

Memorandum

Date: May 31, 2002

To: California Bay-Delta Public Advisory Committee

From: Greg Gartrell and Marguerite Young, Co-Chairs
Drinking Water Subcommittee

Subject: Subcommittee Recommendation – Action: Adopt the Subcommittee recommendation on Water Quality Project Priority for Advanced Treatment Studies.

Summary

CALFED Agencies have adopted a general target of continuously improving Delta water quality for all uses. CALFED Agencies' target for providing safe, reliable, and affordable drinking water in a cost-effective way, is to achieve either: (a) average concentrations at Delta drinking water intakes of 50 µg/L bromide and 3.0 mg/L total organic carbon, or (b) an equivalent level of public health protection (ELPHP) using a cost-effective combination of alternative source waters, source control and treatment technologies. Fundamental to the CALFED Drinking Water Quality Program is a requirement for adequate information on advanced treatment methods that will: 1) evaluate alternative approaches to drinking water treatment, 2) allow a Clean Water Act 404 analysis of the "Least environmentally damaging practicable alternative" (LEDPA) so that decisions can be made on other CALFED projects, and 3) allow the determination of the ELPHP. Indeed, the strategy diagram for ELPHP (Attachment 1) shows many important CALFED elements flowing to treatment. Consequently, all of the Stage 1 CALFED Drinking Water Quality Program is now or will become dependent upon the determination of the capabilities of advanced treatment of Delta water.

Recommended Action: The Drinking Water Subcommittee recommends the Committee adopt the recommendation that the CALFED Program immediately place a high priority on funding and implementing pilot project(s) on advanced treatment processes for drinking water to ensure the necessary information is available as soon as possible that will:

- 1) ensure that the LEDPA analyses and permitting for CALFED storage, conveyance and other projects can be completed on schedule;
- 2) produce data that will aid the characterization of the Equivalent Level of Public Health Protection for agencies dependent upon Delta supplies for drinking water;
- 3) aid CALFED in meeting its overall drinking water quality goals.

CALFED Agencies

California

The Resources Agency
Department of Water Resources
Department of Fish and Game
The Reclamation Board
Delta Protection Commission
Department of Conservation
San Francisco Bay Conservation
and Development Commission

California Environmental Protection Agency
State Water Resources Control Board
Department of Health Services
Department of Food and Agriculture

Federal

Department of the Interior
Bureau of Reclamation
Fish and Wildlife Service
Geological Survey
Bureau of Land Management
Environmental Protection Agency
Army Corps of Engineers

Department of Agriculture
Natural Resources Conservation Service
Forest Service
Department of Commerce
National Marine Fisheries Service
Western Area Power Administration

Background

The subcommittee considered this issue at its April 5, 2002 meeting and reviewed a draft memorandum. A final memorandum to the BDPAC dated April 25, 2002 (Attachment 2) was prepared incorporating subcommittee comments.

The importance of studies on advanced treatment was raised previously under the Delta Drinking Water Council. The CALFED Water Quality Program has funded several studies on some advanced treatment methods. As discussed in the attached memorandum, there are a number of reasons for putting a high priority on completing the necessary advanced drinking water treatment studies. These include:

- A number of conveyance and storage projects will require a 404 analysis that in many cases includes advanced treatment as part of an alternative. These studies would be a necessary part of the permitting process.
- A number of ecosystem restoration projects and programs (including environmental water programs) have the potential to degrade water quality, causing increased bromides and organic carbon in delivered water. Advanced treatment studies could be required as part of the permitting and mitigation programs for these projects.
- Advanced treatment studies are a part of the CALFED Water Quality Program and are needed for meeting the overall program goals.
- The determination of alternatives to meeting the ELPHP requires advanced treatment studies.

The attached memorandum also sets forth requirements for the studies, including peer review in coordination with the CALFED Science Program. The studies should include the variability in Delta water quality and treatment methods and should cover a wide variety of advanced treatment methods, including ultra-violet disinfection, membranes and multiple disinfectants.

The results of advanced treatment studies are critically needed in order to ensure that the Stage 1 program remain on track, and that the necessary information is available within and at the end of Stage 1, when important decisions must be made on the direction of future CALFED program elements.

Requested Action

The Committee adopts the recommendation that the CALFED Program immediately place a high priority on funding and implementing pilot project(s) on advanced treatment processes for drinking water to ensure the necessary information is available as soon as possible that will:

- 1) ensure that the LEDPA analyses and permitting for CALFED storage, conveyance and other projects can be completed on schedule;
- 2) produce data that will aid the characterization of the Equivalent Level of Public Health Protection for agencies dependent upon Delta supplies for drinking water;
- 3) aid CALFED in meeting its overall drinking water quality goals.

Attachments:

- 1) Equivalent Level of Public Health Protection Strategy Diagram
- 2) April 25, 2002 memo from Greg Gartrell to the BDPAC