

03.01-09/03/93-01017

(804) 322-4793

5090

1823:LGB:srw

SEP 03 1993

CERTIFIED MAIL RETURN RECEIPT REQUESTED

United States Environmental Protection Agency,
Region IV
Waste Management Division
Attn: Ms. Gina Townsend
345 Courtland Street, N.E.
Atlanta, Georgia 30365

Re: MCB Camp Lejeune; August 17, 1993 Meeting Minutes, Draft
RI/FS Comment-Response Meeting For Operable Unit No. 2

Dear Ms. Townsend:

Attached please find a copy of the meeting minutes for the
referenced subject. If you have any questions, please contact
Ms. Linda G. Berry, P.E., at (804) 322-4793.

Sincerely,

L. A. BOUCHER, P.E.
Head
Installation Restoration Section
(South)
Environmental Programs Branch
Environmental Quality Division
By direction of the Commander

Attachment

Copy to:

MCB Camp Lejeune (EMD, Mr. Neal Paul)
EPA Region IV (Ms. Michelle Glenn)
NC DEHNR (Messrs. Patrick Watters, Bruce Reed, Rick Shiver,
Jack Butler)
Baker Environmental, Inc. (Mr. Ray Wattras)

Blind copy to:

1823 (LGB) 2 copies w/attachment)

18S

F:\Admin\Typeout\aug17.lgb

MEETING MINUTES, AUGUST 17, 1993
PROPOSED REMEDIAL ACTION PLAN AND RECORD OF DECISION
FOR OPERABLE UNIT NO. 2
MCB CAMP LEJEUNE, NORTH CAROLINA

A meeting was conducted on August 17, 1993 at the North Carolina DEHNR regional office in Wilmington, North Carolina. The purpose of the meeting was to both clarify any misunderstandings regarding the technical aspects of the Department of the Navy's proposed remedial action alternative for groundwater and discuss potential impacts to Wallace Creek that may occur as a result of discharging treated effluent.

The following personnel were present:

Ms. Linda Berry, LANTDIV
Mr. Neal Paul, EMD, MCB Camp Lejeune
Ms. Michelle Glenn, EPA Region IV
Ms. Gina Townsend, EPA Region IV
Mr. Bruce Reed, DEHNR
Mr. Rick Shiver, DEHNR
Mr. Jack Butler, DEHNR
Mr. Ray Wattras, Baker Environmental, Inc.

The meeting began at approximately 9:00 AM and concluded at approximately 10:30 AM. Mr. Rick Shiver outlined DEHNR's concerns regarding the DON's proposed alternative. After listening to these concerns, the DON and EPA Region IV clarified the intent of the proposed alternative. In addition, a draft point paper was distributed to the DEHNR by the DON (a copy of this point paper is attached). The point paper presented a clarification of issues that will be documented in the FS report, the Proposed Remedial Action Plan (PRAP), and the Record of Decision (ROD).

Summarized below are the relevant issues discussed at the meeting.

- The proposed groundwater alternative (RAA No. 4) is perceived by the DEHNR to be a limited cleanup, primarily because the alternative was referred to as "Partial Groundwater Treatment". It was explained to Mr. Rick Shiver that the title of the alternative is misleading and has since been changed to "Intensive Groundwater Extraction and Treatment." The DON and EPA clarified that the alternative will be designed to remediate the groundwater until the action levels are met. Ray Wattras stated that the action levels are provided in the FS. These action levels include both Federal MCLs, or State Standards, whichever are more stringent.
- Ms. Michelle Glenn (EPA) and Ray Wattras (Baker) explained that the primary differences between RAA No. 4 (the preferred alternative) and RAA No. 5 (the alternative preferred by the DEHNR) was in the timeframe involved to possibly meet the remediation goals, and the amount of water being extracted. Because RAA No. 5 employs 8 deep wells and 12 shallow wells, the time to remediate the aquifer is expected to be shorter; however, the amount of water being extracted could have some impact on dewatering the wetlands. Mr. Shiver did not believe that this would be the case given the depth of the extraction wells. However, the DON/EPA contended that the amount of water treated and discharged would be four times as much implementing RAA No. 5 vs. RAA No. 4. The high volume of water (approximately 1,200 gpm) may impact the flow as well as the aquatic community within Wallace Creek. Preliminary calculations of the flow

generated under RAA No. 4 (300 gpm) is not believed to have a significant impact on flow or habitat of Wallace Creek.

