STATE OF CALIFORNIA — ENVIRONMENTAL PROTECTION AGENCY

DEPARTMENT OF TOXIC SUBSTANCES CONTROL

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

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N00236.001121
ALAMEDA POINT
SSIC NO. 5090.3

September 16, 1994

Commander
Western Division
Naval Facilities Engineering Command
Attn.: Mr. George Kikugawa, Engineer in Charge
Code 09ER3GK
900 Commodore Drive
San Bruno, California 94066-2402

Dear Mr. Kikugawa:

DRAFT ECOLOGICAL ASSESSMENT, NAVAL AIR STATION, ALAMEDA

The California Environmental Protection Agency (Cal/EPA), Department of Toxic Substances Control (DTSC) and the Regional Water Quality Control Board (RWQCB) have reviewed the draft Ecological Assessment dated February 17, 1994. The review period on the Ecological Assessment was extended to September 15, 1994 because of a necessity to recollect samples for semi-volatile organic constituents (SVOCs). This data has been incorporated into the draft Ecological Assessment.

The DTSC comments on the draft Ecological Assessment were prepared by James Polisini, Ph.D., Staff Toxicologist in the Office of Scientific Affairs. His comments are enclosed in this letter. Comments from the RWQCB were prepared by James Nusrala, Remedial Project Manager and are enclosed.

If you have questions regarding these comments, please contact me at (510) 540-3809.

Sincerely,

Thomas P. Lanphar
Project Manager
Base Closure Branch

Enclosure

cc: See next page

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cc. Mr. James Nusrala
Regional Water Quality Control Board
2101 Webster Street, Suite 500
Oakland, California 94612

Lt. Mike Petouhoff
Base Environmental Coordinator
Alameda Naval Air Station
Building 1, Code 52
Alameda, California 94501

Mr. James Ricks
U.S. Environmental Protection Agency
H-92
75 Hawthorne St.
San Francisco, California 94105

Mr. James M. Polisini, Ph.D.
Staff Toxicologist
Office of Scientific Affairs
400 P Street, 4th Floor
Sacramento, California 95812-0806

STATE OF CALIFORNIA—ENVIRONMENTAL PROTECTION AGENCY PETE WILSON, *Governor*

DEPARTMENT OF TOXIC SUBSTANCES CONTROL
400 P Street, 4th Floor
P.O. Box 806
Sacramento, CA 95812-0806
16) 255-2043

MEMORANDUM

TO: Tom Lanphar, Project Manager
Site Mitigation Branch, Region 2
700 Heinz, Building F, Second Floor
Berkeley, CA 94710

FROM: James M. Polisini, Ph.D.
Staff Toxicologist
Office of Scientific Affairs
Human and Ecological Risk Section

DATE: April 14, 1994

SUBJECT: NAVAL STATION ALAMEDA ECOLOGICAL ASSESSMENT

Background

We have reviewed the document titled *Draft Report Naval Air Station Alameda, Alameda, California Ecological Assessment*, dated February 17, 1994 and prepared by PRC Environmental Management, Inc, Kinnetic Laboratories, Inc., Toxscan, Inc. and The Habitat Restoration Group in response to your written request received in our offices March 4, 1994.

Naval Air Station (NAS) Alameda occupies the western third of Alameda Island and has been a military installation since 1930. NAS Alameda occupies 2842 acres of land, water and airspace easement, including 1734 acres of land. The majority of the land at NAS Alameda was created by filling existing tidelands with dredged material from San Francisco Bay and the Oakland Inner Harbor.

General Comments

In general, this ecological assessment is a well-focused investigation of the potential threat to ecological receptors posed by contaminants associated with NAS Alameda. This is a direct reflection of the preliminary work performed by the Navy and Navy contractors in extensive planning meetings with regulatory agencies.

We agree with the conclusions that some NAS Alameda sediments and wetland locations are contaminated with metals and/or organic compounds which are toxic to benthic invertebrates and present a threat to aquatic ecological receptors.

Specific Comments

Denise Klimas, the National Oceanic and Atmospheric Administration (NOAA) Coastal Resources Coordinator (CRC) for EPA Region 9 who participated in developing the study plan, is not a member of the national Marine Fisheries Service (Section 1.5, page 1-6).

The figure showing the location of the stormwater sampling stations is figure 1-4, not figure 1-2 referenced in the text (Section 2.1.3.4, page 2-9).

The calculation of "cumulative ER-L values" employs a procedure which produces a index which is the deviation from the mean for each analyte standardized by the standard deviation of that analyte (Section 2.3.1.1., page 2-20). While this is a standard statistical methodology for producing a normally distributed variate, the more common method in risk assessment is to divide the analyte concentration by the ER-L without dividing by the standard deviation.

Dendrograms portraying the results of the cluster analysis should be included in the appendices (Section 2.3.4, page 2-25).

