



August 24, 2012

Robert Nees
Turlock Irrigation District
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Greg Dias
Modesto Irrigation District
PO Box 4060
Modesto, CA 95352

RE: Don Pedro Project (FERC Project P-2299) Comments on W&AR-5 Salmonid Information Synthesis Workshop No. 2-Draft Meeting Notes.

Dear Messrs. Nees and Dias:

Tuolumne River Trust (TRT) and California Sportfishing Protection Alliance (CSPA) submit these comments on the W&AR-5 Salmonid Information Synthesis Workshop No. 2-Draft Meeting Notes.

Background

On June 26, 2012, the Turlock Irrigation District and Modesto Irrigation District (collectively the Districts) conducted the second workshop for the Salmonid Information Integration and Synthesis Study and the related Chinook Salmon Population Model and *O mykiss* Population Model. The workshop was conducted in accordance with the study plans prepared for these three studies and approved by the Federal Energy Regulatory Commission (FERC) in its December 22, 2011 Study Plan Determination (SPD). Section 7.0, Schedule, of the W&AR-5 Study Plan contained a task to conduct a second workshop to present, discuss, and review the conceptual models for salmonids. This second workshop followed FERC's directive related to ongoing consultation processes contained in Appendix B, page 1, of the FERC SPD.

The purpose of this workshop was to continue the discussion of relevant information, studies, and data and to present, review, and discuss preliminary conceptual models under development by the Districts.

Comments

TRT and CSPA have reviewed the meeting notes and other related materials and have the following comments regarding the information presented.

1. The meeting notes give the impression that the Districts' preliminary ranking of issues affecting Chinook salmon and *O mykiss* (Attachment 3) was discussed and developed collaboratively within the meeting. We request that the record accurately reflect that this is not the case and

that the presentation of the preliminary ranking of issues within these meeting notes is, in fact, the first time that any ranking, preliminary or otherwise, has been disclosed. While no specific ranking of factors was discussed or proposed by any party, what were discussed were the various factors and studies, data, and other information that could be used to inform the relative importance of each of these factors. We request that a future workshop be dedicated specifically to discussing the preliminary ranking of factors. Included in this workshop should be a discussion of the criteria for weighting the various factors. If the group is to come to a consensus as to why Factor A has a greater influence on any given life stage than Factor B, the criteria by which that determination is based should be clear.

2. As these draft meeting notes represent the first presentation of the preliminary rankings, our comments on the preliminary ranking are brief and incomplete. We anticipate that we will provide more complete comments during a future workshop in which the rankings are discussed.
3. Of great concern to TRT and CSPA as this modeling exercise proceeds is the process and criteria by which the various factors will be weighted and ranked. While the Districts have worked diligently to identify studies, articles, and data to provide information about the various factors that may potentially affect Chinook salmon and *O mykiss* populations, in general the information does not provide a comparison of the relative importance of the various factors in any quantifiable manner, forcing the Districts to use subjective judgment in ranking the factors.
4. An additional limitation to this exercise is that the various factors are evaluated in isolation, whereas any given factor may compound or diminish the influence of other factors. To the extent possible, a discussion of how each factor may be related to other factors should be included with the conceptual models.

