300.33

DNCT/EWA
Draft Meeting Minutes
7/13/99
9:30-12:30

Attendees:

Karl Halupka, Pete Chadwick, Bruce Herbold, Pete Rhoads, Art Hinojosa, Dave Fullerton, Jim Buell, Matt Vandenberg, Russ Brown, George Barnes, Paul Fujitani, Tom Cannon, Ron Ott, Guy Masier, Dale Flowers, Dave Forkel, Jeremy Arrich, Param Dhillon

Agenda:

1. **Hypotheses/Issues for Tech Teams**
2. **White Paper Integration - ERP/DEFT**
3. **Fish Performance from Games**
4. **Next Game**

SUMMARY

Delta Smelt Evaluation - We discussed the apparent benefits to smelt adults and young from EWA despite higher exports. Some felt comparisons with historic conditions were not appropriate - while other thought they were. General agreement that EWA assets should grow with infrastructure and ability to export more water from the Delta in the future with higher demands. Concern expressed that we had not done enough to protect smelt. Reminder that it is not the sole job of EWA to protect smelt - there are other parts of the recovery plan. Question came up: *What should be our goal for reducing entrainment?* Some believe that salvage losses do not affect smelt population.

DELTA SMELT EVALUATION - BRUCE HERBOLD

- EWA reduced angst factor by 50%.
- EWA has strong benefit in high angst years.
- EWA protect differently from prescriptive approach.
- Two ways to do it: with water or with fish - both are valuable for smelt in reducing angst.
- Seven observations:
    a. Large difference in exports among games
    b. Game 2 was late Stage 1 with many new facilities.

c. There are large increases in exports - however despite that adult smelt salvage went down - young salvage also generally declined

d. There was a decline in the density per AF of water exported.

e. Worst case scenario - earlier actions would have led to lower salvage than predicted in Russ's model, as there was no feedback mechanism in the model to daily salvage.

f. Games 4 and 5 turned out better than game 2 because of improved actions and less exports (infrastructure was not yet available for increasing exports)

g. Angst factor changes what you do in the EWA approach, whereas prescriptive approach does not provide the leeway.

C: Note "deliveries" in tables are actually total project exports.

C: Note comparisons are of different games with different baselines - should be evaluating net change from each baseline - otherwise apples and oranges.

C: Angst - population factor? Risk of extinction?

Q: The higher exports in the models than historic are for 1995 level of demand - would not demands be even higher with later demand levels? No? Yes? ??

C: We should be comparing to baseline not historical - it is the change with baseline that is important. R: Not if the level of export affects potential EWA actions.

C: EWA assets must change with demands.

C: Playing the game modifies the Accord.

C: EWA compensating for increasing demands is not a good deal.

R: EWA and Accord will cause future changes compared to historic.

C: We should compare baseline with historic. R: Yes.

C: If the future will have greater exports, then more fish will be lost - more risky conditions. We will need additional standards to make up lost ground. We seem to be gaining ground with EWA which is good.

C: There seems to be weaknesses in the baseline rules. We should keep effects of increased demands and effectiveness of EWA as separate issues.

C: We are losing track of the cost of reducing salvage with export reductions - right now are benefits are less than a fish per TAF on average. We should shift to describing densities when we take actions, which are much higher than 1/TAF.

R: Overall average was presented for comparison purposes only - index of effectiveness.

C: We should focus on the worthiness of EWA actions.

C: The deal looks good - EWA was able to overcome new exports and more.

C: The test is really how well we did against the baseline.

R: Looking at historical is apples and oranges - but it may be apples and redwoods otherwise. The length of stretch is already large.

C: Maybe we a seeing the inherent problems with the Accord particularly with respect to delta smelt.

C: Reminder that we are dealing with an endangered species - we have reduced a bad thing (salvage) by a small amount - is that enough? What should be our goal for reducing entrainment?

R: Our task was more narrowly defined. EWA is not the only tool. EWA does its job - even more so than prescriptive standards.

Ron: reminder that our objective is to define resources needed for EWA, rather than how good we are doing.

R: How bid it should be should change with need through Stage 1.

C: EWA accomplished mission to reduce entrainment.

Q: How does EWA compare with prescriptive approach - early in Stage 1 and later in Stage 1?

