

**Camp Navajo
Stakeholder Advisory Group (SAG)**

Thursday, November 3, 2005
Camp Navajo
Bellemont, AZ

Minutes

Members in attendance:

Stacy Duffy, ADEQ
Shaula Hedwall, USFWS
Christine Krosnicki, City of Flagstaff
Lee Luedeker, AGFD
Glenn Morrison, community member
LTC Pete Tosi, Camp Navajo
Karen Underhill, community member
Tina Williams, Coconino National Forest
Randy Wilkinson, NGB

Members absent:

Tom Britt, community member

Interested Parties

Denise Baker, USFWS
Tom Parker, Camp Navajo

Guests

Dexter Albert, Intrinsic
Alan Anderson, citizen
Gavin Fielding, ADEMA/AZARNG
Environmental
D. Ken Greene, CH2M Hill
Kim Harriz, AMEC
Michael Heitmann, CH2MHill
Mary Hershner, TSC
John Kim, Brown & Caldwell
Srini Neralla, MKM Engineers
Fran Peck, ADEMA/AZARNG Environmental
Abe Springer, NAU
Erin Young, NAU

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, and Liability Act
COPC	Contaminants of Potential Concern
EDMS	Electronic Data Management System
ERA	Ecological Risk Assessment
FOASA	Former Open Air Storage Area
FSP	Field Sampling Plan
FWPDBA	Former White Phosphorous Detonation and Burn Area (Chemical Canyon)
HHRA	Human Health Risk Assessment
IRP	Installation Restoration Program
HERA	Human Health & Ecological Risk Assessment
LTM	Long Term Management
MAP	Management Action Plan
MEC	Munitions and Explosives of Concern
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
ppb	parts per billion
QAPP	Quality Assurance Project Plan
RCRA	Resource Conservation and Recovery Act
RC	Response Complete
RI/FS	Remedial Investigation/Feasibility Study
RIP	Remedy in Place

SAG	Stakeholder Advisory Group
SSHP	Site Safety and Health Plan
USACHPPM	U.S. Army Center for Health Promotion and Preventive Medicine
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 Luedecker chaired the meeting, and SAG members and guests introduced themselves.

2. *Status of Action Items from July 14, 2005, SAG Meeting*

Tina Williams and Shannon Clark, Coconino Forest, were welcomed as new SAG members. They will collaboratively fill this position on the SAG. Alan Anderson has retired.

Randy Wilkinson provided copies of a color-coded map showing the areas of responsibility for each contractor.

3. *Depth and Frost Heave Study at Camp Navajo – Year 2 Results*

Erin Young and Dr. Abe Springer of Northern Arizona University presented the second year results of their study, and their presentation is posted on the public website. (See SAG minutes for July 22, 2004 for the results of Year 1). The purpose of this study is to study the potential for future migration and exposure of UXO due to frost heave. This is an important consideration in the determination of risk, restoration objectives, and long-term site management for the OB/OD Area. Their conclusions are:

- The maximum depth of freezing soil temperatures at field site were between 35 and 42 centimeters below surface
- The predicted maximum depth of freezing soil temperature at field site was 20.7 centimeters for same slope and aspect
- Majority of the OB/OD Area soils have low potential frost heave susceptibility with a small percent having high potential
- Only soil type with high potential is Soil 16

After the presentation SAG members discussed the results and asked several questions. This discussion is summarized below:

- The index map can be overlaid with NAAD areas
- The rate of migration cannot be calculated due to insufficient data. Areas with more or less potential for movement can be identified.
- The loamy soil conditions in Soil 16 may partially account for the deepest freeze depths and higher frequencies of freeze-thaw cycles.
- The study accounted for differences in weather and snowfall. They will run a sensitivity test to compare last year's temperatures and precipitation to a range of annual conditions.
- The flooding in January – March was a factor in the study results because there were very wet soils even with a moderate index.
- Where duplicate temperature probes were placed within a trench, there was a lot of consistency between each reading. Averages were good between duplicates, with not much range. They were placed laterally about ½ meter apart.
- Erin is exploring whether rates of heave can be predicted. The depth of heave can be described and upwards heave would occur (in the range of millimeters to centimeters).

Erosion is not addressed in the study. As an object approaches the surface, heave can speed up because the freeze-thaw cycles are more frequent.

