



## Fish Passage Center

# Weekly Report #04 - 20

July 23, 2004

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### Highlights:

- **Flows at Lower Granite have averaged 40.0 Kcfs over the summer flow period; the flow objective is 50 Kcfs.**
- **Flows have averaged 148.0 Kcfs at McNary over the summer period; the flow objective is 200 Kcfs.**

### Summary of Events:

**Water Supply:** Columbia Basin precipitation throughout the first nineteen days of July has generally been near or above average in most basins. Over the entire water year, precipitation remains slightly below average in most basins.

**Table 1. Summary of June precipitation and cumulative October through July precipitation with respect to average (1971-2000), at select locations within the Columbia and Snake River Basins.**

Location	Water Year 2004 July 1-19		Water Year 2004 October 1, 2003 to July 19, 2004	
	Observed (inches)	% Average	Observed (inches)	% Average
Columbia Above Coulee	1.15	106	20.40	94
SNAKE RIVER Above Ice Harbor	0.74	130	14.93	95
Columbia Above The Dalles	0.83	109	19.85	97
Kootenai	1.18	101	20.46	92
Clark Fork	0.63	87	13.87	93
Flathead	1.20	123	18.23	92
Pend Oreille/Spokane	0.49	58	26.30	94
Central Washington	0.24	105	7.65	93
SNAKE RIVER PLAIN	0.58	157	8.60	86
Salmon/Boise/ Payette	0.47	96	16.74	92
Clearwater	0.73	81	28.60	103
SW Washington Cascades/Cowlitz	0.16	19	58.50	88
Willamette Valley	0.11	21	52.36	93

The summer Flow Objective period started in the Lower Snake River on June 21st, 2004 and will end on August 31st, 2004. Flows have averaged 40.0 Kcfs over the summer flow period; the flow objective is 50 Kcfs. Flows at Lower Granite have averaged 34.9 Kcfs over the last week.

The summer flow period began at McNary on July 1st with a flow objective of 200 Kcfs. Flows have averaged 148.0 Kcfs at McNary over the summer season and 122.4 Kcfs last week.

Grand Coulee is currently at an elevation of 1287.5 feet and has held relatively steady over the past week. Because the July Final (April-August) water supply forecast at The Dalles is less than 92 Maf, the summer draft limit a Grand Coulee will be 1278 feet.

The Libby Reservoir has been releasing a constant 12.5 Kcfs for the entire month of July. Inflows to Libby continue to be larger than outflows and as a result, Libby has continued to refill slightly. Libby is currently at an elevation of 2450.3 feet. In response to the last Montana SOR, NOAA Fisheries has recommended maintaining a constant discharge at both Libby (12.5 Kcfs) and Hungry Horse (5.1 Kcfs) over July and August and release any volume above the BIOP draft elevations in September.

The Hungry Horse Reservoir has been drafting slightly over July for summer flow augmentation and is currently at an elevation of 3555.9 feet. Outflows at Hungry Horse have been approximately 5.8 Kcfs over the last two days, however the BOR is expected to decrease flows to 5.1 Kcfs in response to the NOAA recommendation mentioned above.

The Dworshak Reservoir is currently at an elevation of 1581.8 feet and has been drafting over July for flow and temperature augmentation

in the Lower Snake River. Outflows at Dworshak have averaged 11.6 Kcfs over the last week. The Brownlee Reservoir is currently at an elevation of 2066.9 feet and has drafted a little more than three feet over the last week. Outflows to Brownlee have ranged between 9.3 and 15.2 Kcfs over the last week.

**Spill:** The summer spill program is continuing at the mid-Columbia projects. There has been no spill at Lower Granite, Little Goose or Lower Monumental dams on the Snake River to facilitate the present policy of maximization of fall chinook juvenile transportation. Summer spill for fish passage is continuing at Ice Harbor Dam, with daily average spill of 79% from July 16 through July 22. During the same time period, summer spill continued at the Lower Columbia projects with 29.6% daily average at John Day, 39.4% daily average at The Dalles and 41.9% daily average at Bonneville Dam. At 0600 on June 21, spill for fish passage at The Dalles was changed to the summer program of 30% spill 24 hours per day. Spill for fish passage at McNary Dam was modified on the basis of the occurrence of "summer conditions" with flows decreasing below the spring target. The summer program at McNary focuses on the maximization of transportation of fall chinook juveniles. McNary is operating within its 1% peak efficiency range which results in an involuntary spill condition when flows exceed 174 kcfs. Involuntary spill occurred at McNary dam from June 28 through July 1, with a day average of 9%. Spill has not occurred at McNary Dam since July 1.

Gas bubble trauma monitoring is continuing at Mid-Columbia and Lower Columbia sites. No symptoms of gas bubble trauma have been observed at McNary or Bonneville dams but a few fish showed signs at Rock Island Dam this past week.

**Smolt Monitoring:** Subyearling chinook indices decreased at all sites over the past week compared to the previous week.

At Lower Granite Dam, subyearling chinook indices were down from an average index of 11,000 per day last week to 4,200 per day this week. Of the wild subyearling PIT-tags passing

Lower Granite Dam, Snake River origin tagged fish passed in relatively small numbers with 16 detected in the past week down from 127 the previous week. On the other hand, detections of subyearlings marked in the Clearwater River only began two weeks ago, with 38 having been detected last week and 27 this week. Little Goose and Lower Monumental dams also had drops in subyearling chinook numbers over the past week, with the index averaging 1,700 per day at Little Goose, and 700 per day at Lower Monumental compared to 1,900 and 3,000 last week, respectively.

At Rock Island Dam the numbers of subyearling chinook remained relatively high, with the index averaging 420 per day this week compared to 550 last week. The season high index of 1,019 was reached on July 15.

In the Lower Columbia, at McNary Dam, based on full samples taken every day, subyearling chinook indices averaged nearly 37,000 per day this week compared to nearly 100,000 per day last week. At John Day Dam the subyearling average index was 13,000 per day this week compared to 26,000 last week, while at Bonneville Dam the average index was 12,000 compared to 30,000 last week.

**Hatchery Releases** - The scheduled release of juvenile salmonids from Columbia River Basin hatcheries above Bonneville Dam for the 2004 migration season totaled about 83.3 million with all yearling chinook, coho, steelhead, sockeye, and subyearling chinook in river to date. Salmon species released into streams or lakes (sockeye) during this summer and fall of 2004, normally reside in the streams or rivers through the winter and then migrate to the ocean the following spring (2005).

