

99-95  
JUL 16 1999

CENTRAL VALLEY PROJECT WATER ASSOCIATION  
NORTHERN CALIFORNIA WATER ASSOCIATION  
STATE WATER CONTRACTORS

July 13, 1999

Mr. Lester A. Snow  
Executive Director  
CALFED Bay-Delta Program  
1416 9<sup>th</sup> Street, Suite 1155  
Sacramento, CA 95814

Dear Mr. Snow:

As you may know, water users have been keenly interested in the progress of the CALFED Economic Evaluation of Water Management Alternatives (EEWMA) over the last year. The EEWMA has the potential for serving as one tool to measure the possible need for surface water reservoirs under Section 404 of the Clean Water Act (CWA). We were also interested in the preliminary study results presented in the June 1999 draft report on the EEWMA. The purpose of this letter is to provide you with our preliminary interpretation of the evaluation and to suggest additional activities that appear to be needed as part of an overall CWA Section 404 permitting process.

We generally support the analytical approach being developed by the EEWMA, as described in your June 1999 draft report. Work to date has identified a wide variety of water management alternatives using available data that have been incorporated into a good framework. At this stage, the framework appears stronger than the actual data and assumptions that are built in to the analysis.

Although CALFED plans additional refinements to the EEWMA, and we have suggestions for other refinements, the early analysis results appear adequate to support several interpretations. These are summarized below:

- **Surface Storage options are economically superior to many "soft-path" alternatives.** The June 1999 draft EEWMA report includes surface storage at one or more sites and conveyance as elements of the unconstrained "least-cost" water supply solutions. Results presented at prior work group meetings based on draft Policy Assumptions and Preference (PAP) sets that placed a priority on "soft-path" alternatives resulted in considerably higher costs than the unconstrained or water user PAP assumptions. We also understand that more recent revisions to the EEWMA have resulted in larger amounts of surface storage as part of the unconstrained PAP solution.

- **Cost is an important distinguishing characteristic among water supply alternatives.** We disagree with CALFED's statement at the May 12 BDAC Workgroup that "all Water Management Strategy tools are economically viable." Although the preliminary results appear to visually show relatively flat average cost supply curves, the scales on the graphs are extremely large and serve to mask real and significant cost differences among various alternatives. For example, at first glance, the Environmental Preference<sup>1</sup> set appears to show a relatively flat cost curve. Upon closer inspection, it shows average cost differences of \$100 per acre-foot for all water use in the South Coast which would represent a very significant, and possibly uneconomical, annual cost range of approximately \$600 million.
- **Water Supply Alternatives in the EEWMA do not all have the same degree of refinement.** Although a relatively high degree of analysis has been completed for some new surface reservoirs, many of the other, lower-cost alternatives considered in the EEWMA were not analyzed in detail. In many cases, prior studies relying on limited analysis have been used to estimate costs and quantities of water supply alternatives, in order to have a complete set of alternatives available. While this approach is appropriate for developing a first cut answer and refining the study methodology, it can result in misleading answers. Although we are not aware of any specific errors resulting from the lack of refined cost and quantity estimates, we feel that additional analysis and review of costs and quantities is merited for many alternatives.
- **Environmental Water Demands may not all have been included in the analysis.** The EEWMA includes a prior CVPIA estimate of environmental water needs as a proxy for the environmental water needs CALFED's Ecological Restoration Program and Environmental Water Account. These other programs, along with the water supply required to make up for reduced export levels from Criteria A in CALFED's Programmatic Environmental Impact Statement/Report, will also require use of water from sources such as water purchases, conjunctive use and recycling that are included in the EEWMA. To the extent that these environmental demands are not completely reflected in the EEMWA, their omission will result in an over-estimate of the water supply alternatives available to meet water user demands.

While the EEWMA efforts to date have done a good job in identifying viable supply options for the CALFED program, focussed additional effort needs to be completed in the next few months to further refine and improve the analysis. The water users believe that the next level of analysis should evaluate the PAP sets against the overall program objectives, including such considerations as:

- **Reliable Storage Refill Capability** – The EEWMA demonstrates the benefits of storage yield in meeting existing and future water needs for water users and the environment.

