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TO: Attention: SWP Water Delivery Report
California Department of Water Resources
P.O. Box 942836
Sacramento, California 94236-0001

I have been working on water supply issues in California for the last decade. I currently represent or have represented such groups as Friends of the River, Butte Environmental Council, and the Environmental Justice Coalition for Water. I am currently serving on the Steering Committee of the Environmental Water Caucus and the California Urban Water Conservation Council. These are my comments:

COMMENTS ON THE DRAFT STATE WATER PROJECT DELIVERY REPORT

INTRODUCTION

The report, although well written and concise, is incomplete. The draft SWP Water Delivery Reliability Report needs to be revised so that it includes a water reliability risk discussion. There are significant risks to water delivery reliability associated with factors that have not yet been analyzed or modeled by DWR. The draft report proposes deferring the inclusion of these factors into the reliability equation until after analyses are completed. The potential risks of these unanalyzed factors still need to be disclosed and described in the final report. Absent these precautionary revisions, land use planners and water managers maybe lulled into a false sense of security. The potential water shortages associated with the issues that have been left out of the draft report are real. They do not go away simply because the report is too premature to address them rigorously. Updates every two years do not solve this problem. Houses can not be removed if the two year update reduces the reliability of SWP deliveries. I recommend that the following changes be incorporated into the final report in order to begin rectifying significant risks to water delivery reliability that could result from information gaps in the draft SWP Delivery Reliability Report.

WATER RELIABILITY RISK DISCUSSION

Regarding the reliability of the deliveries of the SWP, I have the following concerns:

PAGES 4-7 : As a ground water user in the Butte basin portion of the Sacramento valley, I am impacted by both the CVP and SWP projects. The CVP and SWP projects are increasingly linked at the pumps. However the linkages in the management of the largest terminal reservoirs, Lake Shasta and Lake Oroville, and their effects on senior water rights holders (including groundwater users) are ignored. Models are run separately and both DWR's and BOR's SIM-type models are inadequate for assessing impacts on the variety and complexity of water rights holders that are senior to the projects. Senior water rights claims from the areas of water origin, from in-Delta water users, from the CVP and

SWP projects' continuing public trust responsibilities and from reserved Indian water rights are significant risks to the reliability of SWP exports from the Delta. SWRCB Decisions such as D-1485 and D-1641 affirm that no injury can accrue to senior water rights holders resulting from the CVP and SWP projects delivering water to junior water rights holders. The final report needs to disclose and discuss senior and Area of Origin water rights related risks to the reliability of future Table A and Article 21 Deliveries.

PAGES 8-10: Defining reliability as a statistical gaming exercise, ignores both the gravity of senior water rights and the intent of the Kuehl, and Costa bills. The reliability of water in both cases should be absolute and perpetual. It is not defensible to assert that houses can be built or sustained on 75% or less reliable water. Local water managers and users must ultimately undertake their own local and regional water supply risk analyses. The report rightly says (p. 1) that it is not the job of the SWP to do that local supply- SWP supply forecasting and juggling. It follows then, that the most reliable information that the SWP can provide to local and regional water managers is:

- (1) a best case water reliability delivery scenario and a worst case water reliability scenario as bookends,
- (2) the probability of deliveries between those best and worst case bookends based on the actual historical deliveries of the SWP to each of its contractors for a reasonable urban land use planning period- such as 30 years- and
- (3) a detailed discussion, by factor, of the factors affecting the reliability of those historical deliveries with a discussion of the presumed importance of that factor over the next 30 years.

In my opinion, the draft SWP Delivery Reliability Report represents the best case scenario only. And therefore, the other 2 &1/2 tasks remain to be done before the report becomes final. Because of the controversy surrounding the adequacy of the CALSIM II models, it is extremely misleading to run the CALSIM II and other modeling subroutines as a substitute for completing the other half of step one and steps two and three as bulleted above. The worst case scenario and probabilities of SWP deliveries to each contractor over the next 30 year period based on historical deliveries, are the most transparent answers to water reliability risks related to inadequate information. Substituting "computational reliability" for actual historical water delivery reliability is at the heart of the paper versus real water controversy in the Monterey Agreement litigation. Identifying real water versus paper water (including model- generated paper water) is the intent of SB221 and SB610. The final report needs to disclose and discuss the "worst case" SWP water delivery scenario. The final report also needs to disclose and discuss risks to the reliability of future Table A and Article 21 Deliveries that are related to the actual constraints on actual past SWP water deliveries. Appendix A: 2001 study column provides a good list of constraints to discuss.

PAGE 5: Climate change is an interesting issue as it relates to water supply reliability. Although the specific impacts associated with climate change are unknown, it is known and should be stated that climate change will exacerbate the historic variability of California's already highly variable water supply. For example, pick 1991 for the worst case scenario analysis. Climate change could magnify a historical situation where

0.5MAF was delivered by the SWP during the 6th year of a drought with no Article 21 water supplies to supplement what the model says was 24% of Maximim Table A Deliveries. (As an aside, I don't understand the 24% number because 24% of 4.133MAF is closer to .992MAF. What am I doing wrong?) A policy question arises from looking at 1991 deliveries. What if the worst case scenario is worse than 1991 due to climate change? Assume that 1MAF of additional storage in the export areas becomes available before 2021 to receive the ever increasing Table A and Article 21 water deliveries that are projected in the draft report. Even with an additional 1MAF of storage in the export areas, how much water reliability can that new storage really provide given increasing hydrologic variability due to climate change? As Table 3 on page 12 indicates, drought variability under current conditions can vary between 19% of maximum Table A deliveries in 1977 to 48% of maximum Table A deliveries in 1976-77. From 1991 to 2001, the SWP actually delivered an average of 1.86 MAF. What level of hydrologic variability within the range normal to above normal years immediately following a drought like 1991 could change that average 1.86 MAF delivery level and why? Even the beginnings of such a discussion could highlight especially vulnerable components of the SWP delivery system. Vulnerable components such as:

- flashier hydrographs from urbanizing and degrading areas in the upper watershed,
- collapsing Delta levees,
- conveyance bottlenecks in the Delta or in the export areas,
- increased variability in Colorado River supplies, or
- the unavailability of SWP supplies due to declining water quality, etc.

need to be highlighted for planners and water managers.

In summary, the missing issues such as senior water rights, the historic SWP Delivery Reliability record and analysis of historic factors affecting and continuing to affect that reliability record, and the effect of new factors such as climate change; compromise the reliability of the draft report. I have suggested ways that such deficiencies can be addressed.

I would like to request that these comments, along with all others submitted, and the responses by DWR, be included in the final SWP Delivery Reliability Report as an appendix.

And I thank you for the opportunity to help you improve the final report.

Sincerely,

Lynn Barris

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