## 2004 Hatchery Zone Report

Race/Species	Friday 23-July-2004			
	Snake River	Mid-Columbia	Lower Columbia	Total Release
Fall Chinook	2,580,499	12,511,808	21,958,796	37,051,103
Spring Chinook	10,487,462	3,975,400	5,226,390	19,689,252
Summer Chinook	2,374,050	3,125,983		5,500,033
Coho	1,367,111	2,387,178	5,959,828	9,714,117
Sockeye	76,927	315,790		392,717
Summer Steelhead	9,214,209	1,184,775	454,392	10,848,923
Winter Steelhead			79,070	79,070
Total	26,100,258	23,500,934	33,674,023	83,275,215

**Adult Fish Passage** - At Bonneville Dam, summer chinook passage ranged from about 1,100 early in the week to 600 per day by the end of the count week ending July 22. To date, 88,337 adult summer chinook have been counted; this total is less than the counts recorded during the preceding two years but still ranks among the top return years for summer chinook. This year's adult summer run should end the season at greater than double the 10-year average at Bonneville Dam. Summer chinook passage above McNary Dam totaled 59,902 through July 22 with the turnoff into the Snake River at 12,275 (Ice Harbor count), and passage up the Mid-Columbia of 55,485 at Priest Rapids Dam. Daily counts of adult summer chinook at Ice Harbor Dam (through July 22) averaged 61 per day and counts at Priest Rapids Dam averaged 807 per day for the week ending July 21. For the season, chinook passage into the Snake River is reduced from 2003 (about 60% of 2003 count) but about 1.4 times greater than the 10-year average. Mid-Columbia passage of adult summer chinook in 2004 is returning at about 84% of the 2003 count at Priest Rapids Dam, but is 2.2 times greater than the 10-year average count for the season.

Steelhead passage at Bonneville Dam reduced from about 3,500 per day early in the week to 2,700 per day late in the week ending July 22; only about one third of these fish are now passing upstream of The Dalles Dam (range = 750 to 1,700 per day). At Bonneville, the steelhead run

totals 70,851 through July 22 and this count is about 92% and 139% of the respective 2003 and 10-year average. Steelhead passage into the Snake River increased through the week with a high daily count of 489 on July 22nd at Ice Harbor Dam and a season total of 8,700 to date at Ice Harbor Dam. In the Mid-Columbia River, steelhead counts at Priest Rapids Dam averaged 95 per day and totaled about 2,500 for the season. With water temperatures increasing in the main Columbia River, a portion of the fish bound for upriver sites temporarily reside in some of the backwater areas and tributaries in the Bonneville pool as these rivers and streams have cooler water temperatures than the mainstem Columbia River. Once past The Dalles Dam, additional steelhead hold in the Deschutes River as it also has cooler water temperatures than the main Columbia River.

Sockeye numbers at Bonneville Dam decreased from near 300 early in the week to less than 100 by the end of the count week; the total count through July 22 was 122,564. This total compares to 38,737 and 42,055 for the respective 2003 and 10-year average. Sockeye continued passing through the upper Columbia projects: Rock Island, Rocky Reach and Wells dams in numbers that ranged between 1,000 and 2,300 for the week. These sockeye are destined for Lake Wenatchee and Lake Osoyoos in the respective Wenatchee and Okanogan River basins. Of the 102,000 sockeye above Rock Island Dam, 76,000 have already passed Rocky Reach. If these ratios hold up, at least 74% of the sockeye run will be bound for the Okanogan River system with the remaining total (currently 26%) to the Wenatchee River system. Overall, the 2004 count of adult sockeye will be about equal to the 2001 total and the highest count since 1985. This year's count of 107 sockeye at Lower Granite Dam is one of the higher totals in recent years. These Snake River sockeye should be destined for the upper Salmon River basin.

**Daily Average Flow and Spill (in kcfs) at Mid-Columbia Projects**

Date	Grand Coulee		Chief Joseph		Wells		Rocky Reach		Rock Island		Wanapum		Priest Rapids	
	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill
07/09/04	105.0	0.2	107.3	0.0	111.4	7.7	112.3	11.3	116.9	25.6	132.5	39.6	128.5	69.7
07/10/04	88.8	0.2	88.7	0.0	95.2	7.8	95.7	8.0	98.1	18.9	104.0	31.2	99.9	54.1
07/11/04	104.9	0.2	104.8	0.0	108.3	7.5	102.4	6.7	104.3	17.2	111.2	33.4	106.4	57.6
07/12/04	123.8	0.2	123.4	0.0	129.6	8.2	129.2	11.8	132.1	27.1	142.5	42.8	135.0	73.1
07/13/04	115.3	0.2	120.0	0.0	125.8	7.7	122.8	10.6	123.5	26.1	131.2	39.4	125.0	67.4
07/14/04	107.3	0.2	110.0	0.0	113.8	7.3	112.3	11.0	115.6	25.4	124.8	37.6	119.9	64.1
07/15/04	89.6	0.2	89.0	0.0	93.2	7.1	93.0	10.8	94.6	25.0	112.3	33.9	116.9	63.9
07/16/04	90.6	0.2	88.5	0.0	94.2	6.7	94.9	10.9	96.7	21.6	96.1	28.8	82.1	44.0
07/17/04	80.0	0.2	80.7	0.0	81.8	6.3	79.9	7.8	83.0	18.1	95.6	28.7	90.2	48.9
07/18/04	89.2	0.2	88.5	0.0	90.9	6.9	85.8	6.6	86.0	14.9	93.1	28.0	87.5	47.3
07/19/04	82.2	0.2	86.0	0.0	91.6	6.7	92.1	9.8	94.5	20.1	103.6	31.0	97.5	52.9
07/20/04	70.5	0.2	70.3	0.0	72.8	5.9	67.1	8.7	69.9	19.4	73.4	18.8	77.4	42.0
07/21/04	84.8	0.2	83.9	0.0	85.6	6.7	84.9	8.5	85.0	18.0	76.6	13.4	95.2	51.5
07/22/04	76.9	0.2	77.9	0.0	82.9	6.7	82.5	6.6	86.3	14.3	92.1	25.0	81.2	44.0

**Daily Average Flow and Spill (in kcfs) at Snake Basin Projects**

Date	Dworshak		Hells Canyon		Lower Granite		Little Goose		Lower Monumental		Ice Harbor	
	Flow	Spill	Inflow	Outflow	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill
07/09/04	9.5	0.0	9.2	10.0	39.0	0.0	38.7	0.0	38.7	0.0	37.6	30.6
07/10/04	9.5	0.0	8.6	11.4	33.7	0.0	33.5	0.0	34.9	0.0	36.9	29.3
07/11/04	9.5	0.0	9.0	12.4	35.2	0.0	36.4	0.0	38.1	0.0	41.7	33.4
07/12/04	11.1	1.6	10.2	17.6	37.8	0.0	39.4	0.0	40.2	0.0	40.5	32.6
07/13/04	11.5	2.0	9.9	17.4	39.3	0.0	38.2	0.0	39.1	0.0	43.1	35.3
07/14/04	11.4	1.9	8.6	15.6	40.6	0.0	41.3	0.0	43.1	0.0	44.7	34.8
07/15/04	11.6	2.0	8.7	16.8	37.6	0.0	37.3	0.0	38.5	0.0	40.7	31.1
07/16/04	11.6	2.0	9.1	13.4	37.6	0.0	39.4	0.0	40.8	0.0	42.6	35.0
07/17/04	11.6	1.9	8.9	14.8	35.7	0.0	35.5	0.0	34.5	0.0	34.4	27.0
07/18/04	11.6	1.9	7.9	10.9	34.3	0.0	33.1	0.0	33.6	0.0	35.9	26.6
07/19/04	11.6	1.9	7.9	13.7	32.4	0.0	33.3	0.0	34.9	0.0	36.4	29.2
07/20/04	11.5	1.9	8.8	8.8	35.8	0.0	36.4	0.0	38.0	0.0	37.8	28.9
07/21/04	11.5	1.9	9.7	11.9	32.5	0.0	31.7	0.0	32.7	0.0	35.8	28.5
07/22/04	11.6	1.9	---	---	35.8	0.0	38.4	0.0	39.5	0.0	39.9	31.6