Total petroleum hydrocarbon (TPH) results in water from the Seaplane Lagoon are reported in units of mg/kg where mg/l are probably the more appropriate units for water (Section 4.2.3.5, page 4-21).

The text describing potential sources of contaminants to the Seaplane Lagoon (Section 4.6, page 4-41) should be modified to make clear that stormwater samples from the stormwater system leading to the Seaplane Lagoon were sampled during a storm event in 1993 (Section 6.0, page 6-1), but the stormwater system itself was not sampled for contaminated sediments. The current phrasing "...however, the inability to sample during the 1993 storm season makes it impossible to ascertain the degree to which stormwater serves as a source of chemicals in Seaplane Lagoon sediments." could be interpreted to mean that storm water was not sampled.

Two statements on the same page seem contradictory (Section 4.6, page 4-43). We agree with the statement that "The contamination at stations E7 through E10 cannot all be attributed to NAS Alameda activities; the sites are adjacent to major discharges from the industrial portion of the base, and the roster of chemical toxicants measured was consistent with the toxicants known to be discharged from NAS

Alameda industrial activities.". However, we do not agree with the statement, several lines later, that "... it is difficult to conclude that all (or, indeed, any) of the contaminants present in sediments at E7 through E10 is derived from NAS Alameda discharges or NAS Alameda activities.". There appears to be sufficient correlation between NAS Alameda outfall location, sediment chemistry results and toxicity testing to conclude that present or past discharges from NAS Alameda contribute to the demonstrated toxicity regardless of any contamination attributable to port facilities across the Inner Harbor Channel.

Conclusions

We agree with the conclusions that some NAS Alameda sediments and wetland locations are contaminated with metals and/or organic compounds which are toxic to benthic invertebrates and that the storm water runoff is contaminated with soluble and particulate metals which are toxic.

Current sources of contaminant transport from NAS Alameda to the surrounding aquatic habitat and on-site wetland habitat should be identified and terminated. As contaminants associated with the West Beach Landfill appear to have migrated to the West Beach Landfill Wetland (section 7.4.1, page 7-9), transport of contaminants from the West Beach Landfill into San Francisco Bay should be investigated. Migration of soluble contaminants into San Francisco Bay with subsequent distribution by tidal action may be the reason demonstrated toxicity cannot be tied to Western Bayside sediment chemical concentrations. Flux chambers may be useful in quantifying the rate of transport. Mitigation of the West Beach Landfill Wetland (W, W5, W6 and W7) and Runway Wetland (R3) areas identified as toxic should be completed to minimize the exposure of terrestrial and aquatic receptors. Preservation of the wetlands should be given high priority during further investigation and subsequent remediation. The storm water runoff which enters the Seaplane lagoon, which was not assessed, should be evaluated to determine the potential threat.

As some sediment and wetland locations are demonstrably toxic, subsequent investigations should focus on the extent of the contamination. More extensive evaluation of contaminant concentration at depth should be conducted as part of the Remedial Investigation/Feasibility Study process. Consideration should be given to combining the review and selection of a final remedial alternative for NAS Alameda with the review and selection of a final remedial alternative for the nearby Fleet Industrial and Supply Center Oakland (FISCO) and the FISCO Alameda Annex Facility. This consolidation would provide a more complete examination of potential remedial alternatives for the entire area.

Prepared By: James Nusrala
Remedial Project Manager

Phone No.: (510) 286-0301

Date: June 20, 1994

File No.: 2199.9285 (JBN)

Subject: Naval Air Station (NAS) Alameda, Draft Ecological Assessment, February 17, 1994

The Navy needs to comply with the provisions set forth in the existing Site Cleanup Requirements for the Alameda Naval Air Station Skeet and Trap Club (Order Number 93-129), adopted by this office on October 20, 1993. The sources of pollution that the Order is concerned with are two skeet and trap shooting ranges, located on the upper, eastern corner of Site 1--the 1942-1956 Disposal Site. At this site lead pellets were shot directly into San Francisco Bay. The Site Cleanup Requirements directs the Navy to do three things. First, characterize the biology in the area where the lead was deposited. Second, characterize the lateral and vertical extent of lead sediment pollution, including what is in the particulate and what is dissolved in the sediment. Lastly, the Navy must conduct remedial action necessary to eliminate any risk. The Ecological Assessment (EA), currently being conducted at NAS Alameda, is the most appropriate place to address the concerns outline in the Order. Part of the EA's scope includes looking at the Western Bayside--the shoreline and sediments just west of the two landfill sites. This covers the area impacted by the two skeet ranges. The follow-on work for the EA at NAS Alameda shall be tailored to meet the provisions outlined in the Site Cleanup Requirements mentioned above.

Concurred By: _____, Ron Gervason, DoD Section Leader