

# Notes on Quinn Spear Meeting

April 28, 1999

## Agenda:

- 1. Evaluation of Games 2 and 3
  - Assets
  - Rules
  - Issues
  - Fisheries Assessment
  - Water Supply Assessment
  - Water Quality Assessment
- 2. Where do we go from here?
  - Games 4 and 5

## General Discussion

- 1) Q: What is credit approach? R: Environment would not hold water supplies. Simply given credits to be used to reduce exports.
- 2) Game 5 should be a late Stage 1 rather than early Stage 1.
- 3) Want to look at Game 4 and 5 side by side to look at our immediate needs. Then we should do another game with late Stage.
- 4) Stage is not as important as the assumptions.
- 5) Each game is played with three-legged stool. All legs need not be supported equally or completely in any one game.
- 6) Add another Game 1 with all three legs (add WS and WQ)? Q: Are we needing Game 1 example? R: No, thus no need to have another Game 1 run.
- 7) Gallon for gallon worked better than credit approach because it provided more choices (e.g., backing water into Shasta).
- 8) No limits were put on the frequency of our option purchases.
- 9) Could vary assumptions in Game 3 with different sharing proposals. More sensitive criteria for using excess capacity.
- 10) Q: How do you feel about quantifying. R: We may be able to compare between game runs on a relative basis. Quantification does not show well.
- 11) Q: Are we able to quantify EWA use? R: response to EWA is often made up and there is no cost?

- 12) Q: Do you have flexibility to carry out your biological needs? Yes. WS risks may be greater than for fish – varies from one resource to another; assuming our resources are real. In Game 3 we were not well armed.
- 13) We are learning and coming up with new strategies.
- 14) Q: Are there other EWA tools? R: other actions are possible including broader ERP.
- 15) Q: Need to look at alternatives for assets; alternative ways to accomplish the same function. Water users should identify what other options are available to accomplish the same objectives.
- 16) C: We are forced to extrapolate to areas beyond our comprehension and experience.
- 17) Q: Prescriptive Standard Approach? Another benchmark? R: Last fall's effort.
- 18) We need an open dialogue on making EWA work; take advantage of expertise available to us. R: We have planned technical discussion teams.
- 19) Should put EWA in perspective with other Calfed programs.
- 20) Open technical review on all program products: 1) the best and the strongest; and 2) mixture of resources. Looking at expanding assets to fix problems. Avoid running out of assets; when can you?
- 21) Idea of EWA is to avoid pumping when fish are there. Prescriptive Standards do not do this. Allows you to export at less damaging times.
- 22) Operate to mutual benefits. Don't see how we can play one resource against the other without dealing with the resource issues. We will need to get to the technical basis of the issues in order to resolve conflicts.
- 23) Water users need 400 TAF from CALFED project for a portion of their future need; additional portion of need to come from transfers and efficiency.
- 24) CVP users would hope to average 75-80 % range of supply, which is 250 TAF in dry and normal years (portion of 400). Q: Why not deal with years when water is truly needed? R: Once every four years they would not need the extra 400 TAF. Q: How much out of the Delta is really needed? R: Water users will try to define specifics.
- 25) Concern about water users access to market if EWA is spending \$30m on water.

## Water Quality

See slide

- EWA gaming is only forum for WQ to seek gains from CALFED.
- Concern about Delta Wetland islands TOC impacts to WQ. Need more time to analyze.
- Look at other things and broader perspective.
- 26) Water quality has improved from the Accord. Another baseline issue.
- 27) More DW islands results in less agricultural discharge of TOC.

**Gaming Issues**

See slide

- Realism?
- Collateral?
- Same risks to water supply as to EWA – common cause in making these things more functional.
- Need to restructure rules for EWA.
- Global strategy for fixing fish is needed.
- Q: Why not look at sharing assets and gaining endowments? R: We should be sharing benefits and risks.
- Q: Market effects? R: EWA will be OPEC of the transfer market.
- Regulations on environmental facilities were limiting.
- Synergies to improve project yield and EWA yield – (e.g., gaining X2 days); project low point requirements met by EWA storage being held in San Luis.
- Q: Crediting for efficiency? R: Using efficiency for coping with future shortages in deliveries/supplies.

**Other Points**

- Q: Are our tools real?
- Bacon Island Connector? Real?
- Pricing – Options? Real? Price? Availability?
- Institutional Issues -
  - Are the functions realistic?
  - Governance – solutions to share risk – coupling with institutional changes in operations of the system. Don't want to trap ourselves (both WS and EWA) in prescriptive world.
  - Ecosystem Management Entity.
  - Tradeoffs.