**Daily Average Flow and Spill (in kcfs) at Lower Columbia Projects**

Date	McNary		John Day		The Dalles		Bonneville			
	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	PH1	PH2
07/09/04	173.8	0.0	167.0	50.6	166.7	66.5	190.9	50.5	14.3	114.7
07/10/04	149.0	0.0	154.6	46.2	161.2	63.8	199.1	50.0	22.0	115.8
07/11/04	135.4	0.0	133.8	39.9	131.3	52.3	169.7	49.3	0.0	108.9
07/12/04	155.3	0.0	161.9	48.1	160.2	63.4	177.8	79.7	0.0	86.7
07/13/04	164.2	0.0	154.7	46.4	151.2	60.1	182.9	93.9	0.5	77.6
07/14/04	168.2	0.0	175.0	52.6	171.7	68.3	181.7	89.9	2.7	77.7
07/15/04	152.4	0.0	141.4	42.7	142.3	56.3	179.0	92.8	0.0	74.7
07/16/04	125.0	0.0	125.9	37.9	123.9	48.9	145.2	59.4	0.0	74.4
07/17/04	126.5	0.0	131.4	39.7	132.8	52.8	155.7	50.2	0.0	94.2
07/18/04	106.1	0.0	100.6	29.7	105.6	41.1	138.8	72.6	0.0	54.9
07/19/04	146.6	0.0	141.4	41.7	139.3	54.8	151.2	80.3	0.8	58.7
07/20/04	120.0	0.0	124.9	36.5	126.0	49.6	151.5	62.7	1.6	75.8
07/21/04	121.0	0.0	113.5	32.9	114.1	45.3	136.4	50.2	1.5	73.2
07/22/04	111.8	0.0	112.9	33.7	115.6	45.4	139.2	51.0	2.1	74.7

## Gas Bubble Trauma Monitoring Results from Representative Sites on the Snake River and Columbia River

Site	Date	Species	Number of Fish	Number w GBT signs	Number w Fin Signs	% Fin GBT	% Severe Fin GBT	Number of Fish with Fin GBT Listed by Highest Rank			
								Rank 1	Rank 2	Rank 3	Rank 4
<b>McNary Dam</b>											
	07/15/04	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
	07/22/04	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
<b>Bonneville Dam</b>											
	07/13/04	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
	07/17/04	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
	07/20/04	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
<b>Rock Island Dam</b>											
	07/15/04	Chinook + Steelhead	101	1	1	0.99%	0.00%	1	0	0	0
	07/19/04	Chinook + Steelhead	100	2	2	2.00%	0.00%	2	0	0	0
	07/22/04	Chinook + Steelhead	71	0	0	0.00%	0.00%	0	0	0	0

CH = Chinook, ST = Steelhead, CO = Coho, SO = Sockeye, CT = Cutthroat Trout, CM = Chum

## Total Dissolved Gas Saturation (%) - Average of 12 Highest Hours, 24 h Average and 24 h High

### Total Dissolved Gas Saturation Data at Upper Columbia River Sites

Date	Hungry H. Dnst			#	Boundary			#	Grand Coulee			#	Grand C. Tlwr			#	Chief Joseph			#
	24 h	12 h	High		24 h	12 h	High		24 h	12 h	High		24 h	12 h	High		24 h	12 h	High	
	Avg	Avg			Avg	Avg			Avg	Avg			Avg	Avg			Avg	Avg		
7/9	---	---	---	0	116	117	117	24	114	115	115	24	110	111	112	24	110	111	111	23
7/10	---	---	---	0	116	116	117	24	112	113	114	24	110	111	112	24	111	111	112	23
7/11	---	---	---	0	115	115	116	17	114	114	114	14	110	110	112	16	110	111	111	20
7/12	---	---	---	0	115	116	116	24	113	114	115	24	110	110	111	24	110	111	112	24
7/13	---	---	---	0	115	116	116	24	113	114	114	24	110	110	112	24	111	112	112	24
7/14	---	---	---	0	116	117	117	24	113	113	113	24	110	111	111	24	111	111	112	23
7/15	---	---	---	0	116	117	117	24	112	112	113	24	110	111	114	24	111	111	111	23
7/16	---	---	---	0	115	116	116	20	112	112	113	24	110	111	112	22	111	111	111	23
7/17	---	---	---	0	115	115	116	24	111	112	112	24	110	111	113	24	111	112	112	23
7/18	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
7/19	---	---	---	0	115	115	116	24	110	111	111	24	110	110	111	24	111	111	111	23
7/20	---	---	---	0	114	115	116	24	110	111	111	24	109	110	114	24	110	111	111	23
7/21	---	---	---	0	114	115	118	22	110	111	111	24	109	110	113	24	110	110	111	23
7/22	---	---	---	0	114	115	116	24	110	111	111	23	109	111	112	24	110	110	111	23

### Total Dissolved Gas Saturation Data at Mid Columbia River Sites

Date	Chief J. Dnst			#	Wells			#	Wells Dwnstrm			#	Rocky Reach			#	Rocky R. Tlwr			#
	24 h	12 h	High		24 h	12 h	High		24 h	12 h	High		24 h	12 h	High		24 h	12 h	High	
	Avg	Avg			Avg	Avg			Avg	Avg			Avg	Avg			Avg	Avg		
7/9	111	111	112	23	110	110	111	24	111	112	112	24	111	112	112	24	112	112	113	24
7/10	111	112	112	23	109	110	110	24	110	111	112	24	111	111	111	24	111	112	112	24
7/11	110	110	111	20	108	109	110	18	110	110	112	18	110	110	110	18	110	111	111	18
7/12	111	111	113	24	110	111	111	22	111	112	113	22	110	111	111	22	111	112	112	22
7/13	112	112	113	24	111	111	112	24	112	113	113	24	112	112	113	24	112	113	113	24
7/14	111	112	112	23	111	112	113	24	112	114	114	24	112	113	113	24	113	114	114	24
7/15	111	111	112	23	111	112	113	24	112	114	114	24	113	114	114	24	114	114	115	24
7/16	111	112	113	23	110	111	112	24	111	112	113	24	113	114	114	24	114	114	115	24
7/17	112	112	113	23	111	112	112	23	112	113	113	23	114	114	115	24	114	115	115	24
7/18	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
7/19	112	112	113	23	110	111	112	24	112	112	113	24	112	112	113	24	112	113	113	24
7/20	111	112	112	23	109	110	111	24	110	111	112	24	111	112	112	24	112	112	113	24
7/21	110	111	112	23	109	111	111	24	110	112	113	24	111	111	111	24	111	112	112	24
7/22	110	111	112	23	110	111	111	24	111	112	113	24	110	111	111	24	111	111	112	24

