



## Fish Passage Center

# Weekly Report #03 - 23

August 29, 2003

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### Summary of Events:

**Water Supply:** Precipitation throughout the Columbia Basin has been variable over the first portion of August. Of the sites in Table 1, recorded precipitation has ranged between 10% and 165% of average in August. Over the entire water year, precipitation has ranged between 72% and 98% of average at the listed sites.

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

Location	August 1-25, 2003		Cumulative October, 1 2002 to August 25, 2003	
	Observed (inches)	% Average	Observed (inches)	% Average
Columbia Above Coulee	0.49	36	18.99	80
SNAKE RIVER ABOVE Ice Harbor	0.77	112	15.24	91
Columbia Above The Dalles	0.58	61	18.81	86
Kootenai	0.41	30	17.89	74
Clark Fork	0.68	65	14.06	85
Flathead	0.31	24	15.91	73
Pend Oreille/Spokane	0.61	60	26.58	90
Central Washington	0.21	68	8.51	98
SNAKE RIVER PLAIN	0.77	165	7.71	72
Salmon/Boise/Payette	0.66	116	18.4	97
Clearwater	0.78	81	28.73	98
SW Washington Cascades/Cowlitz	0.12	10	57.2	84
Willamette Valley	0.42	48	51.49	89

The summer Biological Opinion Flow objectives are 50.7 Kcfs at Lower Granite (June 21st-August 31st) and 200 Kcfs at McNary (July 1st-August 31st). To date (August 28th 2003), flows have averaged 32.6 Kcfs at Lower Granite (18.1 Kcfs below the flow objective) and 136.5 Kcfs at McNary (63.5 Kcfs below the flow objective).

Libby Reservoir is currently at an elevation of 2440.1 feet, and has drafted 2.5 feet in the last week. The August 31st draft limit is 2439 feet, 1.1 feet of reservoir space remains to be drafted over the next several days. Outflows have decreased to 14.0 Kcfs.

Hungry Horse Reservoir is at an elevation of 3540.3 feet and has been drafted approximately 1.3 feet over the last week. The August 31st draft limit is 3540 feet, 0.3 feet of reservoir space remains to be drafted over the next several days. Outflows have been gradually decreasing over the past week from approximately 5.2 kcfs to 2.4 Kcfs. The BOR is ramping down flows to meet the Columbia Falls minimum, which is 3.37 Kcfs.

Dworshak Reservoir is currently at an elevation of 1535.4 feet, and has drafted 5.5 feet in the last week. Supplemental outflows from Dworshak to moderate temperatures in the Lower Snake River have been reduced to a daily average of 7.0 Kcfs and are projected to remain at a similar level through mid-September. Some daily load-following flow fluctuations have been allowed at Dworshak, daily flows have been fluctuating between 5.8 and 8.1 Kcfs.

Grand Coulee Reservoir ended August 28th at an elevation of 1278.6 feet; the end of August draft limit is 1278 feet. After reaching the draft limit, the BOR plans to refill Grand Coulee one foot each on Saturday and Sunday.

Brownlee Reservoir was at an elevation of 2056.7 feet on August 28th, drafting 2.8 feet in the last week. Outflows at Brownlee have been fluctuating between 8.5 and 16.0 Kcfs over the week.

**Spill:** The Biological Opinion spill program will end at all projects at midnight on August 31. Until that time a modified 12-hour spill program continues to be implemented at Ice Harbor Dam. Spill over the past week averaged 41% of average daily flow at this project.

The summer spill program continues at John Day, The Dalles and Bonneville dams. Spill averaged 22%, 38%, and 59% of average daily flow, respectively.

Total dissolved gas levels are presently below the gas waiver limits at all the federal projects. GBT monitoring is presently being implemented at McNary and Bonneville dams. No fish were detected with signs of GBT this past week.

**Smolt Monitoring:** At Lower Granite Dam the average daily index for subyearling chinook decreased from 1,500 last week to 500 per day this week. Little Goose Dam also saw a decrease in the index to 500 this week compared to 800 last week. At Lower Monumental there was an increase, as subyearling indices averaged 400 this week compared to 240 last week.

At Rock Island Dam, in the mid-Columbia, subyearling chinook indices decreased last week with the daily average at 40 compared to 60 per day the previous week.

In the Lower Columbia, at McNary, the daily average index for subyearling chinook was down to 5,600 per day this week compared to 9,000 last week. At John Day Dam the average daily index for subyearling chinook decreased to 1,500 this week compared to 6,100 last week. At Bonneville Dam, the average daily index for subyearling chinook was at 1,700 this week compared to 5,700 last week.

**Hatchery Releases** - The preliminary total of juvenile salmonids released from Columbia River Basin hatcheries above Bonneville Dam for the 2003 migration season is estimated near 87.3 million. Supplemental and planned releases will be completed this fall season; these release groups will primarily be considered as 2004 migrants. The Zone Release Report below summarizes hatchery releases from State, federal or Tribal hatcheries or acclimation ponds for the 2003 Migration Season. These totals will be updated and finalized through the year.

On August 25, about 104,000 brood year 2002 juvenile sockeye were released from net pens into Lake Wenatchee. Again, the majority of these fish will reside in the lake until the 2004 spring prior to migration to the ocean.

