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## United States Department of the Interior

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May 18, 1998

Dear Dr. Macler,

The U.S. Geological Survey has been participating in the CALFED Water Quality Technical Committee's Drinking Water Group to assist in developing 'problem statements' and Water Quality 'action items' for the CALFED program. Because we are a science agency specializing in water resources and have been conducting research in the Delta for more than 30 years, we have developed substantial expertise on TOC, salt transport, wetlands, aqueous geochemistry and other relevant issues. Thus, we are well positioned to comment on the quality of existing scientific understanding of issues related to water quality in the Delta, and to evaluate and recommend directions for future research.

Although you have indicated in the CALFED Drinking Water Working Group meetings that you do not favor nominating research in the list of 'action items', we feel strongly that additional focused research is necessary to ensure that CALFED Common Program actions do not result in degradation of the quality of Delta-derived drinking water.

Specifically, we recommend that further focused research be conducted to identify the amount and THM-forming ability of TOC evolved from both agricultural activities and wetlands over the variety of soils found in the Delta. Second, we recommend that a comprehensive, calibrated 2-D computer model of the Delta be constructed to better evaluate the transport of TOC to drinking water intakes, and evaluate the effect of wetland conversion on seawater intrusion under a variety of flow and operational scenarios. In the Working Group meetings, we have related the need for focused research and recommended directions that this focused research should take. You have previously received from us written summaries of the issues and proposed research directions for inclusion in the working group report. We strongly feel that the current limited scientific understanding in these areas compromises the ability of CALFED to evaluate the consequence of CALFED Common Program activities as well as the CALFED alternatives.

Nomination and support of focused research among the CALFED 'action items' will strengthen the CALFED process because it will augment our critical limited knowledge in these areas, provide a better prognostic understanding of the effects of CALFED Common Program activities, may forestall implementation of activities that degrade

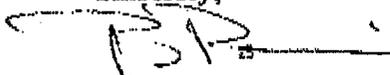
water quality, and may provide additional 'action items' that address the substantial problems of TOC, bromide, and THM in Delta-derived drinking water.

Failure to identify focused research among the 'action items' leads to the misperception that the 'problem statement' and associated list of recommended 'action items' is a comprehensive statement of the ways water quality may be improved in the Delta. We feel strongly that appropriate focused research is necessary and will help guide implementation of Water Quality 'action items' and will identify significant additional ones.

You have indicated that the recommendations now in preparation by the Drinking Water group may not be the place to address our concerns. In our opinion, the CALFED Water Quality Technical Committee's Drinking Water Group is the appropriate forum and process to consider these important technical concerns. We strongly urge you to include the focused research activities outlined above among the 'action items' to be presented as the preliminary report of the Drinking Water Group, as discussed in the recent meetings.

If you have any questions or require any further information, please contact me at (916) 278-3053 or [bbergama@usgs.gov](mailto:bbergama@usgs.gov).

Sincerely,



Brian A. Bergamaschi, Ph.D.