SYSTEM OPERATIONAL REQUEST: #2005-11

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.

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	James D. Barton	**COE-Water Management**
	Cindy Henriksen	**COE-RCC**
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	Col. Richard Hobernicht	**COE-Portland District**
	LTC Randy L. Glaeser	**COE-Walla Walla District**
	J. William McDonald	**USBR-Boise Regional Director**
	Stephen J. Wright	**BPA-Administrator**
	Greg Delwiche	**BPA-PG-5**

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

DATE: **May 10, 2005**

SUBJECT: Spring Dworshak Operations

SPECIFICATIONS:

- Pass inflows at Dworshak Dam to the 110% TDG level in the Dworshak tailrace for a period of one week, outflows at Dworshak should not drop below 12 Kcfs during this period.
- Assure refill of Dworshak reservoir by June 30th.
- This request is for this coming week, anticipate further requests as new information based on fish numbers and water supply forecast becomes available.

JUSTIFICATION:

The Smolt Monitoring Program passage index data and PIT tag detection data indicate that wild and hatchery stocks from all upstream tributaries are passing Lower Granite Dam at the present time, and that the recent increase in flows has resulted in increased passage through the Snake River reservoirs. The request to pass inflow at Dworshak is based upon these passage data and the anticipated continuation of higher natural flows from recent and anticipated continuing of rain events in the Upper Snake Basin. Daily passage of wild and hatchery spring chinook yearling migrants at Lower Granite Dam have increased from a daily total of 129,000 on May 4, to 351,000 on May 9. Daily steelhead passage at Lower Granite has increased from 59,000 on May 4, to 439,000 on May 9. The attached graphs of the passage index at Lower Granite display the increase in passage that has occurred during the past week. This increase in daily passage of

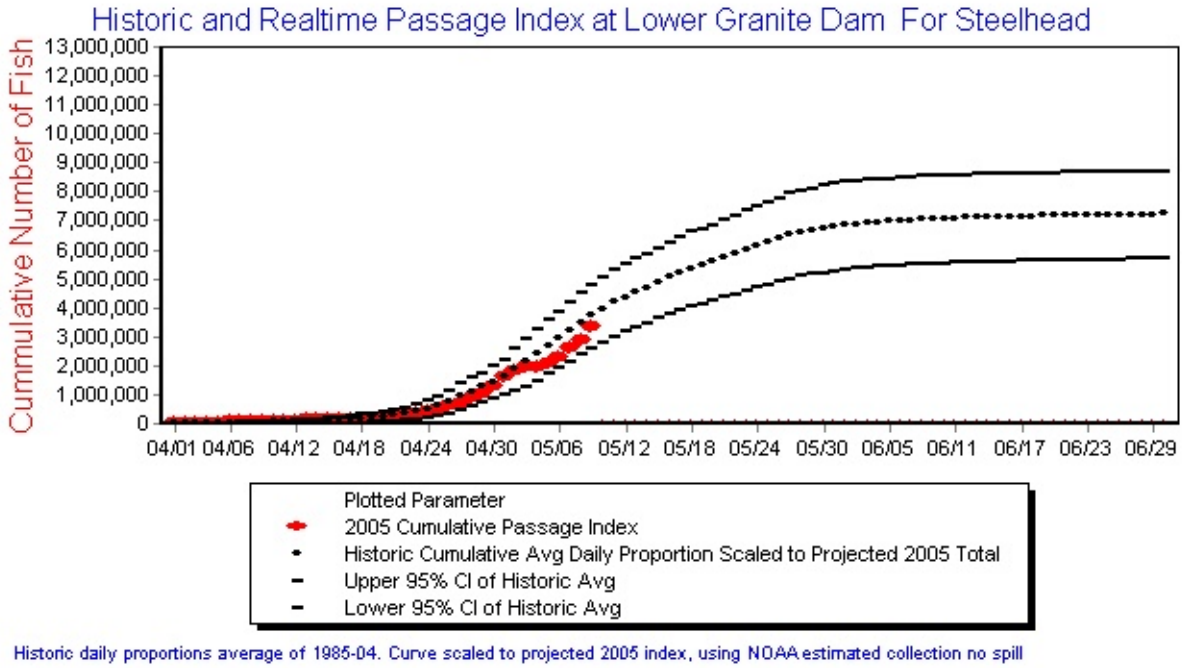
steelhead and yearling chinook has occurred with an increase of daily average flows from 49 kcfs to 77 Kcfs at Lower Granite over the period of May 4, through May 9. The attached graphs of the cumulative passage index graph for steelhead and for chinook at Lower Granite Dam show the present passage compared to the historic passage distribution. These graphs indicate that this is the historic period of peak passage for spring migrants.

