

New Game Alternatives  
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The DNCT has concluded that additional gaming is not needed to demonstrate the utility of the EWA. However, additional gaming might help inform the discussions/ negotiations needed before the EWA is created. The operative question is, " what do policymakers need to know before they can come to agreement about EWA assets, asset distribution, rights, constraints, relationship to ERP, and governance?"

On this basis, consider the following points:

- Gaming to date has looked at only 5 years out of the historical record. This is a fairly narrow window upon which to base an evaluation of needed assets. The year 1999 appears to pose a significant problem for the EWA. We have the data to analyze this year through June. Also, the years 1981- 1990 are available for analysis.
- We had broad consensus within DNCT that the allocation of new export capacity should be improved to better protect the EWA against wet year impacts. This is primarily true for Game 2, when we assumed the full 15 kcfs of capacity, but it is also true for games 4 and 5, when we assumed a modest expansion in the ability of Banks to go up to 8.5 kcfs. We may be able to post process past games to get some insight into how to allocate export capacity, but a new game would be better.
- We have yet to fully explore the potential of the EWA to improve upon upstream flow patterns. Similarly, we have yet to adequately analyze overlaps between the EWA and the ERP upstream water purchase program. Surely there are significant overlaps that will reduce the combined cost of these two programs. A preliminary analysis a few weeks ago seemed to indicate that the EWA has great potential to do more upstream.
- By utilizing flexibility in the system to help the environment, the EWA could be significantly reducing surplus capacity available for water transfers. We could either reserve some reasonable amount of capacity for transfers in a game. However, I would recommend that we start by analyzing past games to determine whether or not the EWA would have had a significant impact on a reasonably sized transfer market. This analysis could be performed by CALFED or DWR staff. If the answer is yes, then we may wish to incorporate rules in the next game which protect some amount of export capacity for markets.
- We have yet to run a game using demand levels generated by the water users. Therefore, we do not have good information on the degree to which we can satisfy the water supply levels desired (demanded) by the water users.

For purposes of discussion, the DNCT may, therefore wish to recommend several games:

- 1999. Run this year twice with the same resources as games 2 and 4. This game could be run in half a day.
- Run an additional 5 or 10 years (e.g., 1981 - 1986) using the resources from games 2 and 4. However, make the following changes:

- ▶ Use the demand levels generated by the water users.
  - ▶ Modify the sharing formulas for additional export capacity.
  - ▶ For the end-of-Stage-1 game, also modify sharing of Delta storage.
  - ▶ Create an upstream biological team to recommend operational changes to improve upstream conditions during the game.
  - ▶ Perform the game for the beginning of Stage 1 first. Then use the actions taken in this game as the baseline for the end-of-Stage-1 exercise. This will greatly reduce amount of work necessary for the second game.
  - ▶ If necessary, include rules which reserve some amount of capacity for the transfer market.
- If these games appear fruitful, we might rerun 1991 - 1995 using the same assumptions.