



Fish Passage Center

Weekly Report #00 - 22

August 4, 2000

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SUMMARY OF EVENTS:

Water Supply: No new water supply information has been distributed this week. Please see the previous issue of the weekly report 2000-21 for the data on precipitation records in the basin.

Reservoir Operations: Ongoing operations for summer flow augmentation during the week of July 28 through August 3 were affected by several situations. An explosion occurred in the left powerhouse at Grand Coulee on July 28 at 2:00 p.m. causing uncertainty in Grand Coulee's availability for Monday, July 31. BPA began taking actions over the weekend of July 29/30 to position the system to meet regional loads for Monday. These actions included moving additional water to the lower Columbia River projects, filling above minimum operating pool at Lower Granite and securing Direct Service Industries curtailments. In addition, the California ISO was expected to declare a stage 3 emergency (where firm load is interrupted via rolling blackouts) due to hot weather on July 31 and August 1. If needed, BPA planned to declare a system emergency under the Biological Opinion to aid California. No emergency was declared on Monday, but on Tuesday an emergency declaration appeared imminent. BPA increased generation up to the intertie line capacity. Additional emergency actions included increasing generation at Albeni Falls and Hungry Horse Dams and delaying the start of nighttime spill at John Day Dam for one hour.

A summary of actual elevations on August 3, and full pool elevations is shown in the following Table:

Project	Actual August 3 Elevation in [ft]	Actual Elevation on June 30 & Full Pool Elevation in [ft]
<i>Libby</i>	2435.2	2418.1/2459.0
<i>Hungry Horse</i>	3549.17	3558.3/3560.0
<i>Grand Coulee</i>	1284.2	1279.0/1290.0
<i>Brownlee</i>	2042.88*	2072.06/2077.0
<i>Dworshak</i>	1562.01	1598.6/1600.0

* as of August 2

Libby reservoir continues with refill at a slower pace than previously anticipated, with inflows in the range of 12.4 kcfs-14.5 kcfs. Outflows were maintained on the level of 8 Kcfs, for the period of July 28-August 3.

Hungry Horse continued drafting for summer flow augmentation besides being operated for power emergency on August 1, at rates in the range of 5.20 kcfs-5.95 kcfs for the period of July 28-August 3. Inflows fluctuated in the range of 0.25 kcfs-2.2 kcfs for the same period of July 28-August 3.

Grand Coulee was operated for service due to the fire, with elevations fluctuating between 1284.1 ft and 1284.8 ft and outflows between 96.5 kcfs and 135.1 kcfs. Currently, only the right powerhouse is in service and the left powerhouse remains in repair mode. Inflows fluctuated from 111.3 kcfs on July 30 to 129.4 kcfs on August 1.

Brownlee finished drafting for summer salmon flow augmentation. The reservoir was operated at elevations between 2042.53 ft and 2042.88 ft for the period of July 28-August 2. Inflows to reservoir fluctuated between 9.43 kcfs to 10.25 kcfs for the period of July 28-August 2. Outflow from Hells Canyon Dam for the past week of July 28-August 2 decreased from 11.45 kcfs on July 28 to 6.8 kcfs on August 3.

Dworshak continued drafting for flow augmentation. The outflow was held in the range of 12.8 kcfs-13.2 kcfs in order not to exceed total dissolved gas limit. Inflows to the reservoir fluctuated from 1.5 kcfs to 1.8 kcfs for the period of July 28-August 3.

Upper Snake reservoirs: As of August 3, the Upper Snake system was further drafted to 61% of capacity. American Falls was drafted to 43% of capacity, while Palisades and Jackson Lake

were at 58% and 92% of capacity, respectively. The irrigation demands in the system continued to be high and current flow at diversions at Palisades and Minidoka are 9.97 kcfs and 10.1 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 August 3, the Boise River system was at 76% of capacity. Salmon augmentation continued with flows of 620 - 660 cfs. As of August 3, the Payette River system was at 83% of capacity. Salmon augmentation continued at rates of 810-860 cfs.

