

## **SYSTEM OPERATIONAL REQUEST: #2005-12 Amended**

*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, NOAA Fisheries, Nez Perce Tribe, Shoshone-Bannock Tribes, and the Columbia River Inter-Tribal Fish Commission.*

<b>TO:</b>	<b>B. G. Grisoli</b>	<b>COE-NWD</b>
	<b>James D. Barton</b>	<b>COE-Water Management</b>
	<b>Cindy Henriksen</b>	<b>COE-RCC</b>
	<b>Witt Anderson</b>	<b>COE-P</b>
	<b>Col. Richard Hobernicht</b>	<b>COE-Portland District</b>
	<b>LTC Randy L. Glaeser</b>	<b>COE-Walla Walla District</b>
	<b>J. William McDonald</b>	<b>USBR-Boise Regional Director</b>
	<b>Stephen J. Wright</b>	<b>BPA-Administrator</b>
	<b>Greg Delwiche</b>	<b>BPA-PG-5</b>



**FROM:** David A. Wills, Chairperson, Salmon Managers

**DATE:** May 18, 2005

**SUBJECT:** Adjustment for decreased spill volumes at The Dalles Dam

### **SPECIFICATIONS:**

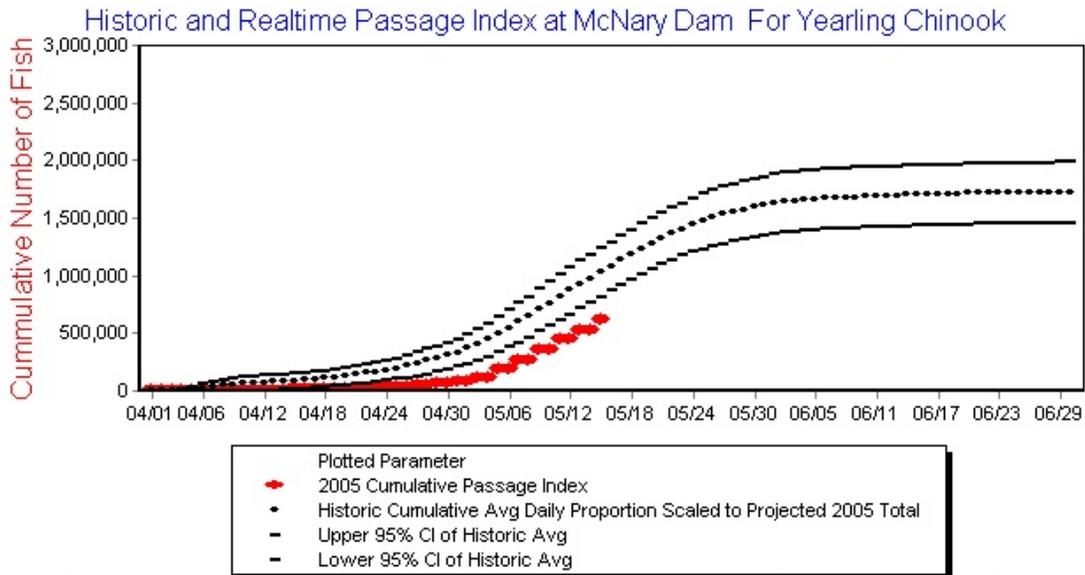
- Provide adjustment for the spill that is not occurring at The Dalles Dam due to restricted spill gate operations.
- The adjustment should be in the form of spill volume equal to what would have been provided if The Dalles Dam were fully operational.
- Spill is to be implemented as daytime spill at John Day Dam as 40% of instantaneous flow for the next seven days.

Note: Because of the sensitivity of the Action Agencies to the use of the word "compensation", SOR 2005-12 was amended to remove the word "compensation" and replace it with the word "adjustment".

