Review Meeting for Draft RI Management Plan, Former Communication Site, Ft. Wainwright

ATTENDEES:

Larry Acomb/Geosphere
Tim Gould/CH2M HILL
Shirley Rieven/PH7 Logistics
Paul Hanneman/ PH7 Logistics
Sharon Richmond/ADEC
Jack Gusmano/USEPA
LTC Ron Johnson/USAG-FWA
Colin Craver/ADEC
Joe Malen/DPW, ENV, FWA
Marty Brewer/ADEC
Cory Hinds/CH2M HILL
Julie Sharp-Dahl/USACE
Karen Larson/ATSDR
Joe King/Army Environ
David Lincoln/ PH7 Logistics
Cristal Fosbrook/ US Army
Therese Deardorff/USAG-AIL
Beth Astley/CRREL
Rielle Markey/US Army-FTW
Gail Skaugstad/SES
Earl Crapps/ADEC
Guy Warren/ADEC
Cliff Seibel/Army DPW
Bob Brock/USACE

FROM: Cory Hinds/CH2M HILL

DATE: June 12, 2007

PROJECT NUMBER: 357465

Presentation *Draft RI Management Plan* **Date: 6/6/07**

Presenter Tim Gould & Cory Hinds/CH2M HILL

Overview

- Presented meeting goals and original and revised objectives and approach for the RI

Presentation

- Goal of the meeting was to identify and resolve issues, and extract decisions and actions
- Other goals: get DQOs completed, keep focus on original subareas (5), and discuss endpoints
- Reviewed original and revised objectives. Revised objectives include evaluation of MEC risk. See Attachment 1 for Powerpoint slides.

Identification and Resolution of Issues

Date: 6/6/07

Overview

- The group developed a list of issues for discussion. The following issues were identified and prioritized for discussion.

Subareas

- Subareas (areas with letter designations) have been established, and are sufficiently justified in the PSE I report.

Decisions for subareas

- Keep subareas as historical (area letter designations) w/ boundaries as shown on map (original 5) and soil berm as the 6th
- Generate a separate map identifying geophysical anomaly areas with buried metal/MEC

MEC risk

- It was agreed by all that MEC risk needs to be included and addressed in the RI
- A draft DQO was developed for MEC risk, see Attachment 2.
- The decisions are: Can housing be occupied? If not, how do we make it safe enough for people to move in? What areas of the site are non-MEC areas?
- MEC information: what kind, how many, how big, where they are, how did it get there, and how deep, will help us identify the MEC boundary, and will support proposed actions if required.
- The MEC HA guidance (TWGHA, 2006): http://www.epa.gov/fedfac/documents/public_review_draft_mec_ha_guidance_nov2006.pdf was discussed. Some felt that it did not apply to burial locations.
- MEC Data Gaps
  - Chemical data
  - Frost heave calculations
  - Geophysics
  - Boundary around the potential MEC area
  - Completing 100% Geophysics
  - Digesting literature data
  - % Composition of buried metal is MEC

Decisions for MEC risk

- A section will be added to the Work Plan presenting the following pieces of information related to MEC:
  - Geophysics
  - Chemical data (or lack thereof)
  - Literature search
    - Arctic Surplus

- Housing construction notes & photos
- PSE 1 & 2 Test pits
- Army archives
- Research best practices at other sites

- The goal of this section will be to use all possible data to build a preponderance of evidence to support the MEC risk level and limit the required scope of action.
- It was decided to hold the MEC investigation pending assembly of the information above, while continuing with the chemical investigation.
- The MEC HA guidance will be used as supplemental analysis for decisions
- A feasibility study will be performed to evaluate alternatives which include: no action, capping, limited removal, and full removal.
- It was acknowledged that a remedy will have to be proposed unless a precedent is found elsewhere.

Approach section

- Sampling Strategy
  - Chemical risk (for RA)
  - Nature & Extent
  - Engineering data for FS
  - Groundwater model / Source model
- Access Chemical Risk
  - Vapor (VOC inhalation, indoor/outdoor air)
    - Use existing data to direct RI vapor sampling – data mining
    - Table vapor collection until we do source evaluation
- Groundwater Sampling
  - Site-wide approach OK
- Reevaluate/evaluate the existing data set; use GIS
- Use test pits to clear locations in areas with geophysical anomalies

Decisions for approach section

- CH2M HILL will add an approach section to clearly explain why we are collecting each piece of data and how it will be used.
- DQO guidance will be used
- Logic for each subarea will be discussed (reference PSE I report)
- Decision trees will be used and endpoints will be described
- Describe what to call non-detect

Decisions for soil gas

- Use existing data (passive) to determine extent of active soil gas sampling.
- In areas with known VOCs, increase the density of active sampling to assess extent of contamination.
- In areas with no VOCs detected, and areas with no data, keep the "grid" approach.
- In areas with sufficient existing data, do not duplicate data collection.

