

# Marine Corps Base Camp Lejeune (MCB CamLej) Restoration Advisory Board Meeting Minutes

## RAB Meeting: May 24, 2011

ATTENDEES:      Charity Rychak/MCB CamLej                      Leonard McAdams/RAB Member  
                      David Lundquist/MCB CamLej                      Richard Mullins/RAB Member  
                      Nat Fahy/MCB CamLej PAO                              Amy Poe/RAB Member  
                      Bob Lowder/NAVFAC Mid-Atlantic                      Brian Wheat/RAB Member  
                      Bryan Beck/ NAVFAC Mid-Atlantic                      Chris Bozzini/CH2M HILL  
                      Gena Townsend/EPA Region 4                              Kim Henderson/CH2M HILL  
                      Randy McElveen/NCDENR                              Matt Louth/CH2M HILL  
                      Laura Bader/RAB Co-Chair                              Scott Powell/Rhea  
                      Michael Curtis/RAB Member                              Anthony Prinz/City of Jacksonville  
                      Jerry Ensminger/RAB Member                              Hope Hodge/Jacksonville Daily News  
                      Thomas Mattison/ RAB Member

FROM:              Kim Henderson/CH2M HILL

DATE:              June 3, 2011

## LOCATION

Coastal Carolina Community College, Business Technology Building, Room 102 in  
Jacksonville, North Carolina

## MINUTES

### I.        Welcome and Introductions

Ms. Rychak began the meeting and reviewed the agenda.

### II.       2011 Navy and Marine Corps Environmental Restoration Conference

**Objective:** The purpose of this agenda item was to provide the RAB with an update of the recent conference. This discussion was led by Ms. Rychak.

**Overview:** The conference was held March 1<sup>st</sup> through 3<sup>rd</sup>, 2011 in Oxnard, California as a platform for sharing successful environmental remediation practices nationwide. The conference covered multiple subject areas and Ms. Rychak reviewed some of the hot topics and the key points were as follows.

- **Munitions Response Program** - Skeet range cleanup is one of the new focuses and cleanup of the polycyclic aromatic hydrocarbons (PAHs) and lead from skeet clay targets. The Strategic Environmental Research and Development Program (SERDP)

is currently researching remediation methods for skeet ranges. Challenges with underwater range investigations were also a hot topic. New detection technologies and methods are being evaluated based on the limitations of digital geophysical methods (DGM) for detection beneath the water. Recent case studies, mostly in the Pacific, were presented.

- **Naval Installation Restoration Information Solution (NIRIS)** - All Environmental Restoration (ER) public websites must have "navy.mil" addresses and all the Administrative Record files were migrated to NIRIS. There is currently an internal push to improve the public websites and Lejeune's is currently under construction. The NAVFAC Public Portal web site is available at <https://portal.navy.mil/portal/page/portal/navfac> and you can access all Administrative Records for any Navy/Marine Corps facilities. At the next RAB meeting, a web site demo can be provided.
- **Emerging Technical Issues** - Emerging contaminants where there is no currently published health standard or there is an existing health standard, but the standard is evolving or being re-evaluated. The current list includes asbestos, dioxins, perchlorate, dioxin-like polychlorinated biphenyls (PCBs), and hexavalent chromium. EPA is assessing emerging contaminants as well as the Navy and eventually, they may be addressed under CERCLA.
- **Sediments** - Evaluating sediment where multiple potential sources in water bodies, this is occurring mostly out west.
- **Vapor Intrusion** - The Base has been dealing with vapor intrusion for about 10 years now and is currently in Phase 3 of the basewide evaluation but the topic is new to other installations. The Navy is developing tools to assist in the evaluation of vapor intrusion. Mr. Ensminger questioned whether Lejeune was assessing vapor intrusion for 10 years. Ms. Rychak noted that the Base has been investigating vapor intrusion since before EPA had guidance.
- **Technologies** - Plume intersection, modeling tools, technology limitations, bubble curtains for unexploded ordnance (UXO), influence of storm sewers on contaminant fate and transport, and radiological investigations were the key topics presented.
- **Green and Sustainable Remediation** - Considering green and sustainable remediation (GSR) at each phase of the cleanup process was encouraged. Templates and models are available per Navy Guidance dated April 2011 and are also available to the public on the GSR portal at <http://www.ert2.org/t2gsrportal>.

