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Environmental Defense Fund
United Anglers
Sierra Club
The Bay Institute
Natural Resources Defense Council
Natural Heritage Institute
Pacific Coast Federation of Fisherman's Associations
Save San Francisco Bay Association

APR 15 1997

April 9, 1997

Mr. Stein Buer
CALFED
1416 Ninth Street, Suite 1155
Sacramento, CA 95814

Subject: CALFED Technical Studies for the Storage and Conveyance Refinement Process

Dear Stein:

We offer the following comments on CALFED Storage and Conveyance studies in response to your request at the March 20, 1997 workshop. These comments address some of our most serious concerns with the completed modeling studies, but should not be construed as representing all of our concerns. Each of us wishes to reserve the right to comment further as warranted.

The current CALFED studies of water storage and conveyance options represent no increase in environmental restoration, either in the Delta or in the rivers upstream. Indeed, many of these studies, particularly those involving an "isolated facility" (also known as a peripheral canal), project a significant increase in the diversion of freshwater flows during sensitive spring months. These increased diversions are predictably accompanied by a decrease in low salinity Delta habitat, as measured by the location of X2. The environmental and fishing communities have been repeatedly promised that CALFED alternatives will offer significant improvements above the existing environmental protections. We ask that these improvements be reflected in CALFED's DWRSIM modeling studies.

The 15 CALFED DWRSIM studies posted on the Internet by DWR do not represent an adequate range of operational scenarios. All studies appear to rely on standards within the 1995 Water Quality Control Plan, such as required flows, X2 location, and Delta export/inflow ratio. CALFED has consistently intrigued the environmental and fishing communities with the potential of ecologically friendly project operations. The studies completed to date, however,

offer no possibility of environmental enhancement above the protection established by the 1995 WQCP, although many of the studies project significant benefits to water users in terms of average deliveries, dry year deliveries and water quality improvements.

We understand that recommendations for instream flows from the CALFED Ecosystem Restoration Program are not yet available, and that these recommendations are expected to include operational changes which focus on the aquatic ecosystems. The posted studies may adequately represent "Component Configurations" and be useful for preliminary analysis, but **the studies cannot be characterized as CALFED alternatives because they do not address ecological objectives beyond the limited protection offered by the 1995 WQCP.**

Our specific concerns with the studies completed to date include the following:

Diversions into an isolated facility: It is unclear whether there are criteria limiting what percent of Sacramento River flow can be diverted into an isolated facility, other than requiring that 3000 cfs be diverted into Clifton Court through the Delta. Study 496 shows many months where over 40% of the Sacramento River is diverted in an isolated facility. Will future runs include assessments by biologists of what percent of diversion would be acceptable?

Export/inflow ratio: CALFED has previously identified that diversions into an isolated facility can be interpreted two ways for the purpose of evaluating compliance with the export/inflow ratio, and has indicated that it would evaluate both interpretations. All 15 posted studies, however, rely on a single interpretation: That diversions into an isolated facility *do not* count toward Delta inflow for the purpose of calculating the Delta export/inflow ratio. As a result, under all the alternatives involving an isolated facility, exports during the ecologically sensitive February-June period dramatically increase. For example, study 496, which includes north-of-Delta surface storage as well as an isolated facility, shows during the February through June period, an average increase in exports of 598 TAF while outflow decreases by 450 TAF (compared to the base study).

Debate and research continue in the scientific community over whether the export/inflow ratio or other operational factors such as the magnitudes of flows and exports have the greatest effect on the estuary's ecological resources. Even if the export/inflow ratio is the single most significant operational factor, however, it should be noted that the calculation used is not accurate and is biased in terms of favoring an isolated facility. The ratio is calculated with exports being equal to the Delta inflow to Clifton Court Forebay for export at Tracy and Banks while the actual amount of water diverted from the Delta also includes the North Bay Aqueduct, the Contra Costa Canal and diversions onto Delta islands. When water is diverted into an isolated facility resulting in less delta inflow, these three "exports" not included in the calculation comprise a bigger piece of the inflow. Consequently, the reduction of inflow to the Delta increases the error in the calculation of the export/inflow ratio.

X2 Location: As a result of the reduced outflow, studies which incorporate an isolated facility project an upstream movement of the average X2 location during each month in the February-June period and during all year types. CALFED should explicitly

acknowledge this loss of estuarine habitat and, at a minimum, analyze alternatives which require a more protective X2 isopleth (as previously suggested in memos from EPA, Dave Fullerton, TBI and EDF), such as one consistent with the level of development present in the 1950s.

Channel Improvements: All studies which include a 5000 CFS isolated facility also include Delta channel "improvements". It is not clear why south Delta channel dredging is necessary if less water is to be moved through the Delta. An isolated facility should be evaluated without the Delta "improvements".

Environmental Storage: Alternatives should be considered which include dedication of storage, either north-of-Delta, south-of-Delta, or both, for environmental use. The storage could be used, on a real-time basis, either to augment flows or as an in-lieu arrangement with water projects in exchange for export curtailments as warranted. CALFED's spreadsheet does address the first of these issues, but it does not work with configurations which include an isolated facility. Moreover, DWRSIM should be used as the primary tool for all operational analyses.

Water Quality: A primary, if not the predominant, justification for building an isolated facility is water quality. The work to date in the storage and conveyance process does not seem to indicate how DWRSIM results would affect water quality. Would some flows which are diverted through an isolated facility bypass blending in San Luis reservoir and be sent directly to MWD and other urban districts? Is it possible to use DWRSIM to keep track of the water quality at various points and times?

Level of Demand: All studies include a 2020 level of demand of over 4 MAF for the State Water Project alone. The cost for the CALFED alternatives to water users may very likely be high enough to reduce demand. CALFED should not assume that demand is indifferent to price. CALFED alternatives should include scenarios of lower demand. In any case, DWRSIM modeling assumptions should reflect the potential for water transfers, land retirement and water use efficiency criteria.

Thank you for considering these views. We look forward to working constructively with the CALFED Storage and Conveyance Workgroup. We request that a meeting be scheduled at your convenience to discuss how these issues, as well as those raised previously in the memos from EPA, Dave Fullerton, The Bay Institute, and The Environmental Defense Fund, can be incorporated in future CALFED operations modeling.

Sincerely,

Spurk Rosekrans

Spreck Rosekrans, Environmental Defense Fund

for

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