Decisions for subsurface soil samples

- Same approach as for soil gas (assess extent in areas of known contamination, use grid approach in areas of no data, write off areas with sufficient data).
- Two subsurface samples will be collected and submitted for lab analysis; one in the smear zone and one at a location in the vadose zone to be determined by the rig geologist.

In areas of possible concern (e.g., PCB area), take an additional sample from

- The purpose of the smear zone sample is to evaluate trench worker risk. The purpose of the sample in the vadose zone is to evaluate trench worker risk.

Site Visit **Date: 6/6/07**

Overview

- All attendees toured the site

End of meeting notes for Day 1

*****

Agenda, Day 2

Date: 6/7/07

1. Review of Day 1
2. Surface soiling sampling
   - Data use/DQO
   - MI? or discrete?
3. PCB removal / Drum removal
   - What is the plan (Brock) 30 min
4. Soil piles / Sound Berm / DRMO piles (everybody)
5. Geophysics
6. Field screening / Field lab 30 min
7. Comments to plan – process for resolving 30 min
8. Expectations for finalizing the RI Management Plan 30 min
9. Schedule, overall 1 hour
10. Background metals

Surface soil sampling

- From the conceptual site model, the most likely contaminants are PCBs and petroleum
- Possible spreading of contamination expected to a low degree
- Sampled PCBs across the entire site (0-2' depth) in 2005

Decisions on surface soil sampling

- Use historical data to quantify risk from surface soil.
- Screening level is 1/10th of 1 ppm or 0.1 ppm
- If there is a gap in coverage, add additional discrete sampling at housing and common areas to supplement the 2005 discrete data.
- In areas of possible concern (e.g., PCB area), take an additional sample from 0-6".

Soil Piles

- Screening levels: compare to EPA Region 6 screening levels or 1/10th the ADEC cleanup level
- Literature search for PCB data at soil piles; data may be sufficient or additional data may be required

Decisions for soil piles

- No MI sampling for soil piles in exclusion zone. Already have some discrete samples; take additional discrete subsurface soil samples. Methods TBD (CH2M HILL to propose).
- Other soil piles, no MI sampling because may want to reuse on site. Use discrete samples to supplement existing samples of the soil pile.
- If there is a huge pile with no data, consider use of MI
- If we need only one or two additional samples, collect additional discrete samples
- If there is a hit, send the soil offsite for disposal

Sound Berm

- History: piled brush, push up overburden (surface soil) from site
- Check Scott Hunt memo for location and details about Transformer Service Area
- Sub-surface sampling required PCBs:
  - <1ppm unrestricted,
  - <10ppm within the berm OK, with cap
  - >10ppm removal needed

Decisions for sound berm

- Use MI samples with decision units every 75 feet
- Depth of sampling is 0-2 feet. Justification: we have existing knowledge of how the berm is built to make a judgment that there is not a PCB risk in the pile.
- If MI sample is less than risk screening criteria, then that decision unit is considered clean
- If the MI sample is greater than the risk screen, then use discrete samples to locate the source, or remove that section of berm
- Additional discrete samples will be used to characterize the Transformer Service Area, located under a portion of the berm
- The MI decision units will be located so that they do not break the Transformer Service Area in half
- Analytes: full suite since unknown sources

DRMO soil piles

- Joe Malen is handling disposal of these piles.
- Sharon Richmond will verify that the data is ok for incineration
- Include a summary of disposal in the background section of the RI Report

Geophysics

- Goal: develop the best map of anomalies w/utilities removed, to be used to define areas with MEC concern.
- Information on locations of utilities
  - Julie will get latest (nearly complete) drawings showing locations of buried utilities – to be used in geophys interpretation
- Do geophysics on Northern area of Area A
- Delineate the northern boundary of the north Area A anomalies – remove only those trees that are necessary
- Delineate area of former river channel north of Bldg. 11
- Trees to be cut down by Joe M - if no hydroaxe contract at Army, then USACE will add to Jacob's contract. To happen before July 16th

PCB Removal & Drum Investigation

- Work by Jacobs Engineering, sampling and support by CH2M HILL.
- Geophysics to be conducted in conjunction with the drum investigation at Bldg. 49 - Resistivity & IP
- The plan is to sample and containerize drums
- Stop if drums extend under the house
- EPA Concern – Drums ½ full and full of contents. Geophysics approach to try and distinguish between buried drum caches, general metal debris, and MEC.
- Plan is to move to Bldg. 48 immediately following Bldg. 49. If drums are found, overpack and remove them, put soil back in the hole, metal removed as incidental.
- If drums are empty, send to landfill. If acutely hazardous, triple rinse, then dispose offsite.
- EPA request to consider additional drum investigations in the event we find additional whole drums with contents
- PCB Removal – concept of using field lab. Need MD< of 0.1 ppm.

