</sup> of soil was processed and sent off-site for disposal in December 2007 due to elevated lead concentrations exceeding the Non-Residential SRL
- After Action Report in preparation for submittal to ADEQ in February 2008
- Final on-site management of remaining 1,700 yd<sup>3</sup> of stockpiled soils pending



# NAAD 09C RA Project Status

- RA field activities were conducted from November 2004 through September 2005, generating a variety of wastes including 12,000 yd<sup>3</sup> of soil.
- The RA confirmation soil sample results indicated elevated concentrations of explosive compounds at one sample location > R-SRLs but < NR-SRLs.
- Additional excavation conducted at the sample location in November 2005 and corresponding sample results showed explosive compounds below detection limits.
- Completed waste management activities:
  - ✓ Metal debris segregation and recycling; September 2005 to December 2005
  - ✓ ORS certification and off-site management; January 2006 to August 2006
  - ✓ 369 recovered MEC disposed of by open detonation at NAAD 02
  - ✓ Other non-routine waste profiled and disposed off-site March 2007
  - ✓ Approximately 400 yd<sup>3</sup> of soil was process and sent off-site for disposal due to elevated levels of Dioxin and Furans exceeding the Non-Residential SRLs
- Revised Draft RA Completion Report in preparation to address comments from ADEQ and the off-site soil management activities
- Final on-site management of remaining 11,600 yd<sup>3</sup> of stockpiled soils pending



## Off-Site Soil Management Status

- Sorting/Screening activities of soils requiring off-site disposal began mid August 2007 and were completed in December 2007
- Activities included inspections for MEC, MPPEH & shaped MD
- Safe to move MEC were consolidated in Camp Navajo explosives storage magazines for demolition operations in February 2008
- Other MPPEH such as non-spent smoke canisters are being stored in metal containers on-site pending completion of on-site soil management activities
- Approximately 1,100 yd<sup>3</sup> of soil from NAAD 02 and 09C was transported off-site for disposal at Painted Desert Landfill



# Soil Management Photo 1





## Soil Management Photo 2





## Off-Site Soil Management Photo 3





# On-Site Soil Management Activities

- On-Site management of about 11,600 yd<sup>3</sup> at NAAD 09C and 1,700 yd<sup>3</sup> at NAAD 02 of excavated soil temporarily stockpiled at Site (Pending)
  - ✓ Work Plan under preparation for review by ADEQ detailing the on-site stockpiled soil management activities (submittal by end of February 2008).
  - ✓ A revised “Explanation of Significant Differences” (ESD) that documents changes made to the DD to be submitted to ADEQ for approval
  - ✓ A notice of the ESD will then be published in local Flagstaff newspaper (no public comment period is required)
  - ✓ Field activities anticipated to begin in April or May 2008
- Other activities to include:
  - ✓ Sampling and analysis of post stockpiled soil staging areas
  - ✓ Revised Risk Assessment for NAAD 02
  - ✓ Preparation of On-Site Soil Management After Action Report



# Camp Navajo Environmental Cleanup Program



## OB/OD Area Program Update

MAJ Brian Saunders  
NGB Restoration Program Manager

Mr. Randy Wilkinson  
NGB Restoration Project Manager

Stakeholders Advisory Group meeting  
14 February 2008



# SAG Briefing Agenda



- Update ROD Status
- Closure Strategy
- Site Status
- CERCLA to RCRA Process
- Near Term
- Long Term
- Future Land Use
- Land Use Controls



# Record Of Decision



- **ROD's will be prepared for:**
  - The 7 OB/OD Area CERCLA Sites (MKM sites)
  - The 4 OB Sites (AMEC sites)
  - The 28 "IRP Buyout Sites" (B&C)
  - The 18 "IRP Non-Buyout Sites" (B&C)
  - The 7 "IRP Ineligible Sites" (B&C)
  - The 5 "IRP LTM Sites" (B&C)
  - NAAD 02 (B&C)
  - NAAD 03 (B&C)
  - NAAD 13 (B&C)
  - Each of the 3 MRA Sites (CH2M Hill)
- **Proposed Plans will be prepared for all**
  - Except for the MKM ROD



