

**DRAFT**  
**DNCT Steering Committee**  
**Meeting Notes**  
**5/18/99**  
**9:30-4:00**

**Attendees:**

**Agenda:**

- i. Rules for games 5 and 6.
- ii. Tech Team assignments
- iii. Legal-Institutional Team Concept and Implementation

**Highlights**

1. **Games 5 and 6 format** - decided on a new approach that is far more flexible with fewer restrictive/prescriptive standards, but unlimited budget of water and money for EWA, including upstream storage and shares in facilities.
2. **Demand and Deliveries** - decided that we have to define these better to make gaming more realistic, to allow appropriate evaluation, and to determine satisfaction.
3. **Discussed tech teams** - need to take issues to IEP, CMARP, and ERP tech teams. Get Institutional Team going.
4. **Gaming Reports** - Do we really need a report or simply some good graphic summaries. We may need different reports for different audiences.

**A. Games 5 and 6 - water users games**

**Discussion:**

- So far there has been a lack of evaluation of game results.
- We need to plan time for evaluation.
- Focus on day 1/ stage 1.
- What capabilities do we need for gaming?
- Need to determine how well we did at meeting objectives.

C: We should consider developing a critical path analysis for year 2000 EWA.

**Discussion of B.J. Miller Memo on suggested approach to Games 5 and 6:**

- WS need for new Delta supply of 400 TAF above Accord + efficiency - is it real?
- Should our objective be ESA recovery given exports are a small part of the problem and EWA does little to reduce export losses?
- Lack of evaluating criteria.
- Assets are limited.
- Vamp and Accord are already doing a good job; there isn't much for EWA to do.
- More analysis is needed.
- Need to define factors important for recovery.
- EWA is just a tool - anything you do with water for a healthy estuary is a benefit.

- EWA could be important for recovery.
- There are lots of tools - EWA is only one of many - we should not burden EWA with full objective.
- In the games so far EWA was used primarily to minimizing effects of increased exports from new capabilities. Thus EWA is essential to recovery of salmon. EWA is all we have above the Accord.
- We should stay away from key population factor discussions. As we learn more we can rearrange priorities.
- Programs should work together toward the most cost effective way to recover fish. We don't need the final means - just basic assets.
- Environment wants no increase in exports above the Accord and B(2) AFRP.
- We should consider relaxing X2 standard when outflow falls below 20,000.
- This approach would provide 500 taf of new water supply benefit over the Accord on average and up to 1maf in dry years.
- MWD could take less in dry periods; while west side agriculture would need more in dry periods.

C: We don't need CALFED if we want to fight over water, so we hope that this EWA CALFED process is a substitute for that type of discord.

C: We should set a base from which to game, then work toward satisfying everyone's needs.

C: The degree of relaxation proposed is beyond our original intentions for games 5 and 6.

C: This is ok if we consider letting EWA share in more of project assets.

C: Exercises like that being proposed for Games 5 and 6 that are dead on arrival should be avoided.

C: This would take us back to D1485 - money alone would be used for protection.

C: Won't habitat improvements help offset some of population effects?

C: Important to remember that we are in a learning exercise - need to evaluate implications of different actions.

C: Fish would have less water than under the Accord - more risk to listed species - thus more controls on WS.

C: What good is this approach if Env turns around and simply limits exports as they were before with assets provided by the relaxations? R: Relaxations were for fixed standards; flexible applications of these new assets should be provide greater fish protection. Would be better than existing prescriptive standards. There would be better and more flexible control.

C: We can compare fully relaxed model results to existing conditions and new EWA conditions to see the incremental benefits.

C: With EWA you get greater env benefit with the same amount of water with both sides sharing.

C: This game approach could be interesting.

C: Need to document how much water we moved in EWA annually - this would tell us how much water we would need in future.

C: Water supply has been going up over past several decades and fish have been going down. How are we going to get recovery if we further increase water supply? Why don't we run a game that maximizes benefits for fish? R: EWA can't solve all the problems alone.

C: Past games metrics were water and other - new game focuses solely on salvage as a metric.

What other metrics should we consider to indicate or measure success? R: Location of delta smelt population center. X2 is related to delta smelt populations distribution. Water can be used to change this distribution when necessary.

C: Yes we are focusing too much on salvage and exports and not enough on outflow. One of the reasons for this is that we left outflow/X2 alone. This would be a different game and would have to involve flow.