In addition, the attached graphic shows the wild PIT tagged spring chinook and steelhead that which have been detected at Lower Granite Dam over the past week. Passage of wild PIT tagged steelhead and chinook at Lower Granite has increased with increased flow. The wild PIT tagged steelhead and Chinook passing Lower Granite represent releases from all upstream Oregon and Idaho tributaries. PIT tags have been detected from PIT tag releases groups from tributaries of the Salmon River, Imnaha River, Snake River, Grande Ronde River, the Lemhi River, the Lostine River, Minanm River, Clearwater River encompassing all of the Snake River ESUs. These data indicate that wild populations of steelhead and chinook are presently migrating in significant numbers through the upper Snake River. The following table shows the daily passage of wild PIT tagged chinook and steelhead detections at Lower Granite Dam.

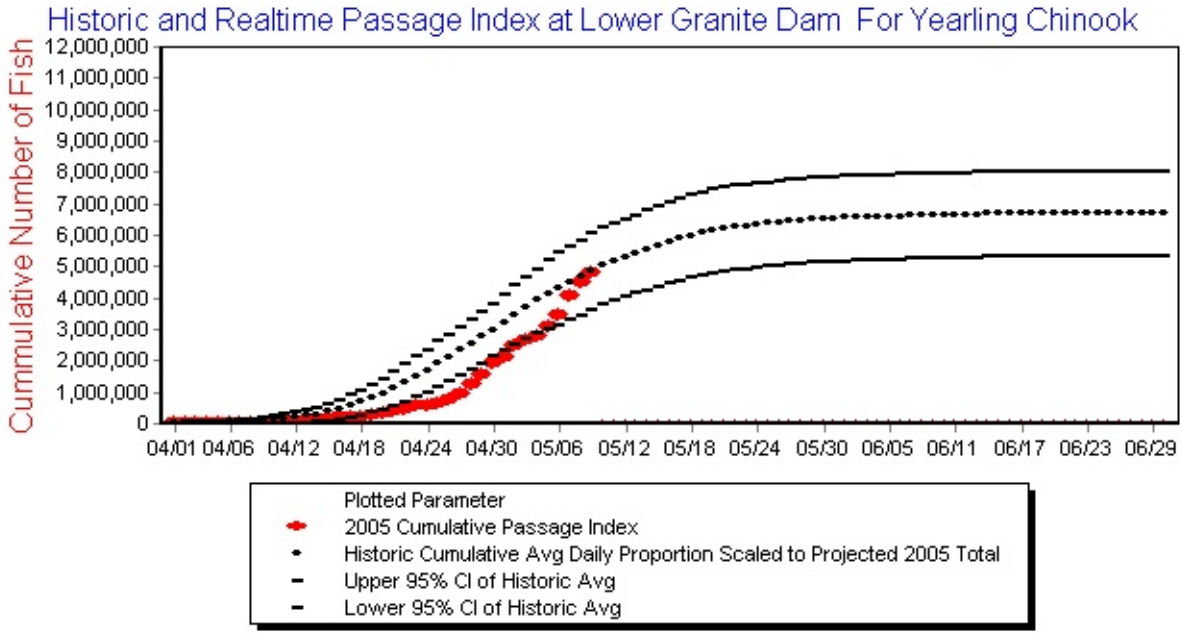
Date	Wild Yearling Chinook PIT Tagged	Wild Steelhead PIT Tagged
May 1	904	549
May 2	490	242
May 3	533	126
May 4	832	203
May 5	1394	524
May 6	1154	464
May 7	696	530
May 8	997	576
May 9	771	899
May 10	256	331