# Upcoming Proposed Plans & ROD's



Will be available for review at:  
NAU Cline Library  
Special Collections Area

<http://www.CampNavajoEnvironmental.org>

Send comments to: MAJ Brian Saunders  
Camp Navajo  
P.O. Box 16123  
Bellemont, AZ 86015



# OB/OD Area Site Closure Status



Site	Type	Fieldwork	RI/RSE	HHRA	ERA	DD	PP	ROD
01	CERCLA	Complete	Final	---	Final	Draft	N/A	<u>Draft</u>
02	RCRA	Complete	Final	Future	<u>Future</u>	N/A	Future	Future
03	CERCLA	Complete	Final	---	Final	Draft	Future	Future
04	CERCLA	Complete	Final	---	Final	Draft	N/A	<u>Draft</u>
05	RCRA	Complete	Final	Final	Final	N/A	Future	Future
06	RCRA	Complete	Final	Draft	Final	N/A	Future	Future
07	CERCLA	Complete	Final	Final	Final	Draft	N/A	<u>Draft</u>
08A	CERCLA	Complete	Final	---	Final	N/A	Future	<u>Draft</u>
08B	RCRA	Complete	Final	Final	Final	Draft	Future	Future
09A	CERCLA	Complete	Final	---	Final	Draft	N/A	<u>Draft</u>
09C	RCRA	Complete	Final	---	---	Final	N/A	<u>ESD</u>
09D	RCRA	Complete	Final	---	Final	Draft	Future	Future
10	CERCLA	Complete	Final	---	Final	Draft	N/A	<u>Draft</u>
13	RCRA	Complete	Final	Final	---	Draft	Future	Future
20	CERCLA	Complete	Final	Final	---	N/A	Future	Future
E76	CERCLA	Complete	Final	---	---	Draft	N/A	<u>Draft</u>



