



Grant County
PUBLIC UTILITY DISTRICT
Excellence in Service and Leadership

Fall Chinook Work Group

Tuesday, November 02, 2010

8:30 a.m. – 12:00 p.m.

Radisson Hotel Portland Airport

Portland, OR

Technical members

Paul Wagner, NMFS	Joe Skalicky/Dan Diggs, USFWS
Robert Heinith, CRITFC	Paul Ward/Bob Rose, YN
Holly Harwood, BPA	Brett Swift, American Rivers
Keith Truscott, CPUD	Tom Kahler, DPUD
Bill Tweit, WDFW	Paul Hoffarth, WDFW
Marcie Mangold, WDOE	John Clark, ADFG
Russell Langshaw, GCPUD	Todd Pearsons, GCPUD
Steve Hemstrom, CPUD	

Attendees: (*Denotes Technical member)

John Clark, ADFG*	Paul Wagner, NMFS*
Tom Kahler, DPUD*	Marcy Mangold, WDOE* (on phone)
Geoff McMichael, Battelle	Scott Bettin, BPA
Steve Hays, Chelan PUD	Bob Heinith, CRITFC
Russell Langshaw, GCPUD	Debbie Williams, GCPUD
Tracy Hillman, Facilitator	

Action Items:

1. Langshaw will send a Statement of Agreement to the HRF CPPA, submitted by Grant PUD, amending the official temperature gauge site.
2. McMichael will schedule a presentation on the Department of Energy's findings in the Hanford Reach.

Decisions:

1. Statement of Agreement to the HRF CPPA submitted by WDFW titled, "Protocol for Conducting the First Vernita Bar Ground Survey and Concurrent Aerial Redd Count" was approved.

Final Meeting Minutes

- I. **Welcome and Introductions** - Hillman welcomed attendees to the meeting.
- II. **Agenda Review** – No additions were made to the agenda.
- III. **Approval of Meeting Minutes**
 - 8 October 2010 Meeting Minutes – Approved
- IV. **Review of Action Items** - Action items identified during the October meeting were reviewed and discussed.

Hillman reported that he has received votes from all agencies except BPA (approval was given by Scott Bettin on behalf of Holly Harwood at the meeting) and the Colville Tribes on WDFW's amendment to start aerial and ground surveys on the first Sunday following 15 October. FCWG protocols state that if a response has not been received within the allotted comment period time, lack of response is considered approval. **Statement of Agreement (SOA) to the HRF CPPA submitted by WDFW titled, "Protocol for Conducting the First Vernita Bar Ground Survey and Concurrent Aerial Redd Count" was approved.** Hillman reported that Rose approved the SOA to the HRF CPPA, but wanted the FCWG to know that the Yakama Nation would like the opportunity to review periodically the start time for conducting redd surveys.

Hoffarth hasn't been able to review the Flow Fluctuation report, but will get it to Mangold in November.

Ryan Harnish and Geoff McMichael will provide an addendum to the Productivity Statement of Work. It will be completed by 8 October 2010. Completed

Williams will investigate setting up a conference call and WebEx for the expert panel. Completed

Langshaw will send a Statement of Agreement to the HRF CPPA, submitted by Grant PUD, amending the official temperature gauge site. Not completed

- V. **Study Plan Updates**
 - A. **Use of Expert Panel Recommendations** – Hillman asked members how the FCWG intends on using recommendations made by the Expert Panel (EP), when the draft report is due to the FCWG, when FCWG comments are due to the EP, and when the final report is due to the FCWG. The FCWG would like the draft report from EP on 1 January 2011. FCWG comments will be provided to the EP on 15 February 2011 (Hillman will draft the letter). The final report is due to

the FCWG on 1 April 2011. The FCWG will then incorporate the EP recommendations into the productivity study.

Hillman thanked Battelle and Grant PUD for the work they did in preparing documents and presentations for the EP.

Hillman reported that during the workshop, the EP raised the following issues and concerns (this is not a complete list):

- The assumptions were not explicitly stated.
- Parr estimates are questionable because of size bias.
- Need to consider population structure and straying.
- Must use the same approach if comparing productivities among different populations.
- Need a better measure of parr or smolt estimates.
- Do not have the data to tease out environmental effects.
- Correlating stock-recruitment residuals with environmental factors is unlikely to work (the data are too noisy).
- The accuracy of parr and escapement estimates is questionable.
- Need to know the effect of hatchery fish on parr estimates and productivity estimates.
- Not sure why MSY is included under Objective 2. MSY is not useful in assessing effects of hydro operations.
- Need to focus on juveniles, not adults, to assess effects of hydro and habitat on the population.
- Rather than measure productivity, it may be better to measure survival. That is, instead of estimating parr/female or smolt/female, measure egg-parr or egg-smolt survival. It may be easier to assess hydro effects on survival than on productivity.
- Need a better approach to estimate early life stages.
- Age and sex ratios from creel data may be biased.
- Some questioned why the escapement estimates are good enough to use to set harvest and management regulations for

ocean-type fish, but they may not be good enough to do the proposed productivity analyses.