C: Storage assets would help deal with outflow. Should consider giving EWA the following assets:

- a piece of the infrastructure
- more credit or contract water
- dedicating facilities and water for the environment
- means to control outflow and exports.

C: More tools and water available the more risks, more potential benefits, and more learning potential.

C: Env would get a blank check for control of outflow and exports, but would have to provide justification for the application of water use or export limitations.

C: This approach would be an operational nightmare for planning deliveries. R: Need more reserves for WS such as the 600 TAF of groundwater. (GW would go to WS in this game while it went to EWA in previous games.) This would be a radical shift in operating projects, but would be ok for the gaming.

C: Accountability would fall on Env operators. R: This would be a minimum to get buy off from agencies.

C: This would appear to be a healthy exercise - it would help structure key hypotheses and the conceptual models to test under CMARP.

C: A tech team would make decisions. If a decision is not possible, then agencies would make decision for game. Tech team would revisit issues later.

C: Use what we learn for future gaming even if this doesn't work out.

C: Two key questions: can it work and how much will it take to make it work. A game without restraints could put some boundaries on assets.

C: If there is no caps on export reductions and water purchases would it be realistic?

C: The game could push us further apart - WS and Env would be more at odds.

C: It will be tougher to relate to other games.

C: We could learn a lot even if we veer far off course.

C: What are we trying to test?

C: A water users base is a good way to game.

C: It may be a water users game, but they are not likely to be satisfied with the outcome. This may be difficult to sell even if it works out. We should let everyone know that this is not binding or really possible its just a game.

C: We could mix the approaches, work year to year to satisfy both WS and Env - use money to bridge the gaps.

C: We should see how much money and water it takes to satisfy WS and Env.

C: We should run parallel games - one with unlimited assets and one with set assets.

C: Sharing resources between WS and EWA is ok; long-run problem with a common pool.

- C: Budgeting brought fiscal responsibility; take away budgets would make game unrealistic and eventually restrictive.
- C: EWA should be allowed to accumulate upstream storage water.
- C: Outflow could then be provided for from upstream storage.
- C: Good faith operation required, but not a likely possibility; good for learning - we should post process what would work best.
- C: Not consistent with our recent games; better to build from our game base.
- C: We have a full window of flexibility to compare to existing base.
- C: We can develop the upstream capability of the daily model, so we can back water into the reservoirs, especially with relaxed standards. May as well manage the entire system.
- C: It will take a highly flexible game like this to satisfy both sides.
- C: We should incorporate biological decision information into the game.
- C: This would be a year by year sophisticated game with many obstacles to overcome. If it works we could tell Q/S that we have a winner if they can meet our needs.
- C: We should consider other assets like storage for the end of Stage 1.

#### Game 6:

##### Basic configuration:

- End of Stage 1
- Banks 10.3kcf capacity
- JPOD
- Groundwater – Semitropic, Gravelly Ford, Kern – each 200 TAF, 20 in and out.
- In-Delta Storage – Webb, Bacon-Victoria-Woodward with connection.
- Relaxed E/I
- Relaxed X2 when outflow below 20 kcf.

##### EWA options:

- Unlimited control on exports and inflows (EWA runs projects)
- Unlimited water purchase
- Biol decisions made by consensus of agencies/stakeholders; final decisions by agencies.
- Disputes forwarded to technical teams.

##### Projects options:

- Unlimited use of facilities except for minimum standards
- Unlimited funding for water purchases and water quality.

##### Gaming process:

- Track EWA, WS, and WQ in terms of \$'s and water used.

##### Goals:

- Satisfy fishery agencies, WQ, and WS.

Q: How are prudent decisions made? R: through peer pressure and consensus.

C: Market would be limited for water purchases.

**Water Quality:**

Money can help with salinity and TOC spikes. TOC would not be controlled well- controlled by limiting exports when TOC is high in FEB/MAR.

**Key Questions:**

- What does it take to satisfy everyone?
- How big of an EWA is needed if we satisfy WS and WQ?
- How do we agree on how to use EWA to protect fish? R: agencies decide.
- How will we be sure that water users get their water? R: need a way to determine effect on deliveries.

