



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
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OFFICE OF THE  
REGIONAL ADMINISTRATOR

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Steve Ritchie  
Executive Director  
CALFED  
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Sacramento, CA 95814

Dear Mr. Ritchie:

I appreciate CALFED's recent responses to the concerns raised by Representative Miller and Senator Boxer regarding a potential Hood-Mokelumne diversion facility. The responses clarify CALFED's proposed approach to conveyance options and their relationship to drinking water quality. Unfortunately, the recent letter from the Bay Delta Urban Coalition (BDUC) to Governor Davis and Secretary Babbitt evidences more fundamental misapprehensions among stakeholders on the drinking water quality issue than was touched on in the congressional correspondence. I want to provide EPA's perspective to further clarify drinking water issues.

First, as expected in CALFED's adaptive management approach to drinking water quality, our best information on drinking water quality continues to evolve. EPA's Information Collection Rule (ICR) is generating new data for the national drinking water FACA process to shape the Stage 2 Disinfection Byproduct (DBP) Rule and the new microbial rule. We look forward to presenting the very latest information to the CALFED Policy Group and the Bay Delta Advisory Council once the complete data set becomes available in December or January.

Stakeholder concerns continue to focus on the quantitative source water quality targets for bromide and total organic carbon (TOC) in CALFED's Revised Phase II Report. CALFED's underlying goal is for continuous improvement in Delta water quality, and its proposed approach does not include an explicit timeframe to achieve those targets. Instead, CALFED recognizes that the new information being generated will almost certainly produce an evolution in understanding of public health protection needs for drinking water, and that attempts by CALFED to predict future drinking water standards and any associated water quality needs would therefore be premature and inappropriate. CALFED thus includes a broader alternative to numerical targets: "an equivalent level of public health protection using a cost-effective combination of alternative source waters, source control, and treatment technologies." This alternative exemplifies the adaptive management approach to drinking water quality that CALFED has proposed and that is reflected in the Stage 1 action program. CALFED's approach to continuous improvement of drinking water quality correctly includes the regular reevaluation of any targets to ensure they are relevant, appropriate and cost-effective means to secure public health protection.

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I will be direct about how these considerations are playing out. The numerical water quality targets reflect concerns which were reasonable when framed in light of the information then available, but which appear to be of decreasing significance as new information begins to alter key assumptions underlying these concerns. EPA's 1994 Stage 1 DBP proposal reflected a concern for areas with elevated source water levels of bromide (such as in the Delta) in the context of ozonation at high doses necessary to inactivate cryptosporidium, because of the resulting problematic levels of bromate. Some stakeholders assumed that the need to inactivate cryptosporidium would drive future drinking water rules to require the nationwide use of high-dose ozonation – without an exception or feasible alternative for areas with the highest source water bromide, which would then require such areas to seek new, lower bromide supplies.

The Stage 1 DBP rule, promulgated in November 1998, demonstrated that EPA would in fact consider different source water conditions in evaluating treatment technology effectiveness – in that case, by providing a flexible compliance regime for TOC removal that allows the Metropolitan Water District to address its distinctive source water blending problems. The new ICR data being generated to underpin the Stage 2 DBP and new microbial rules, while not yet complete, appears to indicate that high bromate levels in finished water resulting from ozonation at doses to inactivate cryptosporidium would be fairly widespread across the country, not a primarily Californian phenomenon. This includes several areas in the Midwest, and areas with fairly low bromide levels in their source water (some below the 50ppb CALFED target). If these relationships are borne out after analysis of the complete ICR data set, it is unclear how a national regulatory standard based solely on ozone inactivation of cryptosporidium could be established.

Not only has the science on risk and occurrence of drinking water contaminants continued to develop, as EPA anticipated, but treatment technologies continue to evolve as well. Stakeholder analyses of source water quality needs were premised on assumptions about both specific regulatory scenarios and the treatments available to meet those scenarios at the time of their analyses. Just as the new, complete ICR data set may raise questions about the feasibility of basing a specific microbial inactivation requirement solely on ozonation, evolving scientific information also brings into play the potential for new, cost-effective treatments which can overcome the quality constraints of Delta source water. A number of stakeholders in the rulemaking discussions, for example, are exploring the feasibility of ultraviolet disinfection as a primary tool to inactivate cryptosporidium without harmful byproducts. This technology is a very positive development and is expected to be available for use by large-scale systems in the relatively near term. Membrane filtration processes are rapidly becoming cost-effective to provide enhanced contaminant and DBP precursor control.

All of these developments bear out the wisdom, prudence and appropriateness of CALFED's adaptive management approach to future water quality needs. And, they demonstrate the inappropriateness of single-mindedly pursuing rigid numerical targets for source water quality based on compounded layers of assumptions that advancing science, policies, and time render increasingly questionable if not outdated. CALFED has proposed an ongoing process on

drinking water quality, utilizing the new Delta Drinking Water Council, that will enable the CALFED Policy Group to make decisions based on the most current information and protect public health fully while minimizing costs and environmental impacts.

Yours,



Felicia Marcus  
Regional Administrator

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