



Fish Passage Center

Weekly Report #00 - 19

July 14, 2000

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SUMMARY OF EVENTS:

Water Supply: During July 1-12, the highest precipitation was recorded at: Central Washington with 183% of average, Okanogan with 172% of average and at Pend Oreille/Spokane with 166% of average. The lowest precipitation was recorded at Snake River plain with 30% of average and at Salmon/Boise/Payette with 33% of average. Precipitation at Columbia above Coulee was 143% of average, at Snake River above Ice Harbor was 51% of average and at Columbia above The Dalles was 123% of average.

Reservoir Operations: Reservoirs were operated for summer flow augmentation or continued refilling toward full pool elevations, during the week of July 7 through July 13. A summary of actual elevations on July 13, and full pool elevations is shown in the following Table:

Project	Actual July 13 Elevation in [ft]	Actual Elevation on June 30 and Full Pool Elevation in [ft]
<i>Libby</i>	2427.09	2418.1/2459.0
<i>Hungry Horse</i>	3556.16	3558.3/3560.0
<i>Grand Coulee</i>	1284.9	1279.0/1290.0
<i>Brownlee</i>	2063.98*	2072.06/2077.0
<i>Dworshak</i>	1589.94	1598.6/1600.0

* as of July 12

Libby reservoir finished releasing 25 Kcfs for the sturgeon pulse on June 28. The reservoir did not refill by June 30 as required by 95 Biological Opinion and 1998 Supplement Biological Opinion. Outflows were maintained on the level of 8 Kcfs as required for the bull trout, for the period of July 4-13. The reservoir is currently refilling with inflows in the range of 15.8 kcfs-21.2 kcfs.

Hungry Horse continued drafting for summer flow augmentation at rates in the range of 5.74 kcfs-

6.4 kcfs for the period of July 7-13. Inflows were in the range of 1.65 kcfs-4.36 kcfs for the same period of July 7-13.

Grand Coulee continued with refill during July 7-13 period to elevation of 1284.9 ft. Inflows fluctuated from 80.6 kcfs on July 9 to 153.8 kcfs on July 7.

Brownlee continued drafting for summer salmon flow augmentation. Outflow from Hells Canyon Dam for the past week fluctuated between 11.72 kcfs on July 7 to 19.61 kcfs on July 12.

Dworshak commenced drafting for flow augmentation on July 1. The outflow was held constant at level of 6.6 Kcfs during July 1-6 and gradually increased to 13.3 kcfs on July 11, in order not to exceed total dissolved gas limit of 110% in the tailrace. Inflows in the reservoir decreased to 2.1 kcfs on July 10.

Upper Snake reservoirs: As of July 13, the Upper Snake system was drafted to 77% of capacity. American Falls was drafted to 62% of capacity, while Palisades and Jackson Lake were at 77% and 98% of capacity, respectively. The irrigation demands in the system continued to increase and current flow at diversions at Palisades and Minidoka are 13.3 kcfs and 10.6 kcfs respectively. Salmon flow augmentation from American Falls continued at rate of 1.5 Kcfs at Milner, which is the lowest point in the Upper Snake system.

Boise and Payette River Basins: As of July 13, the Boise River system was at 89% of capacity. Salmon augmentation continued with flows of 660-680 cfs. As of July 13, the Payette River system was at 93% of capacity. Salmon augmentation continued at rates of 860-880 cfs.

Streamflow: The Biological Opinion 1995 summer flow target of 51.3 Kcfs at Lower Granite began on June 21 and 200 Kcfs for McNary began on July 1. Weekly average flows for McNary and Lower Granite remained below the flow targets for the period of June 30-July 13, but increased compared to the previous week due to increased flow augmentation volumes in Snake Basin and increased precipitation in the Upper Columbia Basin. The average flows for the major run-of-river projects for June 30-July 13 period are given in the following table:

Project	Average discharge [kcf/s]	
	July 7-13	June 30-July 6
Priest Rapids	139.3 (92.5-176.9)	123.4 (86.3-168.1)
McNary	185.9 (163.6-212.2)	160.95 (120.5-195.1)
Lower Granite	42.3 (39.6-45.2)	36.5 (33.6-40.0)
Bonneville	192.7 (180.5-235.2)	166.6 (143.9-207.9)

Spill: Outflow from Dworshak Dam was increased over the past week for summer flow augmentation and temperature regulation. The outflow exceeded hydraulic capacity and spill averaged 3.1 Kcfs over the past six days. No dissolved gas waiver has been issued and, consequently, outflow is limited to the level that produces the 110% total dissolved gas level. The Biological Opinion spill program at the Lower Snake projects ended on June 20. The Biological Opinion summer spill program in the Snake only calls for spill at Ice Harbor Dam.

Spill for fish passage ended at McNary Dam as transportation was implemented. Any spill presently occurring is in excess of hydraulic capacity. Biological Opinion spill as modified by the NMFS and Action Agencies' Spill Plan continues at the lower Columbia River projects through August 31.

Levels of total dissolved gas were below, or near, the allowable TDGS levels at all locations measured. Monitoring for signs of gas bubble trauma (GBT) on fish collected through the Smolt Monitoring Program was conducted this past week. Snake River sites have completed sampling for the season with the end of the spill program, while the Columbia River sites have switched to subyearling chinook for the duration of the program. Only a few fish were detected with signs of GBT in fins during sampling conducted this past week.

Smolt Monitoring Program. *Snake River basin:* This week saw subyearling chinook passage indices drop at all Snake River dams with the largest change from last week at Lower Granite Dam (62% lower weekly average), followed by Lower Monumental Dam (51% lower weekly average) and Little Goose Dam (37% lower weekly average). *Mid-Columbia River:* Passage indices of subyearling chinook were higher at Rock Island Dam by an average of 33% this week. *Lower Columbia River:* This week saw reduced subyearling chinook passage into the lower Columbia River at McNary Dam, with the weekly passage index down an average of 28%. Passage indices of subyearling chinook at McNary Dam fell below 200,000 fish in four of the past seven days. However, the continued large movement of subyearling chinook through the lower Columbia River was evident at John Day Dam, where this week's average passage indices were up 19%. Passage indices at Bonneville Dam continue to be exceedingly low due to the fact that less than 4% of the river flow is passing through Powerhouse 2 where the sampling facility is located. The large increases in passage indices at Bonneville Dam for the sample periods ending 0700 July 8 and 9 this week simply reflect the increased daily average flow going through Powerhouse 2 on July 7 and 8.

