

STATE OF CALIFORNIA

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

SAN FRANCISCO BAY REGION

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Mr. Stephen Chao
WestDiv Engineer in Charge
Department of the Navy
Naval Facilities Engineering Command
900 Commodore Way, . Bldg. 101
San Bruno, CA 94066-0720

September 13, 1993
File No. 2189.8009 [EA]

Subject: Comments on the Remedial Investigation Report Operable Unit 5 East Side Aquifers Draft Final, August 1993

Dear Mr Chao:

The San Francisco Bay Regional Water Quality Control Board (RWQCB) staff has reviewed the subject document and can not concur with the conclusions regarding the landfills, Sites 1 and 2, and their impact on water quality, as well as several other conclusions within the text. Furthermore, at a meeting held on September 9, 1993, several Navy contractor project managers stated that the conclusions of the OU5 Remedial Investigation (RI) did not recommend any remedial action or feasibility study (FS) to be conducted for the OU5 aquifers. Though our staff was not able to locate these conclusions within the text, such a recommendation would not be acceptable to the Regional Board. State applicable or relevant and appropriate requirements (ARARs) such as State Board Resolutions Nos. 68-16 and 92-49 require clean up of all wastes discharged, which threaten water quality, to background conditions or to the lowest concentrations technically and economically feasible to protect beneficial uses. State Board Resolution No. 88-63 designates all ground and surface waters of the state as drinking water except where the total dissolved solids (TDS) is greater than 3000 parts per million (ppm), the well yield is less than 200 gallons per day, or other specific circumstances which do not apply to Moffett Naval Air Base. A copy of these state ARARs are summarized in the attachment provided.

As stated in our comments on the draft OU5 RI document, remediation of the groundwater contamination at some point in the future only if it is to be utilized as a drinking water source is unacceptable. The Navy is responsible for the contamination at these sites and state ARARs require clean up to background levels by the responsible party. In addition, Regional Board staff can not concur with the use of an industrial based risk assessment to determine clean up levels on the east side aquifers for two reasons. Most importantly, all groundwater sites at Moffett, except sites 1, 2, and 11, meet the state requirements of a drinking water source, and therefore the beneficial use must be protected. Secondly, the west side aquifers on Moffett Field will be cleaned up to residential standards and there is no significant difference in the hydrology, use or future land use of this area.

General Comments:

There are still significant data gaps regarding the movement of leachate at Sites 1 and 2, and the potential impacts to groundwater. Regional Board staff has communicated these concerns in our comments on the draft OU5 RI, as well as requesting at several meetings the additional groundwater sampling information our agency requires to evaluate the water quality at the landfill sites according to California's Title 23, Article 5, Chapter 15. The Navy has agreed to conduct additional field work to address some of these data gaps, such as the potential impact of the leachate down gradient from the landfills, the presence of groundwater mounding at Site 1 and its effect on leachate movement, the extent of saturation of fill material at Site 2, and the relationship between the leachate, groundwater and surrounding surface water bodies. Due to the ongoing investigations which will hopefully address some of the current data gaps, the

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Regional Board staff can not concur with the conclusions as stated in the current draft final RI. No conclusions regarding the impact to groundwater at sites 1 and 2 should be included in the draft final RI. Language which states that additional field investigations will occur and additional groundwater sampling data will be submitted should be included in the text.

Two comments which were unanswered in both the revised text and the response-to-comment letter need to be addressed in the draft final text. Please include the most recent date when the free product wells at Site 5 were inspected for free product, and include the location of the agricultural well which is still utilized and the current uses for the groundwater from this well.

