

**EPA Comments on Water Quality Impact Analyses Documents
September 1997 Drafts**

It appears that our comments on the previous draft of the Affected Environment document have not been incorporated. Please see our previous submittal (draft document with comments indicated in the margins) for these comments, which are still relevant.

Water Quality Impacts Technical Report

Summary chapter is missing discussion of direct long-term impacts of Alternative 1A compared to No Action (page 2-13).

There is discussion on pages 2-17 and 2-18 on Alternative 2C; however, this alternative was dropped (incorporated into Alternative 3I).

There is no discussion in this document of Alternative 3I (multiple intakes). An analysis of this alternative should be integrated into the document.

Page 3-1, the first paragraph under Section 3.2 is repeated. Delete one paragraph.

In Chapter 5, there is discussion about the impact of various alternatives on drinking water quality. There are several places where this discussion appears to be biased (or making a value judgement that is inappropriate). For example, on page 5-11, under NOM, the statement that reads "could in turn affect the suitability of river water as a drinking water source" should be reworded to read something like "could in turn impact the quality of source water for drinking". Alternatively, replace the word "suitability" with something more benign like "desirability." This also occurs on page 5-18 under the discussion for NOMs.

The discussion regarding salts (pages 5-20 - 5-23) is confusing and troubling. The assumption appears to be that irrigated agriculture does not contribute to net loadings of salts in the Delta; while this may be true, agricultural drainage certainly does affect timing of loads and temporal variations in concentrations which are likely more important factors in determining water quality impacts than annual loadings. We are concerned about conducting this analysis on such a general scale, without factoring differences in timing and concentrations of salt discharges. We are also concerned about the blanket assumption or conclusion that converting agricultural lands to aquatic habitat will result in increased salt concentrations. Again, it seems that a more in-depth analysis of the timing of discharge and timing of freshwater flows into the channels is needed. Salt concentrations in the Delta channels may be higher at certain times of the year, and/or at certain locations, due to habitat conversion - but the blanket statement and general analysis doesn't help elucidate this issue.

Page 5-25, last paragraph discussing "significant impacts/mitigation measures", first

OPTIONAL FORM 10 (7-90)

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of pages **10**

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sentence - replace "enter the" with "are used for".

A general concern regarding the analysis for the water quality common program - this program has been simplified to four generic actions (enforce existing regulations and provide incentives) addressing general sources (mine drainage, urban and industrial runoff, wastewater treatment, and agricultural runoff) in each geographic zone. This seems to be an over-simplification of the program that will hide or ignore the true impact of actual actions (such as land retirement, drinking water treatment, etc.) For example, the discussion on page 5-51 regarding agricultural sources in the San Joaquin basin generically addresses nutrient, sediment and pesticide emissions, but does not include any sort of analysis of selenium levels that may be impacted by selenium-specific actions in the water quality program. If this type of simplification has been carried over to the other resource analyses, then the multiple benefits that may be provided by specific actions (e.g. land retirement can provide water quality benefits and potential water use efficiency benefits) will be obscured.

Page 5-44, the statement that "runoff from agricultural areas is not regulated under the Clean Water Act" implies that there are no provisions under the Clean Water Act to address agricultural runoff. This document should be amended (both in this section, as well as in the Affected Environment discussion of existing programs) to reflect the provisions under Section 319 of the Clean Water Act which establishes the framework for developing and implementing voluntary controls to address nonpoint source pollution.

Pages 5-44 and 5-45, this section discusses impacts of mine drainage control in San Joaquin basin. As the principal mine in the basin is New Idria (as stated in the text) - which is a mercury mine - the subsequent analysis should focus on (or at least include) a discussion of mercury loadings in the basin to determine what sort of impact this action will have. (The text currently addresses only cadmium, copper and zinc loadings in the basin.) Similarly, Table 5-10 on page 5-46 ought to address mercury loadings from various sources.

Page 5-51, as mentioned above, there is no discussion regarding selenium loadings and the effect of selenium-specific actions in the water quality program.

Page 5-58, the analysis for San Francisco Bay should include an analysis of the impact of the mine drainage action on the Bay. More specifically, there are a number of abandoned mercury mines in the Guadalupe River watershed, which drains into South San Francisco Bay. If actions were taken at these abandoned mines, there may be a considerable impact on metals levels in South San Francisco Bay.

Page 5-63, in the discussion on salts under the Levee System Integrity program, the stated assumption (that irrigated agriculture causes an increase in salt concentrations in the Delta) contradicts the salt discussion under the ecosystem restoration program (pages 5-19 and 5-20).

In the discussion analyzing impacts of storage in Section 6, there should be more discussion on the potential for increased production of methyl mercury from storage reservoir creation. (This discussion could rely upon data from studies by Darrell Slotton at UC Davis at the Davis Creek reservoir site.)

This section should also discuss the impacts of diverting water (reduced flows during previously "high flow" periods) to fill storage facilities. In particular, the discussion should address the potential downstream impacts on San Francisco Bay (and the potential for reduced freshwater flows into South San Francisco Bay). Similarly, the discussions of "Bay Impacts" for specific alternatives should address these sorts of impacts for any alternatives that include storage components (e.g. pages 7-7 and 7-8 under Alternative 1C).

Page 6-5, the statement in last sentence of last paragraph that any "improvement with respect to THM precursors would be offset" by increased DOC levels from flooded islands should be restructured. Given the qualitative nature of the analysis, we cannot determine if an impact of unknown magnitude will truly "offset" another potential impact of unknown magnitude.

Pages 6-7 to 6-9, this section, which discusses surface water impacts resulting from groundwater storage, does not acknowledge any potential impacts to groundwater resources. While I assume these impacts are being addressed in the Groundwater document, it might be helpful to the reader to cross-reference this analysis and perhaps include a brief summary of these impacts.

Section 7 analyzes the impacts of the conveyance component of the alternatives, discusses impacts to salts (TDS), bromide and DOCs. This section also includes a general discussion of X2 that the modeling assumes compliance with X2 requirements. This is an appropriate place to discuss the impact of the alternatives on X2 location (beyond meeting the standards). Again, assuming a more detailed discussion of the X2 analysis (location, number of days, area) is incorporated into another resource document, it would still be appropriate to provide a summary and cross reference to the full discussion in another document.