### Total Dissolved Gas Saturation at Mid Columbia River Sites

Date	Rock Island			#	Rock I. Tlwr			#	Wanapum			#	Wanapum Tlwr			#	Priest Rapids			#
	24 h	12 h	High		24 h	12 h	High		24 h	12 h	High		24 h	12 h	High		24 h	12 h	High	
	Avg	Avg			Avg	Avg			Avg	Avg			Avg	Avg			Avg	Avg		
7/9	111	111	112	24	117	118	119	24	112	112	114	23	114	114	115	12	111	112	113	23
7/10	110	111	111	24	115	116	118	24	110	110	111	23	113	113	113	23	110	111	112	23
7/11	109	110	110	18	114	114	116	18	109	110	111	23	112	113	113	23	108	109	110	23
7/12	110	111	112	22	116	117	120	22	112	114	115	23	113	114	115	23	112	113	114	22
7/13	111	112	112	24	116	117	119	24	114	115	116	23	114	114	115	23	114	114	116	23
7/14	112	113	114	24	117	117	119	24	115	116	119	23	114	114	115	23	113	113	114	23
7/15	112	113	113	24	117	118	119	24	113	114	115	23	113	113	114	23	112	113	114	23
7/16	112	113	114	24	117	117	118	24	112	113	114	23	113	113	114	23	111	112	113	23
7/17	113	113	114	24	117	118	119	24	115	117	118	23	114	114	115	23	113	114	115	23
7/18	---	---	---	0	---	---	---	0	113	114	115	23	113	114	115	23	112	112	113	23
7/19	111	112	112	24	116	116	117	24	113	113	114	23	113	114	114	23	112	112	113	23
7/20	111	111	112	24	117	118	119	24	111	112	113	23	115	118	120	23	110	111	112	22
7/21	110	111	112	24	115	116	119	24	111	113	114	23	117	118	122	23	110	112	114	23
7/22	111	111	112	24	115	116	117	24	---	---	---	0	---	---	---	0	---	---	---	0

## Total Dissolved Gas Saturation (%) - Average of 12 Highest Hours, 24 h Average and 24 h High

### Total Dissolved Gas Saturation Data at Lower Columbia and Snake River Sites

Date	<u>Priest R. Dnst</u>			<u>Pasco</u>			<u>Dworshak</u>			<u>Clrwtr-Peck</u>			<u>Anatone</u>			#				
	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>					
	<u>Avg</u>	<u>Avg</u>		<u>Avg</u>	<u>Avg</u>		<u>Avg</u>	<u>Avg</u>		<u>Avg</u>	<u>Avg</u>		<u>Avg</u>	<u>Avg</u>			<u>Avg</u>	<u>Avg</u>		
7/9	116	117	118	23	111	111	112	24	101	101	101	24	102	104	105	24	102	104	105	24
7/10	114	116	118	23	110	110	111	21	100	100	101	24	102	103	104	24	102	103	104	24
7/11	113	115	117	23	108	108	109	19	100	100	100	19	102	103	104	19	102	103	104	18
7/12	116	117	118	13	109	111	112	24	102	103	104	24	---	---	---	0	103	104	105	24
7/13	116	118	119	21	111	112	112	24	103	104	104	24	---	---	---	0	103	103	104	24
7/14	118	118	119	8	112	113	114	24	103	103	104	24	104	106	106	24	103	104	105	24
7/15	---	---	---	0	112	113	113	24	103	104	104	24	105	106	107	24	103	104	105	24
7/16	113	114	119	20	112	113	114	24	103	104	104	23	105	106	107	24	103	104	105	24
7/17	114	117	118	23	110	111	112	21	103	104	104	24	105	106	107	24	103	104	105	21
7/18	113	115	118	23	110	111	111	24	---	---	---	0	---	---	---	0	---	---	---	0
7/19	114	115	117	23	109	109	111	24	103	103	103	24	104	105	107	24	102	103	104	24
7/20	114	114	116	11	109	110	110	24	102	103	103	20	104	105	107	20	102	103	104	24
7/21	112	112	115	14	108	109	110	24	102	103	103	18	104	105	106	18	102	103	104	24
7/22	---	---	---	0	108	110	111	24	103	103	103	24	104	105	106	24	102	103	104	24

### Total Dissolved Gas Saturation Data at Snake River Sites

Date	<u>Clrwtr-Lewiston</u>			<u>Lower Granite</u>			<u>L. Granite Tlwr</u>			<u>Little Goose</u>			<u>L. Goose Tlwr</u>			#				
	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>					
	<u>Avg</u>	<u>Avg</u>		<u>Avg</u>	<u>Avg</u>		<u>Avg</u>	<u>Avg</u>		<u>Avg</u>	<u>Avg</u>		<u>Avg</u>	<u>Avg</u>			<u>Avg</u>			
7/9	103	105	107	24	103	105	105	24	101	102	102	24	101	101	101	24	100	101	101	24
7/10	103	105	106	24	100	100	101	24	100	101	101	24	100	100	100	24	99	99	99	24
7/11	102	104	106	19	100	100	102	19	100	100	100	19	99	100	100	19	98	99	99	19
7/12	103	106	107	24	107	110	113	24	101	102	104	24	104	107	112	24	100	100	101	24
7/13	103	105	107	24	105	107	108	24	102	102	103	24	104	105	106	24	101	101	102	24
7/14	104	106	108	24	107	110	112	24	102	102	103	24	102	104	108	24	99	100	100	24
7/15	104	106	108	24	107	108	110	24	102	102	103	24	101	102	106	24	100	100	100	24
7/16	104	106	108	24	106	107	109	24	102	103	103	24	102	104	107	24	100	101	101	24
7/17	103	105	107	21	109	110	111	21	102	103	103	21	106	108	110	21	101	102	102	21
7/18	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
7/19	103	105	107	24	106	107	107	24	102	102	102	24	106	107	109	24	100	101	101	24
7/20	104	105	107	20	106	107	107	24	102	102	102	24	101	101	102	24	100	100	101	24
7/21	103	104	107	18	105	105	107	24	101	101	102	24	102	103	104	24	100	101	101	24
7/22	103	106	107	24	110	113	116	24	102	102	102	24	106	109	111	24	102	103	104	24