Mr. Ensminger questioned whether a handout was available from the conference or the slides. Mr. Mullins recommended placing them online with the meeting minutes. Ms. Rychak will provide the presentation electronically.

Mr. Mattison noted that he saw an advertisement for an environmental conference in Charlotte next month and Camp Lejeune was listed on the agenda.

### III. NCDENR Hydrogeologic Model

**Objective:** The purpose of this agenda item was to demonstrate a hydrogeologic model which represents the physical processes observed in the real world, such as surface water runoff, subsurface flow, evapotranspiration, and channel flow. The demonstration was led by Mr. McElveen.

**Overview:** Mr. McElveen demonstrated the model and discussed the potential contamination sources and pathways. The differences between how dense non-aqueous phase liquid (DNAPL) sink and sorbs to aquifer material, liquid non-aqueous phase liquid (LNAPL) float and flow freely, and dissolved phase contamination were discussed. The differences between piezometers (for monitoring and measuring groundwater flow), monitoring wells (for extracting groundwater samples), and production wells (for drinking water, industrial, or residential use) were also discussed. Mr. Mullins is a teacher and requested that the model be presented to his class next year.

#### **IV. IR Site 6, Time-Critical Removal Action**

**Objective:** The purpose of this agenda item was to provide the site history and details on recent investigative field work that led to a time-critical removal action (TCRA). The discussion was led by Mr. Louth.

**Overview:** Operable Unit (OU 2) includes Site 6 and 82 where a Record of Decision (ROD) is in-place based on the known buried trenches and groundwater contamination. A chlorobenzene investigation has been ongoing at Site 6 since the mid to-late 1990s based on fluctuating chlorobenzene concentrations in groundwater collected from one of the long-term monitoring (LTM) well locations.

The investigations have been conducted to identify the source of chlorobenzene, delineate the extent of contamination, and determined seasonal fluctuations. Geophysics, test pitting, well installation, and groundwater sampling has been conducted. During investigation activities, munitions items were discovered and impacted the safety measures needed for the intrusive activities.

In February 2011, 12 test pits, approximately 5 feet x 5 feet x 5 feet were completed to investigate the geophysical anomalies. The depth to the water table was encountered at 5 feet below ground surface. Drums were uncovered in one test pit and the chlorobenzene concentration detected in soil was 70,000,000 µg/kg. A TCRA was proposed to 15 feet x 15 feet x 5 feet excavation, resulting in 42 cubic yards for removal. The TCRA was conducted last week and photos of the action were reviewed. UXO safety measures were implemented during the excavation activities and the excavation was completed in one day. Communication wire and 3 drums were uncovered and stored in roll-offs awaiting characterization and off-site disposal. Confirmation soil samples were collected from the excavation and the excavation was backfilled.

Mr. Ensminger questioned the location which Mr. Louth noted is just outside the DRMO lot. He also questioned the closest public supply well. Mr. Lowder noted that it was likely 653, which was historically abandoned and at least 500 feet from the site.

Mr. Ensminger questioned whether monitoring wells were sampled in the area and whether flow was towards Wallace Creek. Mr. Louth indicated that shallow, intermediate, and deep monitoring wells are present across the area and monitoring and investigation is ongoing

and that groundwater flow direction trends to the north-northwest towards Wallace Creek. Mr. Curtis asked whether the contamination in the drum was consistent with what was found in the wells. Mr. Louth noted that both were related to chlorinated pesticides and now that the source area was removed, groundwater concentrations should start to go down. Mr. Ensminger asked if there was any legible writing on the drums and Mr. Louth noted that there was no labeling or writing.

The schedule for the summary report is for completion in July 2011, followed by a public notice and public comment period from July to August 2011 to solicit comments. The public meeting to review the TCRA is planned for August 2011 after the summary report is finalized and for documentation in the Administrative Record.

## **V. RAB Business**

Ms. Rychak questioned whether the RAB prefers meeting on Tuesdays or Thursdays and they responded that they prefer Thursdays. Ms. Rychak proposed the next RAB date for **Thursday, August 25, 2011** and requested topics for the next meeting. Topic suggestions may be presented to Ms. Rychak after the meeting.