Hatchery Zone Release Report	Friday 29-August-2003			
	Snake River	Mid-Columbia	Lower Columbia	Total Release
Fall Chinook	4,057,928	12,354,538	25,446,818	41,859,284
Spring Chinook	10,473,976	3,474,730	5,441,505	19,390,211
Summer Chinook	2,332,578	3,001,618		5,334,196
Coho	1,248,216	1,876,158	5,631,793	8,756,167
Sockeye	140,410	208,986		349,396
Summer Steelhead	9,687,941	1,344,613	490,667	11,523,221
Winter Steelhead			94,900	94,900
Total	27,941,049	22,260,643	37,105,683	87,307,375

**Adult Fish Passage** - At Bonneville Dam, numbers of adult fall chinook increased from near 1,000 per day early in the week to 12,000 on the final day of the report period (August 28). The cumulative count through August 28 was 43,402, approximately 48.7% and 94.4% of the respective 2002 and 10-year average. Chinook salmon that passed Bonneville Dam prior to August 25 were comprised of mainly upriver bright fall chinook. Numbers of "Tule" stock fall chinook began increasing throughout the past week. The Tule fall

chinook mainly migrates and spawns in rivers located below The Dalles Dam with Spring Creek NFH being the primary site that these fish return in the Bonneville Pool. This recent surge of fall chinook is just beginning to pass the other lower projects with the count of fall chinook past McNary Dam fairly level for the week. At McNary, 6,447 were counted through August 28 with 4,900 counted above Priest Rapids Dam and 660 above Ice Harbor Dam. As noted in the Bonneville counts for the week, the Fall Run is rapidly increasing and this trend should continue as these fish move upstream to their spawning sites.

Numbers of steelhead at Bonneville Dam declined to about 1,000 per day for a low and increased to 2,900 by the final day of the count week (August 28). The cumulative count through August 28 was 233,671 and compares to 303,674 in 2002 and 185,803 for the 10-year average. The steelhead count differential between Bonneville Dam and The Dalles Dam remained about 160,000 during this week. Water temperatures are normally the determining factor on when these steelhead begin moving from the cooler tributaries located in the Bonneville pool and initiate their upstream migration past The Dalles and other mainstem dams. At McNary Dam, daily counts of adult steelhead were in the 600 to 700 range, while counts of steelhead averaged about 150-160 per day at Priest Rapids Dam. At Ice Harbor Dam, steelhead counts ranged from 400 to 700 per day. The cumulative count for Priest Rapids Dam was 7,777 with Ice Harbor at 24,824 through August 28.

Similar to counts of fall chinook and steelhead, numbers of adult coho increased dramatically, through the final 3-days of counting (August 26-28) at Bonneville Dam. The cumulative count through August 28 was 3,660 adult coho, and that was about 1.8 times greater than the 2002 count and 1.1 time greater than the 10-year average. The coho passage is also just beginning to increase at Bonneville Dam. Much of the coho production comes from the Bonneville pool tributaries with coho runs spread through the Mid-Columbia area, the Yakama River basin, the Umatilla River basin and the Clearwater River basin for coho that pass The Dalles Dam.

**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
08/15/03	111.1	0.1	112.1	0.0	117.7	45.0	109.7	0.0	110.2	20.0	114.3	2.0	115.8	2.5
08/16/03	83.7	0.1	82.7	0.0	81.3	21.3	85.0	0.0	86.7	18.4	92.2	2.0	92.1	1.0
08/17/03	54.2	0.1	58.8	0.0	64.1	4.8	62.7	0.0	65.0	0.0	69.3	1.9	70.9	1.0
08/18/03	108.9	0.1	106.1	0.0	105.2	6.8	100.5	0.0	101.4	0.0	99.5	2.1	89.6	1.1
08/19/03	97.8	0.1	102.3	0.0	102.0	6.8	100.8	0.0	100.9	0.0	107.6	1.7	109.0	0.9
08/20/03	123.4	0.1	117.8	0.0	115.3	7.5	112.7	0.0	112.4	0.0	114.3	3.2	108.4	2.8
08/21/03	135.5	0.1	133.5	0.0	134.4	10.3	122.9	0.3	121.2	0.0	124.8	4.9	125.3	3.8
08/22/03	103.3	0.1	116.4	0.0	122.5	9.1	125.9	1.6	127.7	0.0	143.8	14.8	141.2	11.0
08/23/03	97.9	0.1	95.6	0.0	94.5	7.3	91.8	0.0	93.6	0.0	96.5	1.6	97.4	1.2
08/24/03	85.9	0.1	82.2	0.0	83.5	6.7	81.2	0.0	82.1	0.0	84.5	1.9	83.1	1.1
08/25/03	132.6	0.1	133.4	0.0	134.4	8.6	129.0	0.0	128.4	0.0	127.9	2.0	121.8	1.4
08/26/03	106.5	0.1	109.8	0.0	112.4	8.0	112.7	0.0	114.3	0.0	127.2	2.1	127.2	1.2
08/27/03	75.5	0.1	77.6	0.0	78.3	0.0	79.1	0.0	80.7	0.0	91.0	1.9	91.1	1.0
08/28/03	108.1	0.1	106.8	0.0	105.8	0.0	102.1	0.0	97.5	0.0	91.7	2.0	85.9	1.1