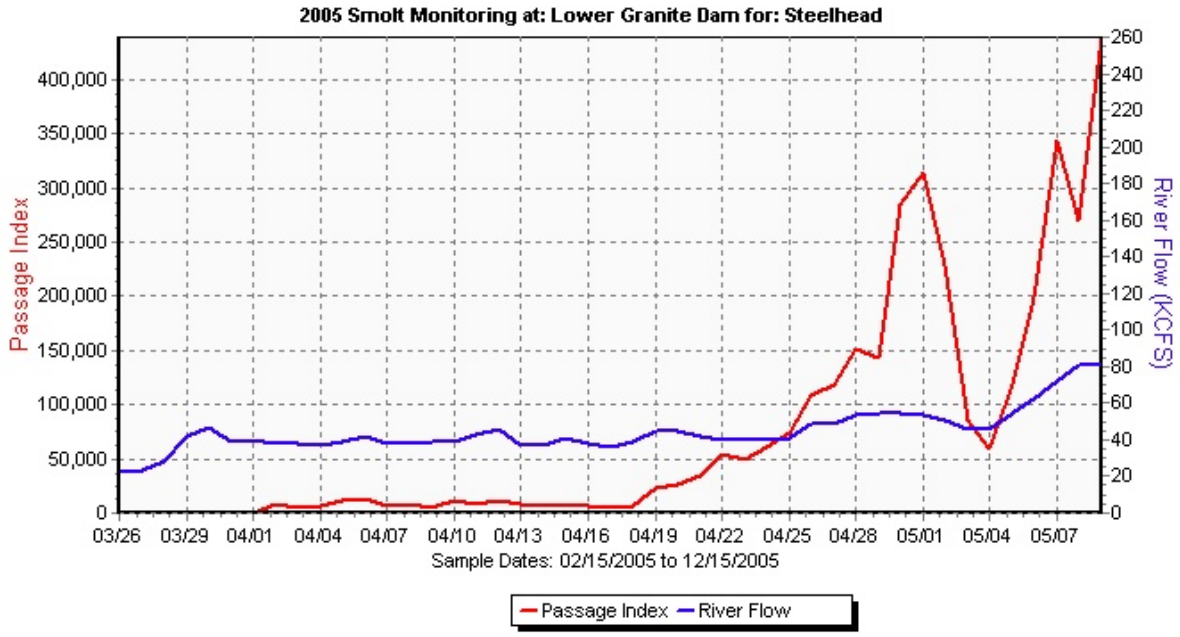
The above data clearly indicates that wild and hatchery stocks comprise the migration through the Snake River.

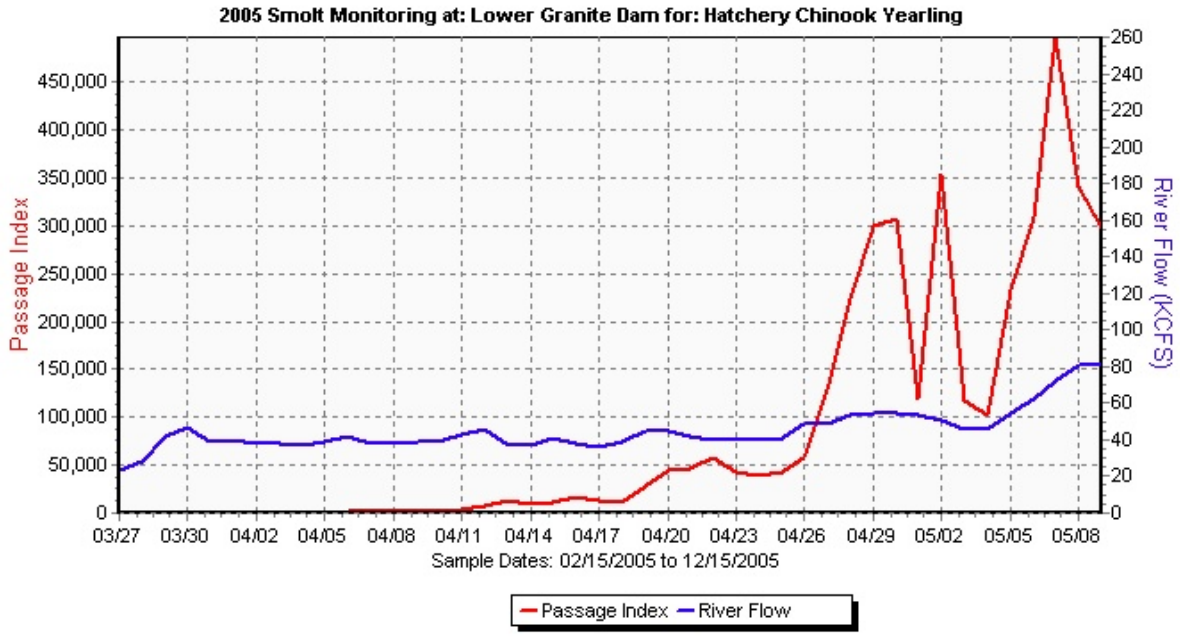
The request to pass inflow at Dworshak without decreasing outflows to below 12 kcfs is intended to provide flows for this peak segment of the outmigration while maintaining the June 30 refill target for Dworshak Dam, which will provide flow augmentation for summer fall chinook migrants.

