



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

January 22, 1996

Joseph Joyce
BRAC Environmental Coordinator
Environment and Safety (Code 1AU)
MCAS El Toro
P.O. Box 95001
Santa Ana, CA 92709-5001

Dear Mr. Joyce:

EPA issued comments on the Interim Action Feasibility Study (IAFS) on December 15, 1995. These comments recommended that the Marine Corps/Navy develop an additional alternative which focuses on active remediation (soil and groundwater) of the shallow aquifer and passive or limited remediation and longterm monitoring of the principal aquifer. The purpose of this letter is to expand on EPA's position regarding the development of a passive or limited remediation alternative for the principal aquifer. EPA's comments were motivated by review of the Navy stand-alone alternative, Alternative 2A. EPA's comments were intended to raise for discussion purposes, the possibility of developing a passive or limited action remediation alternative for the principal aquifer, if this alternative would achieve the cleanup goals. This alternative would then be evaluated using the feasibility study evaluation criteria.

As discussed in the December 15, 1995 comments, the decision to initiate active or passive remediation of an aquifer is based on the risk level. Additionally, for groundwater actions, Maximum Contaminant Levels (MCLs) and non-zero Maximum Contaminant Level Goals (MCLGs) may be used to gauge whether remedial action is warranted. In this case, EPA agrees with the Marine Corps/Navy that some type of remedial action is warranted in both the shallow and principal aquifers. Since the principal aquifer "Area of Concern" depicted in the IAFS is part of the Irvine Subbasin, for which the "Water Quality Control Plan, Santa Ana River Basin (1995)" cites drinking water as a beneficial use, the Remedial Action Objectives (RAOs) should remain MCLs as stated in the IAFS.

Passive remediation typically includes some combination of institutional controls, wellhead treatment, containment, source control, dilution, volatilization and biological degradation. As mentioned above, because drinking water is a beneficial use for

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the principal aquifer "Area of Concern," an element of this alternative must include provision for wellhead treatment if a water purveyor has water supply wells installed or planned. Additionally, institutional controls must be included in the remedy to prevent any further use of the groundwater until the levels reach RAOs or MCLs.

If the Marine Corps/Navy elects to develop this additional alternative, EPA will require modeling to indicate whether shallow aquifer treatment/containment and principal aquifer passive remediation will achieve MCLs in an acceptable timeframe. This alternative would then be further evaluated in a draft final FS and compared with the existing alternatives using the nine evaluation criteria. If you have any questions, I can be reached at 415/744-2368.

Sincerely,



Bonnie Arthur
Remedial Project Manager
Federal Facilities Cleanup Office

cc: Mr. Juan Jimenez, DTSC
Mr. Larry Vitale, RWQCB
Mr. Andy Piszkin, SW DIV
Mr. Dante Tedaldi, Bechtel
Mr. Clark Ide, OCWD