

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

MEETING DATE: June 14, 2017

LOCATION: Coastal Carolina Community College, Business Technology Building, Room BT 103, Jacksonville, North Carolina

ATTENDEES:

Charity Delaney/MCB Camp Lejeune	Steven Thompson/RAB Member
Thomas Richard/MCB Camp Lejeune	Dale Weston/RAB Member
Jennifer Tufts/EPA	Daniel Brown/CH2M
Randy McElveen/NCDEQ	Betsy Collins/CH2M
Laura Bader/RAB Co-Chair	Matt Louth/CH2M
Michael Curtis/RAB Member	

FROM: Betsy Collins/CH2M

DATE: June 29, 2017

I. Welcome and Introductions

Ms. Delaney began the meeting and reviewed the agenda.

II. UXO-06 Proposed Plan

Objective: The purpose of this agenda item is to invite public comment on the preferred alternative for addressing explosive hazards at Site UXO-06.

Overview: A presentation was reviewed by Matt Louth. This public meeting was recorded by a court reporter.

The public comment period for the UXO-06 Proposed Plan is from June 8 to July 8, 2017. During the comment period, interested parties may submit written comments to the following addresses:

Mr. Dave Cleland NAVFAC Mid-Atlantic Marine Corps IPT 9324 Virginia Ave Norfolk, VA 23511 Phone (757) 341-0329 david.t.cleland@navy.mil	Ms. Charity Delaney MCB Camp Lejeune Director EMD 12 Post Lane Camp Lejeune, NC 28547-2540 Phone (910) 451-9385 charity.delaney@usmc.mil	Ms. Jennifer Tufts USEPA Region 4 Atlanta Federal Center 61 Forsyth Street SW Atlanta, GA 30303 Phone (404) 562-8513 tufts.jennifer@epa.gov	Mr. Randy McElveen NCDEQ 217 West Jones Street 1646 Mail Service Center Raleigh, NC 27699-1646 Phone (919) 707-8341 randy.mcelveen@ncdenr.gov
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III. Update on Studies being Conducted at Site 78

Objective: The purpose of this agenda item is to present site background and ongoing studies, discuss implementation activities and available data, and provide summary and path forward.

Overview: A presentation was reviewed by Mr. Louth. Site 78 is the Hadnot Point Industrial Area and site sources include disposal and storage of solvents and hazardous waste and the Hadnot Point Fuel Farm. There are potential human health risks from volatile organic compounds (VOCs) in groundwater. The remedy that is in place includes a pump and treat system, annual long-term monitoring (VOCs, metals, and natural attenuation indicator parameters), and land use controls.

Trend graphs of contaminant removal for the North and South pump and treat systems show that removal is asymptotic and therefore, an investigation is being conducted to evaluate alternate treatment technologies to accelerate cleanup and time to site closure.

A RAB member asked what timeline the existing pump and treat system would take to reach cleanup levels. Mr. Louth responded that the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) program only looks forward 30 years but due to the asymptotic nature of the curves you could extrapolate that it would be much longer.

Alternative technologies being considered include enhanced pump and treat, enhanced reductive dechlorination, and vertical air sparging.

To evaluate enhanced pump and treat, aquifer testing and groundwater treatment plant evaluations were conducted. The aquifer testing was conducted to obtain aquifer properties to refine conceptual design of enhanced pump and treat systems in February and March of 2017. A capture zone analysis was conducted to evaluate the extent of influence of recovery wells based on aquifer testing results, under various pumping conditions including, the currently configured system (2.09 gallons per minute [gpm]), a system optimized for current treatment plant capacity (26 gpm), and a system optimized for recovery well capacity (50 gpm). The evaluation indicated that the aquifer can produce the water needed to capture the chlorinated volatile organic compounds (CVOC) and benzene, toluene, ethylbenzene, and xylenes (BTEX) plumes if pumps are located correctly and pumping at the appropriate rate.

A RAB member asked where contamination was vertically at Site 78. Mr. Louth explained that there are pockets of CVOCs and BTEX in the surficial aquifer and the deeper Castle Hayne aquifers at different concentrations in different areas and that the aquifers are hydraulically connected.

The groundwater treatment plant evaluations were conducted to evaluate ability of systems to treat additional groundwater with higher concentrations of VOCs and to identify potential operational enhancements to accommodate higher flow rates and mass loading. Planned for July 2017, this evaluation will include site visit and data collection, supplemental groundwater characterization, data evaluation, and reporting.

The enhanced reductive dechlorination evaluation was conducted to evaluate effectiveness of substrate to degrade lower concentrations of VOCs present near Buildings 901/902/903 by collecting soil and groundwater and performing a bench-scale study. Testing was initiated in March 2017 and samples were monitored for eight weeks. The bench-scale study results indicated that supplementation with substrate was not effective (less than 90 percent reduction) for complete degradation of contaminants of concern at low concentrations and a field scale treatability study may not reduce concentrations significantly for the Buildings 901/902/903 area.

A RAB member asked if trichloroethene (TCE) is ever found naturally. Mr. Louth responded that TCE and associated degradation products are man-made and not found naturally.

The air sparging pilot study is being conducted to evaluate the effectiveness of air sparging to treat contaminants present at depths up to 125 feet below ground surface in the Northwest Woods by installing three clusters of three air sparging injection wells each, oriented in a triangle around the area of highest VOC concentrations. This study will include baseline monitoring, one year of air sparging,

quarterly performance monitoring, and reporting and is planned for implementation from August 2017 to August 2018.

Studies at Site 78 will be completed in 2018 and alternate treatment technologies will be evaluated in a Feasibility Study Amendment followed by an amendment to the Proposed Plan and Record of Decision to document selection of the remedial action(s).

IV. Update on the Explanation of Significant Differences Document

Objective: The purpose of this agenda item is to provide update on the Explanation of Significant Differences (ESD) document, review schedule, and provide availability of document for review.

Overview: A presentation was reviewed by Mr. Louth. This ESD documents changes to remedies to ensure continued protection based on recommendations from the last Five-Year Review (2015). It covers five Operable Units (OUs) and seven Sites: OU 1 – Site 78; OU 2 – Sites 6, 82, and UXO-22; OU 6 – Site 36; OU 10 – Site 35; and OU 21 – Site 73.

Land use controls (LUCs) were updated to reflect the current extent of groundwater contamination (Sites 6, 78, and 82), groundwater COCs were added (Sites 6, 36, 78, and 82) and groundwater treatment plant effluent levels were updated based on NC Surface Water Quality Standards (Site 82).

LUCs were updated to add vapor intrusion to evaluate future buildings or modifications to existing buildings within 100 feet of volatile organic compounds (VOCs) in groundwater (Sites 6, 35, 36, 73, 78, and 82) and adding a Vapor Intrusion Mitigation System (VIMS) installed at Building 902 (Site 78).

A RAB member asked what the maintenance procedure is for VIMs. Ms. Delaney responded that for systems installed under CERCLA, they are monitored quarterly, either under CERCLA or Base Maintenance.

The Military Munitions Response Program (MMRP) Site UXO-22 was added to OU 2, Sites 6 and 82 and LUCs pertaining to munitions were added to include fencing and warning signs, safety awareness training, construction support for intrusive activities, evaluation of land use changes, and prohibition of non-industrial use.

The public notice and placement in Administrative Record will be conducted in July 2017 and LUC updates will be completed in Summer/Fall 2017.

V. RAB Business

The next RAB meeting is scheduled for September 13, 2017.