Adult fish passage: During the week of July 7 to July 13, numbers of adult summer chinook passing Bonneville Dam ranged between 389 and 531. The cumulative count for summer chinook through July 13 was 23,822. This total was 120% and 143% of the respective 1999 and 10-year average. Summer chinook counts at The Dalles averaged about 390 per day through the week with the cumulative count near 19,000 through July 13. At McNary Dam, daily counts of adult summer chinook averaged about 325 per day for the week with the cumulative count through July 13 of about 14,000 (July 4 count missing). The Snake River count of adult summer chinook at Ice Harbor Dam was 3,873 with the Mid-Columbia River count at Priest Rapids about 12,000 through July 12. The combined adult summer chinook counts from Ice Harbor and Priest Rapids have now surpassed the total McNary Dam count to date.

The number of jack, summer chinook salmon counted at Bonneville Dam is approaching 10,000 for the season. This total compares to 3,133 in 1999 and 1,891 for the 10-year average. As with the spring chinook run, numbers of jack summer chinook salmon also are returning well above the normal counts seen in previous years.

Through July 13, the Bonneville Dam count of sockeye exceeded 91,000. Similar to the spring and summer chinook runs, this year's sockeye run was earlier than normal. Counts at the project reduced from 700 per day early in the week, to about 300 per day by week's end. The year 2000 count exceeds the 1999 and 10-year average. Sockeye are passing the Mid-Columbia projects with greater than 54,000 counted at Rock Island by July 7 and 44,000 at Wells Dam by July 12. About 200 adult sockeye have been counted into the Snake River to date with numbers beginning to reduce through the week. Most of these fish should be destined for the Redfish Lake and other upper Salmon River lakes as they are marked fish (clipped) and should be part of the Captive Brood Program to restore sockeye to the Salmon River basin. Note: There is a large disparity in fish counts between some of the dams. A potential explanation of this difference may be related to sockeye choosing the navigation locks at some of projects such as McNary Dam where only 55,000 have been counted. At John Day, 85,000 sockeye have been counted and 81,000 at Priest Rapids Dam.

At Bonneville Dam, the daily steelhead counts continue an upward tangent with counts ranging from 1,200 early in the week to 2,000 by July 13. The cumulative count for the project is 34,977, about double the 1999 and 161% of the 10-year average to date. The number of steelhead passing The Dalles and upriver sites continued to increase; however, it appears that a portion of the steelhead must be holding in the Bonneville pool tributaries, probably a result of the higher water temperatures that are present in the mainstem Columbia River. Of interest is the high percentage of the steelhead that are being counted as unclipped or "wild" at the lower projects, Bonneville and The Dalles. Since July 1, about 50% of the

passage at Bonneville have been recorded as "unclipped" steelhead. The passage of steelhead into the Snake River averaged about 200 per day at Ice Harbor with the cumulative count 3,977. About 30% of the Ice Harbor count of steelhead were "wild". The passage of steelhead into the Mid-Columbia projects increased through the week with the high daily count of 52 at Priest Rapids Dam. At Rock Island Dam, 68 of 161 steelhead were unclipped, a 42.2% during counts from July 1-9.

Hatchery Releases: Subyearling fall and summer chinook releases were completed for the 2000 migration season. Based on preliminary data, about 82.8 million yearling and subyearling fish were released from State, Federal or Tribal hatcheries or Acclimation Ponds.

The Hatchery Zone Report Table gives the preliminary numbers from hatchery releases for the 2000 migration season. Numbers will be updated as they are finalized by the agencies. These hatchery release totals include the chinook and sockeye released in fall 1999.

	Snake River	Mid-Columbia	Lower Columbia	Total Release
Fall Chinook	3,232,953	12,047,000	25,556,219	40,836,172
Spring Chinook	5,952,930	3,940,605	5,260,452	15,153,987
Summer Chinook	1,147,487	2,855,216		4,002,703
Coho	797,474	1,564,705	8,388,500	10,750,679
Sockeye	40,419	142,901		183,320
Summer Steelhead	9,882,148	1,372,284	537,351	11,791,783
Winter Steelhead			79,655	79,655
Total	21,053,411	21,922,711	39,822,177	82,798,299

The Snake River hatchery releases from 1979 through year 2000 are given as a comparison of this year's totals to previous years.

Year	Friday 14-Jul-2000						
	Spring Chinook	Summer Chinook	Fall Chinook	Steelhead	Coho	Sockeye	Totals
1979	6,251,500	236,500		4,064,000			10,552,000
1980	5,124,000			6,328,000			11,452,000
1981	5,767,500	249,500		8,602,500			14,619,500
1982	2,867,500	424,000		8,687,500	209,500		12,188,500
1983	5,393,500	198,500	79,000	8,921,500			14,592,500
1984	7,076,708	356,673	427,191	10,802,035			18,662,607
1985	7,931,183	781,405	1,317,921	8,883,206		210,000	19,144,052
1986	6,177,621	982,443	2,271,520	8,085,953			17,534,275
1987	10,743,364	1,217,000	1,060,500	8,242,200			21,601,064
1988	11,230,000	1,777,500	4,981,000	11,726,776			29,715,276
1989	10,446,274	1,991,300	2,153,882	9,146,283			23,737,739
1990	13,306,749	2,882,400	3,480,110	11,149,502			30,818,761
1991	8,908,172	936,100	224,660	12,068,104			22,137,036
1992	8,006,203	1,507,400	689,601	9,510,474			19,713,678
1993	4,046,446	982,300	966,793	10,302,377			16,297,916
1994	6,752,820	1,190,673	603,661	9,600,381			18,147,535
1995	8,175,250	2,095,143	374,882	10,109,372		30,973	20,785,620
1996	1,541,127	676,894	630,612	10,461,986		157,095	13,467,714
1997	478,096	360,603	1,137,678	9,959,153		1,926	11,937,456
1998	3,176,804	577,618	842,007	9,209,992	695,716	263,307	14,765,444
1999	9,310,391	1,613,897	1,834,739	9,837,385	788,358	151,899	23,536,669
2000	5,954,480	1,147,487	3,232,953	9,614,695	797,474	40,419	20,787,508

The Mid-Columbia hatchery releases from 1979 through year 2000 are given as a comparison of this year's totals to previous years.

