

## Marine Corps Installations East-Marine Corps Base Camp Lejeune (MCIEAST-MCB CAMLEJ) Restoration Advisory Board (RAB) Meeting Minutes

**MEETING DATE:** May 28, 2014

**LOCATION:** Coastal Carolina Community College, Business Technology Building, Room 105 in Jacksonville, North Carolina

**ATTENDEES:**

Charity Delaney/MCIEAST-MCB CAMLEJ	Leonard McAdams/RAB Member
Patti Vanture/MCIEAST-MCB CAMLEJ	Richard Mullins/RAB Member
CAPT Faunce/MCIEAST-MCB CAMLEJ	Amy Poe/RAB Member
Bryan Beck/NAVFAC Mid-Atlantic	Marvin Powers/RAB Member
Dave Cleland/NAVFAC Mid-Atlantic	Steven Thompson/RAB Member
Gena Townsend/EPA	Dale Weston/RAB Member
Randy McElveen/NCDENR	Brian Wheat/RAB Member
Beth Hartzell/NCDENR	Kim Henderson/CH2M HILL
Marti Morgan/NCDENR	Matt Louth/CH2M HILL
Michael Curtis/RAB Co-Chair	Shaun Whitworth/Osage
Laura Bader/RAB Member	

**FROM:** Kim Henderson/CH2M HILL

**DATE:** June 13, 2014

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### I. Welcome and Introductions

Ms. Delaney began the meeting and reviewed the agenda. She noted that the Five-Year Review is currently being conducted and is a topic on the agenda. In conjunction with the Five-Year Review, an update to the Community Involvement Plan is being conducted and will be discussed during the next couple of meetings. Ms. Delaney requested feedback for the Community Involvement Plan and identification of interested parties for interviews.

### III. UXO-23 Update

**Objective:** The purpose of this agenda item was to review site background, provide non-time critical removal action (NTCRA) soil delineation sampling results, provide results from completed Remedial Investigation (RI) tasks, and provide schedule update.

**Overview:** A presentation was reviewed by Mr. Louth. Investigations have been ongoing at the former skeet range since 2007 and are ongoing. Lead and polycyclic aromatic hydrocarbons (PAHs) were identified in soil in the theoretical shot fall zone approximately 36,000 cubic yards of soil was removed over 16 acres. Approximately 2.3 acres of soil were found to still contain elevated levels of lead and PAHs. Additional samples were collected from the remaining 18 grids for vertical delineation of lead and PAH impacted soil within the unfinished portion of the NTCRA area. The results indicated successful vertical delineation of lead and PAH impacted soil and depths to clean soil ranged from 2.0 to 6.5 feet below ground surface with an estimated volume of impacted soil of 7,000 cubic yards.

A Remedial Investigation (RI) is ongoing to further evaluate previously identified areas requiring additional investigation including North Area groundwater, Beaver Dam Creek sediment and surface water, Bearhead Creek sediment, and groundwater in the theoretical shot fall zone.

The North Area groundwater sampling was conducted to confirm presence of PAHs. Two shallow monitoring wells were installed and sampled. PAHs were not detected and no further investigation needed.

The Bearhead Creek sampling was conducted to confirm the presence of lead in sediment throughout Bearhead Creek and drainage features. PAHs were previously evaluated and no unacceptable risks were identified. Fifty sediment samples were collected and analyzed for lead and low concentrations of lead were detected in all the sediment samples and a risk assessment is currently being conducted.

The Beaverdam Creek sampling was conducted to assess potential impacts to Beaver Dam Creek sediment and surface water from historical activities at the skeet range. Sixteen sediment samples and six surface water samples were collected from Beaver Dam Creek and drainage features and analyzed for lead and PAHs. The results indicated low concentrations of lead detected in all the sediment samples, lead detected at low estimated concentrations in 5 of the 6 surface water samples, PAHs detected in most sediment samples, no PAH detections in surface water samples. A risk assessment is currently being conducted.