### Total Dissolved Gas Saturation Data at Snake and Lower Columbia River Sites

Date	<u>Lower Mon.</u>			<u>L. Mon. Tlwr</u>			<u>Ice Harbor</u>			<u>Ice Harbor Tlwr</u>			<u>McNary-Oregon</u>			#				
	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>					
	<u>Avg</u>	<u>Avg</u>		<u>Avg</u>	<u>Avg</u>		<u>Avg</u>	<u>Avg</u>		<u>Avg</u>	<u>Avg</u>		<u>Avg</u>	<u>Avg</u>			<u>Avg</u>			
7/9	102	102	103	24	101	102	103	24	103	104	104	24	114	115	115	24	109	110	111	24
7/10	100	100	101	24	100	100	101	24	101	101	102	24	111	112	113	24	107	107	108	24
7/11	100	100	101	19	99	100	100	19	100	100	101	19	110	110	112	19	108	109	113	19
7/12	103	105	109	24	100	101	102	24	101	101	103	24	112	115	116	24	109	110	111	24
7/13	101	102	103	24	100	101	101	24	100	100	101	24	114	116	119	24	107	108	112	24
7/14	103	106	110	24	100	101	102	24	100	100	101	24	111	112	112	24	111	113	116	24
7/15	102	103	104	24	100	100	101	24	100	100	102	24	112	114	116	24	113	115	117	24
7/16	101	103	105	24	100	100	101	24	100	101	102	24	113	116	117	24	113	115	116	24
7/17	103	104	107	21	100	100	101	21	101	101	103	21	113	114	115	21	116	117	119	21
7/18	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	115	116	117	24
7/19	100	101	103	24	100	100	101	24	98	99	99	24	113	114	115	24	114	115	115	24
7/20	100	100	101	24	100	100	101	24	96	97	98	24	113	115	115	24	111	112	113	24
7/21	101	101	102	24	100	100	101	24	99	100	101	17	113	115	116	24	110	112	114	24
7/22	104	106	110	24	100	101	101	24	100	100	101	24	113	115	116	24	112	113	115	24

## Total Dissolved Gas Saturation (%) - Average of 12 Highest Hours, 24 h Average and 24 h High

Total Dissolved Gas Saturation Data at Lower Columbia River Sites

Date	<u>McNary-Wash</u>			#	<u>McNary Tlwr</u>			#	<u>John Day</u>			#	<u>John Day Tlwr</u>			#	<u>The Dalles</u>			#
	<u>24 h</u>	<u>12 h</u>	High		<u>24 h</u>	<u>12 h</u>	High		<u>24h</u>	<u>12h</u>	High		<u>24h</u>	<u>12h</u>	High		<u>24h</u>	<u>12h</u>	High	
	Avg	Avg			Avg	Avg			Avg	Avg			Avg	Avg			Avg	Avg		
7/9	109	110	111	24	108	109	109	24	102	103	103	23	114	115	115	24	106	107	107	23
7/10	107	107	108	24	107	107	107	24	102	102	102	23	114	115	115	24	104	105	105	23
7/11	107	107	107	19	106	107	107	19	101	101	102	18	114	114	115	18	105	105	105	18
7/12	110	111	112	24	108	109	109	24	102	103	105	24	114	115	116	24	107	108	108	24
7/13	110	112	114	24	108	109	109	24	102	103	104	24	114	114	115	24	107	108	108	24
7/14	112	113	115	24	109	109	110	24	103	103	103	23	115	115	117	24	106	107	107	23
7/15	111	112	112	24	110	111	111	24	102	103	103	23	114	114	114	24	106	106	107	23
7/16	112	113	117	24	111	111	112	24	102	103	103	23	114	114	115	24	105	106	106	23
7/17	113	114	116	21	111	111	112	24	103	103	104	23	114	114	115	24	107	107	108	23
7/18	113	115	117	24	110	111	111	24	103	104	104	23	112	113	114	24	106	106	107	23
7/19	112	113	115	24	110	110	111	24	103	104	104	23	114	115	115	24	105	105	106	23
7/20	111	111	113	24	109	110	110	24	103	103	104	23	113	114	114	24	106	106	107	23
7/21	110	112	115	24	108	109	109	24	103	103	104	23	113	114	114	24	106	106	107	23
7/22	110	112	113	24	108	109	109	24	104	104	104	23	113	114	114	24	107	108	109	23

Total Dissolved Gas Saturation Data at Lower Columbia River Sites

Date	<u>The Dalles Dnst</u>			#	<u>Bonneville</u>			#	<u>Warrendale</u>			#	<u>Camas\Washugal</u>			#
	<u>24 h</u>	<u>12 h</u>	High		<u>24 h</u>	<u>12 h</u>	High		<u>24h</u>	<u>12h</u>	High		<u>24h</u>	<u>12h</u>	High	
	Avg	Avg			Avg	Avg			Avg	Avg			Avg	Avg		
7/9	112	113	113	24	105	106	106	23	108	108	109	23	106	107	109	24
7/10	112	112	113	24	106	106	106	23	108	108	108	23	106	107	107	24
7/11	112	112	112	18	106	106	107	20	109	109	110	20	106	107	109	20
7/12	113	114	114	24	107	108	109	24	111	112	112	24	108	109	109	24
7/13	113	114	114	24	109	110	110	24	114	116	120	24	111	114	117	24
7/14	112	113	113	24	107	108	108	23	113	114	116	23	111	113	114	24
7/15	112	113	113	24	106	106	107	23	113	115	118	23	110	112	114	24
7/16	112	113	113	24	105	106	106	23	113	114	116	23	110	113	115	24
7/17	113	113	114	24	106	107	107	23	110	111	111	23	109	110	113	24
7/18	112	113	113	24	106	106	107	23	112	114	115	23	116	124	125	24
7/19	112	112	113	24	106	106	106	23	113	114	115	23	119	125	125	24
7/20	112	112	113	24	105	106	106	23	112	113	116	23	111	112	114	24
7/21	113	113	113	24	106	107	107	23	111	113	114	23	109	110	112	24
7/22	113	114	115	24	107	107	108	23	112	113	114	23	110	111	112	24



## Two-Week Summary of Passage Indices

COMBINED YEARLING CHINOOK												
	ENT	WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date	(Coll)	(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
07/09/2004	---	---	---	---	---	220	180	8	0	100	26	54
07/10/2004	---	---	---	---	---	400	65	36	0	150	22	101
07/11/2004	---	---	---	---	---	260	85	24	1	200	7	60
07/12/2004	---	---	---	---	---	260	40	28	4	200	0	24
07/13/2004 *	---	---	---	---	---	200	56	16	0	75	10	0
07/14/2004	---	---	---	---	---	0	90	0	0	0	7	7
07/15/2004	---	---	---	---	---	300	92	8	6	100	16	2
07/16/2004	---	---	---	---	---	180	110	28	2	50	6	9
07/17/2004 *	---	---	---	---	---	140	125	20	0	0	0	16
07/18/2004	---	---	---	---	---	220	130	27	0	50	6	13
07/19/2004 *	---	---	---	---	---	100	112	40	0	25	0	0
07/20/2004	---	---	---	---	---	80	132	10	0	25	11	0
07/21/2004 *	---	---	---	---	---	110	62	8	0	20	0	0
07/22/2004 *	---	---	---	---	---	30	75	0	0	20	0	3
07/23/2004 *	---	---	---	---	---	---	---	---	---	---	---	---
-----												
<b>Total:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2,500</b>	<b>1,354</b>	<b>253</b>	<b>13</b>	<b>1,015</b>	<b>111</b>	<b>289</b>
<b># Days:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>
<b>Average:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>179</b>	<b>97</b>	<b>18</b>	<b>1</b>	<b>73</b>	<b>8</b>	<b>21</b>
<b>YTD</b>	<b>835</b>	<b>29,063</b>	<b>73,379</b>	<b>9,904</b>	<b>4,053</b>	<b>5,175,824</b>	<b>2,657,885</b>	<b>913,730</b>	<b>12,573</b>	<b>1,085,882</b>	<b>1,005,383</b>	<b>1,466,417</b>

