

**McNary Dam Transportation Study for Mid-Columbia Hatchery Fish -  
A study to compare SARs of inriver migrating versus transported salmonids**

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The US Army Corps of Engineers has been funding research on the transportation of Spring Chinook and Steelhead under modern hydropower conditions, since 1995. Most of these studies, were designed and conducted by the Northwest Fisheries Science Center, to evaluate the relative success of the transportation process in the lower Snake River using PIT-tag technology. Fish were typically tagged at the Lower Granite Dam Juvenile Fish Facility (JFF), and either loaded onto barges or released back into the tailrace to migrate in river. The relative success of the barging process was then evaluated using the adult returns of jacks and 2 & 3 ocean adults, determined as returning to the ladder at Lower Granite Dam by adult PIT detection.

Similar evaluations of transportation from McNary Dam began in 2002 when adult PIT-detectors in the McNary ladders were made operational. 355,000 spring Chinook (SPCH) were tagged at Mid-Columbia Hatcheries and released along with the general population. When detected at the dam, tagged fish were diverted by code into either a raceway for transportation or back to the river after passing through the fish facility. The study continued in 2003 with SPCH and Steelhead (STH), however, after the full flow detector was determined to be effective at detecting fish, the study design was modified to compare fish diverted through the JFF and transported, against those that were “Full Flow” bypassed, prior to encountering the JFF.

36 individual SPCH jacks were detected at McNary and/or Bonneville Dam in 2003. However, results of the 2002 migration year (MY) study will not be fully available until the end of the adult migration in 2005. This year, expected adult returns include: 2002MY 2-ocean SPCH; 2003MY Jack SPCH; and 2003MY 1-ocean STH. As of January 2004, 355,000 SPCH and 470,000 STH will have been tagged at Chelan, Eastbank, Entiat, Leavenworth, Methow, Ringold, Wells, and Winthrop Hatcheries for the 2004MY study.