SYSTEM OPERATIONAL REQUEST: #2012-3

The following State, Federal, and Tribal Salmon Managers have participated in the preparation and support this SOR: National Marine Fisheries Service, US Fish and Wildlife Service, Oregon Department of Fish and Wildlife, Washington Department of Fish and Wildlife, Idaho Department of Fish and Game, the Colville Tribe, and the Columbia River Inter-Tribal Fish Commission.

TO:

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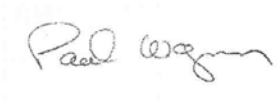

FROM: Paul Wagner, FPAC Chair

DATE: July 17, 2012

SUBJECT: 2012 McNary Dam Transport Operations

OBJECTIVE: Do not initiate barge transport operations at McNary Dam.

SPECIFICATIONS: Do not initiate transport from McNary Dam until truck transport begins, which is scheduled for August 17, 2012.

JUSTIFICATION:

With regard to summer transportation at McNary Dam, the 2012 Fish Operations Plan (FOP) states:

Transportation will be initiated at McNary Dam between July 15–30 per the 2010 Supplemental BiOp (RPA 30, Table 4) and in coordination with NOAA Fisheries and the TMT. Fish will be transported from McNary Dam by barge through August 16, then transported by truck every other day. All fish collected will be transported except those marked for in-river studies. Fish are expected to be transported through September 30. The presence of factors such as excess shad, algae or bryozoans that can clog screens and flumes may result in discontinuing transport operations at McNary Dam before September 30. Detailed criteria for McNary transport are contained in the FPP, Appendix B.

Transportation operations may be adjusted for research purposes, due to conditions at the collection facilities, or as a result of the adaptive management process (to better match juvenile outmigration timing and/or to achieve or maintain performance standards). If new information indicates that modifying (or eliminating) transportation operations at McNary Dam is warranted, adaptive management will be used to make appropriate adjustments through coordination with the FPOM/TMT.

The Salmon Managers signed on to this request recommend modifying transport operations at McNary Dam for the summer of 2012. The recommendation to not initiate transport prior to August 17 is based on the following information:

1. Flow at the McNary project is forecast to be in excess of 200 kcfs until mid-August. Transport benefits were observed in study years during the mid-July to mid-August timeframe when flow was in the range of 80 to 150 kcfs. The most recent data on McNary transport is from the years 2001 and 2002. That data indicated a transport to in-river benefit ranging from 1.2 to 1.5 could occur during the mid-July to mid-August timeframe. Substantial improvements have been made to the McNary project and the projects down river which has likely benefited in-river conditions and reduced the transport benefit observed in those years.
2. A new juvenile outfall has been constructed at the McNary project that should improve survival at this project.
3. Risk to the outfall if there is a problem with a barge operating in the relatively high flow condition at this project this year. Also, interruptions in spill and changes in the spill pattern would be required for the barge to dock at the juvenile facility.
4. Preliminary data indicating high survival of subyearlings released through the McNary outfall this year.

Table 1 displays estimates of survival from detection at McNary Dam to the tailrace at John Day Dam for PIT-tagged subyearling fall Chinook. The fish in these groups were production fish from Lyons Ferry Hatchery that were detected at McNary Dam and returned to the river between the dates of June 1-June 28, over the years 2006-2012.

Table 1. Estimates of survival from detection at McNary Dam to the tailrace at John Day Dam for PIT-tagged subyearling fall Chinook. The fish in the table are from Lyons Ferry Hatchery that were detected at McNary Dam and returned to the river between the dates of June 1-June 28, over the years 2006-2012.

Year	Number of Fish	Survival, S-hat	Standard Error
2006	6,694	0.793	0.065
2007	1,014	1.287	0.350
2008	12,468	0.755	0.043
2009	14,310	0.725	0.039
2010	9,845	0.787	0.054
2011	12,229	0.859	0.114
2012	12,044	0.872	0.080

Notes: 2012 estimate subject to change as more detections occur downstream of McNary, 2007 estimate should be ignored due to small sample size.

The 87.2% survival estimate in 2012 is a substantial improvement over most previous years. The second closest estimate was 2011 which occurred under a high flow condition but prior to the new outfall. The combined positive benefits of high flows and the new outfall will continue through mid-August.

The signatories to this SOR believe that, due to the good in-river conditions and improved juvenile bypass system, transport from McNary should not begin until truck transport is initiated in mid-August this year.