

HYDROLOGY AND WATER QUALITY TECHNICAL WORKING GROUP (HGWG) Meeting Notes

June 9th, 2005 Meeting at Ft. Snelling

Revised as of June 14, 2005

Use and Meaning of the Meeting Notes: *Plenary and Technical Working Group meeting notes are intended to be a general summary of key issues raised and discussed by participants at meetings. The presentation of issues or items discussed is not designed to be totally comprehensive, or reflect the breadth or depth of discussions. However, it is intended to record the gist of conversations and conclusions.*

Where a consensus or other agreement was reached, it will be so noted. Where ideas are comments are from only one or several participants, or where a brainstormed list is presented the content of which was not agreed to by all group members, the recorders will to the best of their abilities note these qualifiers. When participants raise comments about the meeting notes, or make other suggestions or comments following meetings which are more than “corrections,” we will add these in a section at the end of the meeting notes captioned “Post Script”.

The Hydrology and Water Quality Working Group (HGWG) met during the morning and afternoon of June 9th to define its goals, identify tasks, brainstorm options and engage in general discussion of the HGWG’s contribution to this effort. The Pallid Sturgeon/Fish and Wildlife Technical Working Group were asked to identify specific hydrologic requirements for the pallid sturgeon. However, because little is known about the pallid sturgeon, the Pallid Sturgeon Working Group gave relatively few specific direction regarding design requirements of the spring rise (i.e. timing, magnitude, duration) other than to attempt to align a spring rise with historic flow profiles, and to try to start it when temperatures reach 18 degrees centigrade.

1. Goals and Products of the Group.

The HGWG had a combined discussion of the Group’s “goals”, the “product” of its work and tasks.” While not reaching a consensus on Goals, the HGWG had a broad discussion of general goals that included the following ideas or proposals (placed into categories):

Goal and product

- Provide the Plenary Group (PG) with a range of options with some priority assigned to them and some recommendations about how to use the options.
- This Group must find an alternative to the spring rise proposed in the BiOp.
- Work to ensure that there is no violation of law by a “take” of other species.
- Find ways to consider the needs of upstream users and the Tribes’ water intakes.

This Meeting Summary is the independent work product of the mediation team from CDR Associates, an independent conflict management firm working under contract to the U.S. Institute for Environmental Conflict Resolution, which is serving in a neutral capacity to assist in the resolution of issues in an alternative dispute resolution process. Ideas developed or proposals discussed during deliberations by either the Plenary Group or Technical Working Group, or agreements on recommendations reached in either forum and recorded in Meeting Summaries are considered to be tentative and subject to review and/or approval by the leadership of participating federal, tribal and state agencies.

- Develop a large number of options and let adaptive management narrow them down over time.
- Produce the best possible experiment for the fishery so that hypotheses can be tested.

Potential approaches

- Develop a range of hydrographs (plans with alternative sets of criteria)
- Consider using as starting point one option for the set of spring rise criteria:
 - the COE model presented in the COE PPT
 - the CWCP. COE states that this plan is inconsistent with the BiOp.
- Consider how to propose alternatives that are water neutral, water positive, and water negative.
- Consider using generic models (models and hydrographs without specific numbers).
- The Plenary could select from among or combine:
 - A null hypotheses - the current CWCP (meaning no action taken)
 - Develop stop protocols for droughts and under conditions of downstream flooding
 - A bimodal pulse
 - A single pulse
- Use the “statistical elements of historic flows” adjusted by rate of flow, slope of rise and fall, peak, and duration based on historical unregulated hydrographs (using Robb Jacobson’s approach).

Considerations

- The 31 MAF stop during droughts is only a recommendation.
- Should we run tests on a family of Spring Rises (perhaps 10K, 15K and 20K peaks)?
- Is there a way to avoid a long duration peak for the Second Rise?
- Can we make a Spring Rise that saves water?
- The current drought will limit what can be really done as the water levels will be low for another 6-8 years – so testing will be limited.
- Can we make some of the Rises shorter to save water and prevent flooding while using slope of rise and drop at biological triggers or cues?
- If we run the model at 16K but prorate on storage levels, will that approach over the 100+ years of study give us a good data set?

2. Test runs on a set of models.

Basic test runs.

The COE presented possible approaches to conducting Spring Rise test runs. A Group discussion lead to the following list of Test Run options. This list is not intended to be comprehensive, and the HGWG is likely to suggest other test runs once these are completed.

- First Rise:

- a. No rise
- b. 5 kcfs addition on navigation flows (coming up early to fit with navigation flows)
- Drop between Rise:
 - a. Drop to minimum service for all years
 - b. Full to minimum service using the current guide curve
 - c. Full to minimum service using the guide curve in the COE PPT presentation (a more water neutral approach)
- Second Rise with a 16 kcfs max (per Group discussion), 2 week max at the peak and using May 1 through May 30 for dates. A prorated 16 Kcfs seemed to be an acceptable starting point for test runs.
- Stop protocols – flood control
 - a. Raise current by 16 kcfs
 - b. Small raise
- Stop protocols - drought actions
 - a. Full rise through drought
 - b. None
 - c. Guide curve in COE PPT presentation.

Requested additional adjustments to the Test. The following adjustments were proposed for test runs (tied to numbers/letters above):

Item #4 Stop:

- Stop the Rise if any location is above Flood Stage (COE states this cannot be modeled)
- Only do a Rise when storage is 57.1 on March 15 (COE states there will a relatively low number of rises for this)

Item #3 Second Rise: Run for a two week total Rise from start to stop (COE may not be able to model)

Items #1 and #3: add an additional 5 kcfs to both Rises but cut duration by 50%.

Item #2: Go to another (lower) service level between Rises.

Results of the test runs. The results will be in Excel and possible in Adobe and will show a wide variety of outputs (as shown in the prior COE EIS work). The COE will make data outputs available to the participants.

3. Bio assessment by USGS.

Robb Jacobson will take the test run results and make a statistical assessment of the results against the historical, pre-regulation hydrograph. This may provide the Pallid Sturgeon group with data to see how these various models could be used to test the several hypotheses being developed by the Pallid Sturgeon Group.

4. Next Steps and Communications. The COE will work to undertake the modeling quickly. This Group will have a status report on the modeling and other factors via telephone conferences at 2 pm Central on Thursday, June 16, 2005 and Tuesday, June 21.

Call information: 503-808-5190 for both calls and there is no password required. Calls are set up for 1-hour duration.

Post Script comments.

As noted above, we have heard the following general comments (paraphrased) from one or more individuals about the HGWG process, meeting or meeting summary:

Usefulness and propriety of a summary of Meeting #1: For varying reasons the HGWG meeting was too chaotic to have any part of it characterized as showing any level of consensus or even agreement. As such, minutes should not be finalized or posted. Comments in the summary are personal or institutional opinions.

COE Model: The COE model seems to lack the functionality needed to make this process work because it has limits on adjustment (such as the inability to model the duration of the Second Rise Peak.) Are there other or additional ways to model the results and effects on stakeholder interests?

Rushing to complete a recommendation. The timeframe for this process makes it very difficult to reach reasoned decisions about recommendations to the Plenary Group.