

DWR WAREHOUSE

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TO: CALFED Catagory III
FROM: Water Quality Monitoriting and Assessment Team
SUBJECT: Inquiry Submittal

If you have any questions, please call Leo Winternitz (DWR) at (916) 227-7548.

INQUIRY SUBMITTAL to CATEGORY III

A. Project Title and Applicant's Name. Design of San Francisco Bay - Sacramento/San Joaquin Delta Estuary Water Quality Monitoring and Assessment Program. Leo Winternitz, Rich Breuer, Department of Water Resources; Chris Foe, Ph.D., Valerie Connor, Ph.D., Central Valley Regional Water Quality Control Board; Ron Gervason, San Francisco Bay Regional Water Quality Control Board; Tom Grovhoug; Larry Walker Associates; Bruce Thompson, Ph.D., San Francisco Estuary Institute; Ken Lentz, U.S Bureau of Reclamation; Larry Smith, James Cloern, Ph.D., Neil Dubrovsky, Ph.D., U.S Geological Survey.

B. Project Description and Primary Biological/Ecological Factors. The purpose of the project is to develop a coordinated and comprehensive water quality monitoring and assessment program for San Francisco Bay, the Sacramento-San Joaquin Delta, and the mainstems of Central Valley Rivers. The new program will be developed from existing water quality monitoring programs, building upon and coordinating ongoing activities. Water quality is defined broadly and includes conventional indicators (e.g., salinity, dissolved oxygen, temperature, etc.), non-conventional indicators (e.g., contaminants, toxicity, bioaccumulation, pathogens, etc.), and biological indicators (e.g., phytoplankton, zooplankton, benthos, fish) to insure protection of all beneficial uses including municipal, industrial, agriculture, and wildlife. The objectives of the water quality program would be: 1) Document water quality and biological conditions in the Rivers, Delta, and Bay; 2) Document compliance with water quality standards; 3) Identify trends in water quality conditions and assess relationships between biological indicators and water quality conditions; 4) Provide government agencies and the public with easy access to the data, information derived from the data, and timely interpretive reports. Those objectives would provide broad ecosystem benefits for all CALFEF priority habitats and species.

C. Approach/Tasks and Schedule. A multi-agency team that includes representatives of the current major water quality monitoring programs in the region has been formed (listed in A). Additional members may be added (e.g. Fish and Game, CUWA, etc.). The team will continue to meet as a steering committee to discuss coordination of their programs and will prepare a Category III proposal for the next round requesting funds for staff time to support the development of a comprehensive water quality program that would fit into CALFED's EERP and CMARP. As part of this development the team will work closely with CALFED staff to identify CALFED's water quality monitoring questions and to coordinate the water quality monitoring component with other CMARP monitoring components: Levees and Channels, Ecosystem Restoration, Water use, Storage and Conveyance. A report with the following components will be prepared: 1) A plan for coordinating existing programs to achieve CALFED's objectives; 2) A plan for an administrative structure to coordinate, administer, and fund the program; 3) Locations, sample frequencies, and indicators needed to achieve program objectives; 4) Sampling and analysis methods, protocols, QA procedures, data management plan, interpretation plan, and reporting guidelines; 5) Identification of additional monitoring needed to fill gaps in existing programs; 6) Data analysis procedures to identify conditions and detect trends;

7) An outline for an annual report documenting conditions and findings; 8) Specifications for making water quality data available on-line. The product of this work will be a detailed design of a coordinated and comprehensive water quality program with sampling protocols and QA specifications for the region. The product should be available within 18 months from the beginning of the project. The plan will be developed with input from stakeholders in each of the participating programs and will be reviewed by interested parties prior to completion.

D. Justification for Project and Funding by CALFED. Water quality is a common program for all CALFED alternatives. Knowledge of water quality status and trends, and possible ecological effects is critical to the evaluation of CALFED and Category III actions, but there is currently no coordinated and comprehensive water quality program for the Rivers, Delta, and Bay. Such a program will enable CALFED and responsible entities to establish the existence of, and quantify the severity of water quality problems in the estuary, establish baseline conditions against which to evaluate the progress of restoration and source control actions, and provide input for the adaptive management process.

E. Budget Costs and Third Party Impacts. Funds will be requested for two associate level water quality scientists to work with the managers of existing programs to develop the coordinated water quality monitoring plan. Staff assistance is necessary because the managers of existing monitoring programs time is committed to their respective programs. It is estimated that the salaries of two associate scientists would cost about \$225,000 over the 18-month period. Additionally, funding for pilot studies to demonstrate selected components of the water quality monitoring program may be requested. There are no anticipated third party impacts from this project.

F. Applicant Qualifications. All applicants identified in A. are senior members of their respective organizations responsible for directing or conducting water quality programs. These existing programs have the most experience in conducting water quality monitoring in the region. Most programs already have sampling, QA, data management procedures, and reporting formats in place, which could be modified to provide CALFED with the water quality program they need. CALFED should rely on these existing programs.

G. Monitoring and Data Evaluation. Monitoring is the main purpose of this inquiry submittal.

Local Support/Coordination With Other Programs/Compatibility with CALFED Objectives. Water quality is the first objective listed for CALFED's Bay-Delta Program. While Category III will be asked to support the development of the water quality monitoring program, each existing program will participate in the resulting monitoring program providing matching funds and services in kind. However, there will no doubt be gaps in the current programs that no one is filling that CALFED may be asked to fund in the future. This program will also be coordinated with the Interagency Ecological Program and members of the San Joaquin River Management Committee.