**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
08/15/03	10.2	0.0	8.2	12.5	26.1	0.0	24.5	0.0	25.8	0.0	24.2	10.4
08/16/03	10.2	0.0	8.4	8.2	27.8	0.0	26.1	0.0	27.6	0.0	27.1	12.9
08/17/03	10.2	0.0	8.2	9.2	21.9	0.0	21.6	0.0	21.7	0.0	19.8	9.9
08/18/03	10.2	0.0	8.5	13.8	25.2	0.0	25.8	0.0	27.4	0.0	27.9	12.2
08/19/03	8.4	0.0	8.6	13.5	27.8	0.0	28.8	0.0	29.6	0.0	27.3	10.7
08/20/03	7.1	0.0	8.4	11.6	24.7	0.0	24.9	0.0	25.8	0.0	25.2	8.7
08/21/03	7.1	0.0	8.3	8.3	21.7	0.0	20.5	0.0	21.6	0.0	21.7	9.7
08/22/03	7.1	0.0	8.3	8.4	19.7	0.0	21.1	0.0	22.4	0.0	21.4	11.5
08/23/03	7.1	0.0	8.2	8.5	21.4	0.0	19.7	0.0	19.8	0.0	20.5	11.2
08/24/03	7.1	0.0	9.5	8.5	20.2	0.0	20.2	0.0	20.7	0.0	20.5	6.0
08/25/03	7.1	0.0	11.3	16.6	23.2	0.0	22.8	0.0	23.7	0.0	22.2	8.7
08/26/03	7.1	0.0	10.9	17.8	29.8	0.0	29.4	0.0	31.4	0.0	32.8	10.7
08/27/03	7.2	0.0	10.4	14.2	28.9	0.0	30.1	0.0	32.4	0.0	30.2	11.3
08/28/03	7.1	0.0	---	---	16.4	5.1	17.2	0.0	18.1	0.0	17.3	6.8

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

Date	McNary		John Day		The Dalles		Bonneville		PH1	PH2
	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill		
08/15/03	134.8	0.0	121.2	25.4	127.4	48.4	148.5	85.9	0.0	55.9
08/16/03	118.7	0.0	108.9	30.2	107.1	39.3	131.6	90.1	0.0	34.8
08/17/03	110.0	0.0	116.4	28.3	121.6	48.0	154.1	90.4	0.0	57.0
08/18/03	120.1	0.0	122.4	27.5	125.4	44.9	146.1	88.0	0.0	51.4
08/19/03	141.1	0.0	133.3	28.3	139.1	54.5	169.1	89.7	1.6	71.1
08/20/03	140.4	0.0	136.1	32.2	137.6	50.3	161.8	94.6	3.2	56.4
08/21/03	146.8	0.8	141.3	35.5	140.1	55.8	180.6	100.5	2.5	70.9
08/22/03	138.9	0.1	140.0	30.4	140.7	54.0	152.4	93.8	0.0	51.8
08/23/03	128.2	0.0	117.8	27.5	118.4	44.9	151.3	91.2	0.0	53.4
08/24/03	111.1	0.0	116.7	26.3	116.3	43.5	141.4	86.1	0.0	48.6
08/25/03	140.5	0.0	131.9	29.0	137.6	51.7	159.4	94.8	0.0	57.9
08/26/03	160.2	0.0	141.9	26.1	139.1	51.9	158.1	90.8	1.2	59.0
08/27/03	142.1	0.0	159.9	43.2	165.3	64.7	192.7	104.7	2.7	78.6
08/28/03	201.8	0.0	113.0	22.6	117.1	43.1	149.9	91.2	0.0	52.1

## 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>											
	08/21/03	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
	08/25/03	Chinook + Steelhead	58	0	0	0.00%	0.00%	0	0	0	0
	08/28/03	Chinook + Steelhead	50	0	0	0.00%	0.00%	0	0	0	0
<b>Bonneville Dam</b>											
	08/21/03	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
	08/25/03	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
	08/28/03	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0

### HATCHERY RELEASE LAST TWO WEEKS

#### Hatchery Release Summary

From: 8/15/03 to 8/28/03

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
Washington Dept. of Fish and Wildlife	Eastbank Hatchery	SO	UN	2004	104,000	08-25-03	08-25-03	Lake Wenatchee	Wenatchee River

**Grand Total** **561,000**

## 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	#	24 h		12 h	#	24 h		12 h	#	24 h		12 h					
	Avg	Avg			Avg	Avg			Avg	Avg			Avg	Avg			Avg	Avg		
8/15	---	---	---	0	106	107	108	24	107	107	107	24	106	107	109	24	107	107	108	23
8/16	---	---	---	0	---	---	---	0	105	106	107	24	106	107	112	24	106	106	107	23
8/17	---	---	---	0	107	107	107	5	106	106	106	24	105	105	106	4	106	106	107	23
8/18	---	---	---	0	105	106	109	24	106	106	106	23	106	107	111	24	106	106	107	23
8/19	---	---	---	0	106	106	108	24	106	107	107	24	107	107	111	24	106	106	107	23
8/20	---	---	---	0	104	105	106	24	106	106	107	24	106	106	110	24	106	106	106	23
8/21	---	---	---	0	106	106	109	24	106	106	106	24	106	106	110	24	105	106	106	23
8/22	---	---	---	0	105	108	109	24	105	105	106	21	106	106	109	24	106	106	106	19
8/23	---	---	---	0	105	106	107	24	---	---	---	0	105	106	110	24	---	---	---	0
8/24	---	---	---	0	104	105	107	24	---	---	---	0	105	106	109	23	---	---	---	0
8/25	---	---	---	0	105	106	107	24	105	105	106	22	105	105	109	24	105	105	106	24
8/26	---	---	---	0	105	106	107	24	105	105	106	24	105	106	108	24	105	106	106	23
8/27	---	---	---	0	103	104	105	24	105	106	106	24	105	106	109	24	105	105	106	23
8/28	---	---	---	0	102	103	104	24	105	105	105	24	104	105	108	24	104	104	105	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	#	24 h		12 h	#	24 h		12 h	#	24 h		12 h					
	Avg	Avg			Avg	Avg			Avg	Avg			Avg	Avg			Avg	Avg		
8/15	107	107	109	23	108	108	109	24	118	127	138	24	109	109	111	17	110	110	110	15
8/16	107	107	110	23	107	107	108	24	113	118	129	24	109	110	110	20	110	110	110	19
8/17	106	108	109	23	106	108	109	24	108	109	111	24	110	111	117	15	110	110	110	15
8/18	106	106	107	23	107	108	108	24	108	109	110	24	119	120	122	17	110	110	110	17
8/19	107	107	108	23	107	107	108	22	109	110	111	22	113	113	117	11	---	---	---	0
8/20	106	106	107	23	105	106	106	24	108	108	111	24	108	108	109	20	110	110	110	19
8/21	106	106	107	23	106	107	108	24	108	109	112	24	108	108	109	14	110	110	110	14
8/22	106	107	108	19	106	106	106	24	108	109	112	24	108	108	108	24	110	110	110	24
8/23	---	---	---	0	104	105	105	24	106	106	107	24	107	107	108	24	110	110	110	24
8/24	---	---	---	0	104	104	105	20	106	107	107	20	106	106	107	24	110	110	110	24
8/25	105	105	106	24	104	104	105	13	106	106	107	13	106	106	107	24	110	110	110	24
8/26	106	106	108	23	105	106	106	24	107	108	108	24	107	107	107	24	110	110	110	24
8/27	105	106	108	23	104	104	105	24	104	105	107	24	106	107	107	24	110	110	110	24
8/28	104	104	105	23	104	105	105	24	104	104	105	24	106	106	106	23	110	110	110	23