**Demand/Deliveries:**

- What demand level do we use 1995 or 2007?
- Need to define demand in year 2007.
- Demands are increasing, thus exports will be increasing.
- What are our model assumptions? No benefit to SWP contractors?
- Demand and deliveries? Deliveries are less than demands but depend on demands and ability to deliver water. With the new facilities there will be greater ability to deliver water.

C: We should use 1995 level of demand for end of Stage 1. R: Yes.

C: In many years you don't need EWA to meet demands.

Q: Can we fix demand/delivery numbers - may be 2007 demands will provide needed 400 TAF.

C: Adjusting demands have huge implications. Would need to reevaluate water user issues.

C: Daily model must have realistic demands.

Q: What about historical demands?

C: If demand grows then the share of facilities by EWA should grow. Diversions above some amount should be shared. Need a spreadsheet on how deliveries are determined. Methods. Russ needs to keep track of what is exported and delivered, what could have been delivered except it was used for prescriptive standards, X2, VAMP, etc.

C: Delivery decision process will have to be brought into the gaming, because we are going to change the delivery pattern.

C: We need to come to consensus on what we did as we go.

C: We need to know what level of deliveries is needed by WS for them to be satisfied.

C: We need to look carefully at deliveries in period 91-95 and what if any new deliveries are needed.

C: Deliveries are accomplished real-time now, we should do them real-time in game as well.

C: We should involve Water Management Strategy Team in our discussions.

**Institutional Legal Contractual Tech Team**

- Team formed in January.
- Needs details on tools, options, actions.
- If EWA has its own assets and borrowing power, then it will need its own setup, permits,

water rights, and mechanics for governance.

- EWA would need commitment from projects to divert and store EWA water.
- May be better to not limit EWA options.
- Will need feedback to governance issues.
- Should include Alf Brant and Tom Harter and Cliff Shultz; people with ultimate legal responsibility.

C: EWA could help with other CALFED long-term issues on governance.

C: Need team to look at EWA 2000. Can we relax E/I? Can we borrow and hold debt? GW contracts? Water transfers?

C: This concept would take team beyond original charge, but may be needed.

C: Harder issue is assumptions on why we made decisions.

C: This would bring to table issues that need to be addressed - things that need policy decisions.

Need a list of issues to take to team.

C: Attorneys should be kept as a separate group. Tech team should id issues to take to attorneys.

C: Need a statement of purpose for the group. Governance?

C: This would be the active transfers group, because there is no one else.

### **Environmental Tech Teams**

- Mission - defining hypotheses - issues
- apply evaluations to date to hypotheses to see if they can reconcile differences.
- propose approaches for evaluating hypotheses in Stage 1 to CMARP.
- Develop other data that relate to hypotheses.
- ID expected work in Stage 1 to resolve issues.
- CMARP has not progressed down this path.
- Assign team members to develop issues to take to IEP and AFRP tech teams.
- Conceptual models can be taken to CMARP and ERP.
- Discuss with Peter Kiel.
- Look to CMARP white papers.

Q: What is team function during gaming?

Q: What if they can't agree?

Q: How often would they meet?

R: They would meet during each game - email would go out to them defining the issues they are to address. Gamers would brief the teams.

C: There would be a variable degree of difficulty in addressing these issues.

Q: How do we deal with agency policy?

C: CMARP would deal with the whole context of the issues. May have to have scientific review panel.

Q: Team membership? How do we get them going? What issues do they start on?

C: Many important issues were not gamed.

### **Evaluation**

- Net to get evaluation completed
- Need a full analyses

## **Schedule**

- ROD - June 6 2000

## **ERP Report**

- Why needed?

C: maybe more useful this fall when EWA is more flushed out. Then need a document to convince people that would include evaluations, issues, and concerns.

C: We are the audience for a summary report and graphics

C: Q/S is another audience for a different report/presentation.

C: Evaluation is a more difficult proposition.

## **Game Summary Graphics**

- Need a time line graphic like King's game summary in the Bee.

## **General Gaming Discussion**

C: If we get a few issues resolved that is fine. We would learn how to evaluate rather than how EWA would operate in stage1.

C: It is incumbent on us to evaluate games.

C: We should focus on evaluating new games not old games.

C: We should look at changes that affect populations.

C: Effects should go beyond what we have evaluated so far.

C: Russ's model may understate EWA benefits - overstate salvage losses - we should get these quirky things out of gaming models.

Q: should we consider other years in gaming?