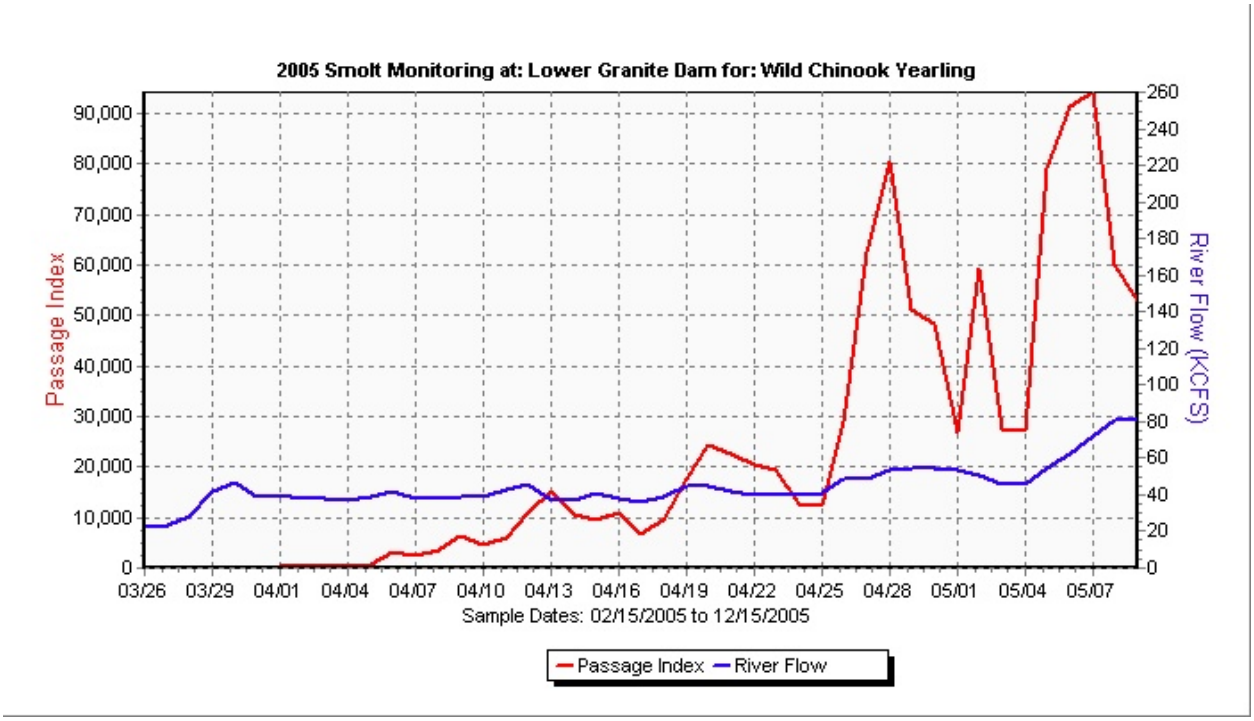
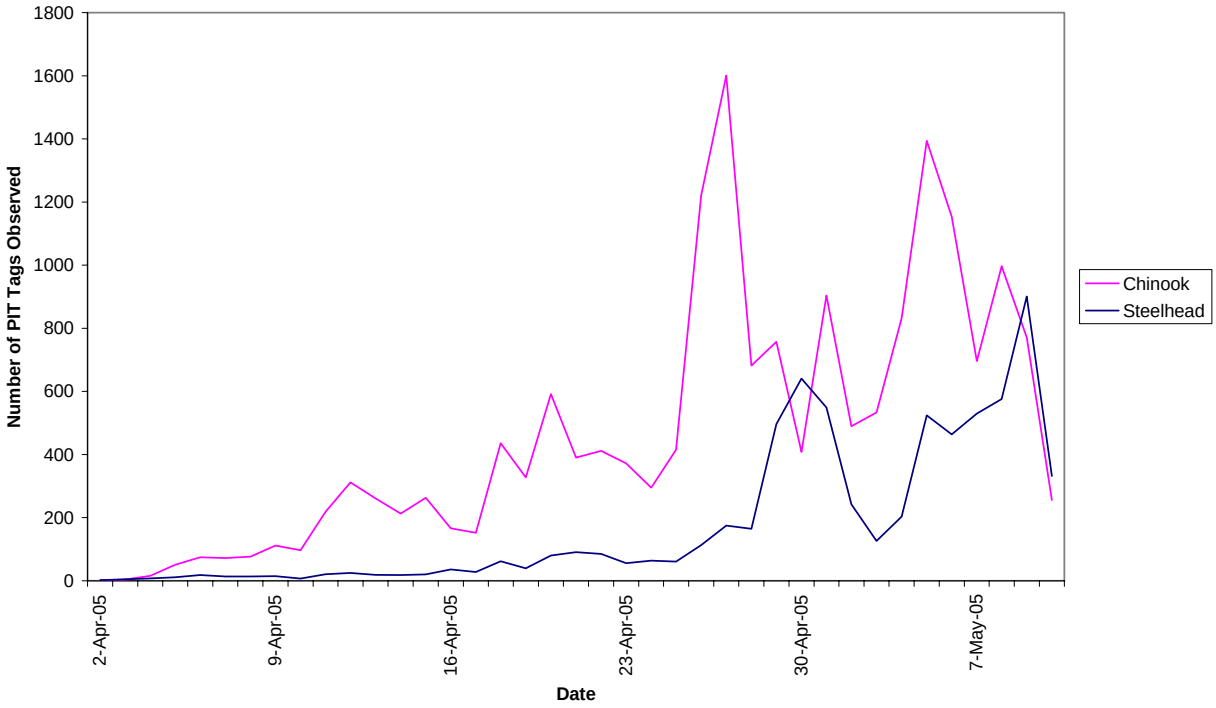