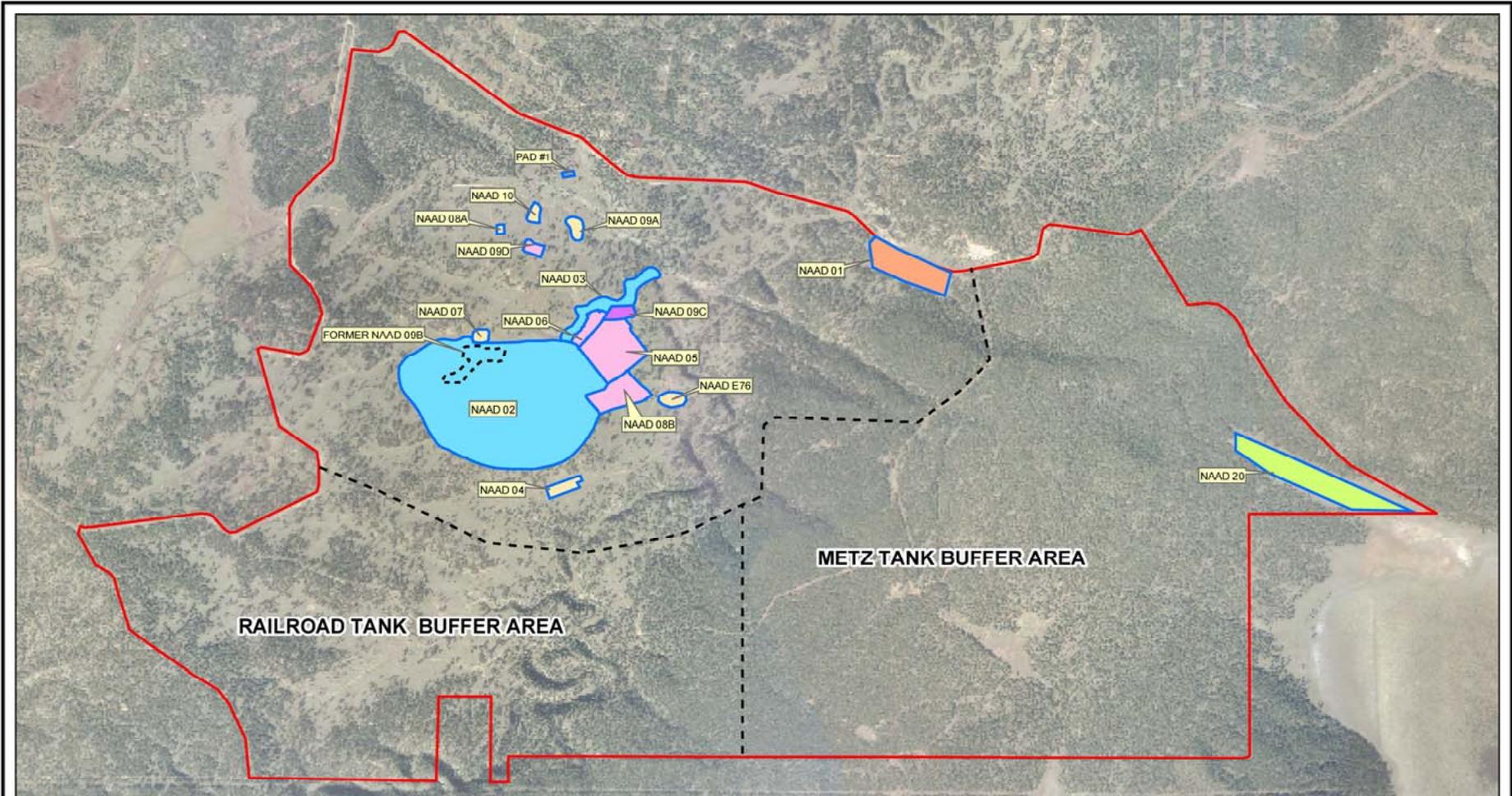
# Closure Strategy



- 1. Use the CERCLA risk-based cleanup process to investigate, remediate, and close out all OB/OD Area sites.**
- 2. Separate the chemical contamination issue from the munitions and explosives of concern issue, and address MEC as separate operable units.**
- 3. Focus closure of RCRA interim status permits on sites that were operated under interim status.**
- 4. RCRA Closure and Post Closure.**



# OB/OD Area Site Closure Status



SOURCE: AERIAL PHOTOGRAPHY BY SOUTHWEST MAPPING, OCTOBER 2002

### EXPLANATION

- |                   |            |             |
|-------------------|------------|-------------|
| OB/OD BOUNDARY    | AMEC       | CH2         |
| CURRENT NAAD SITE | BC         | MKM         |
| FORMER NAAD SITE  | BC AND CH2 | MKM AND CH2 |
| INNER FENCE       |            |             |