Background Metals

- Have background metals study for Ft. Wainwright
- Look at background metals in N. Wind report compared to background metals study
- Do NOT compare N-wind's metals analysis from test pits to background report. Assume background is elevated due to coal-fired power plant and buried debris
- Look at the USACE Geotechnical data to tease out the metals to use as a background value
- Look at geotech from other recent USACE construction sites to get an evaluation of background

Background DDT

- We will use the Army memo to compare DDT results

Finalizing RI Management Plan

- Comments on draft are for information, but we will use information during meeting as primary direction
- We will officially respond to comments on the new draft report
- The new report will be called "Interim Draft"
- We will issue workplan addenda for early field work. This will required quick turnaround by all parties.

Schedule

June	July	August
Finalize QAPP	Geophysics – July 16th – August 3	PCB removal – 2 weeks
Monthly WL Measurement	Monthly WL Measurement	Quarterly GW sampling
Outside of MEC area - Site survey to be used to assess cut & fill mass balance	Drum Investigation – Julyish – 3 weeks	Water level measurements
Monitoring well installation	Drum Investigation Plan – Early July	
Removal plans	Interim Draft RIWP	
Field Instructions/WP addendum – mid June	RIWP review meeting late July	
Review of background data correlation into GIS old database ASAP June, into July – Talk to Mike Davis/Army (384-0538) to get his stuff	Berm sampling	
MEC area data evaluation, historic review late June	Field instructions	
Pile sampling	Berm sampling	
	Include solid waste disposal plan/waste management plan	

Attachment 1

PowerPoint Slides

Former Communication Site

Planning Meeting
Day 1

Operable Unit 6?
Fort Wainwright, Alaska

FCS Meeting
Fort Wainwright, Alaska

June 6, 2007

CH2MHILL

Meeting Goals and Approach

- Alpine Lodge particulars
- Schedule issues not identified in Agenda
- Facilitated Meeting
  - Time Nazi
  - Extract decisions and actions
  - Facilitation processes

Meeting Goals and Approach

- Meeting goals
  - Identify modifications to the approach presented in the draft RI Management Plan
  - Identify and resolve issues
  - Decide on action items moving forward
  - Understand what all parties think is the data required for the RI
  - Clear understanding of the RI scope of work

Today's Briefing

- RI Objectives (Draft Plan)
- RI Objectives (Revised Plan)
- RI Approach
- Other

RI Objectives (Draft Plan)

- Collect sufficient data to assess baseline human-health and ecological risk
- Identification of sources with excess risk, collect sufficient data to evaluate the extent of contamination (FS)

Other Objectives (Draft Plan)

- Confirm removal of PCB contaminated soil
- Characterize on-site soil piles for disposal and reuse

RI Objectives (Revised Plan)

- Include evaluation of MEC risk
  - Differentiate areas with chemical risk only from areas with MEC and chemical risk
  - Use the MEC hazard assessment guidance to assess the MEC risks
  - Add historical literature review (for MEC)
- Include data collection to support drum investigations

RI Approach

- Chemical Risks
- MEC Risks

RI Approach (Chemical Risks)

- Surface Soil sampling for human health direct contact risk at residences and common areas
- Collect soil gas at residences to evaluate vapor intrusion risk
- Collect soil samples at 12-feet deep to assess trench worker risk
- Collect sediment samples in swale

RI Approach (Chemical Risks)

- Assess potential migration from on-site sources to:
  - Base drinking water wells
  - Chena River
- Groundwater sampling at each residence, school, common area and swale to identify source locations
- Groundwater sampling at "deep" downgradient wells
- Groundwater modeling

RI Approach (Nature and Extent)

- Use previous data and RI prescribed data (collected for risk purposes) for:
  - Source Identification
  - Source area longevity
  - Fate and Transport of contaminants
  - Develop site conceptual model

RI Approach (Nature and Extent)

- Former river channel hydrogeologic investigation - look for differences in:
  - Hydraulic conductivity
  - Flow direction
  - soil texture
- Collect supplemental data (if required) based on results of prescribed RI investigation

RI Approach (MEC Areas)

- MEC is a stated concern of stakeholders – consider MEC risk evaluation
- Propose use MEC Hazard assessment guidance (TWGHA, 2006) to address MEC risk evaluation
- TWGHA made up of EPA, DoD, DOI, ADEC, other state regulatory agencies
- Address chemical risks same as within chemical-only areas.

