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CALFED WATER QUALITY COMMENTS

RECEIVED AFTER 10/23/97

Received another copy of
this during mtg w/ Judy Heath 11/21/97

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NW

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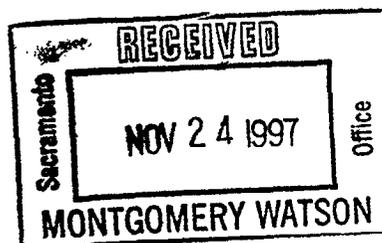
Comments on BDAC Package - Distinguishing Characteristics
(prepared by Elaine Archibald, 10/4/97)

In general, the ranking of the CALFED alternatives with respect to water quality seems about right but it is a very simplistic analysis. Since the devil is often in the details, CALFED needs to do a more thorough analysis and explain the areas of omission and uncertainty. I recommend that the Ag/Urban technical teams review all aspects of this document and provide comments to CALFED. My general comments are presented below, followed by more specific comments.

1. There is no analysis of the impacts of the Ecosystem Restoration Program Plan (ERPP) on in-Delta or export water quality. The water quality analysis needs to take into consideration the potential effects of the ecosystem restoration activities (i.e. potentially increased TOC due to shallow water habitat, flooding of islands, etc.). Even if this cannot be quantified there needs to at least be a discussion of the potential effects.
2. The analysis seems to be based on average numbers over the hydrologic simulation period (1976 to 1991) for TDS and a couple of years for TOC and bromide. There is no discussion of variability in water quality or worst case conditions.
3. CALFED states that "all alternatives include a program to reduce the total pollutant load entering the Delta and to manage the timing of pollutant discharges." They do not discuss the fact that several constituents of most concern to urban water suppliers (TOC and bromide) will be reduced minimally (TOC) and not at all (bromide) by the water quality common program actions.

"Draft Evaluation Using Distinguishing Characteristics"

1. Page 2 - CALFED states that in-Delta water quality is not significantly different between the alternatives. The Ag/Urban modeling shows there are differences (particularly in south Delta TDS) between Alternative 2 and 3. I will obtain the latest modeling results on Friday and further analyze this issue.
2. Page 3 - The decision matrix shows that in-Delta water quality under Alternative 2 is ranked as "good". I believe the urban water interests would not consider in-Delta water quality to be good. I would rank it "fair" at best.
3. Page 3 - The decision matrix ranks export water quality (south Delta) as fair under Alternative 2. I believe the urban water interests would rank export quality as moderate to poor. There is the potential for high TOC as discussed above and bromide levels well above the 50 ug/L needed under the long-term regulatory scenario.



“In-Delta Water Quality Supporting Information”

1. This whole section is focused on increases in TDS in agricultural supply water. There is no discussion about impacts on drinking water supplies or other constituents of concern.
2. Pages 1-3 and 1-4 present tables of TDS levels at various locations under the different alternatives. We need to compare these numbers to the latest Ag/Urban modeling results. There is a statement on page 1-6 that their preliminary model runs overstate TDS and that they will revise in the future.
3. Pages 1-7 and 1-8 - CALFED states that increases in TDS in the south Delta are not problematic because there is adequate water available to leach salts from the root zone. They do not mention that the increased use of water for leaching leads to increased agricultural drainage discharges and impacts on drinking water supplies.

“Export Water Quality Supporting Information”

1. Page 2-1 - In ranking alternatives a score of “5” was given to the alternatives that had the lowest bromide levels. The fact that these levels exceed the 50 ug/L recommended by the expert panel and adopted by the CALFED Water Quality Program as a target level is not discussed.
2. Table 2-1 - The three parameters (TOC, bromide, and TDS) are lumped together and assigned a conglomerate score. Under alternative 2, there is improvement in TDS (about 25%), very slight improvement in bromide, and increases in TOC. When this is all lumped together, alternative 2 is judged to be better than alternative 1 or existing conditions for the south Delta pumps.
3. The actual modeling results are based on DOC but the text continues to refer to TOC as if DOC and TOC were equal. Data from the NBA study has shown that TOC exceeds DOC by several mg/L during the wet season.