Marine Corps Base Camp Lejeune
Restoration Advisory Board Meeting Minutes

RAB Meeting: February 4, 2010

ATTENDEES:

Bob Lowder/Camp Lejeune	Karen Sota/RAB Member
Dave Cleland/NAVFAC Mid-Atlantic	Amy Poe/RAB Member
Bryan Beck/NAVFAC Mid-Atlantic	Chris Holman/RAB Member
Kirk Stevens/ NAVFAC Mid-Atlantic	Steven Thompson/RAB Member
Gena Townsend/EPA Region 4	Chris Bozzini/CH2M HILL
Randy McElveen/NCDENR	Matt Louth/CH2M HILL
Laura Bader/RAB Co-Chair	Kim Henderson/CH2M HILL
Jerry Ensminger/RAB Member	Marcy Johnson/RHEA
Leonard McAdams/RAB Member	Tim Price/RHEA
Thomas Mattison/RAB Member	

FROM: Kim Henderson/CH2M HILL

DATE: February 18, 2010

LOCATION

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

MINUTES

I. Welcome and Introductions

Mr. Lowder began the meeting explaining the format and agenda, indicating that the public meeting for an action at Site 95 will be completed first and the RAB meeting and topics will follow. A Court Reporter will be present for the public meeting session to record the meeting.

Mr. Lowder notified the RAB of the status of the Range Environmental Vulnerability Assessment (REVA) which was completed at Marine Corps Base Camp Lejeune (MCB CamLej). The REVA is a Headquarters Marine Corps (HQMC) initiative which provides a baseline assessment of operational ranges. The REVA concluded that there was no known risks associated with current use but recommended best management practices (BMP) be implemented and reviewed every five years. A meeting is planned for the beginning of March 2010 to discuss the recommendations and path forward. The Final REVA report and associated Fact Sheets are available for public review by clicking the following link: http://www.lejeune.usmc.mil/reva.

II. Public Meeting for Engineering Evaluation/Cost Analysis (EE/CA) for Site 95

The EE/CA for Site 95 was presented by RHEA representative, Ms. Johnson. A North Carolina Court Reporter recorded minutes on the public meeting that are submitted separately.

III. Site 69 and UXO-02 Update

Objective: The purpose of this agenda item was to provide the RAB with a review of the Site 69 and UXO-02 background information, outline the field investigation activities, and review the project schedule. This discussion was led by CH2M HILL representative, Mr. Louth.

Overview: Mr. Louth presented an overview of the sites. Site 69 is the Former Rifle Range Chemical Dump, located on a 14-acre wooded site, 800 feet west of the New River. Active disposal of solvents, pesticides, polychlorinated biphenyls (PCBs), and waste occurred from 1950 through 1976 and there was reported disposal of mustard or nerve agent in 1953. Site 69 is located within Military Munitions response Program (MMRP) Site UXO-02. Site UXO-02 is the Unnamed Explosives Contaminated Range that covers a 127-acre wooded area. The site appears on 1973, 1976, and 1987 maps and the types of munitions used are unknown. The area has been used for troop training activities. Chemical agent testing kits have been identified on the ground surface but have been assessed and do not contain chemical agent. Mr. Lowder indicated that the UXO-02 boundary is approximate and may have been identified as a general training area for Old Stone Bay and based on the location of disposal activities within at Site 69 but the 127-acre area needs to be assessed. Mr. Ensminger indicated that because the location is adjacent to the base boundary, that the training exercises were likely minor and not anything big.

There is limited recorded history for Site 69 and UXO-02. The records and the plot plan for Site 69 were maintained by the Base Safety Officer and have not been located. The Initial Assessment Study (1982) indicated disposal of a range of items and chemicals, from canned food to wood preservatives. Chemicals may have been buried in drums or directly dumped into trenches. In 1982, an equipment operator identified two areas of waste disposal where 55-gallon drums in of supposed mustard or nerve gas were reportedly buried in light, bluish-green, unmarked drums, approximately 5 feet below ground surface. Currently, there is visible settling of trenches within the site.

