

March 13, 2008

Department of Water Resources
SWP Delivery Reliability Report – Attn: Cynthia Pierson
P.O. Box 942836
Sacramento, CA 94236-0001

Re: Comments on Draft State Water Project Delivery Reliability Report, 2007

Dear Ms. Pierson:

On behalf of the State Water Contractors (SWC), I am writing to provide comments on the Department of Water Resources' (DWR) Draft State Water Project Delivery Reliability Report, 2007 (2007 Report). The SWC is a non-profit association of 27 public agencies from Northern, Central, and Southern California that purchase water under contract from the California State Water Project (SWP).¹ The SWP is the state's largest water delivery system, and collectively, members of the SWC deliver SWP water to more than 25 million residents throughout the state and more than 750,000 acres of highly productive agricultural land.

The SWC have reviewed the 2007 Report and found that it provides a reasonable assessment of current and future SWP delivery reliability, given the limitations and future uncertainty discussed in the report. We believe that the following comments will help improve the final 2007 Report and provide additional information that will be useful to the SWP Contractors in applying the delivery reliability results from the report into their own planning efforts.

¹ The members of the SWC are: Alameda County Flood Control and Water Conservation District Zone 7, Alameda County Water District, Antelope Valley-East Kern Water Agency, Casitas Municipal Water District, Castaic Lake Water Agency, Central Coast Water Authority, City of Yuba City, Coachella Valley Water District, County of Kings, Crestline-Lake Arrowhead Water Agency, Desert Water Agency, Dudley Ridge Water District, Empire-West Side Irrigation District, Kern County Water Agency, Littlerock Creek Irrigation District, Metropolitan Water District of Southern California, Mojave Water Agency, Napa County Flood Control and Water Conservation District, Oak Flat Water District, Palmdale Water District, San Bernardino Valley Municipal Water District, San Gabriel Valley Municipal Water District, San Geronio Pass Water Agency, San Luis Obispo County Flood Control and Water Conservation District, Santa Clara Valley Water District, Solano County Water Agency, Tulare Lake Basin Water Storage District.



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1. **Studies in 2007 Report are based on interim operations and will need updating with new OCAP operations.** The updated studies included in the 2007 Report all include the interim SWP and CVP operations rules imposed by the December 2007 Federal Court order. These interim operations rules are temporary and will be imposed only until a new Operations Criteria and Plan (OCAP) and biological opinion are issued, which is anticipated to occur in September 2008. In spite of the temporary nature of these interim operations rules, these rules are included as operational constraints in the 2007 Report's updated studies, not only for 2007 but for 2027 as well. This may provide the mistaken impression that the constraints are long-term, which is not the case.

The new OCAP and biological opinions will most likely include operations rules that differ from those in the interim Court order. As a consequence, the results in the 2007 Report will be outdated as soon as the new OCAP is available in about six months. If DWR proceeds with finalizing this 2007 Report based on the interim operations rules, the final report should more clearly stress the interim operations upon which the 2007 Report studies are based and the limitations of the results presented, and DWR should commit to updating the report's studies based on new OCAP operations when it is available. Or alternatively, since there seems to be little value in finalizing a report that will almost immediately be outdated, DWR could delay finalization of this report until the new OCAP is finalized and studies can be updated (and in the interim, data from this draft 2007 Report would be available for use by anyone needing reliability data). This updated reliability information will be particularly important given that many agencies will begin preparation of their Urban Water Management Plan (UWMP) updates during 2009 (updates are due by December 31, 2010), and the final version of this 2007 Report will serve as guidance for their SWP supply analyses.

