



DATE: March 11, 2004

TO: Resident Fish Committee (RFC)

FROM: Joe Maroney, Chair

SUBJECT: Action Notes for the March 9, 2004, RFC Meeting

Emergency Resident Fish Committee Meeting by Phone Conference

**Tuesday, March 9, 2004
 2:00 -3:00 p.m. (Pacific)
 Conference Line: (503) 229-0191 ext. 7097
 @
 CBFWA Office Portland Oregon**

Action Notes

Attendees by phone: Clint Muhlfeld (MDFWP), Mike Faler (USFWS), Dave Ward (ODFW), Joe Maroney (KT), Dave Statler (NPT) and Neil Ward (CBFWA)

Time	Objective 1. Project Recommendations	0%
Allocation:	Objective 2. Regional Issues	100%
	Objective 3. Annual Report	0%

ITEM 1: Review of the Montana Department of Fish, Wildlife and Parks (MDFWP) Proposal Titled “*Evaluation of the Biological Effects of the Northwest Power and Conservation Council’s Mainstem Amendment on the Fisheries Upstream and Downstream of Hungry Horse and Libby Dams, Montana*”

The Northwest Power and Conservation Council (Council) directed the region to test, implement, and evaluate an interim summer operation, beginning in 2004, that implements new drafting limits at Hungry Horse and Libby dams. As a result, the MDFWP developed a proposal that includes actions to monitor and evaluate the biological response in Montana to these operation changes. The Columbia Basin Fish and Wildlife Authority’s Resident Fish Committee (RFC) was provided an opportunity to review the proposal during December 2003 and submit comments directly to MFWP; however, no reviews were received.

<p>ITEM 1: (continued)</p>	<p>Since December 2003, the Independent Scientific Review Panel (ISAB) and Oregon Department of Fish and Wildlife (ODFW) have reviewed the proposal and provided comments. During the February 24, 2004, Members Management Group (MMG) meeting, the MMG directed the RFC to review the revised proposal and report their findings during the March 16, 2004 MMG meeting. To facilitate the review and provide a more thorough understanding of the content of past reviews, Dave Ward provided an overview of the comments that the ODFW submitted to MDFWP. Those comments and relative sections of the proposal are:</p> <ol style="list-style-type: none"> 1. <u>Section: Reservoir Model</u> - “While growth may be "correlated with survival, fecundity and reproductive success" of individual fish, growth is not a good predictor of population productivity. Less abundant populations may have high average growth and condition factors due to reduced density and competition, but relatively low productivity on a unit area basis. Maximizing individual growth does not necessarily maximize population yield. Historic and future collection of these data should permit the authors to characterize status of these populations directly and compare these characteristics to a set of performance standards for population/fishery outcomes. There may already be standards in place, but that is not evident in this proposal. Population performance standards could include target growth rates, survival rate, recruitment to life stage, and a desired age and size composition. Fishery performance standards could include size-specific catch rates and utilization goals (ex. recreational angler days).” 2. <u>Section: Fish Population Assessment</u> - “Population estimates based on mark-recapture estimates are dismissed because 95% confidence intervals in past estimates from similar systems have been about 20% of the estimate. This level of precision is common for mark-recapture estimates and over several years population estimates should indicate abundance trends. However, the resolution may not be fine enough to measure year-specific effects of hydro-system operations. The authors should explore what level of precision is needed to detect population level responses to hydro-system operations changes and the mark-recapture effort that would be needed to achieve this precision. In addition, the investigators are encouraged to consider incorporating Maximum Likelihood Estimates of survival. Researchers at Colorado State University have developed software to estimate abundance and survival from long-term mark-recapture datasets. These new methodologies may allow estimates when assumptions of other estimators cannot be met.” 3. <u>Section: Fish Growth and Condition Factor Analysis</u> - “It is not clear that the problems stated for mark-recapture evaluation (complicated life history and migration patterns) do not bias or complicate estimation and broad application of growth and condition factor. What precision is needed and expected in these measurements? What magnitude of differences will be detectable given past estimates of variance? How representative are growth estimates for the various life history patterns.” 4. <u>Section: Proposal, Objective 1 – Task 3</u> - “The authors have overlooked, or not described, how they would take full advantage of gill net data already being collected. The proposal should expand examinations of fish population characteristics under two specific tasks: Objective 1. "Task 3. Compile age-growth and condition factor data from annual gill net series to compare actual growth at age under varying reservoir operating strategies to long-term composite growth increments. Use variation in growth to environmental conditions." Objective 2. "Task 2. Compare length at age and growth increments of rainbow, westslope cutthroat and bull trout captured below Libby and Hungry [Horse] dams via electro-fishing before and after summer flow system operation modification." From these tasks it appears gill-net surveys are conducted annually using a more or less standard methods in a representative fashion. Gill nets
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	<p>have probably been set during specific seasons in standard areas to allow comparisons among years. Samplers likely gathered data on the species composition of the catch. For trout, it appears that length and weight were measured, and that an age structure was collected from a subsample of the fish. While these data will allow the researchers to compile information on "age-growth and condition factor" they should also provide a basis for describing year-class strength, and survival (through catch curves). These too can be used in correlations with reservoir conditions, to describe benefits and losses resulting from hydropower operation. There exists a need for fuller explanation and a little expansion of fish and fisheries data to be collected to help allay concerns about an "overload" of models."</p> <p>Upon reviewing the revised proposal, Dave Ward and the rest of the RFC acknowledged that the MDFWP had adequately addressed the concerns that were identified by the ODFW. The ODFW indicated that they have developed an additional list of specific questions/points that require clarification. Included in the list of comments is the ODFW's desire for MDFWP to more specifically state that information on year-class strength will be collected as well as survival and growth data. Despite these requests, ODFW indicated that these additional requests should not preclude approval of the proposal. The ODFW indicated that they would provide the list of questions directly to MDFWP. Despite acknowledging the technical merits of the proposal, participants expressed a concern relative to whether resident fish managers will have the confidence to attribute observed results to hydro-system operations instead of other factors.</p> <p>An additional topic discussed by the participants relative to this proposal was the status of the companion study that would be conducted in the lower Columbia River to document any detrimental effects on juvenile salmon resulting from the modified hydro-system operations. The Independent Scientific Review Panel (2004) suggested that the comparative studies are "essential to resolving the technical issues of both expected benefits to the upper river basin and the relative magnitudes of physical and ecological changes in upriver and lower river zone." Participants indicated that they were unsure of status of the anadromous proposal and suggested that the RFC request that AFC or MMG representatives brief the MMG on the status of the proposal.</p> <p>Independent Scientific Review Panel. 2004. Proposal to Evaluate the Biological Effects of the Northwest Power and Conservation Council's Mainstem Amendments on the Fisheries Upstream and Downstream of Hungry Horse and Libby Dams, Montana. ISRP 2004-3.</p>
Action:	<p>The RFC recommended that the MDFWP' revised proposal (with the final modifications, per ODFW's recommendation, included) should be forwarded to the MMG for review and approval. In addition, the RFC requested clarification from the MMG relative to the status of the companion anadromous fish proposal.</p>