Year	Friday 14-Jul-2000						
	Spring Chinook	Summer Chinook	Fall Chinook	Steelhead	Coho	Sockeye	Totals
1979	2,899,000	2,501,000	826,500	592,500	718,500		7,537,500
1980	4,788,000	2,638,000	3,327,500	873,000	1,128,000		12,754,500
1981	5,161,000	2,271,500	5,115,500	985,000	1,089,500		14,622,500
1982	5,186,500	3,010,500	6,297,500	1,263,500	482,500		16,240,500
1983	4,369,000	1,609,000	10,276,500	1,471,500	536,000		18,262,000
1984	6,492,744	1,240,865	15,548,324	1,587,329	517,100		25,386,362
1985	4,796,554	1,630,322	10,693,641	1,345,923	389,005	64,031	18,921,313
1986	4,651,848	1,992,057	10,498,456	1,504,450	556,017	64,926	19,354,928
1987	4,603,323	1,413,000	8,606,441	1,748,868	911,500	25,000	17,308,132
1988	6,034,795	2,144,500	9,769,500	2,167,000	1,329,500	47,500	21,492,795
1989	4,565,017	2,597,099	7,571,364	1,810,287	1,084,753	107,299	17,735,819
1990	8,800,002	1,912,708	9,339,478	1,822,491	1,118,138	91,999	23,084,816
1991	6,455,727	2,258,293	7,195,765	1,913,905	1,126,683	616,038	19,566,411
1992	5,250,389	2,551,616	7,216,100	1,382,511	1,246,195	107,052	17,753,863
1993	4,305,286	1,800,199	8,862,582	1,368,682	1,167,694	354,595	17,859,038
1994	3,803,697	2,097,319	14,162,311	1,440,117	857,783	428,200	22,789,427
1995	5,076,896	2,760,748	14,399,490	1,414,719	666,862	40,963	24,359,678
1996	3,243,054	3,889,547	12,422,257	1,411,096	1,680,209	150,000	22,796,163
1997	1,328,576	3,403,136	12,407,097	1,420,394	1,124,821	339,158	20,023,182
1998	3,328,869	3,537,781	11,924,206	1,472,296	1,739,476	365,784	22,368,412
1999	4,956,745	2,977,364	11,870,800	1,726,741	1,486,500	210,591	23,228,741
2000	3,940,605	2,855,216	12,206,833	1,372,794	1,564,468	142,901	22,082,817

The Lower Columbia River hatchery releases from 1979 through year 2000 are given as a comparison of this year's totals to previous years.

Year	Friday 14-Jul-2000						
	Spring Chinook	Summer Chinook	Fall Chinook	Steelhead	Coho	Sockeye	Totals
1979	3,952,500	110,500	40,975,000	456,500	3,288,000		48,782,500
1980	5,345,000		31,097,000	819,000	5,495,500		42,756,500
1981	6,066,500		36,735,500	609,500	4,391,500		47,803,000
1982	4,692,500		28,093,500	746,000	4,412,500		37,944,500
1983	6,003,500		34,141,500	631,000	4,912,500		45,688,500
1984	6,529,645		24,256,048	777,125	4,984,334		36,547,152
1985	6,421,682		20,804,201	774,331	2,162,846	64,008	30,272,501
1986	7,334,776		19,405,721	619,564	6,736,127	64,384	34,235,572
1987	6,099,130		18,149,291	404,000	9,292,000		34,002,428
1988	7,628,500		20,147,500	447,000	8,690,000		36,913,000
1989	8,891,430		24,805,762	565,846	8,451,762		42,719,936
1990	11,977,052		19,347,320	513,171	8,579,511		40,417,054
1991	9,046,069		27,266,266	583,156	8,467,969		45,363,460
1992	8,406,011		29,615,546	651,066	6,405,391		45,078,014
1993	7,435,146		30,927,448	689,196	8,954,465		48,006,255
1994	8,204,213		27,950,458	652,320	6,299,002		43,105,993
1995	6,939,030		24,858,274	587,171	6,712,604		39,097,079
1996	4,387,575		26,442,513	676,167	8,021,423		39,527,678
1997	4,093,528		23,233,638	688,909	6,763,470		34,779,545
1998	8,191,856		31,805,034	681,591	7,254,648		47,933,129
1999	5,488,404		19,322,806	621,079	7,186,404		32,618,693
2000	5,260,452		25,556,219	617,006	8,388,500		39,822,177

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
06/30/00	98.4	0.1	97.8	0.0	107.9	7.3	111.8	13.6	126.4	0.0	137.0	9.2	139.6	3.2
07/01/00	78.0	0.1	78.4	0.0	88.2	6.5	91.7	9.7	100.3	0.0	107.8	1.4	108.3	1.9
07/02/00	62.7	0.1	67.1	0.0	74.6	5.3	77.9	0.0	83.1	0.0	83.9	1.9	86.3	2.1
07/03/00	106.4	0.1	107.0	0.0	112.7	7.7	117.3	0.6	118.8	0.0	111.8	6.6	110.8	2.0
07/04/00	82.4	0.1	84.9	0.0	93.8	6.9	101.9	2.9	108.7	0.0	121.8	3.6	125.3	1.9
07/05/00	128.7	0.1	130.2	0.0	136.3	8.4	135.9	14.2	138.1	0.0	128.5	5.7	125.6	1.9
07/06/00	147.7	0.1	150.5	0.0	155.1	9.2	152.2	12.9	151.7	0.0	169.0	51.5	168.1	38.0
07/07/00	153.8	0.3	156.6	0.0	167.4	9.6	172.2	13.5	174.2	0.0	181.3	81.1	176.9	79.6
07/08/00	113.7	0.1	117.7	0.0	129.1	8.9	138.0	11.9	144.8	0.0	158.4	61.3	157.1	78.8
07/09/00	80.6	0.1	81.9	0.0	86.8	6.4	84.6	0.0	88.8	0.0	94.1	36.6	92.5	46.4
07/10/00	118.0	0.1	119.9	0.0	129.7	8.4	133.8	0.0	137.9	0.0	132.5	50.9	123.1	60.7
07/11/00	120.3	0.1	121.9	0.0	127.6	8.0	131.3	4.4	136.0	0.0	146.6	57.7	144.8	72.0
07/12/00	124.9	0.1	129.5	0.0	136.9	8.6	132.3	12.5	139.4	0.0	146.0	55.4	140.8	69.4
07/13/00	125.4	0.1	122.2	0.0	127.6	8.7	123.1	16.4	136.5	1.9	141.8	51.8	139.8	67.7

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
06/30/00	6.5	0.0	9.3	9.5	41.2	0.0	41.3	0.0	43.9	0.0	46.9	40.0
07/01/00	6.6	0.0	10.2	7.1	36.0	0.0	36.9	0.0	38.0	0.0	41.3	35.3
07/02/00	6.6	0.0	---	6.9	33.6	0.0	35.4	0.0	37.8	0.0	42.1	32.9
07/03/00	6.6	0.0	10.4	11.3	35.8	0.0	34.3	0.0	34.6	0.0	35.3	29.4
07/04/00	6.6	0.0	11.0	15.2	34.5	0.0	35.3	0.0	36.8	0.0	40.5	34.4
07/05/00	6.6	0.0	11.6	12.9	36.0	0.0	34.7	0.0	35.2	0.0	37.9	31.9
07/06/00	6.6	0.0	11.5	11.7	38.5	0.0	40.0	0.0	41.3	0.0	43.3	36.0
07/07/00	6.8	0.0	10.4	11.5	39.6	0.0	38.6	0.0	39.5	0.0	43.3	36.1
07/08/00	10.7	1.2	11.8	11.4	37.4	0.0	39.2	0.0	40.0	0.0	42.9	35.0
07/09/00	12.6	3.0	10.6	16.3	44.0	0.0	44.2	0.0	45.9	0.0	48.2	38.0
07/10/00	12.9	3.3	11.7	16.0	42.3	0.0	43.0	0.0	44.7	0.0	47.0	39.2
07/11/00	13.3	3.7	10.8	19.3	42.5	0.0	44.6	0.0	46.4	0.0	49.8	41.5
07/12/00	13.5	3.9	---	---	45.0	0.0	44.1	0.0	43.3	0.0	46.3	37.6
07/13/00	13.3	3.7	---	---	45.2	0.0	47.5	0.0	50.3	0.0	52.9	47.6

