

SYSTEM OPERATIONAL REQUEST: #2004-13

The following State, Federal, and Tribal Salmon Managers have participated in the preparation and support this SOR: U.S. Fish & Wildlife Service, Idaho Department of Fish and Game, Oregon Department of Fish and Wildlife, the Washington Department of Fish and Wildlife, National Marine Fisheries Service Nez Perce Tribe, Shoshone-Bannock Tribes, and the Columbia River Inter Tribal Fish Commission.

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FROM: David A. Wills, Chairperson, Salmon Managers

DATE: June 15, 2004

SUBJECT: McNary Operations for Maximizing Survival of Fall Chinook

SPECIFICATIONS:

AT McNary:

June 16th to June 30th: Maintain BIOP spill to the gas cap during the nighttime hours as spring like flows and temperature conditions continue.

After the Biological Opinion June 30th planning date: Spill to the gas cap during the nighttime hours, if involuntary spill is available. If the spill volume is greater than 20% of flow then shape for 24-hour spill. If the spill volume is less than 20% of flow then only spill at night. Transport those juveniles collected in the bypass system.

JUSTIFICATION:

Action 51 in the NOAA Opinion states that if results of Snake River studies indicate that survival of juvenile salmon and steelhead collected and transported during any segment of the juvenile migration is no better than the survival of juvenile salmon that migrate in river, the CORPS and

BPA, in coordination with NMFS through the annual planning process, shall identify and implement appropriate measures to optimize in-river passage at the collector dams during those periods.

Recent analysis, and research summaries indicate that transportation and project operations for juvenile fall chinook should be modified, to implement a spread-the-risk approach rather than maximizing transportation. This information only became available since the development of the 2004 Fish Passage Plan, and therefore this request is consistent with the annual planning process and the adaptive management principal. In the May 6, 2004 NOAA Draft technical memorandum, entitled, "Effects of the Federal Columbia River Power System on Salmon Populations", on page 34, NOAA reviewed the available information regarding the transportations of fall chinook, concluding that for juvenile fish detected prior to September, in 4 of 6 years the combined bypassed group exceeded the smolt to adult return rate of the combined transported group. NOAA concludes that for subyearling chinook salmon transportation appears to neither greatly harm nor help the fish and thus a combination of transportation and providing good passage conditions for fish not collected and transported is consistent with a spread-the – risk strategy until more is known. Further, in a draft report summarizing and analyzing transportation results, prepared for the Corps of Engineers, Anderson et al. concluded that for fall chinook the evidence suggests that nondetected fish return at higher rates than transported fish. In addition several analyses were submitted to the action agencies in deliberations of the 2004 summer spill program, which include consideration of the fall chinook transportation program. The Bouwes (2004) analysis concluded that in river migrants had higher smolt to adult return rates than transported fall chinook. The Fish Passage Center in an April 6, 2004 memorandum response to requests, conducted a preliminary analysis of the smolt-to-adult return rates of transported fall chinook and concluded that the assumed benefits of transportation of fall chinook are overestimated and not supported by the available data.