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

Date	Rock Island			Rock I. Tlwr			Wanapum			Wanapum Tlwr			Priest Rapids			#				
	24 h		12 h	#	24 h		12 h	#	24 h		12 h	#	24 h		12 h					
	Avg	Avg			Avg	Avg			Avg	Avg			Avg	Avg			Avg	Avg		
8/15	109	109	110	16	115	115	117	14	106	107	108	24	111	112	112	24	110	110	112	24
8/16	110	110	110	19	116	116	116	19	105	106	107	24	108	109	111	24	108	109	110	24
8/17	110	110	110	15	116	116	116	15	104	105	106	24	106	106	107	24	106	106	107	24
8/18	113	115	120	17	115	116	120	15	105	106	107	24	108	109	110	24	106	107	108	24
8/19	114	114	116	9	114	114	117	8	106	106	107	24	108	109	109	24	107	107	108	24
8/20	108	108	110	20	108	108	111	18	104	105	107	24	106	106	107	24	105	105	106	24
8/21	108	108	109	14	108	108	108	12	105	106	107	24	110	111	111	24	106	107	108	24
8/22	107	107	108	24	107	107	108	22	105	106	107	24	110	113	127	24	110	111	115	24
8/23	106	106	107	24	106	106	106	24	103	104	105	24	105	106	107	24	107	108	110	24
8/24	106	106	107	24	106	106	107	24	103	103	104	24	105	105	105	24	105	105	106	24
8/25	105	106	106	24	105	106	106	24	---	---	---	0	---	---	---	0	---	---	---	0
8/26	106	106	107	24	106	106	107	24	---	---	---	0	---	---	---	0	---	---	---	0
8/27	106	106	107	24	106	106	106	24	---	---	---	0	---	---	---	0	---	---	---	0
8/28	105	106	106	23	105	106	106	23	---	---	---	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>Clrwr-Peck</u>				<u>Anatone</u>			
	24 h		12 h		#	24 h		12 h		#	24 h		12 h		#	24 h		12 h		#
	Avg	Avg	High	hr		Avg	Avg	High	hr		Avg	Avg	High	hr		Avg	Avg	High	hr	
8/15	110	110	111	24	108	109	110	21	100	100	100	24	102	103	105	24	102	103	104	24
8/16	108	109	109	24	105	106	106	24	99	99	100	24	102	103	104	24	102	103	104	24
8/17	106	106	107	24	106	106	107	24	99	99	100	21	101	103	104	24	102	103	105	24
8/18	106	107	107	24	105	106	107	20	99	100	100	24	102	103	104	24	102	103	105	24
8/19	107	107	107	24	105	106	106	22	100	100	101	24	102	104	106	24	102	103	104	24
8/20	105	106	106	24	104	104	105	24	99	100	100	16	102	103	105	24	101	103	104	24
8/21	107	107	109	24	104	105	105	21	100	100	101	24	102	104	105	24	102	103	104	24
8/22	111	113	116	24	104	104	105	17	100	100	100	21	102	102	104	21	101	102	103	21
8/23	107	108	110	24	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
8/24	105	106	106	24	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
8/25	---	---	---	0	105	105	106	21	99	100	101	24	102	104	105	24	102	103	105	24
8/26	---	---	---	0	104	105	105	24	100	100	101	24	102	104	105	24	102	103	103	24
8/27	---	---	---	0	103	104	104	24	100	100	101	23	102	104	105	23	102	103	104	24
8/28	---	---	---	0	103	103	104	24	99	100	100	24	102	103	105	24	101	103	104	24

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

Date	<u>Clrwr-Lewiston</u>				<u>Lower Granite</u>				<u>L. Granite Tlwr</u>				<u>Little Goose</u>				<u>L. Goose Tlwr</u>			
	24 h		12 h		#	24 h		12 h		#	24 h		12 h		#	24 h		12 h		#
	Avg	Avg	High	hr		Avg	Avg	High	hr		Avg	Avg	High	hr		Avg	Avg	High	hr	
8/15	103	104	106	24	108	109	110	24	128	130	134	24	108	108	109	24	100	100	101	24
8/16	103	104	105	24	103	104	106	24	126	128	132	24	99	100	103	24	99	99	100	24
8/17	103	105	106	24	105	106	108	24	126	129	131	24	101	101	102	24	100	100	101	24
8/18	103	105	107	24	108	110	111	24	118	130	134	24	102	103	104	24	100	100	101	24
8/19	103	105	106	24	109	109	110	24	102	103	108	24	104	106	108	24	102	103	104	24
8/20	103	105	107	24	104	105	106	24	100	100	101	24	103	104	104	24	104	105	107	24
8/21	103	105	106	24	106	107	108	24	102	103	110	24	104	105	106	24	105	105	105	24
8/22	---	---	---	0	106	106	107	21	101	101	101	21	105	105	106	21	105	105	106	21
8/23	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
8/24	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
8/25	103	105	107	24	105	107	108	24	100	100	101	24	104	105	107	24	104	104	104	24
8/26	102	104	105	24	105	106	107	24	100	100	100	24	103	105	106	24	102	103	104	24
8/27	103	104	106	23	101	102	103	24	99	99	99	24	100	101	101	24	100	100	101	24
8/28	102	104	106	24	104	106	107	24	118	122	131	23	102	103	105	24	100	101	101	23