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		
06/30/00	182.3	16.3	199.5	54.4	201.2	79.5	207.9	108.6	83.3	5.6
07/01/00	163.8	0.0	157.7	68.7	156.0	62.5	161.4	83.4	62.1	5.5
07/02/00	156.2	0.0	151.4	65.7	148.7	59.3	156.1	84.4	56.0	5.3
07/03/00	120.5	0.0	124.2	55.8	123.2	48.9	143.9	85.1	43.1	5.2
07/04/00	147.6	0.0	157.6	40.7	156.6	62.0	160.1	112.4	31.9	5.4
07/05/00	161.2	0.0	159.0	45.7	151.5	60.2	152.3	110.3	26.4	5.2
07/06/00	195.1	28.2	178.8	49.7	174.9	68.0	184.7	103.9	62.1	8.3
07/07/00	212.2	39.6	226.1	95.6	228.3	87.3	235.2	80.4	93.6	50.6
07/08/00	200.4	32.5	178.3	78.7	178.7	70.3	196.2	80.6	90.7	14.5
07/09/00	178.3	13.5	179.9	77.2	173.8	68.6	180.5	81.5	83.1	5.5
07/10/00	163.6	0.0	173.9	40.3	161.5	63.5	184.1	109.0	60.9	3.7
07/11/00	185.4	16.1	184.7	48.7	179.9	70.2	187.2	108.9	64.2	3.7
07/12/00	169.2	0.0	172.3	44.8	169.8	66.0	180.5	108.4	55.8	5.9
07/13/00	192.3	25.4	184.1	47.8	178.9	71.0	185.0	108.9	59.8	5.9

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				Fish with L. Line GBT	
								Rank 1	Rank 2	Rank 3	Rank 4	Num Fish	Avg. Rank
Bonneville Dam													
	07/04/00	Subyearling Chinook	100	0	0	0.00%	0.00%	0	0	0	0	0	0
	07/06/00	Subyearling Chinook	100	1	0	0.00%	0.00%	0	0	0	0	1	1
	07/11/00	Subyearling Chinook	100	0	0	0.00%	0.00%	0	0	0	0	0	0
	07/13/00	Subyearling Chinook	100	0	0	0.00%	0.00%	0	0	0	0	0	0
McNary Dam													
	07/06/00	Subyearling Chinook	100	0	0	0.00%	0.00%	0	0	0	0	0	0
	07/10/00	Subyearling Chinook	100	0	0	0.00%	0.00%	0	0	0	0	0	0
	07/13/00	Subyearling Chinook	100	0	0	0.00%	0.00%	0	0	0	0	0	0
Rock Island Dam													
	07/06/00	Subyearling Chinook	100	0	0	0.00%	0.00%	0	0	0	0	0	0
	07/10/00	Subyearling Chinook	89	3	1	1.12%	0.00%	1	0	0	0	2	1
	07/13/00	Subyearling Chinook	55	0	0	0.00%	0.00%	0	0	0	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 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	#	24 h	12 h	#					
	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr				
6/30	106	106	107	24	124	125	127	24	111	112	112	24	111	112	114	24	111	112	112	23
7/1	106	106	106	24	124	124	125	24	111	111	112	24	111	112	114	24	111	111	111	23
7/2	106	106	106	24	121	122	123	24	111	111	111	24	111	112	113	24	110	111	111	23
7/3	106	106	106	24	118	119	120	24	111	111	113	24	110	110	112	24	110	110	110	23
7/4	105	105	105	24	118	118	119	24	110	111	111	24	110	110	111	24	110	111	111	23
7/5	105	105	106	24	119	120	120	24	111	111	112	24	110	110	111	24	111	111	111	23
7/6	103	104	105	24	114	115	116	24	112	112	113	24	110	110	111	24	110	111	111	23
7/7	102	102	103	24	115	117	118	24	112	113	113	24	109	110	110	24	110	110	110	23
7/8	102	103	103	24	115	117	118	24	114	114	114	24	110	111	112	24	110	110	111	23
7/9	103	103	103	24	115	115	117	15	114	114	114	24	111	112	114	24	110	110	111	23
7/10	103	104	105	24	---	---	---	0	113	114	114	24	110	111	113	24	110	110	111	23
7/11	104	104	105	24	---	---	---	0	114	114	114	24	110	111	112	24	111	111	112	23
7/12	104	105	105	24	113	113	115	8	114	114	114	24	111	111	113	24	111	112	112	23
7/13	109	113	125	23	111	113	115	24	114	114	114	24	111	111	113	24	111	111	112	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	#	24 h	12 h	#					
	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr				
6/30	111	111	112	23	110	111	111	23	111	112	112	23	106	106	107	22	115	117	132	22
7/1	111	111	112	23	109	110	110	24	110	110	111	24	104	105	105	24	112	112	113	23
7/2	109	110	111	23	108	109	109	24	109	110	110	24	103	104	104	24	110	110	110	24
7/3	110	110	111	23	108	108	109	24	110	110	110	24	103	103	105	24	109	109	110	22
7/4	111	111	112	23	108	108	109	24	109	110	110	24	108	109	109	23	109	109	110	23
7/5	110	111	112	23	109	110	110	24	110	111	111	24	110	110	111	24	110	111	111	23
7/6	110	110	111	23	110	110	110	24	111	111	112	24	110	111	111	21	111	111	112	19
7/7	109	110	111	23	109	109	110	24	110	110	110	24	111	112	112	22	112	112	113	21
7/8	110	111	111	23	109	110	110	24	110	111	111	24	111	111	112	24	112	112	113	24
7/9	110	111	111	23	109	110	111	24	110	110	111	24	110	110	111	23	110	111	111	22
7/10	109	110	112	23	109	109	110	24	110	110	111	24	110	110	111	22	110	111	111	21
7/11	110	111	112	23	109	109	110	24	110	111	111	24	110	111	111	23	111	111	112	20
7/12	111	111	112	23	110	111	111	24	111	112	112	24	111	111	111	22	111	112	112	20
7/13	110	111	112	23	110	111	111	24	111	112	112	24	110	110	111	23	112	112	113	22