**What is Next?**

- Finish game 2 and 3.
- Then analyze these two.
- Late game would add facilities that would satisfy everyone.

- Real Game?
- C: Tributary water supply needs should be considered.
- Not necessary to meet all needs only to explain why we couldn't satisfy needs.
- Getting enough tools is key. Add facilities or more relaxation.
- Q: What facilities do we need by end of Stage 1?
- C: There is a disconnect with water supply – necessity to take water from Delta – not talking about being smart with need to export.
- R: Water users only want to get some of the water that was taken in past few years. Water users have already netted the transfers and conservation out.
- We should have some transparencies on needs for WS and EWA. Need for integration on all the water management tools.
- Technical teams addressing issues soon?
- Decisions by May 10<sup>th</sup>.

Game	Description	Resource	General Assessment
1	Gallon for Gallon Approach Middle Stage 1 With Accord + AFRP Baseline	Fish	?
		WS	--
		WQ	- (monitoring only)
2	Gallon for Gallon Approach Late Stage 1 With Accord + AFRP Baseline	Fish	?
		WS	--
		WQ	0,+
3	Credit Approach Late Stage 1 With Accord + AFRP Baseline	Fish	?
		WS	--
		WQ	0,+



## Gaming Issues

- Realism.  
Transfers.  
Demand shifting.  
Groundwater access.  
Variances.  
Delta storage -- WQ
- Collateral Unreliability in EWA tools forces increased collateral
- Instability Caused by Project Control over All Increased Export Capacity
- EWA Use of Assets in Wet and Dry Years EWA tended to accumulate assets in dry years and spend them in wet years. Does this maximize overall benefits?
- Transfer Market EWA operations consume export flexibility.
- Regulation of EWA Facilities Is there a need to constrain EWA facilities with regulations?
- EWA/ Project Synergies In Game 2, EWA appeared to increase Project exports through impact on X2 and by loaning storage in San Luis.
- Crediting of Efficiency If CALFED funds \$1-2 billion worth of efficiency in Stage 1, can that water be credited toward goals of project exporters?

## Morning Meeting Notes

### Opening Discussion

C: Suggestion to put disclaimers on DNCT products.

C: Need for more games than we have time for. We need more time to develop a set of resources/assets and how to use them that would lead to a political solution.

C: Interplay of operators added a new dimension to the gaming process.

C: Suggestion to perform daily gaming without use of DWRSIM. Account as we go. Have a set of baseline standards and demands. Focus on fairness.

### Fisheries Phone Call

1. Concluded that we did not accomplish much in game 1
2. Asked Russ to provide export charts to compare games 1-3 for years 91/93.
3. We did not document gaming as well as we would have liked to.
4. We need to do more post game processing and analysis.
5. Our biological evaluation is not complete.

### Historical and Baseline Comparisons

- Why focus on historical comparison? Why not on baseline – Accord + AFRP? R: We must provide an equivalent level of protection; we must assess adequacy of protections. We should compare results to a number of baselines including historical. We have to have a sense of what we have accomplished from the historical conditions. How much more protection is needed given new facilities being employed for WS. The basis for comparison should not be limited to modeling.
- It would appear that we have not accomplished much for fish with the tools we have to apply. Have we documented all the positive side effects of our actions?
- We need to compare baseline to Game 1, 2, and 3 benefits.
- Concern for indirect effects such as the observation that we allowed large swings in QWEST.
- We identified good times and not so good times to export.
- In the game we used salvage as a surrogate for real-time monitoring – it worked well.

### Some are Troubled

- Caution that we have focused too much on negatives.
- Troubled by what we are trying to do too much with EWA. Leave some for ERP. Trying to solve all environmental problems even though EWA is only one program component.
- We are not sure about ERP in Stage 1; EWA focuses on Stage 1. Adaptive management will tell us how much leeway we have. The better habitat looks the less we will have to depend on water.
- We have only looked at a few years; we should not worry about making things right in every year, only the long term average.
- Is EWA supposed to solve WQ and WS needs?
- Water users need to see modest improvement.
- WQ sees EWA process within DNCT as only game in town.
- EWA is a tool in the overall water management strategy that includes environment, water supply, and water quality.
- Did our assets really help us?
- Did we really improve ESA issues?
- Concern about 21kcfs pumping capacity in south Delta with 6kcfs from Delta Wetlands.
- Did we provide adequate protection for environment.
- We have some basic design flaws in the gaming that we must resolve before proceeding.