<sup>1</sup> The results presented at the BDAC May 12 Workgroup meeting incorrectly are labeled "Preference Set" not the longer and more accurate term "Policy Assumptions and Preference Set." The Ag and Urban Caucuses have both included many factors in their PAP sets that represent not their preferences for future policy, but rather their judgement about what assumptions are realistic.

However, storage yield is dependent on the ability to refill during wet periods with surplus water. We believe that the capability to pump 10,300 cfs at Banks Pumping Plant is a necessary component to realize the full benefits of storage and many other water supply alternatives. In order to test this belief, we recommend a next step of coupled hydrology models to evaluate the benefits of all storage and conveyance options. Our concerns over wet-year pumping reliability is punctuated by the cutbacks we have experienced this year at Banks and Tracy Pumping Plants. These cutbacks reflect the unpredictable, yet significant, impacts of the Endangered Species Act restrictions.

- **Operational Flexibility** – The EEWMA currently considers all water supply measures equally, without any consideration of the operational flexibility that either would be used, or added. Some water management alternatives, such as water transfers from fallowing, could reduce operational flexibility. Other alternatives, such as surface reservoirs, could add flexibility. As a first cut, the refinements being conducted by CALFED that use the DWRSIM operations model will provide improved consideration of the operational impacts on water transfer efficiency. However, additional analysis may be required to fully reflect the operational benefits of management alternatives.
- **Water Quality** – We understand that the CALFED preferred alternative will rely on a limited range of operational and source control measures to improve water quality during Stage 1. Some of the operational measures will require either the use of surface storage or the availability of additional water supply for improved water quality conditions. Neither of these two potential means of improving water quality are currently included in the EEWMA.
- **Practicability** – The practicability of various water management alternatives is a major missing element in the EEWMA that will need to be added for CWA 404 purposes. Currently, the EEWMA relies on implicit, generally optimistic assumptions about the quantity and cost of many water supply alternatives that do not reflect real institutional and political constraints. For example, earlier CALFED and DWR proposals considering Sacramento Valley transfers based on land fallowing and conjunctive use have met with significant local resistance. Other technically viable proposals for conjunctive use, such as the Madera Ranch, have been held up by local interests that could be negatively impacted and practicability of those proposals is a real question. Both the cost and the quantity of water option availability could be affected by incorporating realistic considerations about the practicability of alternatives.

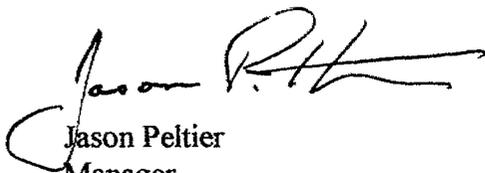
To move the results of the EEWMA from a purely theoretically, economic basis to realism, a specific practicability analysis is required. A practicability test, specifically considering economic, technology and logistics factors, is also required for compliance with CWA 404. We believe that practicability tests can be defined for different water management alternative groupings that would realistically consider non-economic factors. For example, the practicability analysis for land fallowing might consider social factors resulting from land fallowing, the attitudes of local governmental officials, and the existence of statutes and

Mr. Lester A. Snow  
July 13, 1999  
Page 4

county ordinances in refining purely economic estimates of the quantity available. The results of such a more detailed analysis would provide more realistic estimates of supply alternative availability for serious consideration of the possible need for new surface reservoir construction.

As described above, we are encouraged by the initial results of the EEWMA. The EEWMA provides a good initial framework for consideration of all water management alternatives on an equal basis. However, we believe that additional analysis is required to improve on CALFED's good start. In addition to consideration of storage refill, operational flexibility, and water quality, there is a serious need for additional analysis of the practicability of various alternatives. We are very interested in working with and supporting CALFED in successfully completing these activities. If you have any questions, please contact Laura King at (510) 482-3080 or Terry Erlewine at (916) 447-7357.

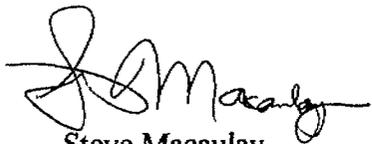
Sincerely,



Jason Peltier  
Manager  
Central Valley Project Water Association



David Guy  
Executive Director  
Northern California Water Association



Steve Macaulay  
General Manager  
State Water Contractors

Cc: CALFED Policy Group