



RESOURCE MANAGEMENT  
INTERNATIONAL, INC.

MEMORANDUM

VIA FACSIMILE

DATE: July 25, 1997  
TO: Gary Bardini  
CALFED  
FROM: Eric leuze   
SUBJECT: DATA REQUIRED FOR POWER IMPACT ANALYSIS

The purpose of this memo is to address the data that will be required for the analysis we discussed in our meeting yesterday with Reclamation and Western staff. Much of the data is implicit in the analysis that DWRSIM is presently designed to conduct. Other data may need to be acquired from other sources. To the extent that DWRSIM enhancements can be completed so that the DWRSIM output provides the data we require, then less time will need to be invested in developing a spreadsheet post-processor for the power production and energy impact analysis.

I recognize that those staff and consultants with the necessary programming expertise are busy with many high priority DWRSIM enhancements. Although it may be more efficient to directly modify DWRSIM, we can certainly develop the necessary spreadsheet post-processor.

I suggest we look at the development of the necessary information as a two step process. The first step is to develop a plan for the data and algorithms that should be used to develop results that are internally consistent with the output that DWRSIM presently generates. The second step is to implement that plan using either enhancements to DWRSIM, or a spreadsheet post-processor.

DWRSIM output presently includes estimated monthly energy for most CVP and SWP pumps and generators. Of particular note is the exclusion from existing output files of pumping energy for CVP Dos Amigos and O'Neill. Since Western indicates that these facilities represent 50 percent of the CVP pumping load, we must develop some reasonable and internally consistent method of estimating the monthly energy for those facilities.

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The second key area in which data must be developed is the "available capacity" for generators for which head is dependent on reservoir levels. Similarly, the load associated with pumps for which lift is dependent on reservoir levels must also be developed where possible. The end-of-month reservoir levels contained within the existing DWRSIM output, together with a curve relating capacity or load to reservoir level for each facility with variable head or lift, could be used to estimate maximum available capacity for each affected generator, and the maximum potential load for each affected pump. These end-of-month estimates, together with any qualitatively described differences in temporal or daily operations, would then be used to estimate differences in monthly generating capacity and pumping load between the alternatives.

Data must also be developed for pumping loads and electric generation associated with new off-stream storage facilities. In addition, pumping loads associated with groundwater storage programs should be estimated where differences attributable to the CALFED alternatives may exist.

Yesterday we agreed that a meeting should be scheduled during the week of July 28 to move forward on developing a strategy for dealing with these issues. It would be useful to have staff available who are familiar with DWRSIM, and with CVP and SWP facilities and operations. (John Johannis mentioned Jim Spence in particular.) The objective of this meeting would be to agree on what can be reasonably forecast, and the data and algorithms that are required. We can then discuss the process by which responsibilities will be assigned and the work completed.

Please let me know when you would like to schedule a meeting. At present, Wednesday, July 30 or Thursday July 31 would be good dates. A suggested agenda for that meeting is attached. I appreciate all your help, and look forward to any comments you have.

**RMI**

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