Salmon Ranking

5. *Spawning*
 - A row should be added for inability of spawning fish to locate suitable spawning habitat.
6. *Egg incubation*
 - A row should be added for reduced egg viability due to water temperature effects on adult up-migrants.
 - The study referenced for red superimposition (TID/MID, 1992) cited estimates of egg losses in 1988. There is no recent evidence of effects from redd superimposition.
7. *In-river rearing, juvenile and smolt emigration from the lower Tuolumne River*
 - Predation should be linked not only to habitat for predators but also to habitat conditions for fry and smolts. Effects are both from predation and from flow and channel conditions that set the table for a gauntlet of predation. The interaction between salmonid habitat and predation is central to understanding predation.
 - Slow growth is a likely cause of unsuccessful smolting and outmigration. We recognize that there is limited evidence but believe that this information would have been developed through a bioenergetics study, as requested by agencies and conservation groups.
 - See Mesick, 2009, *The High Risk of Extinction for the Natural Fall-Run Chinook Salmon Population in the Lower Tuolumne River due to Insufficient Instream Flow Releases*, and Mesick 2010, *The High Risk of Extinction for the Natural Fall-Run Chinook Salmon Population in the Lower Merced River due to Insufficient Instream Flow Releases* for discussion of effects of water temperature and lack of rapid growth due to lack of floodplain inundation.
8. *Delta Rearing and smolt emigration from the Sacramento/San Joaquin River Delta*

- Predation should include presence of predation hotspots caused by hydrodynamics and incipient entrainment of juvenile salmonids due to export operations combined with low San Joaquin River outflow.
- A row should be added for impaired water quality as cause of losses, including but not only low DO in Stockton Deepwater Ship Channel.

9. *Ocean Rearing*

- Harvest should be changed to “Harvest Management.”

Steelhead Ranking

10. *Spawning*

- A row should be added for inability of spawning fish to find suitable spawning habitat.

11. *In-River Rearing, juvenile and smolt emigration from the lower Tuolumne River*

- Predation should be linked not only to habitat for predators but also to habitat conditions for juveniles. Effects are both from predation and from flow and channel conditions that set the table for a gauntlet of predation. The interaction between salmonid habitat and predation is central to understanding predation.
- In row on temperature, slow growth should be cited as a problem as well as mortality. Mortality should not be characterized as occurring at “low levels” in the absence of evidence. We suggest simply saying “mortality.”
- A row should be added for low flows as a cause of lack of smoltification.

12. *Delta Rearing and smolt emigration from the Sacramento/San Joaquin River Delta*

- Predation should include presence of predation hotspots caused by hydrodynamics and incipient entrainment of juvenile salmonids due to export operations combined with low San Joaquin River outflow.
- A row should be added for impaired water quality as cause of losses, including but not only low DO in Stockton Deepwater Ship Channel.

13. In the December 22, 2011 FERC Study Plan Determination, Commission staff recommended that, except for a peer review panel, the Districts adopt guidelines similar to the June 2011 Salmonid Integrated Life Cycle Model Workshop. We are concerned that these guidelines are not being entirely adhered to. For example, no standard glossary has been developed to date. Also, specific questions have not yet been articulated for which the model is formulated to answer. Finally, the strategy for using data to calibrate and validate the model has not been developed.
14. In the FERC Study Plan Determination, Commission staff recommended that the Districts include an agreement describing how interested participants and the Districts would achieve consensus on all issues. This recommendation differs from the workshop protocol to which the Districts are adhering for W&AR5. In the Districts’ workshop protocol, the Districts simply note the areas of disagreement rather than strive to reach consensus.
15. The Districts include 47 pages of information as Attachment 1 – Meeting Materials, including Meeting Agenda, General Chinook salmon and *O mykiss* Life History Timing, and Preliminary Conceptual Models for the various life stages of Chinook salmon and *O mykiss*, all of which were handed out during the meeting as the packet of meeting materials. The Districts have also included several pages of information titled Preliminary Information Factors Review (6/26/12) in Attachment 1. For the sake of an accurate record, these pages were not amongst the Meeting Materials handed out during the meeting, but rather these pages reflect information needed and other notes that were identified during the meeting. As such, they should be included with the section of the meeting notes that summarizes the discussion of the conceptual models.

We request that the Districts respond to these specific requests in their filing with FERC on revised meeting notes.

TRT and CSPA appreciate the Districts' consideration of our comments. If there are any questions, they can be directed to Patrick Koepele, Tuolumne River Trust, 209-588-8636 or patrick@tuolumne.org.

Sincerely,



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