2. **Changes included in 2007 Report studies should be disaggregated.** A number of new factors are included in the 2007 report studies (i.e., modeling improvements, current interim operations, and climate change), each with a different degree of uncertainty. The CALSIM II modeling improvements should provide more accurate results, and presumably a corresponding improvement in certainty of results. However, the interim operations, which are in part based on real-time conditions that can produce a range of operational restrictions, introduce a new degree of uncertainty on delivery reliability. Further, the inclusion in the 2027 studies of a range of potential climate change impacts introduces an additional dimension of uncertainty. To provide readers with better information on which to make more informed judgments regarding the impacts on reliability of each of these factors and the varying levels of uncertainty associated with them, the final 2007 Report should present additional studies that separate out the effects of the new factors included, as discussed further below.
 - a. **Effects of CALSIM II improvements since 2005 Report should be shown separately.** In the 2007 Report, results from studies in the 2005 Report are shown for comparative purposes along with results from the 2007 studies. The model studies in the 2007 Report were based on a version of CALSIM II that was modified from the CALSIM II version used in the 2005 Report to include several modeling improvements (i.e., improved San Joaquin River module, improved Artificial Neural Network to estimate Delta salinity, and

an extended hydrologic period used to simulate operations). The effects of these modeling improvements should be shown separately so that the changes in estimated delivery reliability resulting from this change alone can be ascertained. The SWC suggest including an additional study, under both 2007 and 2027 conditions, using the 2007 version of the model with its modeling improvements, but using the same SWP/CVP operational criteria as in the 2005 Report (i.e., based on 2004 OCAP operations). This comparison could be included as part of Appendix A, or possibly in Chapter 2 as part of the discussion of CALSIM II.

In the remainder of the 2007 Report, it is these added studies based on the 2007 version of the model and 2004 OCAP that should be used for comparative purposes to the 2007 Report studies presented, rather than the 2005 Report study results which are based on an earlier version of the model and a different hydrologic period. This would then provide an apples-to-apples study comparison, rather than the apples-to-oranges study comparison now included in the 2007 Report.

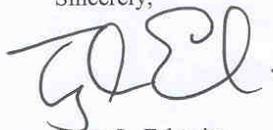
- b. **Effects of changed operations (either interim or new OCAP operations) should be shown separately.** The SWC suggest that the effects on delivery reliability of the change in SWP/CVP operations rules since 2005, isolated from the modeling improvements, be presented. For the current conditions (2007) analysis in the 2007 Report, this could be shown by comparing the updated studies currently included in the 2007 Report, to the added study with the 2007 CALSIM II model version based on 2004 OCAP (described in Comment 2.a above). For the future conditions (2027) analysis, this could be shown by comparing studies that include just the change in SWP/CVP operations without the potential effects of climate change, to the added study with the 2007 CALSIM II model version based on 2004 OCAP (described in Comment 2.a above). Existing studies of future conditions that do not include the effects of climate change are currently included in Appendix B, but they are only used for interpolation purposes. The results of these studies should also be presented in the body of the report in Chapter 6, for comparative purposes alongside the other study results.
- c. **Potential effects of climate change should be shown separately.** For the future conditions (2027) analysis, a comparison of the studies with climate change included in the 2007 Report to the existing studies without climate change (described in Comment 2.b above) would show a range of potential effects of climate change on SWP deliveries, isolated from the modeling improvements and change in SWP/CVP operations since 2005. Since there is a great degree of uncertainty associated with the broad-brush estimates of potential climate change included in the 2007 Report, it is appropriate to show these impacts separately from the better known and more certain effects of assumed future operations. This will also enable any refined estimates of potential climate change effects to more readily be compared to the range of delivery impacts included in the 2007 Report. In addition, separation of the potential climate change effects will be useful for UWMP preparation, as it will enable agencies to incorporate that information into their plans as a stand-alone analysis.

Cynthia Pierson
March 13, 2008
Page 4

3. **Full range of future conditions scenarios should be shown.** In the 2007 Report, interim operations, which are based in part on real-time conditions that can produce a range of operational restrictions, are evaluated in two separate studies, one study with the high end of those restrictions the other with the low end. The results of these two studies are then averaged for each year and it is those average results that are presented. We agree that this average is a reasonable estimate of likely operations in a given year. For the future conditions, however, it would be informative to show the more complete range of potential deliveries by presenting the full range of non-averaged results.

We appreciate the opportunity to review and provide comments on the 2007 Report. If you have any questions about these comments, please contact me at (916) 447-7357.

Sincerely,



Terry L. Erlewine
General Manager

cc: SWC Member Agencies