COMBINED SUBYEARLING CHINOOK												
	ENT	WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date	(Coll)	(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
07/09/2004	---	---	---	---	---	9,680	3,691	3,560	316	101,907	41,997	26,213
07/10/2004	---	---	---	---	---	14,640	1,056	3,152	221	125,700	40,288	32,728
07/11/2004	---	---	---	---	---	9,940	1,535	1,912	378	53,600	28,169	37,662
07/12/2004	---	---	---	---	---	7,560	886	2,172	350	58,430	13,969	39,495
07/13/2004 *	---	---	---	---	---	16,080	1,181	7,196	597	167,551	27,211	21,172
07/14/2004	---	---	---	---	---	10,420	2,491	1,338	950	108,700	16,358	26,501
07/15/2004	---	---	---	---	---	8,160	2,480	1,728	1,019	53,950	16,620	24,324
07/16/2004	---	---	---	---	---	4,700	1,330	1,244	641	45,500	5,683	19,391
07/17/2004 *	---	---	---	---	---	4,040	1,560	1,088	313	58,775	13,753	10,822
07/18/2004	---	---	---	---	---	5,720	3,660	1,047	257	37,525	19,662	15,078
07/19/2004 *	---	---	---	---	---	6,390	2,769	880	391	37,650	8,358	8,646
07/20/2004	---	---	---	---	---	4,120	2,159	230	543	25,750	15,564	8,941
07/21/2004 *	---	---	---	---	---	2,330	463	280	373	20,260	11,927	10,736
07/22/2004 *	---	---	---	---	---	2,130	390	244	418	35,500	13,402	8,319
07/23/2004 *	---	---	---	---	---	---	---	---	---	---	---	---
-----												
<b>Total:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>105,910</b>	<b>25,651</b>	<b>26,071</b>	<b>6,767</b>	<b>930,798</b>	<b>272,961</b>	<b>290,028</b>
<b># Days:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>
<b>Average:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>7,565</b>	<b>1,832</b>	<b>1,862</b>	<b>483</b>	<b>66,486</b>	<b>19,497</b>	<b>20,716</b>
<b>YTD</b>	<b>1,579</b>	<b>0</b>	<b>29</b>	<b>80</b>	<b>935</b>	<b>977,562</b>	<b>454,505</b>	<b>181,534</b>	<b>21,270</b>	<b>7,790,479</b>	<b>1,534,336</b>	<b>4,600,537</b>

\* See sampling comments <http://www.fpc.org/currentDaily/smpcomments.htm>  
 this means that one or more of the sites on this date had an incomplete or biased sample.

For clip information see: [Daily Catch Report](#)

For sockeye and yearling chinook (Snake only) race information see: [Current Passage Index Query](#)

If the text appears garbled, please hit the refresh button on your browser

NOTE for 2002 Lower Monumental Data: Due to the non-standard operation of Lower Monumental this year, the passage index reliability is in question and is being looked into.

Fall (post SMP season) trapping at the Imnaha River Fish Trap (IMN) is funded by the Lower Snake River Compensation Program (LSRCP)

## Two-Week Summary of Passage Indices

COMBINED COHO												
	ENT	WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date	(Coll)	(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
07/09/2004	---	---	---	---	---	20	130	0	1	100	12	8
07/10/2004	---	---	---	---	---	0	35	0	1	250	1	32
07/11/2004	---	---	---	---	---	40	25	0	6	0	6	11
07/12/2004	---	---	---	---	---	0	25	0	1	100	16	35
07/13/2004 *	---	---	---	---	---	60	72	4	8	75	7	9
07/14/2004	---	---	---	---	---	0	126	6	29	100	20	20
07/15/2004	---	---	---	---	---	60	160	0	4	50	24	18
07/16/2004	---	---	---	---	---	0	95	4	12	25	4	2
07/17/2004 *	---	---	---	---	---	0	105	12	2	0	6	12
07/18/2004	---	---	---	---	---	20	145	6	0	100	11	3
07/19/2004 *	---	---	---	---	---	0	160	0	0	175	0	11
07/20/2004	---	---	---	---	---	20	154	10	6	125	18	0
07/21/2004 *	---	---	---	---	---	10	86	0	9	20	4	0
07/22/2004 *	---	---	---	---	---	10	75	8	5	20	7	0
07/23/2004 *	---	---	---	---	---	---	---	---	---	---	---	---
-----												
<b>Total:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>240</b>	<b>1,393</b>	<b>50</b>	<b>84</b>	<b>1,140</b>	<b>136</b>	<b>161</b>
<b># Days:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>
<b>Average:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>17</b>	<b>100</b>	<b>4</b>	<b>6</b>	<b>81</b>	<b>10</b>	<b>12</b>
<b>YTD</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>45</b>	<b>259,373</b>	<b>126,725</b>	<b>15,834</b>	<b>28,639</b>	<b>90,456</b>	<b>175,269</b>	<b>937,946</b>

COMBINED STEELHEAD												
	ENT	WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date	(Coll)	(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
07/09/2004	---	---	---	---	---	220	31	28	0	0	13	8
07/10/2004	---	---	---	---	---	220	76	4	1	0	6	5
07/11/2004	---	---	---	---	---	300	135	12	1	0	0	7
07/12/2004	---	---	---	---	---	140	41	4	0	0	0	0
07/13/2004 *	---	---	---	---	---	440	315	28	2	0	19	9
07/14/2004	---	---	---	---	---	200	281	6	2	0	16	0
07/15/2004	---	---	---	---	---	460	593	60	0	0	1	0
07/16/2004	---	---	---	---	---	340	285	20	0	0	1	0
07/17/2004 *	---	---	---	---	---	260	220	44	3	0	7	0
07/18/2004	---	---	---	---	---	240	295	15	0	25	0	0
07/19/2004 *	---	---	---	---	---	310	352	40	0	0	0	6
07/20/2004	---	---	---	---	---	330	250	10	0	0	0	0
07/21/2004 *	---	---	---	---	---	230	153	12	0	20	4	0
07/22/2004 *	---	---	---	---	---	150	90	16	0	0	4	0
07/23/2004 *	---	---	---	---	---	---	---	---	---	---	---	---
-----												
<b>Total:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3,840</b>	<b>3,117</b>	<b>299</b>	<b>9</b>	<b>45</b>	<b>71</b>	<b>35</b>
<b># Days:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>
<b>Average:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>274</b>	<b>223</b>	<b>21</b>	<b>1</b>	<b>3</b>	<b>5</b>	<b>3</b>
<b>YTD</b>	<b>195</b>	<b>2,106</b>	<b>36,084</b>	<b>1,857</b>	<b>8,418</b>	<b>5,824,441</b>	<b>1,914,961</b>	<b>342,982</b>	<b>10,711</b>	<b>125,185</b>	<b>257,162</b>	<b>155,667</b>

