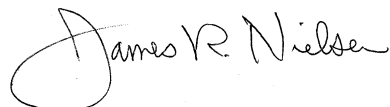


## **SYSTEM OPERATIONAL REQUEST: #2000-19**

- *The following State and Federal Salmon Managers have participated in the preparation and support this SOR: Oregon Department of Fish & Wildlife, U.S. Fish & Wildlife Service, Washington Department of Fish and Wildlife, Idaho Department of Fish & Game and the Columbia River Inter-Tribal Fish Commission.*

**TO:**            **Brigadier General Strock**    **COE-NPD**  
                  **William Branch**                    **COE-Water Management**  
                  **Cindy Henriksen**                   **COE-RCC**  
                  **Doug Arndt**                            **COE-P**  
                  **Col. Randall J. Butler**               **COE-Portland District**  
                  **Lieut. Col. W.E. Bulen, Jr.**       **COE-Walla Walla District**  
                  **J. William McDonald**               **USBR-Boise Regional Director**  
                  **Judith Johansen**                    **BPA-Administrator**  
                  **Greg Delwiche**                       **BPA-PG-5**



**FROM:**        **Jim Nielsen, Chairperson, Salmon Managers**

**DATE:**        **May 10, 2000**

**SUBJECT:**    **Flow for the Lower Columbia River at McNary Dam**

**SPECIFICATIONS:** Meet the target flow at McNary Dam of 260 kcfs

### **JUSTIFICATION:**

Review of historical passage timing in the lower Columbia River indicates that for the remainder of the month, yearling chinook and steelhead migrants from mid-Columbia and Snake rivers origins are expected to pass McNary, John Day, The Dalles and Bonneville dams. Review of PIT tag recaptures to-date at McNary Dam shows PIT tagged fish are originating from the Salmon, Snake, Clearwater, Imnaha, Grand Ronde, Mid-Columbia, Yakima and Umatilla rivers. Wild listed PIT tagged spring/summer chinook from the Snake River ESU have been detected in significant numbers at McNary Dam (2155 through May 9), as well as listed hatchery spring/summer chinook from the Snake River ESU (1613 through May 9). Also represented in significant numbers (4277 detections) are wild steelhead from the Snake River ESU. Any reductions in flow at this time could have disastrous impacts on the present spring migrations. In past years' it has been shown that reductions of flows can result in a truncation of the migration. Travel time through the lower River would be increased causing fish to be exposed to increased predation and to enter the estuary later. We estimate that for yearling chinook and steelhead, there would be a 25% increase in travel time (from 3.8 to 4.8 days) in John Day Reservoir alone if the flows were decreased from the present levels of near 280 Kcfs to 225 Kcfs.

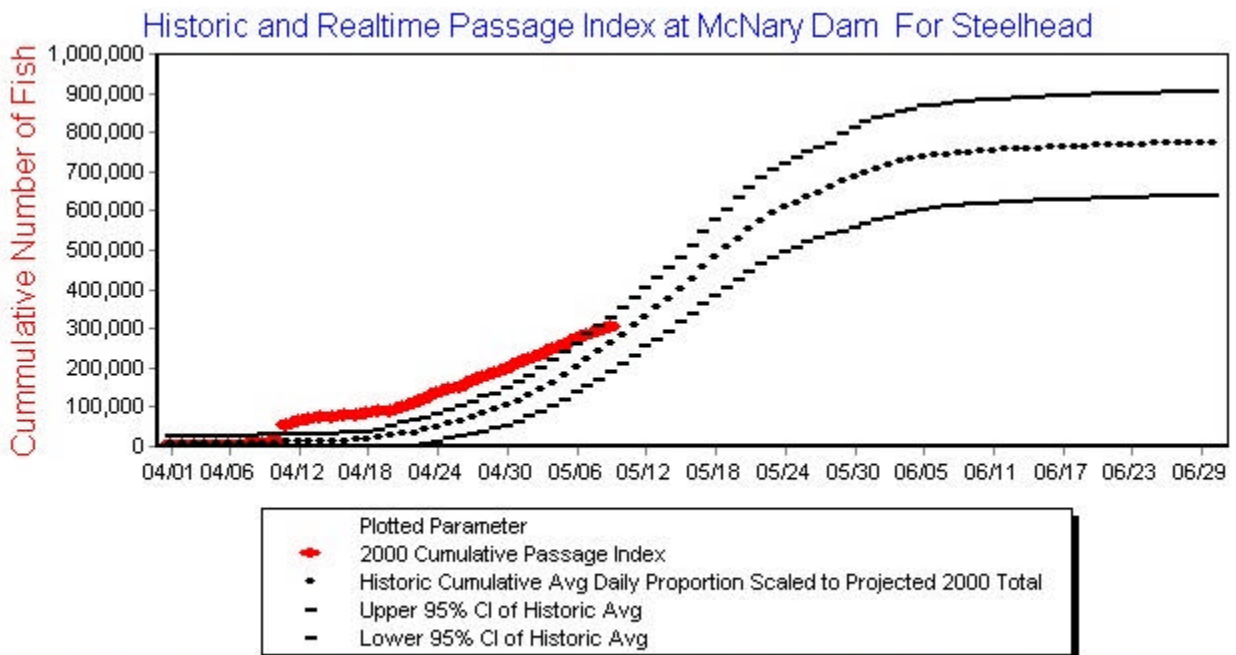
The attached daily and cumulative graphs of current passage indicate that the passage indices for steelhead and chinook continue to increase at McNary Dam. Given the present abundance of the spring migrants in the lower Columbia River and the adverse impacts that