MEC Hazard Assessment Guidance

- What it does:
  - uses existing site specific data to identify current acceptable site use
  - provides site specific information to support decisions for removal or remedial actions
- Input factors contain information related to protection of human health
- Parallels the CERCLA process

MEC Hazard Assessment Guidance

- Changes to site conditions (from use changes, treatment or LUCs) are reflected in changed inputs and hazard levels
- Hazard Level 1 (highest hazard) to Hazard Level 4 (unlimited site use)

RI Approach (MEC Areas)

- Input factors include:
  - Energetic material type, amount and size of MEC
  - Location of human receptors
  - Accessibility
  - Minimum MEC depth, maximum intrusive depth
  - Migration potential (frost heave)

RI Approach (MEC Areas)

- Hazard Level 1: High-explosive filled UXO on the surface
- Hazard Level 2: UXO on the surface, former target area
- Hazard Level 3: Former bombing range, MEC in subsurface, no intrusive activity below miminum depth of MEC

RI Approach (MEC Areas)

- **Hazard Level 4: Compatible with current or reasonably anticipated future use**
  - **MEC cleanup was performed or type of activity and investigations indicate MEC is not likely to be present**
- **LUCs may be required to reduce the MEC hazard level to support the reasonable anticipated land use**
  - **e.g. a range fan may be a Hazard Level 3 without LUCs, but be an Hazard Level 4 with LUCs**

The Big Issues (so far)

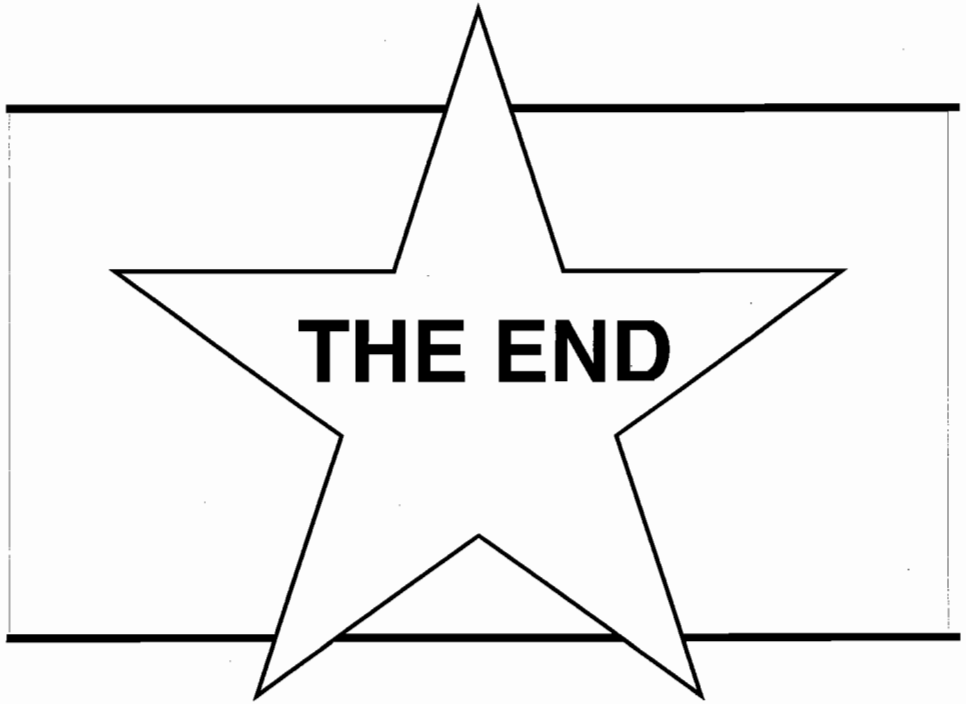
1. RI Management plan should address the risks from MEC
2. Removal actions/investigations – tie into RI MP and risk assessment
3. List of analytes
4. Use of MI sampling for baseline risk assessment
5. 70 temporary wells – rationale for this

The Big Issues (so far)

6. Background metals at Fort Wainwright
7. Risk screening criteria
8. Additional intervals for subsurface sampling in borings
9. How to handle hits from construction materials

The Big Issues (so far)

10. Integrated approach section
11. Intregrate geophysics for maximum impact


THE END

Attachment 2

MEC DQO

DQO for MEC Risk				
Step 1 Problem Statement	Step 2 Identify the Decision	Step 3 Inputs to Decision	Step 4 Study Boundaries	Step 7 Optimized Design
Describe MEC risk	Can housing be occupied? How do we make the site safe enough for people to live there? What areas of the site are non-MEC areas? What removals, what depth, if any? (FS)	Geophysical data - pre-housing surveys - boundary definition Construction photos and notes from foundations Literature search Chemical data Aerial photos/historical use (AF/Army) Observations from test pits As-builts Frost depth at the site Practices at similar sites	Defined from results from Step 3 Use the area map, A-D Ensure lateral boundary using all the data	RI MP Action: New chapter in RI MP incorporating inputs and new data MEC HA guidance Results: How many, how deep, how dangerous?