

From: Lee Bergfeld
To: Stern, Nicole@DeltaCouncil
Subject: SacWAM Peer Review Comment
Date: Thursday, October 20, 2016 4:40:21 PM

Here is a bit of background on me that provides the basis for my comment. I am a principal engineer at MBK Engineers in Sacramento where I have worked for the past 11 years. The focus of my work is in the area of CVP/SWP system modeling using CalSim II and other tools to evaluate a wide range of projects and regulatory changes in the system. Additionally, MBK works for numerous water users, beyond Reclamation and DWR, who own and operate projects within the Delta watershed. My experience has provided me a strong understanding of both actual system operations and modeling.

Based upon my experience, I suggest the Peer Review Panel request analysis of an example operation with the SacWAM model. The example operation would look similar to what the State Water Resources Control Board (SWRCB) is considering as part of the update to the Water Quality Control Plan, but is only a generic example for the purpose of model testing. It should be possible to develop a generic example with the appropriate disclaimers that describe the purpose of the example, and avoid issues of the SWRCB being accused of being pre-decisional.

An example of such an operation may be to impose new minimum instream flow requirements at the mouths of tributaries to the Delta and new Delta outflow requirements. The Peer Review Panel would then perform a detailed comparison of model results between the baseline model that simulates the existing regulatory requirements, and the "with example operation" model. The purpose of this review is to determine how the model simulates the system response to the example operation. This is test of SacWAM and how it simulates operation of the system under both the existing regulatory requirements and a hypothetical example. It is my experience that the best way to know whether a model of a complex system such as SacWAM is adequate for an intended purpose is to test it for its designed purpose.

The determination of model adequacy in this way is challenging and requires a high level of understanding of the system being modeled. In this approach to model review, knowledge and understanding of the system is more important than knowledge and understanding of the model. I recommend this approach to testing SacWAM in part because SacWAM model results will be subject to similar scrutiny when and if the SWRCB uses the model in analyses associated with the Bay-Delta Plan update.

Thank you in advance for your, and the Peer Review Panel's, consideration of my comment.

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