300.5

DRAFT
DNCT Biology Team
Meeting Notes
2/16/99
1:00pm -4:00pm

Attendees: Bruce Herbold, Pete Chadwick, Sheila Greene, Pete Rhodes, B.J. Miller, Ron Ott, Peter Kiel, Tom Cannon

Agenda:
i. What to protect and actions - list, group, and examine
ii. Gaming tools - inputs, methods, other groups

A. Highlights
I. Discussed Herbold/Hanson Meeting last Friday.
II. Tech Team Concept for defining use of EWA.

B. Actions: (bold-underlined in text)

C. Hanson and Herbold Meeting last Friday

Identified three types of problems relating to biology and water projects:

(1). Entrainment
(2). Habitat Degradation - ecosystem protection (e.g., X2, outflow, seasonal wetland habitat, water quality, toxics, DO, etc.)
(3). Guidance for migrating fish - attraction flow for adults, outflow for young transport, barrier, I St flow for striped bass.

For 7 Species of Interest Identified by DEFT:
- Describe entrainment problem - seasonality, extent, data
- When vulnerable - in south Delta, occurrence in salvage
- What factors are related to entrainment/salvage - E/I, X2, barriers, QWEST
- Is realtime monitoring useful in predicting salvage
- What factors apply to which species.
- Does entrainment affect population abundance - salvage loss relate to Fall Midwater Trawl Index
- Does adult spawning distribution affect vulnerability of young to entrainment.
- For tools that seem worthwhile can we get some idea of what level of protection they can provide. What level of implementation of the tool is needed.

Table of Risk:
- seasonal timing of entrainment and tools for each potential event/period

D-015635

- typically use E/I to reduce entrainment; are there other tools
- relate tool to salvage impact;

Action: ask CMARP to design adaptive management strategies to protect fish so that we can compare different tools as to their effectiveness of reducing entrainment.

Questions:

1. How do we address combinations of tools? Stage 1 will use cheapest tools to evaluate most effective combinations. Each year will be different - tool performance will change with year type and conditions.
2. Why is CALFED partitioning the problem between entrainment and habitat without linkage? Tech teams will have to integrate problems.
3. Do we put together species teams? Yes.
4. Do we have to have documented population effects to consider entrainment a problem? Not necessarily, but population effects would be a factor.
5. How do we define the problem if we are not sure about population effects? Can't address that in next two weeks.
6. How do we react to the population crash of delta smelt in August 1997, when we know the entrainment wasn't the problem, whereas toxins, PG&E, foodweb, or predation were likely causes? We need to look at all factors controlling populations. Look at the whole scope of the problem for which we will use EWA water for.
7. What if we can't get enough EWA water to do Spear's actions? What if some problems are better solved without water? Are there other things we can do rather than use EWA water? Tech groups may say that all problems are not a priority.
8. How do we define problem and determine solution set? Maybe there is a better solution for a population problem. If its not a population problem, then we should not call it a problem. The time frame we have is not satisfactory to get to such a conclusion.

9. Can we get tech teams to at least define their assumptions? **Yes.**

Comments:

10. It is reasonable to use entrainment tools for protecting and balancing species.
11. We should have tech teams evaluate whether entrainment is important factor.
12. Tech teams are not likely to say that entrainment is not important.
13. Tech teams should define what is known and what isn't.
14. We need to know which conclusions are defensible.
15. If we can't prove X causes Y, we should not preclude use of a tool or action.
16. We have to stop killing delta smelt and other species during entrainment.
17. Can we agree that we want to see population effects in the equation for the long-term objectives, but for short term we should assume entrainment affects populations.
18. Its going to be difficult to decide how to use the limited EWA supply.

D. Tech Team Concept

19. Tech teams are not a new concept. They have met many times to discuss what are best tools for recovery (recovery plans, ERP, AFRP, Conservation Strategy, DEFT, etc)
20. Tech teams have not completed the necessary detail in their work.
21. Population assessment is a huge exercise.
22. Delta smelt team should flush out the three areas of concern.
23. Tech teams should evaluate salvage rate effects on populations.
24. We should ask tech teams specific questions about use of EWA (e.g., should we use EWA water to help salmon young migrate past Rio Vista?). Or would export reductions be more effective? Would monitoring help determine when to reduce exports or change hydrology?
25. We should ask them to design experiments to test assumptions and effectiveness of EWA tools.

26. It will take a long time to generate such products.

Action: First step will be to assemble two teams: salmonids and nonsalmonids. Teams should include technical experts working for agencies, water users, and environmental groups.

Action: Have tech teams each develop a report for peer review on how to apply EWA in short and long term.

Action: Take concept to management.

Approach: Tech teams should approach with two stages:
Stage 1: rough, short term - not peer reviewed - evaluate several tools for efficiency - focus on reducing salvage.- limited focus on habitat and conveyance - first cut for protection using EWA. This should determine how much water is needed in EWA. Modeling group would support in this. Define how EWA would be used - timing and magnitude. How much E/I relaxation is needed to reduce salvage. Cut back a lot for short time or less over a longer time. Come to some sort of alignment.

Address three questions for identified problems:
1. Is this a real problem?
2. Will the actions solve the problem?
3. Are there other ways to solve the problem?

If we can't answer these questions in first two weeks (first phase), then what do we do? We shouldn't prejudge the abilities of the tech teams.

2) longer term: determine whether it is important to populations to do any of the tools. Could be

D-015637

done by October 99.

Tech Team Needs:

1. Team Makeup
2. Commitment of team members
3. Charge/Questions to address
4. Schedule/Phasing of charges/results

Comments/Questions:

1. It is critical for Tech Team to scope out long-term questions. Ask them to state what will help population and what specifically EWA can accomplish.
2. This may be a daunting task. May be too broad.
3. We could limit scope to Delta actions. Let AFRP/ERP cover upstream actions.
4. EWA covers entire Central Valley.
5. EWA size should be determined by Detla actions (e.g., export reductions, X2, etc.)
6. Cover 7 areas of concern that we have identified (e.g., species affected by entrainment).
7. Water users will not accept EWA without seeing how it fits into bigger picture.
8. We can all agree we should protect delta smelt from certain levels of entrainment.
9. Team responsibility may overlap with CMARP. Our teams are capable of starting these discussions. CMARP can carry the work further.
10. How do we integrate this effort into longer term restoration efforts? Amended Core Team and CMARP team may help. Involve academics and stakeholder experts. CMARP lacks stakeholder involvement.

Action: Define how this team will relate to CMARP; what these teams will do and how far they can take questions;

Tech Team List:

- Agree/Disagree
- Don't Know
- What to do to resolve problem
- Assessment of the problem
- effect of action on the problem
- Is there a better way to solve problem.
- assess what we know - what we need to know
- what actions relating to entrainment, habitat, and guidance relate to population recovery?

Provide Team the following:

- possible flexibility/priority
- actions to be considered
- schedule for their input
- operating assumptions
- facilitators

Salmonid (salmon and steelhead) Team:

- Pat Brandes
- Sheila Green
- Carl Halupka
- Serge Birk
- Jim White
- Jim Buell
- Bill Kier

NonSalmonid Team (striped bass, delta smelt, splittail, etc):

- Dale Sweetnam
- Randy Baxter
- Bruce Herbold
- Chuck Hanson
- Mike Fris
- Randy Bailey
- Bill Bennett
- Env Rep
- Stevens, Miller, or Kohlhorst

<u>Action:</u> Ron will write up Tech Team concept for Thursday DNCT meeting.