A RAB member asked how you determine whether the concentrations are naturally occurring. Soil and groundwater background data has been collected across the Base in different areas and soil types for comparison to site data. A RAB member asked why concentrations are not shown in the presentation. Concentration ranges were discussed and risk assessments are currently being conducted. Concentrations can be shown in more detail in future presentations.

Additional investigation is planned for groundwater in the theoretical shot fall zone to confirm the presence of lead in groundwater and to evaluate potential impacts to groundwater from PAHs in overlying soil. The approach will include installation of up to nine monitoring wells and groundwater sampling for lead and PAHs over two rounds to assess seasonal variability.

The next steps are to complete the NTCRA, the remaining RI field tasks, and the RI report.

### III. Expanded Site Inspection Report Off-Base Surface Danger Zones

**Objective:** The purpose of this agenda item was to review site background, ESI findings, path forward, and schedule.

**Overview:** A presentation was reviewed by Mr. Louth. Approximately 1,632 acres of portions of historic surface danger zones (SDZs) were discovered to have extended off-Base. A Preliminary Assessment/Site Inspection (PA/SI) was conducted to evaluate the potential presence or absence of range related items at locations identified as geophysical anomalies. The aerial geophysical investigation was conducted over the 1,632 acres and 1,720 anomalies were investigated. The terrestrial digital geophysical mapping (DGM) was conducted over 27 acres (in transects) and identified 3,165 anomalies. Environmental sampling was also conducted and included soil, groundwater, surface water, and sediment. No significant risk to human health or environment was identified from potential munitions constituents.

A RAB Member asked if Brown's Island was investigated. A portion of the island is an active range and the Marine Corps range control conducts periodic site walks and sweeps along the beaches. Signs are posted in the waterways for notification of explosive hazards.

An Expanded Site Investigation (ESI) was planned to expand the PA/SI results by further evaluating the potential presence or absence of munitions and explosives of concern (MEC) and material potentially presenting an explosive hazard (MPPEH) within the Off-Base SDZs. The tasks included a site visit and intrusive investigation of a portion of the geophysical anomalies. Of the identified anomaly sources, approximately 72% consisted of cultural debris (trash), 5% consisted of military/range-related items, 14 % consisted of MPPEH that was later designated as material documented as safe (MDAS), and 2% were MEC. The MEC was demilitarized by onsite controlled detonations.

The results were evaluated in an Explosives Hazard Analysis (EHA) and MEC was only identified within the southwestern portion of the Off-Base SDZs, near the former Browns Island target area. Only MPPEH or cultural

debris was found within the remaining areas. The EHA indicates that the probability of contact with MEC is low since MEC items were found within areas that were difficult to access and although underwater anomalies were not investigated, they are anticipated to be of similar nature (distribution and type) as those investigated.

A Fact Sheet was distributed to the public including a public mailing to homeowners within 1 mile from site in March 2014. The ESI report was finalized in May 2014 and recommendations included reduction of the footprint of the munitions response area (MRA) to an approximate 200-acre munitions response site (MRS) and to conduct an Engineering Evaluation/ Cost Analysis (EE/CA) to identify and evaluate potential options for the site. The Draft EE/CA is planned in fall 2014.

Ms. Delaney noted that there is a Base website (<http://www.lejeune.marines.mil/sdz>) for the SDZ that includes reports and more information and the reports are available in the public libraries in Onslow and Swansboro counties.

#### **IV. Five-Year Review**

**Objective:** The purpose of this agenda item was to discuss objective and process for the 2015 Five-Year Review, the sites for review, and the schedule.

**Overview:** A presentation was reviewed by Mr. Louth. The Five-Year Review is required under CERCLA to evaluate implementation and performance of remedies in place and determine protection of human health and the environment. The review is prepared in accordance with EPA guidance and Navy policy and guidance. The schedule is five years from the initiation of the first remedial action and no later than five years from the signature date of the previous review.