\* See sampling comments

## Two-Week Summary of Passage Indices

Date	COMBINED SOCKEYE											
	ENT (Coll)	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (INDEX)	LGS (INDEX)	LMN (INDEX)	RIS (INDEX)	MCN (INDEX)	JDA (INDEX)	BO2 (INDEX)
07/09/2004	---	---	---	---	---	0	0	4	6	200	1	16
07/10/2004	---	---	---	---	---	0	0	0	4	450	1	37
07/11/2004	---	---	---	---	---	0	0	0	4	50	0	15
07/12/2004	---	---	---	---	---	20	0	0	2	150	0	12
07/13/2004	*	---	---	---	---	0	0	0	2	400	1	0
07/14/2004	---	---	---	---	---	0	4	0	5	150	4	26
07/15/2004	---	---	---	---	---	0	4	0	2	150	9	9
07/16/2004	---	---	---	---	---	0	0	0	4	200	3	0
07/17/2004	*	---	---	---	---	0	0	0	3	175	7	3
07/18/2004	---	---	---	---	---	0	0	0	0	250	6	10
07/19/2004	*	---	---	---	---	0	0	0	0	175	0	11
07/20/2004	---	---	---	---	---	0	0	0	1	0	0	5
07/21/2004	*	---	---	---	---	0	0	0	3	40	7	13
07/22/2004	*	---	---	---	---	0	0	0	5	160	0	7
07/23/2004	*	---	---	---	---	---	---	---	---	---	---	---
<hr/>												
<b>Total:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>20</b>	<b>8</b>	<b>4</b>	<b>41</b>	<b>2,550</b>	<b>39</b>	<b>164</b>
<b># Days:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>
<b>Average:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>3</b>	<b>182</b>	<b>3</b>	<b>12</b>
<b>YTD</b>	<b>6</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>25</b>	<b>7,564</b>	<b>4,716</b>	<b>955</b>	<b>7,104</b>	<b>308,138</b>	<b>235,701</b>	<b>189,640</b>

\* See sampling comments

<http://www.fpc.org/currentDaily/smpcomments.htm>

Smolt indices, clipped & unclipped or combined, are presented in the following order: yearling chinook (chinook 1's), subyearling chinook (chinook 0's), steelhead, coho, and sockeye. Two classes of fish counts are shown in these tables: collection counts, which account for sample rates but are not adjusted for flow; and passage indices, which are collection counts divided by the proportion of water passing through the sampled powerhouse. Passage indices are not population estimates, but are used to adjust collection counts for daily fluctuations in the site's or project's operations. The classes of counts presented in the report are defined below for each site. Most samples occur over a 24-hr period that spans two calendar days. In this report, the date shown corresponds with the sample end date.

### Definitions for Smolt Index Counts

WTB (Collection) = Salmon River Trap at Whitebird : Collection Counts

IMN (Collection) = Imnaha River Trap : Collection Counts

GRN (Collection) = Grande Ronde River Trap : Collection Counts

LEW (Collection) = Snake River Trap at Lewiston : Collection Counts

ENT (Collection) = Entiat River Trap : Collection Counts

LGR (Index) = Lower Granite Dam Bypass Collection System : Passage Index Counts

Passage Index = Collection Counts / {Powerhouse Flow / (Powerhouse Flow + Spill)}

LGS (Index) = Little Goose Bypass Collection System : Passage Index Counts

Passage Index = Collection Counts / {Powerhouse Flow / (Powerhouse Flow + Spill)}

LMN (Index) = Lower Monumental Dam Bypass Collection System : Passage Index Counts

Passage Index = Collection Counts / {Powerhouse Flow / (Powerhouse Flow + Spill)}

RIS (Index) = Rock Island Dam Second Powerhouse Bypass Trap : Passage Index Counts

Passage Index = Collection Counts / {Powerhouse 2 Flow / (Powerhouse 1 & 2 Flow + Spill)}

MCN (Index) = McNary Dam Bypass Collection System : Passage Index Counts

Passage Index = Collection Counts / {Powerhouse Flow / (Powerhouse Flow + Spill)}

JDA (Index) = John Day Dam Bypass Collection System : Passage Index Counts

Passage Index = Collection Counts / {Powerhouse Flow / (Powerhouse Flow + Spill)}

BO2 (Index) = Bonneville Dam Second Powerhouse Bypass Collection System : Passage Index Counts

Passage Index = Collection Counts / {Powerhouse 2 Flow / (Powerhouse 1 & 2 Flow + Spill)}

BO1 (Index) = Bonneville Dam First Powerhouse Bypass Collection System : Passage Index Counts

Passage Index = Collection Counts / {Powerhouse 1 Flow / (Powerhouse 1 & 2 Flow + Spill)}

JDA and BO2 data collected for the FPC by Pacific States Marine Fisheries Commission.

RIS data collected for the FPC by Chelan Co. PUD/Washington Dept. of Fish and Wildlife.

LGR, LMN, and MCN data collected for the FPC by Washington Dept. of Fish and Wildlife.

LGS and GRN data collected for the FPC by Oregon Dept. of Fish and Wildlife.

IMN data collected for the FPC by the Nez Perce Tribe. ENT data collected for the FPC by USFWS.

## Two Week Transportation Summary

Source: Fish Passage Center

Updated:

7/23/04 8:34 AM

		07/10/04	TO	07/23/04			
		Species					
Site	Data	CH0	CH1	CO	SO	ST	Grand Total
<b>LGR</b>	Sum of NumberCollected	105,910	2,500	240	20	3,840	112,510
	Sum of NumberBarged	108,173	2,603	277	20	4,202	115,275
	Sum of NumberBypassed	2,670	0	0	0	0	2,670
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of TotalProjectMortalities	450	17	3	0	33	503
<b>LGS</b>	Sum of NumberCollected	25,651	1,354	1,393	8	3,117	31,523
	Sum of NumberBarged	31,388	1,441	1,417	26	3,087	37,359
	Sum of NumberBypassed	0	0	0	0	0	0
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of TotalProjectMortalities	270	7	8	0	78	363
<b>LMN</b>	Sum of NumberCollected	26,071	253	50	4	299	26,677
	Sum of NumberBarged	25,932	245	42	4	285	26,508
	Sum of NumberBypassed	2,312	0	0	0	0	2,312
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of TotalProjectMortalities	312	8	0	0	10	330
<b>MCN</b>	Sum of NumberCollected	930,798	1,015	1,140	2,550	45	935,548
	Sum of NumberBarged	914,277	979	1,097	2,434	20	918,807
	Sum of NumberBypassed	207	0	0	0	0	207
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of TotalProjectMortalities	16,314	36	43	115	25	16,533
Total Sum of NumberCollected		1,088,430	5,122	2,823	2,582	7,301	1,106,258
Total Sum of NumberBarged		1,079,770	5,268	2,833	2,484	7,594	1,097,949
Total Sum of NumberBypassed		5,189	0	0	0	0	5,189
Total Sum of Numbertrucked		0	0	0	0	0	0
Total Sum of TotalProjectMortalities		17,346	68	54	115	146	17,729