### 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>			
	24 h		12 h		#	24 h		12 h		#	24 h		12 h		#	24 h		12 h		#
	Avg	Avg	High	hr		Avg	Avg	High	hr		Avg	Avg	High	hr		Avg	Avg	High	hr	
8/15	106	107	108	24	100	100	101	23	103	105	111	24	109	113	115	24	109	111	114	24
8/16	100	100	101	24	99	100	101	24	100	101	102	24	108	113	115	24	105	106	107	24
8/17	101	102	102	24	100	101	103	23	101	102	103	24	110	114	115	24	105	107	108	24
8/18	102	104	107	24	101	102	102	23	104	108	113	24	109	113	115	24	108	111	113	24
8/19	103	105	108	24	101	101	102	24	104	107	111	24	108	113	114	24	110	112	113	24
8/20	101	102	103	24	100	100	102	24	100	102	105	24	108	113	114	24	106	108	110	24
8/21	104	105	106	24	101	102	104	23	104	106	110	24	108	112	114	24	108	110	111	24
8/22	102	103	104	21	100	100	101	21	101	101	103	21	108	112	114	21	104	105	106	21
8/23	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
8/24	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
8/25	101	102	103	24	101	103	104	24	103	105	108	24	107	112	114	24	105	108	110	24
8/26	101	102	102	24	102	103	104	24	100	102	103	24	108	113	115	24	104	106	108	24
8/27	102	103	104	24	102	103	103	24	101	103	106	24	108	113	115	24	106	107	108	24
8/28	104	104	106	24	103	104	105	24	102	103	105	24	107	112	115	24	105	107	109	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>		#	<u>24 h</u>		<u>12 h</u>		#	<u>24h</u>		<u>12h</u>		#	<u>24h</u>		<u>12h</u>		#
	Avg	Avg	High	hr		Avg	Avg	High	hr		Avg	Avg	High	hr		Avg	AVG	High	hr	
8/15	111	111	112	24	106	107	107	24	103	104	105	23	108	114	117	24	106	108	110	23
8/16	112	112	113	24	105	105	105	24	101	101	102	23	108	113	117	24	104	105	106	23
8/17	113	113	116	24	105	105	106	24	101	102	103	23	108	114	117	24	103	103	103	23
8/18	113	114	117	24	105	106	106	24	101	102	103	23	107	113	119	24	107	109	110	23
8/19	113	115	117	24	104	105	105	24	102	102	102	23	109	116	118	24	104	105	106	23
8/20	112	114	119	24	104	105	105	24	102	103	106	23	109	115	118	24	104	105	107	23
8/21	116	117	119	24	105	105	106	24	104	104	105	23	108	113	118	21	105	107	109	23
8/22	114	115	117	21	103	104	104	21	102	102	103	19	106	108	115	17	107	109	112	19
8/23	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
8/24	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
8/25	114	116	121	24	102	103	103	24	102	103	106	24	108	114	116	24	105	107	108	24
8/26	111	117	124	24	103	104	104	24	102	102	102	23	107	113	118	24	105	108	110	23
8/27	105	105	105	24	104	104	105	24	101	101	101	23	109	117	119	24	103	105	108	23
8/28	105	106	108	24	103	104	104	24	102	103	105	23	107	112	116	24	104	106	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>CamasWashugal</u>			
	<u>24 h</u>		<u>12 h</u>		#	<u>24 h</u>		<u>12 h</u>		#	<u>24h</u>		<u>12h</u>		#	
	Avg	Avg	High	hr		Avg	Avg	High	hr		Avg	Avg	High	hr		
8/15	113	114	115	24	107	107	107	23	111	112	114	23	107	108	111	24
8/16	112	113	113	24	104	105	106	23	111	112	114	23	107	109	111	24
8/17	113	113	114	24	104	104	104	23	111	113	115	23	109	111	113	24
8/18	114	115	116	24	104	104	105	23	110	110	112	23	108	109	110	24
8/19	113	113	114	24	104	105	105	23	109	109	111	16	106	108	110	24
8/20	113	113	114	24	104	105	106	23	110	112	112	22	106	109	111	24
8/21	113	114	115	24	106	107	108	23	112	115	117	23	109	112	114	24
8/22	114	114	115	20	107	107	107	19	112	114	118	19	107	109	111	20
8/23	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
8/24	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
8/25	112	114	115	24	106	106	107	24	112	113	115	19	119	125	128	24
8/26	112	113	114	24	106	106	107	23	111	112	114	23	115	123	124	24
8/27	113	113	113	24	105	105	107	23	112	114	117	22	108	111	113	24
8/28	113	114	114	24	105	105	105	23	113	115	118	23	108	112	114	24