CONTRACTOR SITES WITHIN  
THE OB/OD AREA  
CAMP NAVAJO  
BELLEMONT, ARIZONA

BROWN AND  
CALDWELL

0 1,000 2,000  
SCALE IN FEET

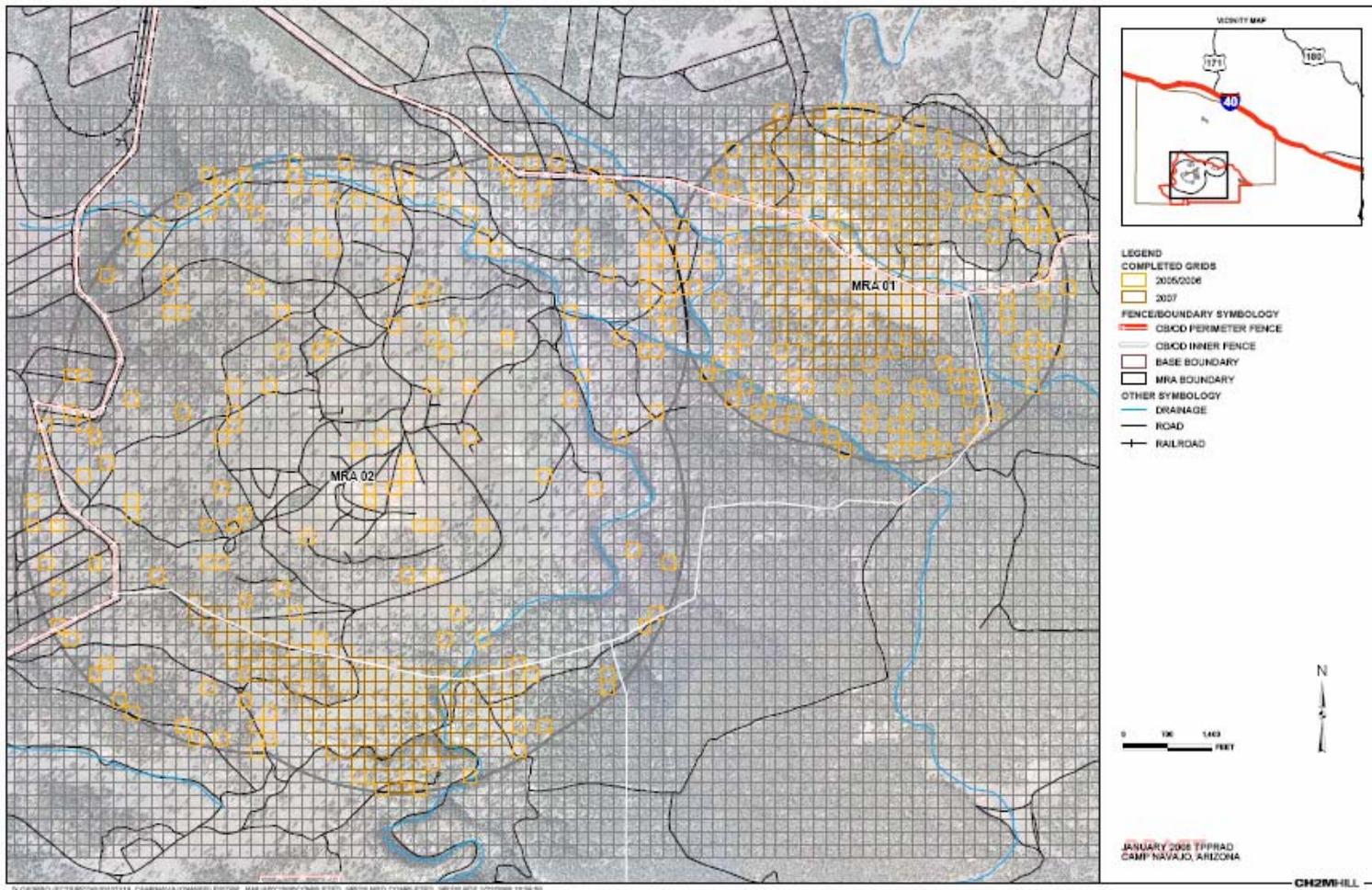




# Previous Fieldwork



- MEC (Munitions & Explosives of Concern)
  - All MEC Removal (Surface and Sub-surface)





# Program Schedule



- Spring 2008
  - RCRA Post Closure Plan to ADEQ
  - EE/CA's to ADEQ (Engineering Evaluation/Cost Analysis)
    - MRA 20 (24 Mar 08)
    - MRA 01 (17 Jun 08)
    - MRA 02 (27 Aug 08)
  - Amended ESS to DDESB (Explosive Safety Submission)
  - SSWP's (Site Specific Work Plans) & Site Walk
- Summer 2008
  - Start Fieldwork (see next 3 slides)
  - Finalize MRA 20 EE/CA
  - Start MRA 20 Proposed Plan
  - B&C's & AMEC's PP's (MKM ROD)



