SYSTEM OPERATIONAL REQUEST: #2010-02

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, Washington Department of Fish and Wildlife, Idaho Department of Fish and Game, Oregon Department of Fish and Wildlife, and the Shoshone-Bannock Tribes.

TO:	**Brigadier General McMahon**	**COE-NWD**
	James D. Barton	**COE-Water Management**
	Steven Barton	**COE-RCC**
	David Ponganis and Dan Feil	**COE-PDD**
	Col. Steven Miles	**COE-Portland District**
	LTC Michael Farrell	**COE-Walla Walla District**
	Karl Wirkus	**USBR-Boise Regional Director**
	Stephen J. Wright	**BPA-Administrator**
	Greg Delwiche	**BPA-PG-5**

FROM: Paul Wagner, Chairperson, Salmon Managers

DATE: May 11, 2010

SUBJECT: 2010 Dworshak Operations

SPECIFICATIONS:

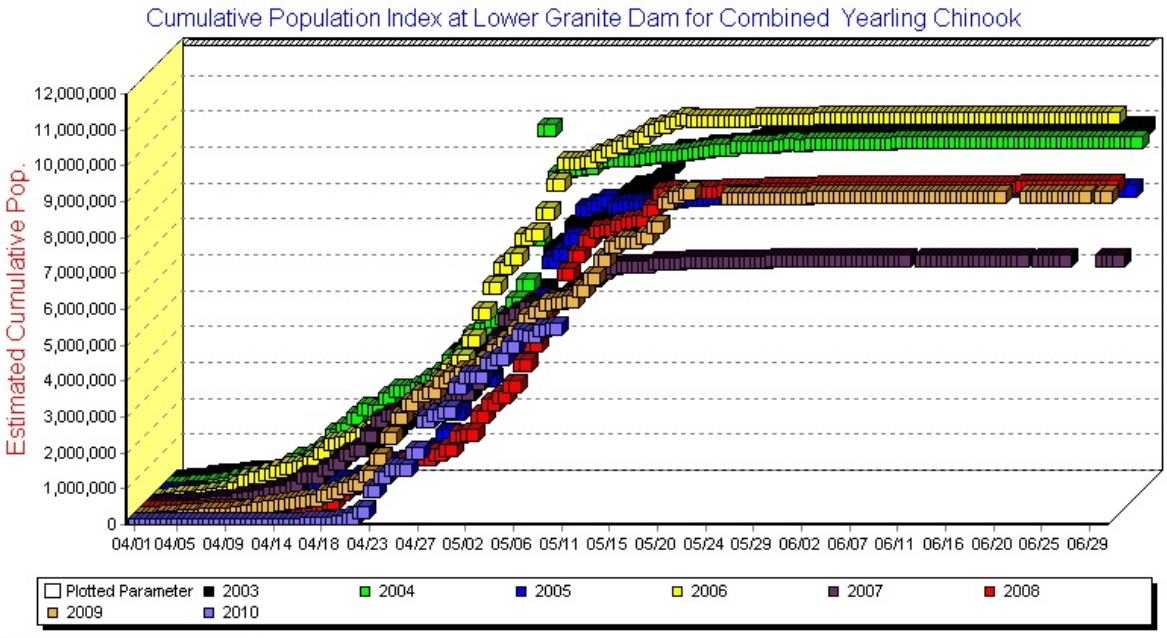
Increase outflows at Dworshak Dam to full powerhouse capacity (10-10.5 Kcfs) for a three day period during the week of May 17th, 2010 with the objective of increasing Snake River flows during the anticipated peak of the hydrograph. After this operation, Dworshak outflows should be reduced to the level needed to achieve refill of Dworshak Reservoir by June 30th, 2010.