R: Protection degrades late in Stage 1 because of increased export capacity - need to adjust rules and assets to compensate for this - it looks like we can protect smelt with some changes.

C: The amount of assets seems OK.

C: Salvage does not affect delta smelt population.

Action: Bruce will write up bullets for presentation.

SACRAMENTO SALMON FOLLOW UP - KARL HALUPKA

- EWA worked well in against 91/92 because Accord was not in place in those years. Also baseline provided a lot of benefit in those years.
- EWA did not perform as well in later years when BO and Accord was in place.

C: There is still the debate on how much effect exports have on Sac salmon. We do not necessarily agree that survival is low once smolts get into the interior Delta.

C: Survival equation is a function of Sac flow, DCC operation, exports, and temperature.

C: Newman-Rive needs to be considered as an alternative hypothesis to Geibel. Sheila to do analysis.

C: Newman-Rice will simply lead us to conclude that EWA export reductions would have no benefit to Sac salmon.

R: Not entirely.

Q: Karl, are you doing a San Joaquin evaluation? R: Yes.

Q: What about upstream EWA effects on salmon? R: Yes.

Q: How can 91 have similar survival as 91 for Sac salmon? R: exports in 91 were a third of 95.

DWRSIM RESULTS - GEORGE BARNES

What DWR can do to help?

- DWRSIM runs
- Evaluate B(2) and ESA restrictive actions above Accord - can provide prediction with and without restrictive actions.
- Recent runs help determine in 1999 that we can get through low-point this summer, but reservoir levels will be lower than normal because of everything.
- DWR can look at beginning conditions using all 70 years as beginning conditions.
- Looking at effects on Interruptible Deliveries.
- A weekly Calsim will soon be available.

Some Results:

- 50% of the time impacts to interruptible will be about 50-70 TAF; assumed JPOD - mainly affected by unstored fall-winter flows
- Only a small percentage of the years has the model predicted not filling San Luis by March 31; thus the probability of not making up water is small.

C: CALSIM will help us decide when to buy options for EWA.

C: We don't have an agreement on a reasonable asset mix for the EWA.

C: We can address Day 1 Stage 1 with 71 different hydrology years.

WHITE PAPER INTEGRATION WITH ERP - PETER KIEL

- ERP white papers are really CALFED white papers.
- Subjects: ecoprogram restoration strategies, life history papers, EWA, DEFT issues.
- Independent scientists - peer reviewed
- Integration of common programs - more emphasis by CMARP
- Take ERP/EWA/WQ actions and integrate with CMARP
- Develop a research and monitoring program.

C: CMARP teams are no longer active - could use small teams for this effort.

HYPOTHESES - BJ MILLER DRAFT

There were many editorial comments that will be addressed in next draft.

C: Hypotheses are something we want to test. We want CMARP to state what data are available to support each hypotheses.

C: We are not addressing science, only operational procedures.

C: Report should state whether hypotheses are supported. If not, design experiments that allow testing.

C: We should assemble data pertinent to determine validity of these hypotheses - does evidence support the hypotheses - yes or no, if no was the data sufficient to address the hypotheses.

C: We should state that we are going to test hypotheses with the available data - and describe the data.

Q: Are these hypotheses tied to assumptions in the Model? Yes??

C: Some are more complicated than necessary?

C: Revisions suggested.

Q: Question the need to add detail on the hypotheses. R: WE did do things with respect to what screens were available at different points in Stage 1.

Discussion of hypotheses will continue on Thursday.

Action: Tom Cannon will revise draft from input from Tuesday meeting.

NEXT GAME

What should it be?

Russ: has 81-95 available now if we want to consider more years.

Q: What is the purpose of further gaming?

R: We should look at different years.

R: We should revisit our asset allocation especially at end of Stage 1.

R: We should integrate the upstream concepts - Game X

R: We should try Game 6 - Water Users Game.

Action: Dave Fullerton will draft up an objectives list for next Game.

NEGOTIATE TERMS

C: We should start thinking about negotiating terms for EWA. We don't know about the next five years - how should game simulation be driven? -

C: Gaming should be driven by what is needed for negotiating EWA assets and abilities.

C: We should define full range of what is doable for all parties.

C: We should get guidance from Q/S on what assets and tools will be available.

Q: What will be the specific terms of EWA?

C: Broader group needs to negotiate.

C: Policy has to define that negotiating group.

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