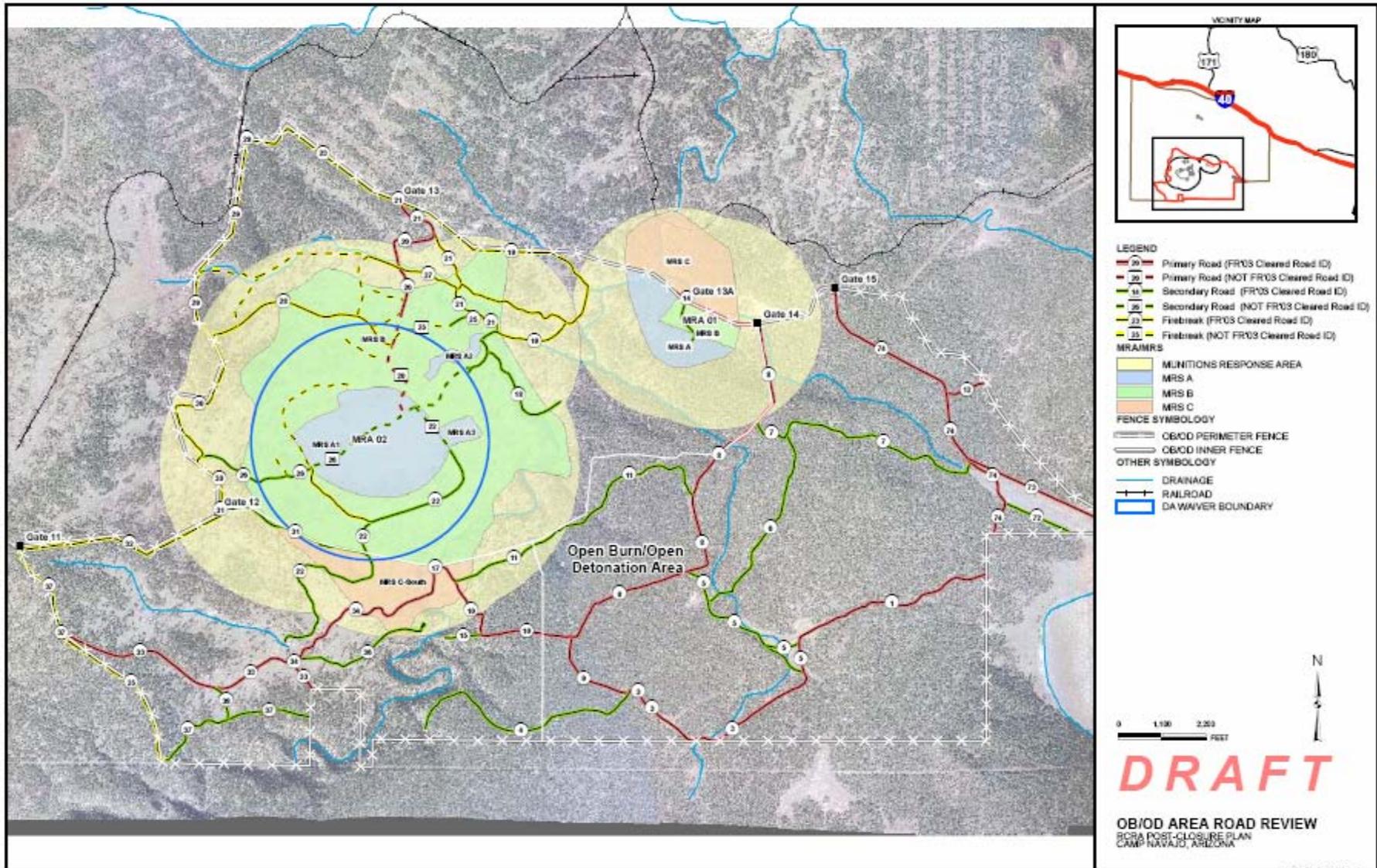
# Program Schedule



- Summer 2008
  - Conduct IRA (Interim Removal Action) for MEC
    - MRA 02/MRS B outside of DA Waiver Area
    - Surface sweep for MEC
    - Fence Removal (RR Tank & Metz Tank)
  - On-site Soil Management Project
    - NAAD 02 and NAAD 09C stockpiled soils
      - Continuation of 2007 Off-site soil management project
    - Screen soil (Mechanical screening)
    - Characterize for ADEQ requested analytes
    - Place soil in OD Pits