would occur if flows were decreased, we conclude that there is a compelling biological argument against decreasing flows.

The recent adjustment of Snake River operations by the federal operators cannot occur in conjunction with the adjustment of the Columbia River operations to degrade flows even further than predicted. The present projected lower flow situation is the result of flood control operational decisions implemented in late winter and early spring, and the subsequent decline in the run-off volume forecast. This sequence of decisions has occurred in past years and has resulted in the potential that fish migration flow targets would not be met. However, in past years unanticipated good fortune in weather events provided precipitation to counteract the effect of operational decisions on the ability to meet target fish migration flows. We realize that this year, which is a normal runoff year, is unlikely to be bailed out by nature to achieve fish migration flow targets given the present 30 and 90-day climate predictions.

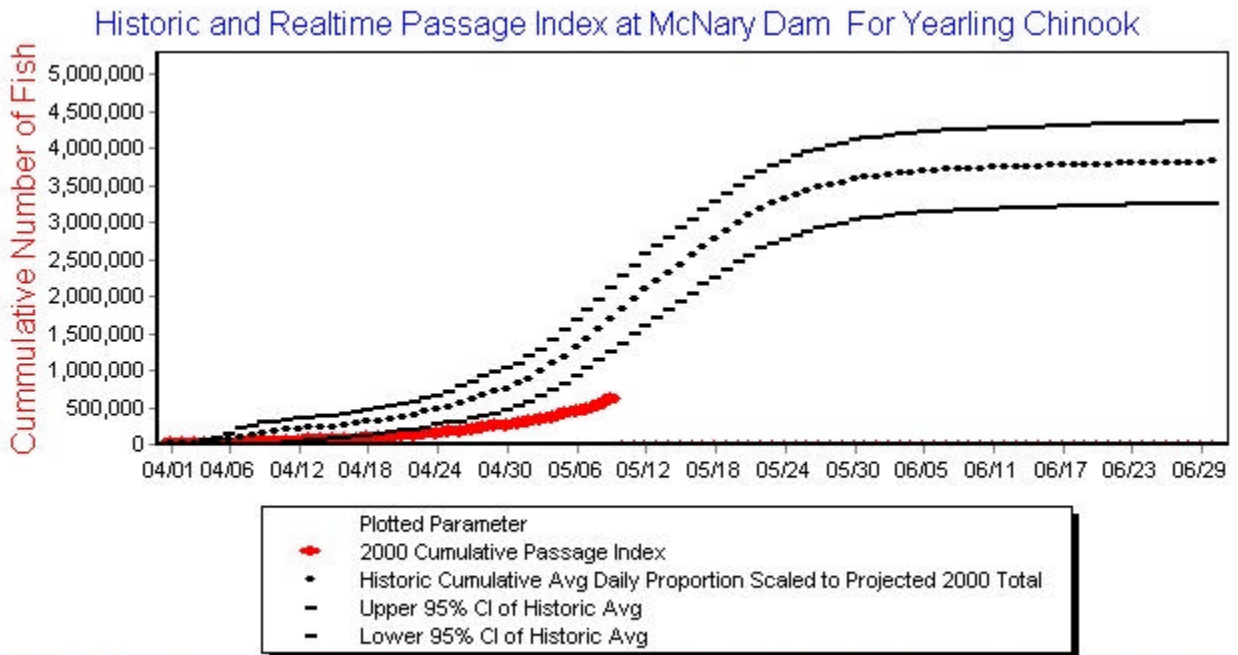
The present situation will not allow the target flows to be met in 2000 based on the late winter, early spring flood control operations allowed by the Opinion and the reservoir resources originally planned when the federal hydrosystem mitigation measures were developed. Since there are compelling biological reasons to provide migration flows the federal operators' response to this present situation will necessitate additions to operations beyond those originally anticipated in the Biological Opinion (e.g. Canadian Reservoirs and Non-Treaty storage). The federal parties should provide documentation of their immediate strategy to resolve the disconnect between the Opinion measures and the hydrosystem's ability to meet the needs of the fish migration.

Attachments: Linked to web jpeg files.



