



# California Regional Water Quality Control Board

## San Francisco Bay Region



Alan C. Lloyd, Ph.D.  
Agency Secretary

1515 Clay Street, Suite 1400, Oakland, California 94612  
(510) 622-2300 • Fax (510) 622-2460  
<http://www.waterboards.ca.gov/sanfranciscobay>

Arnold Schwarzenegger  
Governor

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NFD POINT MOLATE  
SSIC NO. 5090.3.A

Date **MAR 09 2006**  
File No. 2119.1057 (AVC)

Department of the Navy  
Base Realignment and Closure  
Program Management Office West  
Attn: Mr. Michael Bloom  
BRAC Environmental Coordinator  
1455 Frazee Road, Suite 900  
SAN DIEGO, CA 92108-4310

**SUBJECT: Comments on the Draft Corrective Action Plan for Installation Restoration Site 3, Naval Fuel Depot Point Molate, Richmond, California**

Dear Mr. Bloom:

Thank you for your Draft Corrective Action Plan (CAP) for Installation Restoration (IR) Site 3, Naval Fuel Depot (NFD) Point Molate, Richmond, California, prepared by Bechtel Environmental, Inc., dated June 2005. This draft CAP should have presented a comprehensive approach to the evaluation and remediation of all pollutants impacting groundwater at IR Site 3. Our previous comments submitted on November 5, 2004 and January 25, 2005 were not incorporated in this document. Our comments required all pollutants including volatile organic compounds be addressed not just petroleum related products.

Based on a thorough review of the CAP we have the following general and specific comments:

### General Comments

1. On March 11, 2005, a Notice of Intent (NOI) to prepare an Environmental Impact Statement / Environmental Impact Report was published in the Federal Register. This NOI describes several land use scenarios for Point Molate. We recommend evaluation of the remedial alternatives in the CAP be based on an unrestricted land use scenario, because future land use is uncertain. Our letter dated January 25, 2005 made the same recommendation.
2. We believe Alternative 7 does not represent an accurate cost estimate, nor does it describe an efficient way to remediate IR Site 3. A feasibility study (FS) submitted in May 2005 presents a cost to excavate the contaminated soil above the groundwater table. This CAP presents a cost to excavate fuel saturated soil below the groundwater table. On page 5-12, the CAP mentions: "If the two actions were fully coordinated the amount of overburden excavated and stockpiled under Alternative 7 could be reduced to 64, 700 bank cubic yards (bcy)." Please

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present how reducing the excavation by 64,700 bcy of soil will affect the final combined cost of Alternative 7 in the CAP and Alternative 4(c) in the FS.

3. All the alternatives presented in this CAP must address the free product measured along the eastern boundary of Site 3 (see the free product thickness in monitoring well MW11-49) and the possibility that this free product could come from an up-gradient source.
4. Base on the historical use of IR Site 3, dissolved metals and volatile constituents have affected the quality of groundwater. As stated in our letter dated November 5, 2004, we are requiring a revised strategy to address the cleanup of the volatile constituents and metals detected in groundwater.

#### Specific Comments

1. *Executive Summary*: The third paragraph states “this CAP has been developed pursuant to Article 11 of the State Underground Storage Tank (UST) Regulations (California Code of Regulations, Title 23).” This paragraph should also reference the San Francisco Bay Water Board Order No. 97-124.
2. Figure ES-2, *IR Site 3 Location Map*: The name of IR Site 2 should be changed to read the correct designation.
3. Section 1, *Introduction*: This section starts with the following sentence “This CAP was developed for groundwater at IR Site 3...” and continues to present on the same page (page 1-1) that “the purpose of this CAP is to present a comprehensive approach to the evaluation and remediation of unauthorized petroleum releases impacting groundwater at IR Site 3.” We recommend the goal of groundwater remediation to include also the cleanup of dissolved metals and volatile constituents (see also general comment #4).
4. Section 2.1.3.11, *Basewide Groundwater Monitoring*: Page 2-12 summarizes the analytical results of basewide sampling results. For consistency with the first two bullets and for clarity in summarizing the results, the detected levels and the cleanup levels for the polynuclear aromatic hydrocarbons (PAHs), volatile organic compounds (VOCs), and metals should also be discussed in the last three bullets.
5. Section 2.2.3.1, *Demography*: Please present in this section that the NOI evaluated several land use scenarios including “housing units” as future development at Point Molate. We recommend evaluation of remedial alternatives be based on an unrestricted land use scenario because of the uncertainty in regards to future land use.
6. Section 2.2.7.5, *Groundwater Results-Volatile Organic Compounds and Polynuclear hydrocarbons*: The second paragraph presents one time chlorinated VOC concentrations in

well MW11-44 sampled in 2003. This well was also sampled in 2004 and 2005. The additional groundwater data should be evaluated and compared with the cleanup goals.