- Mr. Wattras stated that the cone of influence estimated for the deep extraction wells under RAA No. 4 (2100 feet by 1700 feet) should be sufficient to capture the downgradient edge of the plume near Holcomb Boulevard. It was reiterated to the DEHNR that both alternatives have the same goal; that is, to remediate the groundwater to meet Federal and/or State drinking water standards.
- The DEHNR agreed to concur with the alternative proposed by the DON after the DON/EPA clarified the issues pertaining to cleanup goals and potential impacts to Wallace Creek.
- Mr. Rick Shiver was not clear on how these sites fit into the Federal Facilities Agreement (FFA). Mr. Jack Butler, who was involved with forming the FFA on behalf of the DEHNR, explained that numerous sites are included in the FFA. Sites 6, 9, and 82 are 3 of many sites that need to be studied under CERCLA. Mr. Butler further explained that the entire base, as opposed to single sites, is on the NPL.
- Mr. Shiver stated that reinjection of treated effluent would be acceptable to the DEHNR if technically feasible. Previously, the DEHNR would not permit reinjection. Reinjection will now be considered on a case by case basis.
- Mr. Rick Shiver questioned whether additional studies are proposed to evaluate impacts to fish/crabs and the benthic organisms since the draft report indicated that some bioaccumulation may have occurred. Mr. Ray Wattras indicated that no adverse impacts to the benthic community were noted during the aquatic survey, indicating that site related contaminants in the surface water and sediment are not impacting the diversity or population of benthic organisms. However, Mr. Wattras also stated that the lack of a benthic community downstream of the site (towards the New River) is likely a result of a salt wedge. Mr. Wattras stated that Mr. Lynne Wellman (EPA) agreed that the salt wedge is the cause of this phenomenon. Mr. Wattras and Mr. Neal Paul stated that additional studies of the fish in Wallace Creek are being planned at this time since the database is limited to seven fish analyses. Mr. Shiver stated that Baker should contact Mr. Fritz Rohde (DEHNR) for consultation. (Note: Mr. Tom Biksey of Baker had contacted Mr. Rohde prior to this meeting in order to get his input into the scope of work for additional sampling of fish/crabs within Wallace Creek).
- Mr. Wattras indicated that the PRAP and ROD would contain language indicating that additional studies will be conducted on Wallace Creek to better evaluate the bioaccumulation of contaminants in fish/crabs. In addition, the PRAP and ROD will contain language stating that the remediation goals will be met over time under RAA No. 4.
- Mr. Rick Shiver agreed that neither the surface water or sediment should be remediated given that the groundwater and soils will be remediated. The groundwater and soil are the sources of surface water and sediment contamination, respectively.
- Mr. Ray Wattras explained that there is one less groundwater remedial action alternative since RAA No. 2 and No. 3 were essentially the same. Former RAA No. 3 (Source Removal) was deleted. Therefore, RAA No. 5 became RAA No. 4 and RAA No. 6 became RAA No. 5. The Draft FS identified six groundwater RAAs, but the Draft ROD and PRAP only identified 5 RAAs.

- The Final RI, FS, and PRAP will be submitted on August 20, 1993. A draft final ROD will be submitted after the public meeting on August 24. The final ROD will be submitted within days following the end of the public comment period (i.e., September 24, 1993).
- Mr. Jack Butler indicated that Mr. Peter Burger has submitted his resignation. Mr. Burger's replacement is Mr. Patrick Watters.

If the facts stated in these minutes are not accurate, please call Ms. Linda Berry at (804) 322-4793 by September 24, 1993.

DRAFT

Clarification of Groundwater RAA No. 4 (Intensive Groundwater Treatment) and Groundwater RAA No. 5 (Groundwater Treatment)

The following issues will be incorporated into the Final Feasibility Study, Proposed Remedial Action Plan and Record of Decision for RAA No. 4 and 5:

- o Former Alternative No. 3 (Source Removal) has been deleted since it is identical to Alternative No. 2 (Limited Action). Therefore, Alternative 5 is now Alternative 4 and Alternative 6 is now Alternative 5.
- o Both RAA No. 4 and 5 are protective of public health and will achieve restoration of the groundwater over time.
- o The title of Alternative No. 4 has been changed to "Intensive Groundwater Extraction and Treatment" (versus Partial Groundwater Treatment) since the previous title was misleading. The alternative is designed to capture and completely remediate groundwater south of Wallace Creek by placing the extraction wells in the most contaminated area, therefore, the term "partial" is not appropriate in the title.
- o Each of the two deep extraction wells are expected to have a radius of influence of approximately 2,100 feet by 1,700 feet. Based on the position of the extraction wells (see Figure 4-6), the shallow and deep groundwater south of Wallace Creek and east of Holcomb Blvd. will be captured and treated.
- o The extraction of groundwater at a rate of approximately 300 gpm will not likely impact the wetland area near Wallace Creek due to the distance from the wetland as well as the depth of the wells. The discharge of approximately 300 gpm into Wallace Creek is not expected to impact the flow of Wallace Creek; flooding is not likely based on engineering calculations. Impacts to the aquatic community is not believed to be a problem since this section of Wallace Creek is freshwater and the quality of treated water will be based on the protection of aquatic life.
- o The entire alternative will be evaluated after five years; migration of the plume along with overall groundwater quality will be evaluated.
- o Remedial Action Alternative No. 5 (Groundwater Extraction and Treatment) will employ a total of eight extraction wells as a means to expedite the remediation; however, the impacts of extracting approximately 1,200 gpm from the groundwater may impact the wetland along Wallace Creek (i.e., dewatering of wetlands). In addition, the discharge of approximately 1,200 gpm into Wallace Creek could potentially flood downstream areas.

- o The goal of the remedial action is to remediate groundwater contamination and eliminate surface water contamination via groundwater discharge. Alternative No. 5 will employ extraction wells across Wallace Creek, which may cause groundwater contamination south of Wallace Creek to migrate north of Wallace Creek or discharge into Wallace Creek at a faster rate.

- o In summary, given that both alternatives are protective of public health, and will result in remediating the groundwater, RAA No. 4 is more cost effective and is not expected to pose environmental impacts to Wallace Creek or the wetlands.