



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105
August 17, 1994

MEMORANDUM

SUBJECT: Request for Contradictory Statements
in Tech Memo 4, June 9, 1994

FROM: Clarence A. Callahan, EPA *Callahan*

TO: Allan Chartrand, Bechtel *FAX 310/807-3444*

During a conversation with you and Omer after the meeting on 8/16/94, you requested the "locations" in Tech Memo 4 where I stated that there were contradictory statements about the data analysis. After returning to my office with more time to examine my comments on Tech Memo 4 that were sent to you last week, please consider the following text.

The first bullet on page 17 states, "A comparative approach, where samples collected from the project study would be qualitatively (my emphasis) compared to other data sets to indicate the nature of the communities relative to other locations, thus indicating the degree of disturbance. Other comparative approaches relate to trophic relationships, number of opportunistic species, major taxonomic groups, and average biomass by major taxonomic group." This statement as you can see is stating that you will "qualitatively compare" sample data, which you identify in the opening paragraph as, "community structure, number of species, abundance, biomass and diversity" clearly numerical data. Perhaps what is needed, in part, is a clear description of the details for "a comparative approach" especially in light of the proposed "statistical difference" for test vs reference areas as stated on page 18, par 2.

The second bullet defining the gradient approach (p17) again states that you will use "comparisons of community parameters (e.g., diversity, abundance, biomass, etc) to define disturbance gradients at specific sites relative to other areas."

These statements cited above should be compared to the statement on page 18, "Decision or performance criteria for benthic community analyses should, in our best judgment, remain qualitative at this stage. ..." and also on p18, The assessment of "performance" of community analyses by qualitative means is

suggested in one paragraph and yet in the next, numerical comparisons of major taxa, and a "statistical difference in test vs. reference." Again, how can you make qualitative comparisons using "numerical guidelines?"

These are some examples of contradictory statements that must be eliminated. Please call me if you have any questions about these comments.

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