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	#	24 h	12 h	#					
	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr				
6/30	110	111	111	21	114	115	117	21	113	113	113	24	113	114	114	24	112	113	113	24
7/1	109	109	110	24	111	111	112	21	111	112	113	24	112	113	113	24	112	112	113	24
7/2	107	107	108	23	110	110	111	23	110	111	111	24	111	111	112	24	110	110	112	24
7/3	106	106	107	24	109	109	109	23	109	110	110	24	111	111	112	24	109	109	110	24
7/4	105	105	105	23	108	108	109	23	109	109	109	24	111	111	111	24	109	110	111	24
7/5	105	105	106	23	109	110	111	23	109	110	111	24	111	112	112	24	110	111	112	24
7/6	106	106	106	21	110	110	111	20	109	109	110	24	---	---	---	0	110	110	115	24
7/7	107	107	107	20	111	112	112	19	109	109	110	24	120	120	123	14	120	120	121	24
7/8	107	107	107	23	112	112	112	22	109	109	110	24	117	118	118	24	116	117	119	24
7/9	107	107	108	22	111	111	112	22	109	109	110	24	114	115	116	24	113	114	116	24
7/10	106	106	107	24	109	110	110	24	110	111	113	21	115	116	118	23	113	114	115	22
7/11	106	106	107	23	110	110	110	22	111	111	113	24	116	118	118	24	116	117	118	22
7/12	106	107	107	23	111	111	112	21	111	111	112	24	116	116	117	24	116	117	119	24
7/13	107	107	107	24	111	112	112	21	---	---	---	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>hr</u>	<u>Avg</u>		<u>Avg</u>	<u>hr</u>		<u>Avg</u>	<u>Avg</u>		<u>hr</u>	<u>Avg</u>			<u>Avg</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>
6/30	113	113	114	24	107	108	110	24	104	105	108	16	103	104	105	24	103	104	105	24
7/1	112	112	113	24	105	106	107	24	103	103	103	21	103	104	104	24	101	102	104	24
7/2	110	111	112	24	103	103	104	24	102	102	103	16	103	104	105	24	101	102	104	24
7/3	109	110	110	24	101	102	102	24	102	102	103	22	102	102	103	24	100	101	102	24
7/4	110	110	111	24	101	101	102	24	102	103	103	16	102	104	104	24	101	103	104	24
7/5	110	111	111	24	103	103	103	24	103	103	103	22	102	103	104	24	101	102	103	24
7/6	113	114	118	22	104	104	105	24	103	103	103	24	103	104	105	24	99	100	101	21
7/7	122	123	125	24	105	106	108	24	103	104	104	24	103	104	105	24	100	101	102	24
7/8	122	122	124	24	109	110	110	24	104	106	108	24	103	104	106	24	99	100	100	24
7/9	117	118	121	24	106	107	109	24	107	108	108	24	106	107	108	24	99	100	101	24
7/10	117	119	121	22	103	104	105	24	107	108	109	24	106	107	109	24	100	101	101	24
7/11	120	121	121	24	109	113	114	23	108	109	109	24	107	108	109	24	100	101	101	24
7/12	120	121	122	24	113	114	114	24	109	109	110	24	108	109	110	24	100	100	101	24
7/13	---	---	---	0	112	113	113	24	109	109	110	24	108	109	110	24	100	101	102	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>hr</u>	<u>Avg</u>		<u>Avg</u>	<u>hr</u>		<u>Avg</u>	<u>Avg</u>		<u>hr</u>	<u>Avg</u>			<u>Avg</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>
6/30	103	105	107	24	109	109	110	24	104	104	104	24	104	106	107	24	103	103	104	24
7/1	103	104	106	23	105	106	107	24	102	102	103	24	102	102	102	24	101	101	102	24
7/2	102	105	106	24	103	104	104	24	102	102	103	24	101	102	102	24	101	102	102	24
7/3	101	102	103	24	102	103	103	24	101	101	101	24	100	101	101	24	100	101	101	24
7/4	102	105	106	24	102	102	102	24	100	100	101	24	99	99	100	24	100	100	101	24
7/5	102	104	105	24	102	103	105	24	100	101	101	24	100	101	104	24	100	101	101	24
7/6	102	104	106	24	101	102	103	24	100	100	100	24	101	102	105	24	100	100	100	24
7/7	104	106	108	24	103	105	107	24	100	100	101	24	102	103	105	24	100	101	101	24
7/8	102	103	104	24	105	106	109	24	101	101	102	24	101	102	104	24	100	100	101	24
7/9	104	107	108	24	102	103	105	24	101	101	101	24	97	98	98	24	98	98	98	24
7/10	104	107	108	24	104	105	106	24	101	102	103	24	98	98	99	24	98	98	98	24
7/11	105	107	109	24	105	106	107	24	102	102	102	24	101	103	106	24	98	99	99	24
7/12	105	108	110	24	106	107	108	24	102	103	104	24	103	105	106	24	99	100	100	24
7/13	106	108	110	24	105	106	108	24	103	103	104	24	101	103	106	22	99	100	100	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>hr</u>	<u>Avg</u>		<u>Avg</u>	<u>hr</u>		<u>Avg</u>	<u>Avg</u>		<u>hr</u>	<u>Avg</u>			<u>Avg</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>
6/30	106	107	108	24	105	106	106	24	110	111	113	24	111	112	113	24	113	115	118	24
7/1	105	105	106	24	104	105	105	24	108	109	110	24	110	111	111	24	112	113	115	24
7/2	104	105	106	24	103	104	105	24	106	107	107	24	110	111	113	21	111	112	113	24
7/3	103	104	105	24	102	103	104	24	104	105	106	24	109	110	111	24	108	108	110	24
7/4	102	102	103	24	102	103	105	24	103	104	104	24	110	111	112	24	106	107	108	24
7/5	103	103	105	24	102	103	105	24	103	104	106	24	109	111	112	24	107	108	110	24
7/6	102	103	104	24	101	102	103	24	103	103	104	24	110	111	112	24	106	108	111	24
7/7	104	105	105	24	102	103	105	24	102	103	104	24	110	111	112	24	105	107	110	24
7/8	102	103	105	24	101	102	103	24	102	102	104	24	110	111	112	24	107	108	110	24
7/9	100	101	101	24	100	102	103	24	101	102	102	24	110	111	112	24	108	109	111	24
7/10	101	102	103	24	101	102	103	24	101	102	103	24	110	111	112	24	111	114	117	24
7/11	101	102	104	24	100	102	103	24	101	102	103	24	111	112	112	24	112	115	118	24
7/12	101	103	104	24	100	102	104	24	102	103	104	24	110	111	112	16	114	116	117	24
7/13	100	101	102	24	99	100	101	24	101	102	103	24	112	112	112	3	110	112	113	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>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24h</u>	<u>12h</u>	<u>#</u>	<u>24h</u>	<u>12h</u>	<u>#</u>	<u>24h</u>	<u>12h</u>	<u>#</u>	<u>24h</u>	<u>AVG</u>	<u>High</u>	<u>#</u>	
	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	AVG	High	hr
6/30	112	113	113	24	113	114	115	23	108	108	108	23	112	116	118	24	108	110	111	23
7/1	111	111	111	23	110	111	114	23	105	105	106	23	116	117	118	23	105	106	108	23
7/2	108	109	110	24	108	108	109	24	104	104	104	23	116	117	118	23	106	106	107	23
7/3	106	107	107	24	106	106	107	24	103	103	103	23	115	117	118	24	106	107	108	23
7/4	105	105	105	24	104	104	105	24	102	102	102	22	110	116	118	24	106	106	109	23
7/5	105	106	108	24	103	104	104	24	103	103	104	23	110	116	118	24	106	108	111	23
7/6	106	107	108	24	107	110	111	24	103	103	103	23	110	116	118	24	106	109	111	23
7/7	107	108	108	24	111	112	112	24	103	103	104	23	118	119	119	24	107	110	113	23
7/8	107	108	110	24	111	111	111	24	103	103	103	23	116	117	118	24	108	108	110	23
7/9	106	107	107	24	109	110	112	24	102	102	102	23	116	117	118	24	106	107	108	23
7/10	108	109	111	24	108	109	109	24	102	102	103	22	109	116	118	24	107	108	111	23
7/11	111	112	113	24	110	112	114	23	102	102	103	23	110	116	118	24	105	108	111	23
7/12	111	112	113	24	110	110	111	24	103	103	103	23	110	116	117	24	105	107	110	23
7/13	110	111	111	24	112	113	114	24	103	103	103	23	109	115	117	23	105	107	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>Skamania</u>			<u>Camas\Washugal</u>							
	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24h</u>	<u>12h</u>	<u>#</u>	<u>24h</u>	<u>12h</u>	<u>#</u>	<u>24h</u>	<u>12h</u>	<u>#</u>	<u>24h</u>	<u>AVG</u>	<u>High</u>	<u>#</u>	
	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	AVG	High	hr
6/30	115	116	117	24	109	109	110	23	114	115	116	23	119	120	120	23	120	125	131	24
7/1	113	114	115	23	106	106	107	23	111	112	113	22	116	117	119	23	113	114	114	24
7/2	113	114	114	24	105	105	106	23	112	114	116	23	116	117	119	23	111	113	114	24
7/3	113	114	114	24	104	104	105	23	113	114	116	23	116	118	120	23	111	113	114	24
7/4	113	113	114	24	105	105	106	23	116	117	117	23	120	121	121	23	113	115	117	24
7/5	114	115	116	24	999	999	999	99	118	118	119	23	121	121	121	23	117	118	119	24
7/6	114	115	116	24	107	108	108	23	116	118	118	23	120	121	121	23	116	117	118	24
7/7	115	116	118	24	109	110	112	23	112	113	113	23	113	115	117	23	115	116	118	24
7/8	114	115	117	24	109	110	111	23	112	113	114	23	114	114	115	23	110	111	112	24
7/9	113	114	114	24	107	107	108	23	110	111	111	23	114	115	116	23	110	111	112	24
7/10	114	114	115	24	106	106	107	19	114	115	116	23	119	119	120	23	111	113	115	24
7/11	113	114	115	24	106	107	107	23	115	116	117	23	118	119	119	23	113	114	114	24
7/12	113	114	115	24	107	107	107	23	117	118	119	23	118	119	119	23	113	115	115	24
7/13	112	113	113	24	106	106	107	23	118	119	119	23	118	118	119	23	113	114	115	24

