



Department of Toxic Substances Control

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M60050.002707
MCAS EL TORO
SSIC #5090.3

May 18, 1999

Mr. Joseph Joyce
BRAC Environmental Coordinator
U.S. Marine Corps Air Station - El Toro
AC/S, Environmental (1AU), BRAC Building #899
P. O. Box 95001
Santa Ana, California 92709-5001

Dear Mr. Joyce:

COMMENTS ON DRAFT REPORT EVALUATION OF PERCHLORATE IN GROUNDWATER, MARINE CORPS AIR STATION (MCAS) EI TORO

The Department of Toxic Substances Control (DTSC) has completed the review of the above subject documents dated April 1999, prepared by Bechtel National, Inc. The Report summarizes the investigation conducted to assess the presence and concentration of perchlorate in groundwater at Marine Corps Air Station El Toro. DTSC comments are as follows:

1. Section 1 INTRODUCTION, Page 1-1

Please describe in the introductory statement the scope of work that was conducted. At a minimum, the introduction should discuss the number of monitoring wells sampled and total number of groundwater samples collected for perchlorate analysis.

2. Section 3.1 PERCHLORATE CONCENTRATIONS IN GROUNDWATER, Page 3-1

a. The second paragraph within this section discusses the elevated perchlorate value (280 $\mu\text{g/l}$) detected at monitoring well 01MW201 located at Site 1. The Report states that perchlorate was not detected at the downgradient well (01_DGMW57) from Site 1. The Report should clarify whether well 01_DGMW57 is screened at the same depths as well 01MW201. Additional wells/monitoring points are needed downgradient of 01MW201 to determine the extent of contamination and groundwater flow direction.

b. The detection of perchlorate adjacent to Site 3 may indicate disposal of perchlorate-containing materials at the Site 3 landfill. The perchlorate detected at Site 3 could also originate from Site 1. The groundwater flow direction southwest

California Environmental Protection Agency

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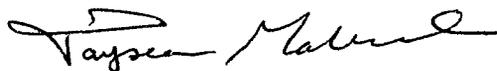
of Site 1 has not been determined. Prior investigations assumed that groundwater flow follows the general path of the Borrego Canyon Wash. A portion of the groundwater may be flowing to the south-southwest, in the direction of Site 3. The groundwater potentiometric elevation map in the CERCLA Groundwater Monitoring Plan for MCAS El Toro (Figure F4-1) shows the groundwater elevation contours southwest of Site 1 as estimated contours (dashed lines). No groundwater monitoring wells are located between well 01MW201 at Site 1 and the wells adjacent to Site 3 to determine groundwater flow direction. A groundwater investigation between Sites 1 and 3 is needed to resolve this data gap.

3. Section 4 CONCLUSION, Page 4-1

- a. DTSC agrees with the recommendation to conduct further monitoring at Sites 1, 2, 3, 5, 17 and at all other wells where perchlorate was reported in October 1998. As mentioned in comment 2.b., groundwater investigation is needed southwest of Site 1 and northeast of Site 3. In addition, groundwater monitoring wells along the north-south runway should be sampled to determine whether perchlorate extends farther east of monitoring wells 19_DGMW86 and 07_DBMW100.
- b. MCAS El Toro has several ordnance storage bunkers that trend in a north-northeast direction from near the Golf Course area to Site 1. These bunkers may have been used for storage of perchlorate-containing ordnance. The Marines have not disclosed the type of ordnance stored in the bunkers nor conducted an inspection for spills or releases. An investigation of these ordnance storage bunkers should be conducted to determine whether a release or disposal of rocket propellant had occurred.

If you have any questions, please call me at (714) 485-5418.

Sincerely,



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Remedial Project Manager
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Southern California Operations

cc: See next page

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