

DRAFT
DNCT Steering Committee
Meeting Notes
6/15/99
9:30-12:30

Attendees: Bruce Herbold, Mike Fris, Jim White, Pete Chadwick, Pete Rhoads, Peter Louie, David Fullerton, Art Hinojosa, Dave Briggs, Dave Forkel, B.J. Miller, George Barnes, Paul Fujitani, Jim Buell, Guy Masier, Tom Cannon, Russ Brown, Ron Ott

Agenda

- a. Review of revised games 2, 4, and 5
- b. Evaluation
 - water quality
 - water supply
 - fisheries
- c. Q/S
 - evaluation
 - next games
- d. EWA report

ACTION

- 1. The biological, water supply and water quality teams will have their evaluations of Games 2, 3, & 4 ready for presentation by the DNCT meeting Tuesday morning.**
- 2. Pete Chadwick will have the top 10 issues to be addressed by Technical teams.**
- 3. Dave Briggs and BJ will have matrix on integration.**

EWA Report

- 1. Date of Final EWA Report - September 15
- 2. Should be an internal document
- 3. EWA report will be an appendix to EIR.
- 4. Too complex to nail down in a couple of months.
- 5. Could nail down basic structure and function.
- 6. We will have evaluations done - recommendations chiefs would need to negotiate from.
- 7. Need a framework of agreement to apply EWA in 2000, otherwise lose another year - build on knowledge - get enough to proceed.
- 8. Focus on what is doable not what we have done - develop program for next year. Doable-implementation components more important than documenting what we have done.
- 9. CALFED has also poorly documented how they got to where they are going.
- 10. Need to define tools and uses, barriers - but uncomfortable without something that defines what we think is valuable and the results of that work. But need to document how we got to this point. Short deadline causes conflict between documentation and proceeding.
- 11. Strategy or evaluation? Which should we be concentrating on?
- 12. Topic for Q/S next Tuesday.

13. Spear stated what he wanted last time - wanted to define barriers that limit our progress.
14. we don't have a good handle on surplus water supply.

Evaluation

15. Dave's Presentation

16. Generated water in dry years - Went into debt in wet years
17. Water demands are too high in wet years so we had to do a lot of work for EWA in wet years.
18. Aggressive protection in all years - could make up water in wet years - should we be that aggressive in wet years.
19. Wet year concerns were not addressed by standards. (e.g splittail spawning in wet years.)
20. Inevitable consequence of focusing on direct losses rather than other factors in dry years.
21. Dry years - we were working but we could cover it.
22. Drier years we are more limited by water supply. Dry years you can move water around effectively. Can move export problem times around to other times.
23. We need a "let me get this straight-EWA goes into debt in wet years???" answer.
24. Demands and high export capacity are driving factors that caused this pattern.
25. We need to tell the story through evaluation.
26. Have we learned that this was the right way or wrong way?
27. We need to run a more realistic game - correct solution.
28. More infrastructure the more surplus and better ability to get water to EWA.
29. Game 4 we didn't deal well with our debt in 1995. Had few assets to recoup losses. We didn't have the higher export capacities.
30. Game 5: account collapsed. Got into trouble in 1993 and deeply in trouble in 1995. Learned to put our debt in different places - big time into the water market. Shifting debt to upstream helped because the reservoirs filled. Risky. Problems in this game. Caused by account getting into trouble in wet years - counter intuitive.
31. Need to work at strategies to protect water resources in wet years.
32. Need a graph that shows how much water we shifted around. Movement by purpose. We were using water twice. Quantity of water moved and benefits that go along with them. Story isn't complete without this evaluation. Highlight the assumptions.
33. BJ can't get off of this problem - EWA isn't working. Problem isn't necessarily biology - more from demands and assumptions (export capacity). Too much water to water users in wet years - rule did not equitably distribute water. System has only so much flexibility - if water users use it all then there won't be much for EWA. EWA will need its own share of assets. In Game 4 and 5 EWA would have benefitted significantly from part of 8,500cfs export capacity at Banks. We had no way of moving EWA water with water users using all capacity. This would impact water users - they need to share benefits. We can let water users have water as long as EWA gets some credit for it.
34. Trade off on how much WS and EWA get. Water users don't want an EWA to go bankrupt in wet years.
35. Show how much water we exported in dry and wet year, how much we saved in dry and wet years. Dry years we shifted export times , which was important.