### YTD Transportation Summary

Source: Fish Passage Center

Updated:

7/23/04 8:34 AM

TO: 07/23/04

		Species					
Site	Data	CH0	CH1	CO	SO	ST	Grand Total
<b>LGR</b>	Sum of NumberCollected	947,346	4,846,301	252,754	7,253	5,673,275	11,726,929
	Sum of NumberBarged	895,884	4,627,761	238,866	6,734	5,364,822	11,134,067
	Sum of NumberBypassed	44,849	151,332	13,352	285	289,607	499,425
	Sum of NumberTrucked	129	43,991	220	181	15,496	60,017
	Sum of TotalProjectMortalities	4,558	23,187	306	53	3,197	31,301
<b>LGS</b>	Sum of NumberCollected	454,238	2,572,359	123,468	4,664	1,868,865	5,023,594
	Sum of NumberBarged	453,194	2,568,647	123,267	4,658	1,865,384	5,015,150
	Sum of NumberBypassed	0	0	0	0	0	0
	Sum of NumberTrucked	0	2,096	0	2	1,333	3,431
	Sum of TotalProjectMortalities	682	1,501	29	4	2,058	4,274
<b>LMN</b>	Sum of NumberCollected	173,571	843,263	14,799	901	287,826	1,320,360
	Sum of NumberBarged	166,006	834,099	14,784	900	284,370	1,300,159
	Sum of NumberBypassed	6,666	6,333	3	1	2,141	15,144
	Sum of NumberTrucked	10	1,352	0	0	604	1,966
	Sum of TotalProjectMortalities	652	1,479	4	0	695	2,830
<b>MCN</b>	Sum of NumberCollected	7,052,826	667,477	56,699	189,786	76,610	8,043,398
	Sum of NumberBarged	5,946,450	8,020	4,836	9,593	1,291	5,970,190
	Sum of NumberBypassed	1,044,727	646,944	51,742	179,173	74,612	1,997,198
	Sum of NumberTrucked	0	0	0	0	0	0
	Sum of TotalProjectMortalities	56,650	2,901	121	1,019	311	61,002
Total Sum of NumberCollected		8,627,981	8,929,400	447,720	202,604	7,906,576	26,114,281
Total Sum of NumberBarged		7,461,534	8,038,527	381,753	21,885	7,515,867	23,419,566
Total Sum of NumberBypassed		1,096,242	804,609	65,097	179,459	366,360	2,511,767
Total Sum of NumberTrucked		139	47,439	220	183	17,433	65,414
Total Sum of TotalProjectMortalities		62,542	29,068	460	1,076	6,261	99,407

**Cumulative Adult Passage at Mainstem Dams Through: 07/22**

DAM	Spring Chinook						Summer Chinook						Fall Chinook					
	2004		2003		10-Yr Avg.		2004		2003		10-Yr Avg.		2004		2003		10-Yr Avg.	
	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack
BON	170,152	8,885	192,010	14,258	130,296	7,371	88,337	12,337	108,608	12,134	43,372	5,613	0	0	0	0	0	0
TDA	130,240	7,717	131,207	11,522	87,249	5,199	75,461	7,867	94,868	8,942	36,777	3,920	0	0	0	0	0	0
JDA	112,153	6,367	101,436	10,206	72,403	4,083	68,390	9,615	88,653	8,481	34,091	3,401	0	0	0	0	0	0
MCN	107,497	7,682	95,550	11,123	66,222	4,195	59,902	7,715	85,292	9,297	33,247	3,434	0	0	0	0	0	0
IHR	76,806	4,646	78,170	8,020	44,313	2,700	12,275	2,800	20,315	4,499	8,771	1,476	0	0	0	0	0	0
LMN	71,673	3,786	70,603	7,344	42,703	2,607	10,250	2,153	18,332	3,398	8,496	1,209	0	0	0	0	0	0
LGS	62,458	3,404	69,017	7,079	41,666	2,708	8,994	2,188	13,905	3,369	7,352	1,454	0	0	0	0	0	0
LWG	70,742	4,482	70,609	8,295	40,647	2,828	8,566	2,394	15,932	3,926	7,505	1,549	0	0	0	0	0	0
PRD	13,521	1,020	18,136	656	14,413	382	55,485	4,714	66,282	1,843	24,724	699	0	0	0	0	0	0
RIS	10,917	958	16,881	753	11,256	609	49,493	3,634	62,584	3,274	20,848	2,156	0	0	0	0	0	0
RRH	4,365	729	4,216	450	4,023	171	30,260	5,338	43,379	2,658	13,129	894	0	0	0	0	0	0
WEL	4,615	178	4,504	198	2,563	172	17,487	578	23,033	447	6,678	297	0	0	0	0	0	0

DAM	Coho						Sockeye			Steelhead			
	2004		2003		10-Yr Avg.		2004	2003	10-Yr Avg.	2004	2003	10-Yr Avg.	Wild 2004
	Adult	Jack	Adult	Jack	Adult	Jack							
BON	0	0	5	0	1	0	122,564	38,737	42,055	70,851	77,071	50,880	31,465
TDA	0	0	0	0	0	0	107,058	33,830	34,117	28,373	33,333	24,814	13,448
JDA	0	0	0	0	1	0	112,088	34,746	37,102	25,025	27,075	19,340	11,086
MCN	0	0	0	0	0	0	89,130	31,752	32,552	15,683	17,780	12,519	6,373
IHR	0	0	0	0	0	0	156	37	18	8,675	10,489	6,610	2,702
LMN	0	0	0	0	0	0	65	14	24	6,652	8,424	5,873	2,168
LGS	0	0	0	0	0	0	78	18	26	4,473	6,238	4,080	1,822
LWG	0	0	0	0	0	0	107	10	22	9,856	18,861	7,551	3,402
PRD	0	0	2	0	1	0	122,372	34,783	38,145	2,473	1,324	761	0
RIS	0	0	9	0	1	0	102,273	32,905	33,642	1,860	804	519	1,626
RRH	0	0	1	0	1	0	76,065	27,451	20,579	1,598	602	331	1,387
WEL	0	0	0	0	0	0	64,209	21,783	16,003	483	167	96	379

WEL is through 07/18. PRD, RIS, RRH are through 07/21.

IHR is missing 06/18, 07/02. LGR has duplicate data 07/14 and 07/15.

\*\*PRD is not reporting Wild Steelhead numbers.

These numbers were collected from the COE's Running Sums text files, except where otherwise noted.

Wild steelhead numbers are included in the total.

Historic counts (pre-1996) were obtained from CRITFC and compiled by the FPC.

Historic counts 1997 to present were obtained from the Corps of Engineers.

Page last updated on: 07/23/04

BON counts from January 1, 2004 to March 14, 2004 (our traditional counts begin March 15)

Chinook Adult	Chinook Jack	Steelhead	Wild Steelhead
156	1	1,489	238