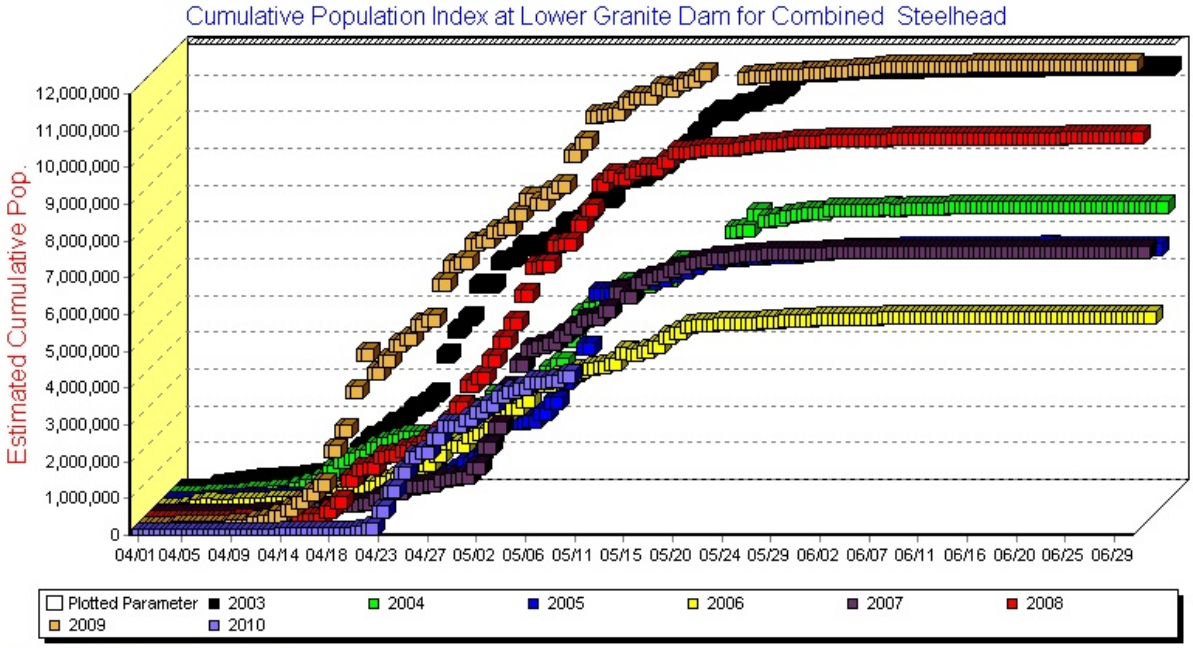
JUSTIFICATION:

Recent COE modeling has indicated that approximately 30 Ksfd of flexibility may be available at Dworshak Reservoir and still refill by June 30th, 2010. This modeling has shown that with 30

Ksfd of flow augmentation on top of minimum outflow, the risk of missing Dworshak refill would be increased by approximately 27%. The COE modeling indicates that the additional risk of this proposed operation to refill would be around three feet in Dworshak Reservoir. The Salmon Managers acknowledge the additional risk that providing a 30 Ksfd pulse may put on the refill of Dworshak Reservoir, but are willing to risk the possibility of being below full for the benefit this pulse of water would have on juvenile migrants.

The 2010 May Final Water Supply Forecast at Lower Granite Dam is 58% of average or 12.4 Maf (April-July). The Biological Opinion flow objective this spring is 85 Kcfs at Lower Granite Dam. Flows at Lower Granite Dam from April 3 to May 10 have averaged 45.6 Kcfs and 53.5 Kcfs over the last week. Recent STP (http://www.nwrfc.noaa.gov/stp/plot/stp.LGDW1.QI.txt.) projections have flows increasing into the low 70 Kcfs range around May 25, 2010. The following plots show the cumulative population indices at Lower Granite Dam for yearling Chinook and steelhead. While the expected number of juvenile migrants for 2010 is the same as in recent years, these plots show that the 2010 juvenile passage has slowed at Lower Granite Dam relative to these other recent years. The salmon managers believe that a pulse of water from Dworshak Dam over a several day period would provide flows in the Snake River that would benefit the downstream movement of juvenile migrants. We acknowledge that this operation could reduce the volume of water available for cooling the Lower Snake River during the summer, but believe the benefits that this operation will provide to the spring migration offsets that risk.





Estimated cumulative population indices.