## Two-Week Summary of Passage Indices

	<b>COMBINED YEARLING CHINOOK</b>										
	WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date	(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
08/15/2003	---	---	---	---	0	0	1	0	0	0	0
08/16/2003	---	---	---	---	5	2	1	0	0	0	0
08/17/2003	---	---	---	---	0	0	2	0	0	0	0
08/18/2003	---	---	---	---	5	0	2	0	0	0	0
08/19/2003	---	---	---	---	0	2	0	0	0	0	0
08/20/2003	*	---	---	---	0	0	2	0	0	0	0
08/21/2003	*	---	---	---	0	3	4	0	14	0	22
08/22/2003	*	---	---	---	0	1	4	0	10	0	0
08/23/2003	*	---	---	---	0	2	0	0	0	10	0
08/24/2003	*	---	---	---	0	0	4	0	0	0	0
08/25/2003	*	---	---	---	0	0	2	0	0	0	0
08/26/2003	---	---	---	---	0	0	2	0	10	0	0
08/27/2003	---	---	---	---	0	0	2	2	10	0	0
08/28/2003	---	---	---	---	0	0	0	0	0	0	0
<b>Total:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>10</b>	<b>26</b>	<b>2</b>	<b>44</b>	<b>10</b>	<b>22</b>
<b># Days:</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>1</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>3</b>	<b>1</b>	<b>2</b>
<b>YTD</b>	<b>32,064</b>	<b>34,028</b>	<b>11,123</b>	<b>2,417</b>	<b>3,599,190</b>	<b>2,503,035</b>	<b>785,269</b>	<b>15,355</b>	<b>1,624,082</b>	<b>2,074,665</b>	<b>4,043,758</b>

	<b>COMBINED SUBYEARLING CHINOOK</b>										
	WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date	(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
08/15/2003	---	---	---	---	875	552	209	102	14,660	8,475	7,570
08/16/2003	---	---	---	---	1,665	744	159	70	7,720	4,632	6,959
08/17/2003	---	---	---	---	1,405	556	157	37	11,200	3,462	6,651
08/18/2003	---	---	---	---	795	1,441	310	29	9,357	2,757	4,263
08/19/2003	---	---	---	---	860	1,075	284	40	8,643	3,144	2,432
08/20/2003	*	---	---	---	775	758	361	83	3,914	1,587	2,929
08/21/2003	*	---	---	---	364	594	710	36	6,071	2,119	3,430
08/22/2003	*	---	---	---	348	618	620	68	11,445	2,276	2,747
08/23/2003	*	---	---	---	840	544	271	38	6,160	1,928	1,314
08/24/2003	*	---	---	---	668	526	395	24	5,360	1,052	1,476
08/25/2003	*	---	---	---	468	550	308	18	2,240	862	960
08/26/2003	---	---	---	---	464	491	378	26	5,360	1,201	855
08/27/2003	---	---	---	---	432	212	197	43	3,150	1,321	1,478
08/28/2003	---	---	---	---	472	344	266	20	2,050	904	1,694
<b>Total:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>10,431</b>	<b>9,005</b>	<b>4,625</b>	<b>634</b>	<b>97,330</b>	<b>35,720</b>	<b>44,758</b>
<b># Days:</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>745</b>	<b>643</b>	<b>330</b>	<b>45</b>	<b>6,952</b>	<b>2,551</b>	<b>3,197</b>
<b>YTD</b>	<b>1</b>	<b>118</b>	<b>74</b>	<b>355</b>	<b>1,394,915</b>	<b>671,700</b>	<b>337,667</b>	<b>28,055</b>	<b>7,675,143</b>	<b>2,711,107</b>	<b>7,891,652</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.

## Two-Week Summary of Passage Indices

COMBINED COHO											
	WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date	(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
08/15/2003	---	---	---	---	35	11	1	0	0	0	0
08/16/2003	---	---	---	---	65	11	1	1	0	0	0
08/17/2003	---	---	---	---	10	3	1	1	0	0	0
08/18/2003	---	---	---	---	25	7	0	0	0	0	0
08/19/2003	---	---	---	---	15	14	2	0	0	0	0
08/20/2003	*	---	---	---	15	9	0	0	0	17	0
08/21/2003	*	---	---	---	4	2	1	1	0	0	0
08/22/2003	*	---	---	---	4	4	1	0	0	0	0
08/23/2003	*	---	---	---	8	13	1	0	0	0	0
08/24/2003	*	---	---	---	0	4	0	1	0	0	0
08/25/2003	*	---	---	---	4	2	0	1	0	0	0
08/26/2003		---	---	---	0	6	0	1	0	0	0
08/27/2003		---	---	---	0	3	0	0	0	0	0
08/28/2003		---	---	---	4	4	0	1	0	0	19
<b>Total:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>189</b>	<b>93</b>	<b>8</b>	<b>7</b>	<b>0</b>	<b>17</b>	<b>19</b>
<b># Days:</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>14</b>	<b>7</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>1</b>
<b>YTD</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>17</b>	<b>132,849</b>	<b>118,017</b>	<b>37,597</b>	<b>41,688</b>	<b>113,579</b>	<b>258,277</b>	<b>2,116,444</b>

COMBINED STEELHEAD											
	WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date	(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
08/15/2003	---	---	---	---	45	11	4	0	0	0	10
08/16/2003	---	---	---	---	45	18	6	0	0	0	0
08/17/2003	---	---	---	---	40	18	5	0	0	0	0
08/18/2003	---	---	---	---	15	9	0	0	0	0	0
08/19/2003	---	---	---	---	10	2	2	0	0	0	0
08/20/2003	*	---	---	---	50	2	3	0	0	0	0
08/21/2003	*	---	---	---	40	6	2	0	0	0	0
08/22/2003	*	---	---	---	36	4	1	2	0	0	0
08/23/2003	*	---	---	---	8	4	0	0	0	10	0
08/24/2003	*	---	---	---	16	10	0	1	0	13	0
08/25/2003	*	---	---	---	12	4	1	2	0	0	0
08/26/2003		---	---	---	12	5	0	0	0	6	0
08/27/2003		---	---	---	28	1	0	0	0	0	0
08/28/2003		---	---	---	12	3	0	1	0	0	0
<b>Total:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>369</b>	<b>97</b>	<b>24</b>	<b>6</b>	<b>0</b>	<b>29</b>	<b>10</b>
<b># Days:</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>26</b>	<b>7</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>1</b>
<b>YTD</b>	<b>2,347</b>	<b>48,404</b>	<b>2,521</b>	<b>5,601</b>	<b>3,355,357</b>	<b>2,593,284</b>	<b>1,865,449</b>	<b>15,505</b>	<b>245,583</b>	<b>553,511</b>	<b>1,635,149</b>