Hatchery Release Summary

From 6/30/00 to 7/13/00

Hatchery	Species...	Migration Year	Number Released	...Release Dates...		Release Site	River Name
				Begin...	...End		
WDFW							
Klickitat							
	FA Chinook	2000	2,500,000	06/12/00	07/10/00	Klickitat H	Klickitat River
Turtle Rock							
	SU Chinook	2000	348,000	07/05/00	07/05/00	Turtle Rock H	Mid-Columbia River
	SU Chinook	2000	369,000	07/05/00	07/05/00	Turtle Rock H	Mid-Columbia River
		Agency Totals:	3,217,000			
		Total Release..	3,217,000				

Two-Week Summary of Passage Indices

The Total, # Days, and Average are calculated on the last two weeks of data and do not include the current day's passage index.

COMBINED YEARLING CHINOOK

	WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date	(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
06/30/00	---	---	---	---	850	15	56	13	1,139	16	0
07/01/00	---	---	---	---	600	36	246	11	629	35	0
07/02/00	---	---	---	---	600	180	110	7	900	24	0
07/03/00	---	---	---	---	1,500	20	260	7	300	16	0
07/04/00	---	---	---	---	500	0	110	9	400	20	0
07/05/00	---	---	---	---	600	40	9	5	500	0	0
07/06/00	---	---	---	---	250	20	9	4	600	0	0
07/07/00	---	---	---	---	300	40	84	3	850	7	0
07/08/00	---	---	---	---	180	0	60	3	890	12	85
07/09/00	---	---	---	---	60	0	60	2	360	282	0
07/10/00	---	---	---	---	40	0	60	2	452	33	0
07/11/00	---	---	---	---	80	24	90	0	200	0	0
07/12/00	---	---	---	---	160	52	60	0	263	33	0
07/13/00	---	---	---	---	0	10	156	1	0	18	0
Total:	0	0	0	0	5,720	437	1,370	67	7,483	496	85
# Days:	0	0	0	0	14	14	14	14	14	14	14
Average:	0	0	0	0	409	31	98	5	535	35	6

COMBINED SUBYEARLING CHINOOK

	WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date	(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
06/30/00	---	---	---	---	14,850	2,718	3,805	186	432,417	32,784	47,072
07/01/00	---	---	---	---	13,800	7,775	5,904	143	240,384	43,846	9,430
07/02/00	---	---	---	---	41,050	21,246	2,580	93	221,000	16,495	6,004
07/03/00	---	---	---	---	71,900	18,821	4,090	116	247,100	16,628	3,980
07/04/00	---	---	---	---	16,800	3,359	1,850	104	245,700	9,595	4,035
07/05/00	---	---	---	---	35,650	7,049	1,457	92	312,100	9,834	7,631
07/06/00	---	---	---	---	11,500	6,195	1,575	255	330,300	15,065	3,777
07/07/00	---	---	---	---	10,400	3,626	3,174	352	306,149	48,743	8,592
07/08/00	---	---	---	---	10,420	5,558	1,632	265	335,136	43,335	26,376
07/09/00	---	---	---	---	12,200	8,292	1,284	186	173,550	16,769	11,148
07/10/00	---	---	---	---	7,800	2,828	1,062	146	149,293	16,063	3,404
07/11/00	---	---	---	---	15,960	8,767	1,152	128	112,217	20,246	5,464
07/12/00	---	---	---	---	14,060	6,624	762	132	271,842	8,944	10,477
07/13/00	---	---	---	---	7,280	6,776	1,368	101	109,885	17,064	2,518
Total:	0	0	0	0	283,670	109,634	31,695	2,299	3,487,073	315,411	149,908
# Days:	0	0	0	0	14	14	14	14	14	14	14
Average:	0	0	0	0	20,262	7,831	2,264	164	249,077	22,529	10,708