Russ's Presentation

36. Game 4 and 5 books - game 5 was done with the latest model - has more graphs.
37. Env water uses and credits are shown in page 2 of the books - San Luis storage levels
38. EWA uses, balances, etc. - pumping above and below baseline
39. 1991 - created vs used EWA water - could be compared to total exports.
40. New table for game 5 - entrainment numbers with SWP density and CVP density.
41. We don't keep track of pumping at one or the other facilities in the model.
42. Could we do each project in the game? Operators use COA rules to do this. Assume some sort of JPOD. Shift pumping as needed based on densities.
43. Are CCF losses accounted for? Pre-screened losses? No. Important if we were switching between to. Also important in estimating losses - we haven't been accounting for these losses or savings in our accounting. Only a problem if we switch operating.
44. Should be taken into account in the Biological evaluation.
45. 1991 we did a lot for fish but had little affect on water supply by shifting water exports.
46. Small changes in export delivery patterns can have a big savings in fish. Can we show how much water was shifted in a Graph? Positive / negative pumping is done on a daily basis and shows by month. Couple this shifting data with fish savings to show cost/benefit. Net monthly reporting of entrainment is a real parameter to look at.
47. Fraction of population migrating are affecting DCC and pumping. Done on a monthly basis - average this on a monthly basis - could be do this on a daily basis? Chipps trawl data are a daily pattern from which we could do this. No way to apply a day by day survival estimate right now. Need to reflect why we were doing what we were doing. On Sac survival table - use the assumed distr of yearling salmon to better reflect reality. Need to adjust the factors to reflect what biologist really believed to occur.
48. If we use Chipps data for migrating factor - need to look at salvage too - how do we interpret risk. How do we compare apples to apples. Game 5 biologists used Chipps as just an additional data factor. We use Chipps data in overall survival calculations. We look at it simply for timing not population.
49. San Luis storage plot - depends on what we are allowed to exports, demand patterns, and purchases - now calculated in model. Starting level is from DWRSIM and any credits or debts carried over by EWA.
50. Entrainment estimates are daily estimates.

Evaluation

Water Quality

51. Seawater impacts - TDS, Bromide, Chlorides, TOC summaries
52. Game independent
53. Done by Monday? Yes.

Integration

54. Are we going to bite off more than we can chew.
55. Stage 1 forum - EWA is important - but only in abstract now.
56. Get specific about EWA tools?
57. Need to know what we start with in Stage 1.
58. EWA barriers need to be out of the way.
59. Who makes decisions? Who holds the rights? Institutional structure?

- 60. We should describe all the parts of the EWA, rules, capacity, everything is needed.
- 61. What is baseline - who makes decisions - by September 15.
- 62. We need to lay the whole deal out to Q/S.
- 63. Carry message to Policy that there will be need for decisions.
- 64. BJ will put some thoughts down for us.
- 65. Bruce suggest the following integration matrix:

Tool to put water in	other costs	Regulatory Control and resource agency	Biol Risks and benefits to agency	when available	acct sys reliability
E/I	power	SWRCB	DFG, NMFS, FWS	Now	
8500 dec-april	power	COE	"	Jan1, 2000	
SOD lease , spot purchases. GW	\$ on day 1				

- 66. Governance will control EWA - but we need to define constraints and give input to governance. What it needs to be able to do. Default governance at a minimum for CALFED. EWA could proceed without CALFED. It would be better if it weren't a default. The value added by CALFED governance should be identified. Interplay between EWA and CMARP.
- 67. Sac valley purchases are a problem - identifying sources? Water supply hearings are going on.
- 68. Is this the only forum in which operations are discussed in Stage 1? Yes.
- 69. How do we relax E/I? Ops Groups and NO Name Group.
- 70. Project can do most of what we want - just adds risk. Get projects to commit now to operating the EWA under their present powers.
- 71. Lay all of this out to Q/S - this is what you need to get this going. We need to supply this list.
- 72. We have a lot of tools already available on Day 1.
- 73. Is this a virtual EWA? Projects will operate EWA?
- 74. We did not use GW well. Need to pump more in wetter years.

Water Supply Evaluation

- 75. Done by Tues. BJ and Schuster, Art - tricky to figure out demands. Need a hint of realism.
- 76. Year type and patterns?

Fisheries

- 77. By Tues. one way or the other.
- 78. Fish team get together on Monday.
- 79. 1995 level of demand in the model? Yes.

Tues Meeting

80. Meet Tues morning at 8:30 in 1131.

Appendix to EWA Gaming Workbook

- 81. Biol assumptions
- 82. Model runs - rules and evaluations
- 83. Fish results

Tech Team Issues:

- 84. Chadwick "Top Ten"- justify what we have done.
- 85. Rules and evaluations
- 86. Why weren't some other things part of EWA? Or substitutes for EWA actions?
- 87. How does Hatchery Management affect EWA? Timing! Marking. Protection of wild vs hatchery fish. Tie hatchery to EWA actions. How EWA works to protect salmon needs to include hatchery fish. Real EWA focuses on wild fish.
- 88. We could spend resources in a different way - its ok - and doesn't affect what we did with the EWA. With a finite amount of money - is EWA the right way? Are there better ways to protect fish?
- 89. Values in habitat restoration, hatcheries, and other things - but it's pretty plain that protection related to water diversions is needed - won't be able to sort out the underlying info that says one is better than other. Stage 1 we won't have the info to be comfortable with spending in one area or the other. Adaptive management will allow us to shift priorities as necessary.
- 90. Headed for trouble with EWA because we don't have a game that everybody is happy with. Keep open mind because we might have to do other things to make it work. Don't rule out all the options yet.
- 91. Why did Game 5 fail? No restrictions on what we could do. Weren't Water Users happy? NO- because EWA debts were high. Were not happy with some of the underlying assumptions and decision making on the biology.
- 92. Game 5 should have been satisfactory for Water users. We should adjust to make ESA agencies happier.
- 93. We could start with a 1,000 cfs capacity for EWA. Negotiating point. But could make Game 5 work for all.