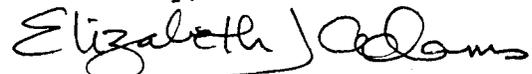
Specific Comments:

pg. 3-12, par 4 and pg. 6-42, par 3 Both these pages state that A1 and A2 aquifers are not used as drinking water due to the high TDS concentrations over most of Moffett Field. This statement is not accurate since only three sites, sites 1,2 and 11, have TDS concentrations above the state standards of 3000 ppm. These statements should be changed to reflect that only three sites have high TDS content which would restrict them from being utilized as a drinking water source.

pg. 4-14, par 1 The text states that the brackish water at sites 1 and 2 may lead to higher concentrations of all metals. Brackish water does not lead to the significantly higher concentrations of metals such as silver, copper, and chromium which are found at sites 1 and 2. Sea water's ambient concentration of copper is 2 ppb, and silver is less than 1 ppb. The levels found at Sites 1 and 2, into the hundreds of parts per billion, can not be attributed to the brackish water.

If you have any questions regarding these comments, please call me at the San Francisco Bay Regional Water Quality Control Board, at (510) 286-3980.

Sincerely,



Elizabeth J. Adams
Project Manager

cc: Mike Gill, US EPA
Mail Stop H-9-2

Chip Gribble, DTSC

CITATIONDESCRIPTIONCOMMENTS

State Board Resolution
No. 68-16 (Policy on
Maintaining the High Quality
of State Waters) (Water Code
§13140, Clean Water Act
regulations 40 CFR §131.12)

Resolution No. 68-16 (anti-degradation policy) has been incorporated into all Regional Board Basin Plans. Requires that quality of waters of the State that is better than needed to protect all beneficial uses be maintained unless certain findings are made. Discharges to high quality waters must be treated using best practicable treatment or control necessary to prevent pollution or nuisance and to maintain the highest quality water. Requires cleanup to background water quality or to lowest concentrations technically and economically feasible to achieve. Beneficial uses must, at least, be protected.

State Board Resolution
No. 88-63 (Sources of
Drinking Water Policy)

Resolution No. 88-63 has been incorporated into all Regional Board Basin Plans. The policy designates all ground and surface waters of the state as drinking water except where the TDS is greater than 3000 ppm, the well yield is less than 200 gpd from a single well, the water is a geothermal resource or in a waste water conveyance facility, or the water cannot reasonably be treated for domestic use using either best management practices or best economically achievable treatment practices.

State Water Board Resolution
92-49 (Policies and
Procedures for Investigation
and Cleanup and Abatement of
Discharges Under Water Code
Section 13304) (Water Code
§13307)

Resolution 92-49 establishes policies and procedures for the oversight of investigations and cleanup and abatement activities resulting from discharges of waste which affect or threaten water quality. It requires cleanup of all waste discharged and restoration of affected water to background conditions (i.e., the water quality that existed before the discharge). Requires actions for cleanup and

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	abatement to conform to Resolution 68-16, water quality control plans and policies, and applicable provisions of Title 23 California Code of Regulations, Division 3, Chapter 15 (discharges of waste to land) as feasible.	
Title 23 California Code of Regulations, Division 3, Chapter 15 (Discharges of waste to land)	Chapter 15 regulates the siting, design, construction, operation, closure, and monitoring (including corrective action) of waste discharges to land for treatment, storage, or disposal, including landfills, surface impoundments, waste piles, and land treatment facilities. Wastes regulated include "hazardous waste," "designated waste," "nonhazardous solid waste", and "inert waste".	
Title 23 California Code of Regulations, Division 3, Chapter 15, Article 5	Article 5 contains monitoring requirements for waste management units and establishes water quality protection standards for corrective action including concentration limits for constituents of concern at background levels unless infeasible to achieve. Cleanup levels greater than background must meet all applicable water quality standards, must be the lowest levels technologically and economically achievable, must consider exposure via other media, and must consider combined toxicologic effects of pollutants.	
Title 23 California Code of Regulations, Division 3, Chapter 16, (Underground tank regulations)	Chapter 16 regulates permitting and testing of underground tanks and specifies requirements for corrective action of discharges from tanks.	
Toxic Pits Cleanup Act, California Health and Safety Code §§25208, <u>et seq.</u>	TPCA authorizes the Regional Water Boards to regulate surface impoundments containing hazardous waste as defined in Title 22, California Code of Regulations, prohibits discharges to such surface impoundments unless they meet specified siting and design	