Fran Peck asked if there could be auto-correlation between some of the parameters. Erin and Abe stated that there may be, and they may conduct a multi-parameter analysis in the future. Fran asked if the raw data could be provided. It will be available with the report.

The study is concluded now. Randy said that most UXO material is found in the first foot of depth. Camp Navajo will use the results of this study along with other studies for future remedial planning.

4. *OB/OD Program Update and Document Status*

Project Updates

NAAD 01 – MKM is collecting soil samples and trenching on geophysical anomalies, and ADEQ is reviewing the sampling plan.

NAAD 02 – Brown and Caldwell completed the Remedial Investigation this year and are preparing the Draft RI Report, which includes a risk assessment. The draft will be submitted to ADEQ and USFWS by the end of the month.

NAAD 03 – ADEQ and USFWS are reviewing the RI Report and comments are expected by year's end.

NAAD 04 – MKM is in the field collecting soil samples.

NAAD 05 and 06 – AMEC completed a second round of sampling last week. The first sampling determined that more investigation regarding the extent of contamination is needed.

NAAD 07 and 08a– MKM is working at the Old TNT evaporation ponds. They will obtain bedrock and deep soil samples and check for perchlorate.

NAAD 08b – AMEC prepared a final RI Report and draft Ecological and Human Health Risk Assessment. The USFWS has approved the response to comments on the draft Ecological Risk Assessment (ERA). ADEQ is still reviewing responses to comments on the Human Health Risk Assessment (HHRA).

NAAD 09b – This site is included in NAAD 02.

NAAD 09c – The removal action is almost complete and the final report will be prepared by the end of the year.

NAAD 09d – The RI Report has been finalized and the final ERA is being reviewed by USFWS.

NAAD 10 – Sampling was completed this week. CH2MHill will dispose of the propellant pellets (about four ounces) that were found.

NAAD 20 – No activity except site-wide UXO investigation work by CH2MHill.

E76 – MKM is still coordinating notification procedures in case chemical materials are discovered. Field work should occur in the next couple few weeks.

Program Updates

Surface and Groundwater Monitoring – The annual report is being reviewed by NGB. Copies of the Work Plan Addendum for second year sampling were given to Shaula Hedwall and Christine Krosnicki. Surface and ground-water sampling was conducted in August 2005 and is planned again for mid-November. A fourth deep well was drilled in Bellemont into a deeper water-bearing zone. Camp Navajo will collect samples from that well, which is farther east of the truck stop, behind the mobile home park and west of town homes.

UXO Investigations – CH2MHill is working on the supplemental characterization of MEC at NAADs 01, 02/03, and 20. They are completing preliminary site reconnaissance and UXO surveys to develop their work plan. They are also looking at previous data and compiling a data gap analysis and will use these results to determine remedial objectives and alternatives. They are trying to determine the distribution of UXO. NAADs 02 and 03 are close to each other and are being treated as one area. So far, no MEC have been found at NAAD 20.

Northern area sites - long-term management - The Old Sanitary Landfill cap is being repaired and old monitoring wells are being rehabilitated. The first round of sampling will be completed this week.

Biological and Cultural Resources – A cultural resources awareness training handbook will be available at end of this week. A revised draft 2006 Biological Evaluation will be completed by the end of November. An electronic copy will be sent to Shaula prior to setting a meeting to discuss.

Future land use determinations - The status is the same as reported at the July SAG meeting.

Status of the hunter trespass into OB/OD Area - Karen Underhill asked for an update. Lee said that there have only been two probable poaches and trespasses into OB/OD area. Most problems are in east and west buffer zones, but not in OB/OD area, which is closed to hunting. Hunting is allowed at Camp Navajo so there is an opportunity to conduct tissue sampling if it is determined to be useful in the cleanup efforts.

5. *Call to the public*

No one from the public was present.

6. *Action Items and Meeting Schedule for 2006*

The second Thursday of each quarter is the scheduled time for SAG meetings. The next meeting will be January 12 – 10 a.m. at Camp Navajo

The next three meetings are scheduled but are subject to change.

April 13 – Camp Navajo

July 13 – evening meeting planned, most likely in Flagstaff.

October 12 – Camp Navajo