Sampling was initiated at Site 69 in 1984 and several investigations and studies have been conducted. The contamination identified at Site 69 is VOCs in groundwater, primarily 1,2-dichloroethene (DCE), located 1,200 feet from the New River with an estimated groundwater flow rate of 40-50 ft/year. Mr. Ensminger questioned whether DCE was the only COC and whether breakdown products, vinyl chloride, were present. Mr. Louth indicated that vinyl chloride was detected and the upcoming sampling activities will include full suite volatile organic compound (VOC) analysis. Chemical surety compounds have been detected in soil and sediment associated with troop training exercises. The geophysical survey identified buried metallic debris. In 2000, an Interim Record of Decision

(ROD) was signed for Land Use Controls (LUCs) and Monitored Natural Attenuation (MNA) at Site 69.

At Site 69, a supplemental investigation was initiated to complete the delineation of the nature and extent of contamination. The field activities include vegetation clearing, a geophysical survey, monitoring well installation, and environmental sampling. The Supplemental Work Plan was submitted in January 2009 and an Applicability Determination was completed in July 2009. The Applicability Determination was signed by the MCB CamLej Commanding Officer in July 2009 and identified the risk of encountering chemical agent as "seldom" and that no Chemical Safety Submission (CSS) was required. The Plans for the Geophysical Survey, Health and Safety, and Contingency Measures were completed and reviewed by USACE Huntsville from August 2009 through January 2010. In December 2009, the Navy issued a Technical Memorandum to approve the investigation approach. Mr. Lowder indicated that the schedule was delayed based on the need for safety measures to be implemented that were historically not in-place.

At UXO-02, a PA/SI was initiated to evaluate whether a release of munitions constituents (MC) or other hazardous substances occurred. The Work Plan was approved in November 2009 and field activities include vegetation clearing, a geophysical survey, monitoring well installation, and environmental sampling.

The investigation activities differ for Site 69 and UXO-02 and the approach for each activity was reviewed. The objective of the geophysical survey at Site 69 is to identify buried waste whereas for UXO-02, it is to identify munitions items. The coverage for Site 69 is 10 foot spacing of transects and for UXO-02 is 10 meter spacing of transects. Environmental sampling at Site 69 will be for VOCs, semivolatile organic compounds (SVOCs), pesticides, PCBs, and metals and at UXO-02 will be for explosives and metals.

At UXO-02, munitions and explosives of concern (MEC) avoidance will be conducted to avoid anomalies. A UXO Tech will supervise and direct MEC avoidance activities to clear work areas of MEC. For intrusive activities, MEC avoidance will include hand clearance and down-hole geophysical anomaly avoidance every foot to a depth of 15 feet. Mr. McElveen indicated that he was present during initial site surveying and the nothing other than small arms ammunition was identified.

At Site 69, the US Army Edgewood Chemical Biological Center (ECBC) will provide chemical agent safety support for air monitoring, analytical procedures, and emergency procedures. The Contingency Plan was developed to identify the steps in case of air monitoring alarm or suspected exposure and notification procedures. Coordination with the Lejeune Naval Hospital has been conducted.

Site surveying and vegetation clearance was conducted at Site 69 and UXO-02 from December 2009 through January 2010. The geophysical survey is planned in February 2010 followed by ECBC site set-up and environmental sampling beginning in mid-February through March 2010. The report of findings is planned for submittal in late 2010.

IV. Installation restoration Program (IRP) and Military Munitions Response Program (MMRP) Site Summary Update

Objective: The purpose of this agenda item was to provide the RAB with an overview of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

process and the current status of sites and plan for Fiscal Year (FY) 2010. This discussion was led by CH2M HILL representative, Mr. Louth.

Overview: Mr. Louth presented an overview of the sites and plans for 2010 in order of the program and step in the CERCLA process. The key activities and discussion were as follows.

