

# State, Federal and Tribal Fishery Agencies Joint Technical Staff

*Columbia River Inter-tribal Fish Commission*  
*Idaho Department of Fish and Game*  
*Nez Perce Tribe*  
*Oregon Department of Fish and Wildlife*  
*Shoshone-Bannock Tribes*  
*US Fish and Wildlife Service*  
*Washington Department of Fish and Wildlife*

January 13, 2005

William E. Branch  
US Army Corps of Engineers  
Northwestern Division  
North Pacific Water Management Division  
Attention: CENWD-CM-WH-N  
P.O. Box 2870  
Portland, OR 97208-2870

Dear Mr. Branch,

RE :           Recommended Early Season Operations at Snake River Transport Sites 2005 for  
                  inclusion in the 2005 Fish Passage Plan, Appendix B

This memo presents our preferred operations to guide the Action Agencies in establishing early season operations at the Snake River dam collection and transportation sites. The COE has proposed to begin juvenile salmon transportation on April 20, 2005 at Lower Granite (LGR), Little Goose (LGS) and Lower Monumental (LMN) dams based on changes in the 2004 NOAA Biological Opinion, Section 6.2.1.4 (Juvenile Fish Transportation Operations). We understand that the details of this operation are forthcoming in the draft 2005 Fish Passage Plan and Water Management Plan. According to an email sent to Larry Basham from Dave Hurson, the delayed start of transportation would be dependent upon the 2005 April Final Flow Forecast. If the AFFF predicts flows in excess of 70 kcfs for the April-July forecast, then the plan would call for transportation to begin April 20 at all three sites. Our understanding is that LGR, LGS, and LMN would be operated with spill to provide for juvenile fish passage prior to April 20 as follows: LGR RSW operation 24 hours at 12 Kcfs with 7 Kcfs training spill; LGS night-time 12-hour spill to the gas cap; and LMN 24 hour spill 45% to 50% of total discharge depending upon flow volume forecast.

We have summarized the preferred project operation modes for each site below. In general, we believe each of the three projects should be operated in secondary bypass mode upon startup. Several studies rely on PIT-tag detection at these sites to provide necessary data for analysis. The

Comparative Survival Study (CSS) relies on these detections for reach survival estimates and to classify PIT tagged smolts into their appropriate study group based on their capture histories. In particular, the 2005 proposed fall chinook transportation study relies upon early season detections to gather important information about holdover yearling “reservoir type” fish. For example, 77.2 % of hold-over yearling fall chinook from the 2000 migration of subyearlings were detected in 2001 at LGR before April 20, while at LGS and LMN, the holdover proportions detected was 12.5 % and 8.0%, respectively. Delaying PIT tag monitoring until April 20 would eliminate detection of a major portion of these holdover fish. Other studies rely on detection and bypass of PIT-tagged fish for survival information throughout the season.

If the secondary bypass operation is continued in the future we recommend improvements to the juvenile fish facilities at all three sites that would make operation of the full flow bypasses more tenable. Since full flow bypass is the preferred passage operation for collected fish when transportation is not implemented, it should be followed as a high priority to provide better outfall conditions as well as full flow PIT-tag detection (as is currently available at McNary Dam).

### **Lower Granite Dam**

We believe the juvenile fish facility should begin operation in secondary bypass mode on March 25<sup>th</sup>, the normal start-up date. There are several reasons for operating the secondary bypass system at Lower Granite Dam. The primary bypass is old and has a sharp-angle bend that may cause injury to fish. Further, the primary bypass outfall discharges its flow next to the shoreline riprap near the fish facility. This release location is poor and could result in additional predation, delay and confusion for the bypassed fish. Operating the secondary bypass would allow PIT-tag detections on all fish that enter the bypass. There are several studies including the CSS that use these data in long-term studies, as well as short reach survival estimates and timing studies that rely on PIT-detections at Lower Granite Dam. The CSS study relies on these early detections since in some years such as 2002, between 10 and 20% of the seasonal detections of PIT tagged hatchery spring chinook (Dworshak, Rapid River, and Catherine Ck releases) and 25% of the season detections of the PIT tagged wild chinook aggregate occurred before April 20 at LGR. The proposed Fall Chinook Transportation Study would also require early season detections of holdover fish, which make up an important component of the study population.

The regular Smolt Monitoring Program sampling should take place during this time period. Lower Granite is a primary site for gathering information on migration timing for various species. Further, the outfall from the secondary bypass is downstream of the barge loading dock and is in a more favorable position than the primary bypass pipe.

### **Little Goose Dam**

Upon startup we believe the LGO facility should be operated in secondary bypass mode for PIT-tag detection. Timed sampling for smolt monitoring during this time period is not required. However, sampling for Gas Bubble Trauma (GBT) is required at this time as part of routine monitoring. Presently, GBT monitoring is conducted one day per week at Little Goose Dam during spring operations when spill typically occurs. (GBT is schedule component of SMP at

LGO and LMN ... if flows are low and/or we pass peak flow period without spill, then GBT sampling could be discontinued). Fish are netted off the separator so a timed sub-sample is necessary. These samples could also be used to gather information on fish condition. The full flow bypass at Little Goose Dam does not have PIT-tag detection capability, and the outfall location is influenced by upstream eddies during some flow conditions. As this is not a primary site for passage index timing data for the Smolt Monitoring Program we would not recommend sampling there unless observations of fish on the separator or at other facility locations indicated it was necessary.

### **Lower Monumental Dam**

We believe that the LMN facility should be operated in secondary bypass mode for PIT-tag detection upon startup as well. Timed sampling for smolt monitoring during this period is not required. However, routine sampling for GBT is required at this site. Presently, GBT monitoring is carried out one day per week at Lower Monumental Dam during spring operations when spill typically occurs. Fish are netted off the separator so a timed sub-sample would be unnecessary. These samples could also be used to gather information on fish condition. As at Little Goose, the full flow bypass at Lower Monumental Dam does not have PIT-tag detection capability and the outfall location is influenced by upstream eddies during most flow conditions. This is not a primary site for passage index timing data for the SMP so we do not recommend sampling here unless fish observations on the separator or at other facility locations indicate it is necessary.

Thank you for considering these requests. We look forward to discussing them at future TMT and/or FPOM meetings.

Sincerely,



Dave Statler, NPT



Cindy LeFleur, WDFW



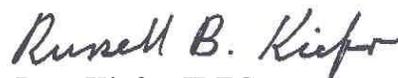
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