\* See sampling comments

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

## Two-Week Summary of Passage Indices

Date	COMBINED SOCKEYE										
	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (INDEX)	LGS (INDEX)	LMN (INDEX)	RIS (INDEX)	MCN (INDEX)	JDA (INDEX)	BO2 (INDEX)
08/15/2003	---	---	---	---	0	0	0	0	0	64	31
08/16/2003	---	---	---	---	0	1	0	1	40	0	0
08/17/2003	---	---	---	---	0	0	0	0	40	0	0
08/18/2003	---	---	---	---	0	0	0	0	0	0	0
08/19/2003	---	---	---	---	0	0	0	0	14	0	0
08/20/2003	*	---	---	---	0	1	0	1	14	0	0
08/21/2003	*	---	---	---	0	0	0	0	42	0	0
08/22/2003	*	---	---	---	0	0	0	0	10	13	0
08/23/2003	*	---	---	---	0	0	0	1	0	0	0
08/24/2003	*	---	---	---	0	0	0	1	0	13	0
08/25/2003	*	---	---	---	4	0	0	0	10	0	0
08/26/2003	---	---	---	---	0	0	0	1	10	0	0
08/27/2003	---	---	---	---	0	0	0	0	0	0	0
08/28/2003	---	---	---	---	0	0	0	0	10	0	0
<b>Total:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>2</b>	<b>0</b>	<b>5</b>	<b>190</b>	<b>90</b>	<b>31</b>
<b># Days:</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>0</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>6</b>	<b>2</b>
<b>YTD</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>11</b>	<b>16,388</b>	<b>8,125</b>	<b>4,545</b>	<b>10,311</b>	<b>841,706</b>	<b>726,163</b>	<b>1,261,373</b>

\* See sampling comments <http://www.fpc.org/currentDaily/smpcomments.htm>

### 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
- 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.

**Cumulative Adult Passage at Mainstem Dams Through: 08/28**

DAM	Spring Chinook						Summer Chinook						Fall Chinook					
	2003		2002		10-Yr Avg.		2003		2002		10-Yr Avg.		2003		2002		10-Yr Avg.	
	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack
BON	192,010	14,258	268,813	6,477	122,177	6,086	114,808	13,358	127,436	7,952	38,022	5,207	43,402	3,677	89,154	4,733	46,002	4,009
TDA	131,207	11,522	181,176	3,870	80,975	4,136	101,490	10,441	113,069	5,743	32,585	3,775	16,716	2,521	39,607	2,327	20,713	1,868
JDA	101,436	10,206	139,887	2,403	67,822	3,122	95,542	10,132	105,354	5,615	30,300	3,298	8,723	2,136	21,792	2,009	12,420	1,244
MCN	95,550	11,123	129,357	3,872	62,536	3,162	93,844	11,116	109,937	6,810	31,244	3,358	6,447	1,599	12,540	1,194	7,767	801
IHR	78,170	8,020	85,207	1,826	38,964	1,925	20,742	4,602	26,607	2,437	7,616	1,067	662	97	1,099	138	432	44
LMN	70,603	7,344	76,304	1,537	38,073	1,899	18,718	3,589	23,744	1,710	7,642	945	445	94	869	144	283	57
LGS	69,017	7,079	77,232	1,815	37,097	2,034	14,299	3,537	20,854	2,254	6,945	1,196	385	30	656	54	184	24
LWG	70,609	8,295	75,025	2,089	35,689	2,016	16,423	4,137	22,159	1,953	6,987	1,260	201	50	460	46	129	22
PRD	18,136	656	34,083	196	15,528	317	83,004	3,933	96,326	1,455	27,332	1,075	4,924	1,089	4,702	318	3,182	277
RIS	16,881	753	24,017	827	11,565	538	81,543	6,858	86,825	3,216	24,224	3,420	2,610	760	2,819	259	1,183	316
RRH	4,216	450	9,999	161	4,017	126	63,167	6,195	73,104	2,807	16,932	1,550	1,850	540	2,103	227	866	250
WEL	4,313	172	7,585	41	2,377	152	44,039	1,869	62,422	402	12,751	1,103	0	0	0	0	0	0

DAM	Coho						Sockeye			Steelhead			
	2003		2002		10-Yr Avg.		2003	2002	10-Yr Avg.	2003	2002	10-Yr Avg.	Wild 2003
	Adult	Jack	Adult	Jack	Adult	Jack							
BON	3,660	359	2,047	163	3,240	264	39,282	49,606	46,748	233,671	303,604	185,803	84,670
TDA	256	35	86	22	183	35	34,178	40,554	37,478	72,064	150,971	78,915	30,085
JDA	41	0	21	2	65	5	35,410	41,913	40,484	52,511	107,419	53,128	20,144
MCN	11	2	1	0	13	0	32,035	39,173	36,935	37,067	79,887	40,566	13,867
IHR	0	0	0	0	1	0	37	60	17	24,824	42,289	21,587	6,529
LMN	0	0	1	0	0	0	14	46	24	17,566	37,608	18,791	5,396
LGS	0	0	0	0	0	0	22	38	26	13,343	29,903	12,081	4,863
LWG	0	0	0	0	0	0	12	55	24	23,736	28,237	12,881	6,330
PRD	15	7	43	9	5	0	36,539	47,880	45,461	7,777	10,032	4,676	---
RIS	9	0	8	0	1	0	34,762	44,307	40,936	5,372	7,938	3,599	3,247
RRH	2	0	23	0	1	0	30,322	12,348	24,220	4,199	5,529	2,368	2,460
WEL	0	0	1	0	0	0	28,965	10,533	23,852	2,413	3,870	1,469	1,353

RIS, RRH and WEL are through 08/27.