IRP Sites:

- **Site Investigation (SI)**
    - **MCAS New River Buildings SAS113, AS116, and AS119 –** Expanded SI Report for No Further Action (NFA)
- **Remedial Investigation (RI)/Feasibility Study (FS)**
    - **Site 86 -** Supplemental RI to confirm nature and extent of contamination and FS
    - **Site 88 -** Groundwater Treatability Study and FS
    - **Site 89 -** Additional Sampling, Sediment Removal Action, and FS
- **Remedial Design (RD)/Remedial Action (RA)**
    - **Site 35 -** Remedial Design and Remedial Action for Air Sparging, LUCs, and long-term monitoring (LTM). Mr. Ensminger questioned the presence of chlorinated solvents at the fuel farm. Mr. Louth indicated that the petroleum contamination is being addressed under the Underground Storage Tank (UST) program and the CERCLA program is addressing the chlorinated VOCs (TCE and breakdown products). Mr. Ensminger questioned why sites are transferred between CERCLA and UST and Resource Conservation and Recovery Act (RCRA) programs, for example Site 22 in the Hadnot Point Fuel Farm (HPFF). Mr. Lowder indicated that petroleum-related contamination that is not co-mingled with other man made products is addressed under the UST program. There is a petroleum exclusion under CERCLA. Only if there is co-mingled contamination with chlorinated VOCs, it may be addressed under CERCLA, otherwise it may be addressed under RCRA. Mr. Lowder indicated that because there is an area of heavy petroleum contamination at the HPFF, it is handled under RCRA. Site 22 is within the general footprint of Site 78, where chlorinated VOCs are addressed under CERCLA.
    - **Site 73 -** Remedial Design and Remedial Action for Air Sparging, LUCs, and LTM
    - **Site 95 -** Removal of arsenic-contaminated soil and site closeout
- **Long-Term Monitoring (LTM)/Land Use Controls (LUCs)**
    - **Site 3 -** Groundwater LTM and LUCs
    - **Site 6 -** Groundwater LTM and LUCs and Supplemental Investigation to delineate chlorobenzene in groundwater. Mr. Ensminger questioned the source of chlorobenzene. Mr. Louth indicated that it is from pesticides. Mr.

Ensminger indicated that pesticides were reportedly disposed along Piney Green Road.

- **Site 36 -** Groundwater LTM and LUCs
- **Site 69** - LUCs and Supplemental Investigation to delineate current extent of contamination in support of Final ROD
- **Sites 78 and 82 -** Groundwater treatment, LTM, and LUCs and Technical Evaluation
- **Site 84 -** LUCs and Interim Remedial Action Completion report (IRACR) to document the remedy in-place
- **Site 93 -** Groundwater LTM and LUCs

MMRP Sites:

- **Preliminary Assessment (PA)/Site Inspection (SI)**
  - **UXO-01 -** Expanded SI for Intrusive Anomaly Investigation at Live Hand Grenade Course and B-3 Gas Chamber and EE/CA and Removal Action for lead contaminated soil at D-6 50-Foot Indoor Rifle and Pistol Range
  - **UXO-02** - PA/SI Field Investigation and Report
  - **UXO-03 -** Expanded SI for Intrusive Anomaly Investigation
  - **UXO-06 -** Expanded SI for Intrusive Anomaly Investigation and Borrow Pit Expansion
  - **UXO-07 -** PA/SI Report
  - **UXO-08** - Focused SI for Intrusive Anomaly Investigation and Final Site-Wide PA/SI Report
  - **UXO-10 -** PA/SI Report
  - **UXO-11 -** PA/SI Report
  - **UXO-12 and 18 -** PA/SI Field Activities and Report
  - **UXO-14 -** PA/SI Report
  - **UXO-15 -** PA/SI Report for NFA
  - **UXO-17** - Focused SI for Intrusive Anomaly Investigation and Site-Wide PA/SI
  - **UXO-19 -** Intrusive Anomaly Investigation and PA/SI Report
  - **UXO-20 –** PA/SI Report
  - **UXO-21 -** Expanded PA/SI Field Activities and Report

V. RAB Business

Mr. Lowder presented a letter of appreciation and recognition to Mr. Mattison for over 13 years of service on the MCB CamLej RAB. Mr. Lowder notified the RAB that the Base was nominated for the Secretary of the Defense Environmental and Team Awards and that Ms. Bader's photo of RAB recognition was included in the submittal.

Mr. Lowder proposed the next RAB date for **Thursday, May 6, 2010** and requested topics for the next meeting. Mr. McElveen indicated that the North Carolina groundwater standards were updated and offered to provide a presentation on the updates.