* See sampling comments <http://www.fpc.org/2000Daily/smpcomments.htm>

These data are preliminary and have been derived from various sources. For verification and/or origin of these data, contact the operators of the Fish Passage Data System at (503) 230-4099.

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)
06/30/00	---	---	---	---	300	150	47	38	1,553	14	0
07/01/00	---	---	---	---	50	84	18	2	419	5	0
07/02/00	---	---	---	---	200	15	0	3	100	14	0
07/03/00	---	---	---	---	200	80	20	3	0	19	0
07/04/00	---	---	---	---	0	25	10	3	100	4	0
07/05/00	---	---	---	---	100	20	4	0	50	203	0
07/06/00	---	---	---	---	50	120	13	4	300	0	0
07/07/00	---	---	---	---	100	220	174	6	728	4	0
07/08/00	---	---	---	---	120	105	240	6	1,399	278	43
07/09/00	---	---	---	---	140	240	96	1	480	2	0
07/10/00	---	---	---	---	60	135	42	2	181	12	0
07/11/00	---	---	---	---	100	48	54	3	300	413	0
07/12/00	---	---	---	---	0	80	24	0	461	220	0
07/13/00	---	---	---	---	40	480	336	0	305	4	0
Total:	0	0	0	0	1,460	1,802	1,078	71	6,376	1,192	43
# Days:	0	0	0	0	14	14	14	14	14	14	14
Average:	0	0	0	0	104	129	77	5	455	85	3

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)
06/30/00	---	---	---	---	2,600	511	428	13	1,346	11	0
07/01/00	---	---	---	---	2,250	316	348	1	419	24	0
07/02/00	---	---	---	---	750	241	220	2	300	27	0
07/03/00	---	---	---	---	2,200	121	150	7	200	9	0
07/04/00	---	---	---	---	900	0	80	4	200	20	0
07/05/00	---	---	---	---	2,350	161	79	2	150	0	0
07/06/00	---	---	---	---	1,100	280	386	1	0	0	0
07/07/00	---	---	---	---	750	262	498	3	182	225	0
07/08/00	---	---	---	---	800	241	318	3	0	269	0
07/09/00	---	---	---	---	680	300	204	2	0	5	2,064
07/10/00	---	---	---	---	700	122	204	3	151	5	0
07/11/00	---	---	---	---	340	114	180	3	200	206	0
07/12/00	---	---	---	---	420	231	138	5	197	5	0
07/13/00	---	---	---	---	400	222	324	0	102	4	0
Total:	0	0	0	0	16,240	3,122	3,557	49	3,447	810	2,064
# Days:	0	0	0	0	14	14	14	14	14	14	14
Average:	0	0	0	0	1,160	223	254	4	246	58	147

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 SOCKEYE

	WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date	(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
06/30/00	---	---	---	---	0	0	3	21	104	4	0
07/01/00	---	---	---	---	0	24	0	5	105	0	674
07/02/00	---	---	---	---	0	0	0	11	0	0	0
07/03/00	---	---	---	---	0	0	0	8	150	2	0
07/04/00	---	---	---	---	0	0	0	9	300	4	0
07/05/00	---	---	---	---	0	0	1	3	50	0	0
07/06/00	---	---	---	---	0	0	2	16	200	7	0
07/07/00	---	---	---	---	0	0	12	30	1,093	4	0
07/08/00	---	---	---	---	20	0	0	21	636	5	213
07/09/00	---	---	---	---	0	15	6	25	480	11	0
07/10/00	---	---	---	---	0	0	6	16	1,206	2	0
07/11/00	---	---	---	---	0	16	6	18	800	200	0
07/12/00	---	---	---	---	0	10	0	31	1,316	8	0
07/13/00	---	---	---	---	0	0	0	27	1,118	3	0
Total:	0	0	0	0	20	65	36	241	7,558	250	887
# Days:	0	0	0	0	14	14	14	14	14	14	14
Average:	0	0	0	0	1	5	3	17	540	18	63

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)}

LEW and WTB data collected for the FPC by Idaho Dept. of Fish and Game.

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 07/13

DAM	Spring Chinook						Summer Chinook						Fall Chinook					
	2000		1999		10-Yr Avg.		2000		1999		10-Yr Avg.		2000		1999		10-Yr Avg.	
	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack
BON	178,302	21,259	38,669	8,691	62,347	2,737	23,822	9,959	19,844	3,133	16,662	1,891	0	0	0	0	0	0
TDA	102,702	14,716	17,563	6,180	36,497	1,828	18,967	7,342	15,166	2,355	13,108	1,275	0	0	0	0	0	0
JDA	86,502	12,133	15,409	5,089	29,402	1,505	17,619	5,500	14,626	1,772	12,318	1,137	0	0	0	0	0	0
MCN	64,647	10,839	9,260	3,972	28,536	1,577	14,031	4,369	11,210	1,483	11,902	993	0	0	0	0	0	0
IHR	38,234	9,129	5,351	2,657	15,091	720	3,873	2,918	3,473	1,201	4,122	402	0	0	0	0	0	0
LMN	34,632	9,952	3,924	2,726	14,041	753	4,052	2,846	2,934	1,167	3,815	390	0	0	0	0	0	0
LGS	34,468	10,152	3,445	2,690	**	**	3,187	3,087	2,787	1,252	**	**	0	0	0	0	**	**
LWG	33,818	10,317	3,296	2,507	12,180	669	3,398	3,263	2,750	1,305	3,768	401	0	0	0	0	0	0
PRD	20,098	1,092	4,139	761	9,052	194	11,829	1,006	7,636	209	7,414	222	0	0	0	0	0	0
RIS	14,400	1,429	3,309	915	6,567	218	7,521	4,417	2,376	269	3,134	134	0	0	0	0	0	0
RRH	5,336	392	1,389	233	1,501	54	3,566	688	963	123	753	45	0	0	0	0	0	0
WEL	2,143	457	141	199	752	53	1,803	525	667	140	522	69	0	0	0	0	0	0