# MRA 01 & 02

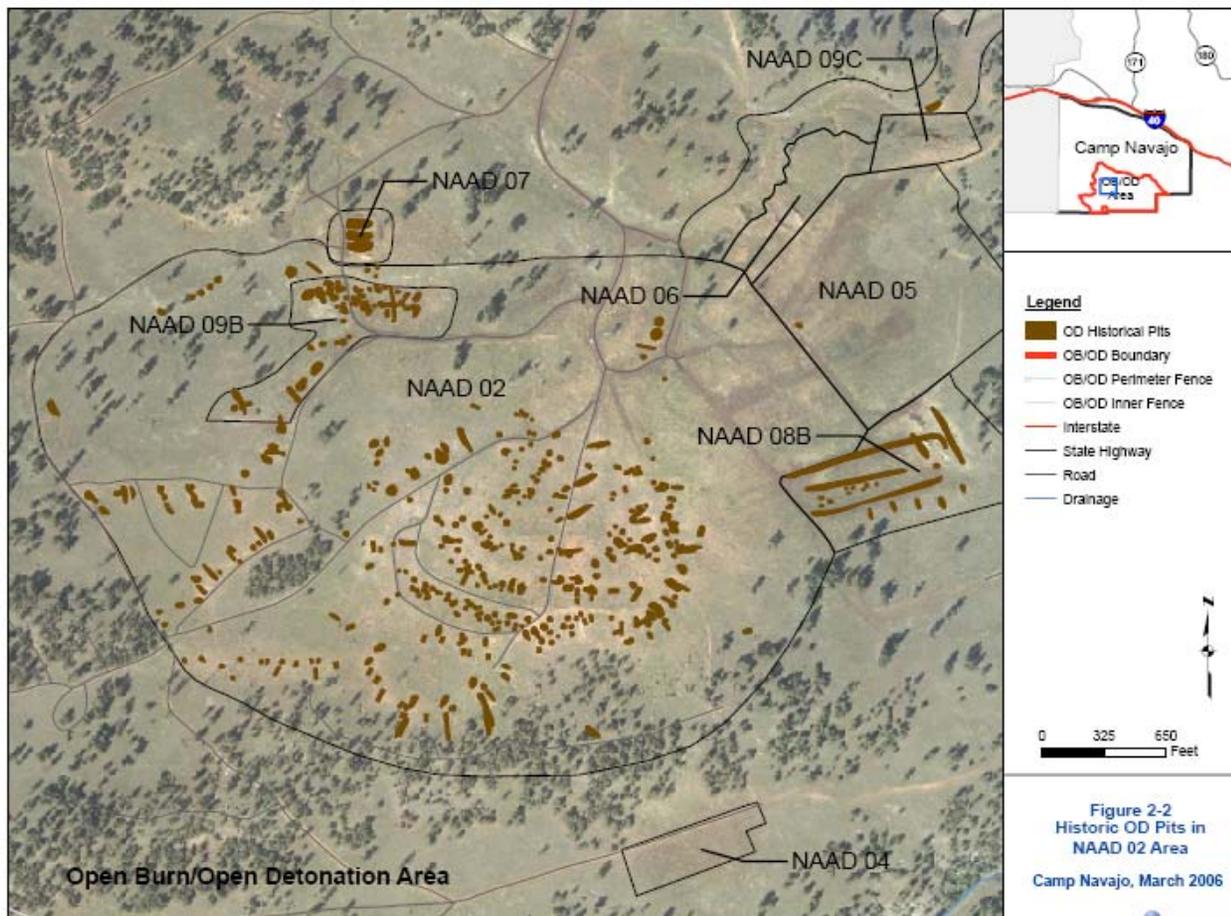




# Program Schedule



- Summer 2008
  - On-site Soil Management Project





# Program Schedule



- Fall 2008
  - IRA & Soil Management Reports
  - AMEC ROD's (B&C ROD's – pending funding)
  - Start MRA 20 ROD
  - Finalize MRA 01 & 02 EE/CA's
  - Start MRA 01 & 02 Proposed Plan's
  - ESS for "Final Response" to DDESB (Explosive Safety Submission)
  - ICM Waiver amendment to DAC-SF (Sub-munitions/DA Waiver)
- Winter 2008
  - Start MRA 01 & 02 ROD's
- Spring 2009
  - Finalize all ROD's
  - Submit RCRA Post Closure Permit Application
    - Includes the RCRA Post Closure Plan



# Program Schedule



- Summer 2009
  - Conduct FRA (Final Removal Action)
  - Work stipulated from EE/CA's &/or ROD's
    - i.e. NAAD 03 Surface/Sub-surface MEC sweep
    - i.e. 2' bls MEC sweep for firebreak along road
    - Installation of LUC's (Land Use Controls)
      - Signs, etc.
- Fall 2009
  - Write FRA reports
  - CERCLA Closure
  - RCRA Post-Closure Care



# Future Land Use



- The DA Waiver Area will have significant impacts on Future Land Use
  - Could effect AZARNG RDP (“EOD Training”)
- Potential uses
  - Outside the Waiver Area
  - Inside the Waiver Area



# Future Land Use



- Outside the DA Waiver Area
  - Unit level dismounted maneuver training
    - Digging & bivouacking prohibited
  - Unit level live fire training & land navigation training
  - Wildland fire prevention & protection (Non-intrusive only)
  - Land Management
    - Timber Harvesting (non-intrusive) & livestock grazing
  - Cultural Resources Management (Non-intrusive only)
