



CENTER FOR PUBLIC ENVIRONMENTAL OVERSIGHT

A project of the Pacific Studies Center

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Sent via Electronic Mail Only

Ms. Kathryn Stewart
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Subject: CPEO Comments on the Navy's *Draft Basewide Five-Year Review Report Installation Restoration Sites 1, 22, 26, and 28, Former NAS Moffett Field, Moffett Field, California*, dated October 15, 2009

Dear Ms. Stewart:

The Center for Public Environmental Oversight (CPEO) has reviewed the subject document and we have attached the following comments. In general, we are in agreement with the EPA that the document needs to be revised with regards to its protectiveness statement.

Lenny Siegel

Peter Strauss

1. The document points out that there are many unknowns concerning sea level rise resulting from global warming, and the magnitude of the potential rise is unknown. It also states that if rising water level is identified as an issue in future quarterly inspections and five-year reviews, “the Navy will take steps at that time to respond procedurally to ensure the protectiveness of the remedy before the landfill becomes completely surrounded by water.” It is our opinion that the landfills remedies should be re-assessed, and steps taken now to address potential sea level rise. We recommend that a new study be completed within the next five years that addresses this problem and develops a contingency plan. We note that the Regional Water Quality Control Board made a similar suggestion:

The Navy should develop an adaptive management plan that presents feasible options for landfill cover erosion control and protection from flooding. This plan should be incorporated into the operations maintenance and monitoring plan for the site and updated every 5 years of the operational life and post-closure maintenance period of the landfill with the most recently available and most credible information at the time of the update.

2. Additionally, the document points out that the Building 191 pump station, which controls general flooding on the northern portion of Moffett Field, is operated by NASA to dewater this area through a series of channels and berms. The capacity of the dewatering system operated by NASA can be increased to offset rising sea level if necessary. We have questions about the capacity of this system, especially during a prolonged storm accompanied by future increases in sea level. In the contingency plan recommended above, please address the capacity of the stormwater system and how that might be compromised during sea-level rises and storm surges.
3. In 1981, the U.S. Geological Survey mapped flood prone areas of Moffett Field and found that the northern half of the site was flood prone (1/100 chance of being flooded). Since that time, studies have indicated that if only a fraction of the sea level rise is within the range predicted over the next 50-100 years, the tidal surge at the entrance of the Bay would be increased to a probability of 1/10 [“A sea-level rise of only 15 centimeters (5.9 inches) will change the frequency of the 1-in-100 year storm into a 1-in-10 year storm at the entrance to the Bay.” Peter H. Gleick and Edwin P. Maurer, *Assessing the Costs of Adapting to Sea-Level Rise: A Case Study of San Francisco Bay*, April 1990, Pacific Institute for Studies in Development, Environment, and Security. Also consult with the Bay Area Conservation and Development Commission for details of its evaluation of tidal surge.] Tidal surges and the apparent increased probability for flooding need to be addressed.
4. EPA and the Regional Water Board both allowed the Navy to discontinue groundwater sampling at Site 1. However it is unclear whether the contingency trench along the northern edge of the Site 1 landfill is still operational. Could you explain if this trench is still in operation, and describe details of any findings?
5. For Sites 26 and 28, the Navy’s conclusion that the remedies are currently protective of human health and the environment because exposure pathways that could result in

unacceptable risks are being controlled is not certain. Until the vapor intrusion remedy is in place, the remedy is not protective. The documentation about the Eastside Aquifer Treatment System does not indicate whether there are buildings within the Vapor Intrusion Study Area that need to be addressed. As we point out in comment 8 below, we are very concerned about the spreading of the shallow plume at Site 28 under areas that encompass NASA Research Park and some areas of housing.

6. We agree with EPA that until there is a remedy in place at Site 26, the Navy cannot state that it provides long-term protectiveness.
7. The Navy correctly notes that volatile organic compounds in the regional plume continue to migrate north into Site 28, but it should also explain that the remedial objective is not being achieved, because contaminants continue to migrate **from** Site 28. Long-term protectiveness cannot be presumed.
8. The document states “The Navy is currently working with the MEW companies and NASA to develop a common strategy to remediate the regional plume to standards specified in the ROD.” Is this referring to the Focused Feasibility Study? CPEO is concerned that, in the past, the Navy has not cooperated with NASA and the MEW responsible parties on elements of the cleanup.
9. The comparison of plume maps from 2003 and 2008 indicates an expansion of the regional plume in the upper and lower portions of the A-aquifer, in both a northerly and westerly direction for the upper, and a westerly direction for the lower. For trichloroethylene (TCE), some of the wells have shown an increasing trend. The document attributes changes in the shape and extent of the plume in 2003 compared to 2008 to the addition of monitoring wells. This should be elaborated on. Expansion in the westerly direction is troubling, as this area underlies the NASA Research Park and some housing units.
10. The document states that it has discovered a potential source of tetrachloroethylene (PCE) in saturated soil potentially as a dense nonaqueous phase liquid [DNAPL VOCs (B-88)] below the groundwater table. It also states that in “an effort to optimize the remedy, the Navy, EPA, and Water Board are currently in discussions regarding a pilot test to address this source of groundwater contamination.” CPEO requests that the final document contain a description of the pilot test.
11. The Westside Aquifer Treatment System (WATS) system treats contaminated water collected from two on-site sumps near Hangar 1. Although Site 29 is not addressed in this document, it should discuss how the proposed remedy for Site 29 would affect WATS. In addition, because polychlorinated biphenyls (PCBs) are a major contaminant of concerns at the Hangar, there should also be a discussion of whether PCBs have been detected, and if so, how they are dealt with.