Historic daily proportions average of 1985-04. Curve scaled to projected 2005 index, using NOAA estimated collection no spill




2005 Smolt Monitoring at: Lower Granite Dam for: Steelhead
Passage Index
River Flow (KCFS)
400,000
350,000
300,000
250,000
200,000
150,000
100,000
50,000
0
260
240
220
200
180
160
140
120
100
80
60
40
20
0
03/26 03/29 04/01 04/04 04/07 04/10 04/13 04/16 04/19 04/22 04/25 04/28 05/01 05/04 05/07
Sample Dates: 02/15/2005 to 12/15/2005
Passage Index
River Flow


2005 Smolt Monitoring at: Lower Granite Dam for: Hatchery Chinook Yearling
Passage Index
River Flow (KCFS)
450,000
400,000
350,000
300,000
250,000
200,000
150,000
100,000
50,000
0
260
240
220
200
180
160
140
120
100
80
60
40
20
0
03/27 03/30 04/02 04/05 04/08 04/11 04/14 04/17 04/20 04/23 04/26 04/29 05/02 05/05 05/08
Sample Dates: 02/15/2005 to 12/15/2005
Passage Index
River Flow



PIT Tagged Wild Chinook and Wild Steelhead Passage at Lower Granite Dam for the 2005 Migration (as of May 10th)