  - Maintenance of RCRA Post-Closure LUC's
    - Signs, etc.
  - Installation Security Patrols
  - Hunting (permit required)



# Future Land Use



- Inside the DA Waiver Area
  - Limited Potential Use As:
    - Impact Area
      - UXO Construction support required for targets
    - Emergency Demolitions Area
      - May require additional cleanup
    - EOD Training Area
      - May require additional cleanup





# Proposed Post-Closure Care



- LUC's (Land Use Controls)
  - Restricted Access Area
  - Annotations to Camp Navajo Master Plan
  - Annotations to INRMP & ICRMP
  - MEC Awareness Training
  - Dig Permits
    - UXO Construction Support Required
  - Signs



# Proposed Post-Closure Care



- MEC Discoveries
  - Continuous monitoring
  - Continuous response to discoveries
- Annual Inspections & Maintenance
  - Signs
  - Fences
  - Roads



# Proposed Post-Closure Care



- Groundwater Monitoring
- 5-Year Reviews
  - MEC Surveys
  - MC (Munitions Constituents) Surveys
  - Regulations/Records Review
- Annual Reporting



# Proposed Post-Closure Care



- Records Retention
  - Administrative Record
  - EDMS on servers
    - Location of servers ?
      - Camp Navajo ?
      - Papago Park ?



# Proposed Post-Closure Care



- Prevention of Hazards
  - Continued routine installation security and environmental protocols
  - DDESB/DoD/Army Regulations
    - DoD 6055.9-STD
    - AR 385-63 Range Safety
    - AR 385-64 Ammunition & Explosives Safety Standards



# Camp Navajo Environmental Cleanup Program POC's



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