LGR is missing data for 3/6.

\*\*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: 8/29/03

BON counts from January 1, 2003 to March 14, 2003 (our counts begin March 15)

Chinook Adult	Chinook Jack	Steelhead	Wild Steelhead
3,758	0	3,443	408

## Two Week Transportation Summary

Source: Fish Passage Center

Updated:

8/29/03 9:14 AM

		08/16/03	TO	08/29/03			
		Species					
Site	Data	CH0	CH1	CO	SO	ST	Grand Total
<b>LGR</b>	Sum of NumberCollected	10,431	10	189	4	369	11,003
	Sum of NumberBarged	2,500	5	99	0	88	2,692
	Sum of NumberBypassed	32	0	0	0	0	32
	Sum of Numbertrucked	7,769	4	88	3	276	8,140
	Sum of TotalProjectMortalities	130	1	2	1	5	139
<b>LGS</b>	Sum of NumberCollected	9,005	10	93	2	97	9,207
	Sum of NumberBarged	1,268	0	20	1	28	1,317
	Sum of NumberBypassed	0	0	0	0	0	0
	Sum of Numbertrucked	7,278	1	65	1	65	7,410
	Sum of TotalProjectMortalities	459	9	8	0	4	480
<b>LMN</b>	Sum of NumberCollected	4,625	26	8		24	4,683
	Sum of NumberBarged	361	2	2		10	375
	Sum of NumberBypassed	0	0	0		0	0
	Sum of Numbertrucked	4,105	24	6		14	4,149
	Sum of TotalProjectMortalities	159	0	0		0	159
<b>MCN</b>	Sum of NumberCollected	97,265	44			190	97,499
	Sum of NumberBarged	46,072	0			105	46,177
	Sum of NumberBypassed	3,426	3			10	3,439
	Sum of Numbertrucked	58,060	31			99	58,190
	Sum of TotalProjectMortalities	1,902	10			1	1,913
Total Sum of NumberCollected		121,326	90	290	196	490	122,392
Total Sum of NumberBarged		50,201	7	121	106	126	50,561
Total Sum of NumberBypassed		3,458	3	0	10	0	3,471
Total Sum of Numbertrucked		77,212	60	159	103	355	77,889
Total Sum of TotalProjectMortalities		2,650	20	10	2	9	2,691

### YTD Transportation Summary

Source: Fish Passage Center

Updated:

8/29/03 9:14 AM

		TO: 08/29/03					
		Species					
Site	Data	CH0	CH1	CO	SO	ST	Grand Total
<b>LGR</b>	Sum of NumberCollected	1,152,118	2,576,975	90,006	9,752	2,336,685	6,165,536
	Sum of NumberBarged	1,122,378	2,470,893	89,264	9,549	2,265,797	5,957,881
	Sum of NumberBypassed	2,894	45,590	7	0	53,142	101,633
	Sum of NumberTrucked	8,585	54,212	128	81	15,678	78,684
	Sum of TotalProjectMortalities	18,257	5,981	607	122	2,069	27,036
<b>LGS</b>	Sum of NumberCollected	589,335	1,849,319	87,877	5,437	1,946,712	4,478,680
	Sum of NumberBarged	574,927	1,795,258	87,371	5,399	1,942,867	4,405,822
	Sum of NumberBypassed	0	22	0	0	3	25
	Sum of NumberTrucked	7,283	52,602	65	1	915	60,866
	Sum of TotalProjectMortalities	7,124	3,398	441	37	2,927	13,927
<b>LMN</b>	Sum of NumberCollected	286,738	463,324	26,547	3,307	1,229,813	2,009,729
	Sum of NumberBarged	246,893	440,282	25,842	3,262	1,150,928	1,867,207
	Sum of NumberBypassed	34,112	6,866	681	0	75,945	117,604
	Sum of NumberTrucked	4,165	15,173	6	40	1,651	21,035
	Sum of TotalProjectMortalities	1,568	1,003	18	5	1,289	3,883
<b>MCN</b>	Sum of NumberCollected	7,021,640	1,041,816	71,922	546,103	155,070	8,836,551
	Sum of NumberBarged	4,606,418	5,470	8,989	10,989	701	4,632,567
	Sum of NumberBypassed	2,283,953	1,035,087	62,604	534,282	154,084	4,070,010
	Sum of NumberTrucked	58,060	31	0	99	0	58,190
	Sum of TotalProjectMortalities	72,026	1,135	329	438	242	74,170
Total Sum of NumberCollected		9,049,831	5,931,434	276,352	564,599	5,668,280	21,490,496
Total Sum of NumberBarged		6,550,616	4,711,903	211,466	29,199	5,360,293	16,863,477
Total Sum of NumberBypassed		2,320,959	1,087,565	63,292	534,282	283,174	4,289,272
Total Sum of NumberTrucked		78,093	122,018	199	221	18,244	218,775
Total Sum of TotalProjectMortalities		98,975	11,517	1,395	602	6,527	119,016