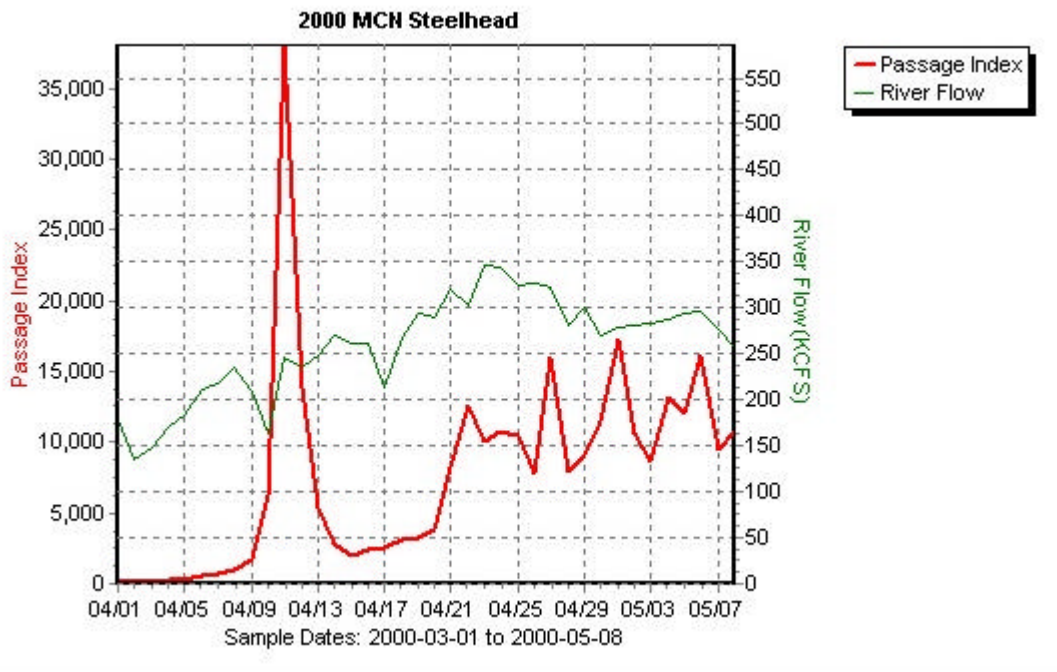
Historic daily proportions average of 1985-99. Curve scaled to projected 2000 index, using NMFS estimated collection, and a fixed spill percent.

McNary Dam Cumulative Passage Plot Steelhead

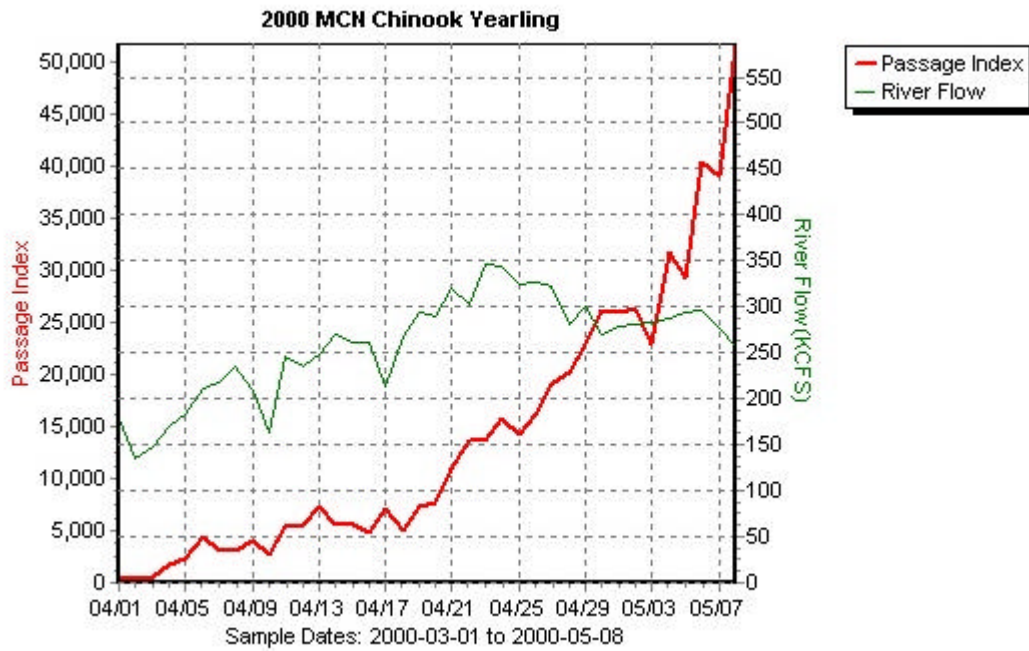


Historic daily proportions average of 1985-99. Curve scaled to projected 2000 index, using NMFS estimated collection, and a fixed spill percent.

McNary Dam Cumulative Passage Plot Yearling Chinook



McNary Dam Daily Passage Plot Steelhead



McNary Dam Daily Passage Plot Yearling Chinook