7. Section 2.2.7.5, *Groundwater Results-Metals*: In this subsection, the numerical values for detected metals should be presented for consistency with the other historical groundwater sampling data descriptions. If the Navy considers that the results “likely represent total metals concentrations rather than dissolved metals concentrations” the Navy should resolve how dissolved metals concentrations in groundwater will be evaluated and addressed.
8. Section 2.2.7.6, *Summary and Conclusions*: This section must contain an evaluation of the groundwater metal concentrations in the industrial debris disposal area and the former fuel reclamation facility.
9. Section 2.3, *Fuel Product Action Levels*: This section identifies potential groundwater receptors as future park maintenance workers (including construction workers and utility workers) and aquatic ecological receptors. The action levels must include the levels for the unrestricted land use scenario.
10. Figure 2-8, *Reuse Plan*: Please revise this figure with the anticipated land use.
11. Table 2-1, *Fuel Product Action Levels*: This table should contain the cleanup values for all constituents of concern (COCs) detected at IR Site 3.
12. Section 3.2.1, *Human Receptors*: This section should present the pathways by which human receptors could come into contact with onshore groundwater for the unrestricted land use scenario. For the offshore groundwater exposure, please explain why the direct dermal exposure to surface water is considered to be a less significant exposure pathway.
13. Section 3.2.1.2, *Offshore groundwater*: Please explain why “no complete exposure pathways for direct human contact other than ingestion of fish have been identified.” As the future land use is uncertain, there is the potential for other pathways for human exposure be present at IR Site 3, like ingestion of chemicals in surface water while swimming and dermal contact with chemicals in water.
14. Section 3.2.2, *Ecological Receptors*: In addition to the invertebrate benthic community as an aquatic potential receptor, this section should also include a discussion why the plant communities, amphibians, reptiles, mammals, waterfouls and shorebirds were eliminated as potential ecological receptors.
15. Table 3-1, *Groundwater Chemicals of Concern*: This table lists only 4 chemicals as VOCs. It is well known that at this site other VOCs, like trichloroethene, dichloroethene, vinyl chloride, PAHs, and metals have been detected. This table should include these chemicals and a foot note how these COCs will be removed.

16. Section 4.3.7, *Ex Situ Treatment of Extracted Groundwater*: This section presents the volume of extracted groundwater since operation of the packed groundwater treatment plant (PGWTP) began and only one value of total petroleum hydrocarbon (TPH) mass removed during one quarter, e.g., during the 3rd quarter of 2004. We recommend presenting the total mass of removed TPHs in this section along with a graphical representation of the removed masses versus time. These are effective tools in the evaluation of corrective action alternatives presented in Section 5.
17. Figure 5-2, *Extent of Excavation*: In this figure the proposed footprint of excavation for the Alternative 7 follows the approximate configuration of the former sump pond as it had been depicted in a 1949 aerial photograph. We believe this footprint should be modified to include the area around monitoring well MW11-29. In this well, free product thickness had been measured as 0.17 feet.
18. Section 6.1, *Recommended Corrective Action*: This section states that the Alternative 3 (a) was selected because “appears to be the most cost-effective alternative considered.” In recommending this alternative, the draft CAP is inconsistent with the comments presented in the previous sections, like:
- (a) the legal frame of this remedial action includes the CCR, Title 23, Article 11, Division 3, Chapter 16, *State USTs Regulations* which requires free product removal. On page 3-5, it is presented that “there may be an estimated 15,100 gallons of weathered free product at Site 3” and on page 4-19, it is stated that “the system removed an estimated 15.1 pounds of TPH mass during the third quarter 2004.” With an estimated volume of 60.4 pounds of removed free product per year, please explain how this alternative will address the State requirements and will accomplish the cleanup goals.
  - (b) the Navy recommendation was based on the cost-effectiveness of Alternative 3 (a), assuming that the groundwater containment/extraction system would operate for 3 years. This assumption is in contradiction with the statement from page 3-1: “... however, in cases of complex sites such as IR Site 3, it may be difficult to predict the effectiveness of remedy (and, hence, the achievable cleanup levels) until interim or full-scale aquifer remediation systems are implemented and performance data are available.”
  - (c) recommending this alternative as a corrective action, this section is inconsistent with the statements made on page 4-8, like: “It is likely that the fuel-saturated soil would serve as a continuing, albeit small source of TPH groundwater contamination”, “however, the system (i.e., groundwater containment/extraction system) is not designed to remove product”, or Table 5-10 ...” However, if verification studies are not favorable, continued operation of the groundwater containment/extraction system could be required. This would increase cost of alternative.”
19. Attachment B, *Memorandum of Agreement between the United State Department of the Navy and the California Department of Toxic Substances Control (DTSC)*: This attachment must

contain example of documents presenting San Francisco Regional Water Quality Control Board as the State lead agency instead of DTSC.

If you have any questions, please contact Ms. Adriana Constantinescu at (510) 622-2353, or via e-mail at [AConstantinescu@waterboards.ca.gov](mailto:AConstantinescu@waterboards.ca.gov).

Sincerely,



Adriana Constantinescu, PG  
Project Manager for Point Molate

cc: Ms. Glenna Clark, Navy RPM  
Mr. Steve Duran, City of Richmond  
Mr. Don Gosney, RAB Co-Chair

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