The process is to identify sites where remedial actions were conducted and evaluate protectiveness of human health and the environment. This is conducted through review of ROD requirements and post-remedy documents and findings to confirm ARARs are met, conduct site visits and inspections to confirm land use, and EPA and State and community involvement. Community involvement includes notification at initiation and completion, a notice in local newspapers, discussions at RAB meetings, and a final report that is available to the community. The report identifies any circumstance that may prevent a remedy from functioning as designed and providing sufficient protection of human health and the environment.

The trigger date was initiation of the remedial action at Operable Unit (OU) 1 in September 24, 1993. The first review was finalized in August 1999, the second review was finalized in February 2005, the third review was finalized August in 2010, and the fourth review is due to be finalized in 2015.

This Five-Year Review will review 17 OUs, 26 sites. Current active remedies for treatment of chlorinated volatile organic compounds (VOCs) include groundwater extraction and treatment, air sparging, enhanced reductive dechlorination (ERD), permeable reactive barrier (PRB), and/or aeration at five sites. An engineered cap is also ongoing at one site to address waste-in-place. Land use controls (LUCs) and/or long-term monitoring (LTM) are ongoing at 20 of the sites.

The public notice was published in May 2014 and the site inspections are planned for tomorrow. The draft report is planned for completion in December 2014 and must be finalized and signed by August 2015. Following signature, a public notice and fact sheet will be issued.

A RAB member asked if the 2010 report is still on the website and it is available in the Administrative Record. The next report will be available on CD and a fact sheet will be issued after signature. The results will be presented at a future meeting.

#### **V. Munitions Response Site Prioritization Protocol**

**Objective:** The purpose of this agenda item was to review Munitions Response Site Prioritization Protocol (MRSPP) process, provide updated scoring information for previous sites and three new sites, and discusses stakeholder involvement.

**Overview:** A presentation was reviewed by Mr. Louth. In 2001 Congress directed Department of Defense (DoD) to identify and prioritize munitions response sites, in 2005 the Final rule was passed, and in 2007 the protocol was issued as the instruction manual. The purpose of the MRSPP is to assign relative priority to each site known or suspected to contain unexploded ordnance (UXO), discarded military munitions (DMM), and munitions constituents (MC). The Navy uses the priority with consideration of other factors (stakeholder input, economic factors, and program requirements) in sequencing munitions response actions.

There are three evaluation modules used for the scoring:

- EHE Module – Explosive Hazard Evaluation: Evaluates explosive hazards posed by munitions and explosives of concern (MEC)
- CHE Module – Chemical Warfare Materiel (CWM) Hazard Evaluation: Evaluates hazards associated with CWM
- HHE Module – Health Hazard Evaluation: Evaluates health and environmental hazards posed by munitions constituents (MC) and incidental contaminants

In April 2014, three new sites (Sites UXO-27, 28, and 29) were scored for MCIEAST-MCB CAMLEJ using available information. Mr. Louth reviewed the background for the three sites and the resulting scores. Priority scores range from 1 to 8 with 1 as the highest and 8 as the lowest hazard level. Site UXO-29 was scored as Priority 3, Site UXO-28 was scored as Priority 4, and Site UXO-27 was scored as Priority 6. These sites are currently under investigation. Additionally, no further action has been achieved at 20 sites (Sites UXO-01, 02, 03, 04, 05, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 25, and 26) and additional investigation is ongoing at six previously scored sites (Sites UXO-06, 19, 21, 22, 23, and 24). The scores will be updated as additional data become available.

A public notice for stakeholder involvement was issued in May 2014 and the updated prioritization scores are available at Onslow County Library and public input is welcome.

The path forward is to update the MRSPP with new information as collected including items discovered and environmental data to establish new sequencing based on site hazards.

## **VI. RAB Business**

Ms. Delaney indicated that the next RAB meeting will be the second or third week in August 2014. Suggestions for meeting topics were requested. CAPT Faunce recognized the Team as winning the Secretary of Navy and Department of Defense Fiscal Year 2013 award for environmental restoration.