McMichael said that Battelle is still missing pre-1984 carcass survey results (they include age, sex, and CWT data) from WDFW.

B. **Status of Other Phase 1 Studies**

Dam Passage Fallback – This study is currently undergoing literature data mining. No analysis has been conducted; results should be available within six months. Results will be useful for the productivity assessment and simulation production model. This study will provide better escapement numbers for the productivity assessment. Fallback is highly variable from year to year. This is a correlative approach looking at flow regimes, operational scenarios, and to see if the data show strong evidence of fallback. If so, a relationship may be developed that would help predict fallback for years being used in the productivity assessment.

In order to better describe the composition of fish, and to determine where they are going, Langshaw explained that 500 fish that traveled through the Off Ladder Adult Fish Trap (OLAFT) were PIT tagged in order to get more natural origin brood for the Priest Rapids Hatchery. Some fish were observed falling back and detected in the Snake and Yakama rivers. Priest Rapids, Wanapum, Rock Island, Rocky Reach, and Wells dams all have PIT-tag detectors in their ladders. PIT-tag sampling will continue through out the run.

Production Simulation Model – Parameters for the individual based model (IBM) for the production simulation are being put together by Dan Hays and Brian Bellgraph. They have inputs from the hydrodynamic model synthesis from Marshall Richmond and Bill Perkins. Because of the EP meeting yesterday, a conference call between Grant PUD, Battelle, and Michigan State University to discuss this topic will be rescheduled. The goal is to be able to add different flow scenarios in order to get different life-stage outputs. Because the hydrodynamic model domain is so dense, it would be very slow for the user to run calculations to figure out velocity, temperature, and depth in each cell. McMichael asked if the FCWG would agree to have 30 to 50 hydraulic model scenarios pre-run so canned results could be used to run through the production simulation model in an effort to increase modeling speed. The FCWG agreed.

Hydrodynamic Model Synthesis – Updated Hanford Reach bathymetry is being incorporated into the hydrodynamic model. This work will in part support the 2011–2013 stranding and entrapment monitoring work. Sampling crews will receive real time data.

McMichael will schedule a presentation on the Department of Energy's findings in the Hanford Reach.

Egg Fry Survival – McMichael reported that the transport permit was received last week and that Hoffarth, WDFW, had approved the scientific review permit. Most of the egg to fry survival will be from the eyed stage to emergence, relying heavily on literature that shows they are resilient between fertilization and the hatch stage. About 7 to 13 days after fertilization is the period when eggs are most sensitive to mechanical disturbance. Egg predation by whitefish during the act of salmon spawning will also be estimated. For the next two weekends, divers will try to collect eggs from different depths to determine if fertilization rates are affected by depth. When eggs at Priest Rapids Hatchery are eyed, they will be put into egg tubes (with gravel) and then the egg tubes will be installed at different elevations at Vernita Bar and near Locke Island. Pressure sensors are already located in these areas. This information is needed for the production simulation model to estimate stranding and entrapment estimates (how many fish are there) for egg to fry survival.

Hillman noted that some members of the EP questioned why only dead fish are being counted. The number of dead fish is mostly meaningless unless they are associated with the number of live fish. Counting live and dead fish will give you the cumulative of stranding, entrapment, and predation, which the EP thought was more important than just doing a dead fish count. Hillman thought the EP might be able to review the stranding and entrapment protocols.

Based on work in 2008, McMichael assumed that eggs would not move very far downstream and therefore the use of drift nets would not be very effective. However, last Sunday, crews collected eggs that had drifted a long way from the redd. Therefore, drift nets are ready to go and will be used next weekend. The mesh is designed to catch post-emergent fry so it should be effective at catching eggs.

VI. HRWG Activities

- A. **Amendments to the HRFCPPA – Statement of Agreement to the HRFCPPA submitted by WDFW titled, “Protocol for Conducting the First Vernita Bar Ground Survey and Concurrent Aerial Redd Count” was approved.**
- B. **Stranding and Entrapment Funding Update** – Langshaw reported that Chelan PUD has committed to funding 20% of the work. Langshaw has had discussions with BPA and Douglas PUD, but neither has committed any funding yet. The estimated cost for the three year study is about 1.7 million dollars. The study will start in March 2011. Langshaw will work with WDFW and Battelle to determine work load and division of labor.

- C. **Schedule of Field Activities** – WDFW started redd surveys two weeks ago; carcass surveys started today. Protection flows started on 15 October. The first surveys were on 17 October. About 90,000 fish are estimated to have returned. Harvest is set at 10,000 fish.
- VII. **Next Meeting:** In place of a December meeting, a field-activities update will be sent to FCWG members on 7 December. The next meeting will be on Tuesday, 4 January 2011 at Grant PUD's Ephrata office.