STATE OF CALIFORNIA — ENVIRONMENTAL PROTECTION AGENCY

DEPARTMENT OF TOXIC SUBSTANCES CONTROL

REGION 2
700 HEINZ AVE., SUITE 200
BERKELEY, CA 94710-2737

August 14, 1992

Steven Chao
Western Division
Naval Facilities Engineering Command
900 Commodore Way, Bldg. 101 Code 1813 SC
San Bruno, California 94066-2402

Dear Mr. Chao:

NAS MOFFETT FIELD DRAFT OU-6 WORK PLAN

The Department of Toxic Substances Control (Department) has reviewed the above report and has the following comments. The enclosed comments are from the Science Advisory Office of the Department.

GENERAL COMMENT:

The stated purpose is not clear. The report contains information on the existence of contamination in the wetland areas, yet the purpose of the investigation is "...to determine if contamination exists." The inconsistency between the purpose and the content of the report must be corrected.

SPECIFIC COMMENTS:

1. Page 2, paragraph 2, are you saying that this investigation will include horizontal conduit study? Or that is a separate study whose results might affect the cleanup?

2. Page 7,

   a. Paragraph 1, it appears that the author independently decided that VOCs in the wetland do not harm the biological receptors. This is an inaccurate conclusions because the biological receptors have much lower tolerance level than humans. In addition, if the purpose of the investigation is to determine the existence of contaminants in the wetlands, then how can you tell there are VOCs in the wetlands unless you have already determined that? This paragraph contradicts the purpose of the investigation.

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b. Paragraph 2, the VOCs might not bioaccumulate in ecological receptors, but can affect the receptors irreversibly.

c. Paragraph 3, the detection limits must also be consistent with the NOAA and RWQCB guidance documents.

4. Page 9, paragraph 4, the ecological receptor identifications require biological sampling. Literature review will provide a generic information void of any site specifics.

5. Table 3 requires detection limits on all the parameters.

Should you have any questions, please call me at (510) 540-3821 or Laura Valoppi at (916) 255-2052.

Sincerely,

Cyrus Shabahari

Cyrus Shabahari
Waste Management Engineer
Site Mitigation Branch

Enclosure

cc: RWQCB
San Francisco Region
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Admin Rec.

ENCLOSURE

From: Laura Valoppi
Office of Science Advisor
P.O. Box 806
Sacramento, California 94710

To: Cyrus Shabahari
Site mitigation Branch
Region 2
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Berkeley, California 94710

Subject: **NAVAL AIR STATION MOFFETT FIELD OU-6 WORKPLAN**

GENERAL COMMENTS:

This workplan is inadequate as written. The first phase should be to characterize the biological resources of the wetland area. This should occur prior to planning any contaminant sampling. Such characterization should be extensive, and include maps showing habitat and species occurrences in relation to surface features and previous sampling events and results. Particular, but not exclusive, attention should be given to federal and state species of concern, their habitat, food resources, and temporal distribution in the wetlands. This first phase can then be used to develop the workplan for the second phase, which would be field sampling activities. The results of the second phase can be used for subsequent studies or evaluation as needed.

The scope of work, as presented in workplan, has the potential for damage to the wetland habitat and species of concern at Moffett. For example, Figure 12 of the workplan indicates soil/sediment locations which appear to be located in middle of the wetland, yet no mention is made of the method which will be used to transport personnel and equipment to those locations. The whole objective of this workplan should be to describe, in detail, what specific activities will occur, in what manner, and what measures will be taken to ensure habitat is not destroyed or damaged.

Vague statements, such as, "specific information on what to do if wildlife is encountered or destroyed or damage to habitat is extensive or unplanned will be provided [to field personnel].", (page 6) provide little assurance that the planned activities will not do more harm than good. The way to

adequately ensure that habitat is not damaged or destroyed is to know beforehand the location and type of biological resources, and plan sampling activities specifically to minimize impacts.

SPECIFIC COMMENTS:

1. Page 6 of the workplan refers to Table 1 and 2 which list plant and animals species found at Moffett Field, based on a study by USDA (1990). the workplan then cites species of concern (salt marsh harvest mouse, California clapper rail, California brown pelican, and California least tern) which are not listed in Tables 1 and 2.

   This suggests that, either the tables are not complete lists, or the USDA study was not through in identifying all species found at Moffett Field. Interestingly, the species not listed are all state and federally listed endangered species. A review of California Natural Diversity Data Base (Rarefind, 1991) indicates the saltmarsh common yellowthroat (Category 2 candidate for federal listing) and the saltmarsh wandering shrew (Category 1 candidate for federal listing), ar found in nearby areas to Moffett Field, and therefore can be suspected of occurring at Moffett Field also.

   All of these factors indicate that a through inventory of the biological resources of the area is needed. Phase 1 should include a complete characterization of the biological resources, including detailed maps and descriptions of species and their habitats.

2. The workplan should identify any known or suspected waste disposal sites within the wetlands or adjacent fill areas, if any. Aerial photographs would provide evidence of such activity. The contaminants known or suspected to have been disposed should be described.

3. The general source and flow patterns of the storm water lines should be described and indicated on maps. As much as possible, the known of suspected contaminants of the source areas should be described. Particular attention should be given to past site activities.

4. The laboratory detection limits of past sampling activities should be reported, and these levels compared to potential levels of concern. One resource for sediment quality guidelines is Long Morgan (1991). The detection limits for each method of analysis should be stated in any future sampling workplan.

5. The workplan mentions "soil disposal areas". what is the nature and source of these soils?

6. The workplan does not indicate the depth to groundwater, but consideration should be given to evaluating the effect of contaminated soil-gas collecting in animal burrows.

7. The workplan should provide information on the specific analytical methods which will be used. Total petroleum hydrocarbon (TPH) analysis is of little use in evaluating potential ecological effects. Constituents in petroleum hydrocarbons which are of concern (such as VOCs and PNA's) should be analyzed for directly. Surface water samples should include analysis for VOCs in addition to the other compounds.

8. It is not clear why depths of .5 and 1.5 feet bgs are chosen for sediment samples. the rational for this choice should be explained and justified. In addition to depth samples, surface sediment samples should also be obtained. Complete sampling procedures should be provided in the workplan. Logistics, such as how and where field personnel will access the sampling locations should be provided. The locations of the surface water samples should be clearly marked on a map, and the reason why those locations wee chosen should be provided.

9. I am not commenting on Section 4.3, Environmental Assessment, since it is premature at this time to decide which species, habitats and contaminants should be addressed quantitatively.

CONCLUSION:

This workplan is inadequate to describe and support the scope of work planned for the wetland area. First and foremost, a thorough inventory of the biological resources should be conducted. This will provide a basis for deciding where and how to conduct sampling activities to minimize disturbance of the species and habitat, and to provide a rational framework for sampling activities.

REFERENCES:

1. Long, E. R. and L.G. Morgan. 1990. The potential for Biological Effects of Sediment-Sorbed Contaminants Tested in the National Status And Trends Program. National Oceanic and Atmospheric Administration, NOAA Technical memorandum NOS OMA 52.

2. Rarefind. 1991. California Department of Fish and Game, Natural Diversity Database.
U.S. Department of Agriculture (USDA), Soil Conservation Service in cooperation with Natural resource Management Branch (Code 243) Western Division, Naval Facilities Engineering Command. 1990. Natural Resources Management Plan- Naval Air Station Moffett Field, Davis, California. December-1990.