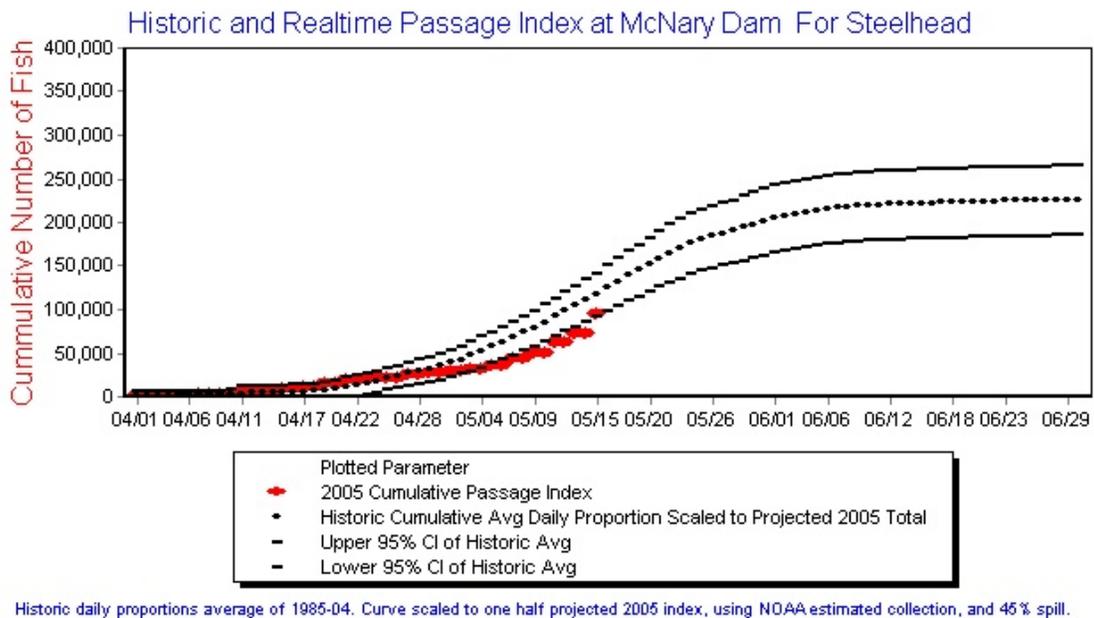
### **JUSTIFICATION:**

Spill at The Dalles Dam is restricted due to the inability to operate spill gates at all but two spillbays. All other spillbays are operated with a fixed opening and, consequently, only have the ability to pass a fixed volume of spill. At the recent high flows the volume spill has averaged far below the 40% Biological Opinion spill level (ranging from 31% to 34% over the past several days). The fishery agencies and tribes are requesting adjustment for this decreased spill volume and for the additional mortality incurred from fish passing The Dalles Dam by increasing spill (and therefore survival) at other FCRPS projects. Daytime spill equal to 40% of instantaneous flow at John Day Dam is recommended to compensate for the reduction in spill volume at The

Dalles Dam based on fish movement and total dissolved gas levels. The following graphs suggest that presently it is less than midway through the migration of juveniles into the Lower Columbia River. Also, based on historic passage timing and current year data it appears that the peak daily passage of yearling chinook and steelhead are passing lower river projects now and that this will continue for two to three more weeks. Presently, total dissolved gas levels are below the TDG waiver levels in both the tailrace of John Day Dam and in the forebay of The Dalles Dam. It is not anticipated that this operation will increase the TDG levels above the state waivers.



Historic daily proportions average of 1985-04. Curve scaled to one half projected 2005 index, using NOAA estimated collection, and 45% spill.



It is estimated that thus far (April 10 to May 16) the fixed gate settings at The Dalles Dam have resulted in a reduction of approximately 430 Kaf of spill volume. At present flows it is anticipated that this volume would provide about 4 to 5 days of daytime spill at John Day Dam. Additional volume, subsequent to May 16, will likely be available due to The Dalles Dam spilling less than 40% daily average flow after May 16. It is anticipated that spill less than 40% will occur whenever daily average flows are near, or above, 200 Kcfs. Based on current information it is anticipated that flows in the near future will continue to provide spill levels less than 40% at The Dalles. This water, and the anticipated water, can be used to continue daytime spill at John Day Dam for the next seven days. The fishery agencies and tribes would like the operation to continue for at least the next seven days to provide uninterrupted passage benefits to presently migrating stocks of fish. At the end of the seven-day period volumes can be reassessed and additional adjustments can be made.