DAM	Coho						Sockeye			Steelhead			
	2000		1999		10-Yr Avg.		2000	1999	10-Yr Avg.	10-Yr			Wild
	Adult	Jack	Adult	Jack	Adult	Jack				2000	1999	Avg.	
BON	0	0	1	0	2	0	91,315	16,112	38,137	34,977	17,401	21,693	14,786
TDA	0	0	0	0	0	0	71,913	12,018	29,114	10,666	6,586	8,684	7,418
JDA	1	0	0	0	0	0	85,871	12,379	29,430	13,930	9,058	8,292	4,577
MCN	0	0	0	1	0	0	54,656	9,348	28,602	6,126	2,615	6,064	1,750
IHR	0	0	0	0	0	0	174	5	4	3,977	1,707	3,840	1,256
LMN	0	0	0	0	0	0	214	6	3	2,753	1,001	3,290	1,047
LGS	0	0	0	0	**	**	164	2	**	1,875	1,173	**	709
LWG	0	0	0	0	0	0	202	5	2	3,578	3,268	5,595	1,210
PRD	27	3	0	0	0	0	81,722	7,965	23,947	617	215	384	***
RIS	11	0	0	0	0	0	54,777	1,669	7,052	257	102	230	116
RRH	0	0	4	0	0	0	36,253	1,003	2,651	184	116	142	70
WEL	0	0	0	0	0	0	44,156	857	3,633	93	45	89	23

Note: PRD's numbers are from Grant Co. PUD and are through 07/12; LMN and WEL are through 07/12.

Note: LGS is through 07/11; RRH and RIS is are through 07/07. LGR is missing 07/12; WEL is missing 06/11.

Note: MCN is missing 07/04; LMN is missing 07/07; LGS is missing 07/05, 07/06, 07/08, 07/09;

Note: IHR 05/06 is missing the south ladder count. JDA is missing the left ladder count for 07/12.

These numbers were collected from the COE's Running Sums text files.

Wild steelhead numbers are included in the total.

**Adult count records at Little Goose Dam have been maintained since 1991, visual counts were not conducted at Little Goose Dam between 1982 and 1990.

***PRD is not reporting Wild Steelhead numbers.

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.

Two Week Transportation Summary
06/30/00 TO 07/13/00

		Species					
Site	Data	CH0	CH1	CO	SO	ST	Grand Total
LGR	Sum Of NumberCollected	283,670	5,720	1,460	20	16,240	307,110
	Sum Of NumberBarged	282,645	5,707	1,458	20	16,115	305,945
	Sum Of NumberBypassed	0	0	0	0	0	0
	Sum Of NumberTrucked	0	0	0	0	0	0
	Sum Of TotalProjectMort	1,025	13	2	0	125	1,165
LGS	Sum Of NumberCollected	109,634	437	1,802	65	3,122	115,060
	Sum Of NumberBarged	108,752	427	1,797	65	3,041	114,082
	Sum Of NumberBypassed	0	0	0	0	0	0
	Sum Of NumberTrucked	0	0	0	0	0	0
	Sum Of TotalProjectMort	882	10	5	0	81	978
LMN	Sum Of NumberCollected	31,695	1,370	1,078	36	3,557	37,736
	Sum Of NumberBarged	29,268	1,340	1,078	36	3,434	35,156
	Sum Of NumberBypassed	2,239	0	0	0	0	2,239
	Sum Of NumberTrucked	0	0	0	0	0	0
	Sum Of TotalProjectMort	188	30	0	0	123	341
MCN	Sum Of NumberCollected	3,175,837	6,715	5,375	6,975	3,005	3,197,907
	Sum Of NumberBarged	3,432,615	7,585	6,349	5,862	3,299	3,455,710
	Sum Of NumberBypassed	21,818	0	0	0	0	21,818
	Sum Of NumberTrucked	0	0	0	0	0	0
	Sum Of TotalProjectMort	17,158	218	122	16	101	17,615
Total Sum Of NumberCollected		3,600,836	14,242	9,715	7,096	25,924	3,657,813
Total Sum Of NumberBarged		3,853,280	15,059	10,682	5,983	25,889	3,910,893
Total Sum Of NumberBypassed		24,057	0	0	0	0	24,057
Total Sum Of NumberTrucked		0	0	0	0	0	0
Total Sum Of TotalProjectMort		19,253	271	129	16	430	20,099

YTD Transportation Summary
TO: 07/13/00

		Species					
Site	Data	CH0	CH1	CO	SO	ST	Grand Total
LGR	Sum Of NumberCollected	490,815	2,447,880	120,898	5,918	5,029,556	8,095,067
	Sum Of NumberBarged	488,789	2,323,079	120,437	5,687	4,791,868	7,729,860
	Sum Of NumberBypassed	46	115,444	400	16	226,270	342,176
	Sum Of NumberTrucked	117	6,084	16	187	11,238	17,642
	Sum Of TotalProjectMort	1,863	3,274	45	28	680	5,890
LGS	Sum Of NumberCollected	229,863	1,356,863	38,053	3,310	1,051,910	2,679,999
	Sum Of NumberBarged	251,890	1,347,929	38,049	3,225	1,044,125	2,685,218
	Sum Of NumberBypassed	0	0	0	0	0	0
	Sum Of NumberTrucked	0	4,308	5	76	6,791	11,180
	Sum Of TotalProjectMort	1,312	5,267	58	29	1,388	8,054
LMN	Sum Of NumberCollected	160,753	607,948	17,557	4,222	762,788	1,553,268
	Sum Of NumberBarged	140,212	555,803	17,544	4,210	760,365	1,478,134
	Sum Of NumberBypassed	19,839	24,873	0	0	905	45,617
	Sum Of NumberTrucked	0	25,741	10	10	810	26,571
	Sum Of TotalProjectMort	702	1,531	3	2	691	2,929
MCN	Sum Of NumberCollected	7,188,216	1,163,413	165,725	67,445	364,906	8,949,705
	Sum Of NumberBarged	6,404,173	24,830	24,048	6,992	9,831	6,469,874
	Sum Of NumberBypassed	649,526	1,137,415	140,936	59,322	354,501	2,341,700
	Sum Of NumberTrucked	0	0	0	0	0	0
	Sum Of TotalProjectMort	26,902	1,167	443	34	475	29,021
Total Sum Of NumberCollected		8,069,647	5,576,104	342,233	80,895	7,209,160	21,278,039
Total Sum Of NumberBarged		7,285,064	4,251,641	200,078	20,114	6,606,189	18,363,086
Total Sum Of NumberBypassed		669,411	1,277,732	141,336	59,338	581,676	2,729,493
Total Sum Of NumberTrucked		117	36,133	31	273	18,839	55,393
Total Sum Of TotalProjectMort		30,779	11,239	549	93	3,234	45,894