Streamflow:

The Biological Opinion 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 July 28-August 3. The daily average flow for the Lower Granite for July 28-August 3 period continued to decrease compared with the flow from the previous week. The pool elevation at Lower Granite was restored to the minimum operating pool of 733.58 ft on August 2. A summary of the weekly average flows and the range of daily average flows are given in the following Table:

Project	Average daily discharge and range [kcfs]	
	July 21-27	July 28-August 3
<i>Priest Rapids</i>	120.3 (86.5-131.0)	133.06 (114.3-157.9)
<i>McNary</i>	159.9 (126.9-181.1)	161.8 (138.1-186.2)
<i>Lower Granite</i>	36.95 (35.5-38.7)	29.6 (22.7-36.4)
<i>Bonneville</i>	169.9 (148.1-192.4)	171.2 (142.3-190.3)

Spill: Outflow from Dworshak Dam continued for summer flow augmentation and temperature regulation. The outflow exceeded hydraulic capacity and spill averaged 3.0 Kcfs over the past week. No dissolved gas waiver has been issued and, consequently, outflow is limited to the level that does not exceed the total dissolved gas standard. The Biological Opinion summer spill program is being implemented at the Lower Snake projects and only calls for spill at Ice Harbor Dam, as transportation is maximized at the collector projects.

Biological Opinion spill as modified by the

NMFS and Action Agencies' Spill Plan continues at the lower Columbia River projects (John Day, The Dalles and Bonneville dams) through August 31. The Bonneville Power Administration proposed to interrupt fish spill in order to assist California if it became necessary for them to declare a power emergency that would have resulted in rolling blackouts. The emergency was averted, and spill was only affected by delaying nighttime spill at John Day Dam for one hour last Tuesday night. The summer spill program is being implemented at the Mid Columbia projects.

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 showed only a few fish with signs of GBT in fins.

Smolt Monitoring Program. Snake River basin: Subyearling chinook passage indices at Lower Granite Dam remained fairly constant this week with daily indices hovering around 2,500 fish; the weekly average was unchanged from the previous week. At Little Goose and Lower Monumental dams the weekly average passage indices for subyearling chinook dropped 33% and 55%, respectively. *Mid-Columbia River:* Subyearling chinook passage indices at Rock Island Dam this week remained fairly similar to the previous week (the weekly average dropped only 9%). *Lower Columbia River:* Subyearling chinook passage at McNary Dam also remained fairly similar to the previous week, averaging 67,000 fish per day (a negligible 2% drop from the previous week). The last three days of this week saw a large increase in subyearling chinook passage indices at John Day Dam (this is in agreement with our prediction in the last weekly report that John Day Dam subyearling chinook passage indices should rise again later as a result of that week's increased subyearling chinook passage at McNary Dam). The higher passage indices at Bonneville Dam the last three days of this week reflect, in part, increased flow diverted through Powerhouse 2, where the sampling facility is located, on those days.

Adult fish passage— At Bonneville Dam, chinook salmon are now counted as fall chinook beginning August 1 and continuing through the end of the count season. For the first 3-days, the counts averaged 370 adult chinook with the total through August 3 of 1,123.

At Bonneville Dam, the preliminary count of adult summer chinook totaled 30,598 for the year. This total was 117% and 149% of the respective 1999 and 10-year average. Summer chinook counts at The Dalles averaged 290 per day through the week with the cumulative count 25,024 through August 3. At McNary Dam, daily counts of adult summer chinook averaged 208 per day for the week with the cumulative count through August 3 of 19,950. The cumulative count of adult summer chinook at Ice Harbor Dam was 4,187 with the Mid-Columbia River count at Priest Rapids about 19,700 through August 2. The combined adult summer chinook counts from Ice Harbor and Priest Rapids exceed the total McNary Dam, summer chinook count to date.

The number of jack, summer chinook salmon counted at Bonneville Dam was 13,386 for the season. That total was the highest since 1976 at ~~the project~~ and the 5th highest since 1960. The jack count at Priest Rapids Dam was near 1,900 and will be the highest count of summer jack chinook since 1980. At Ice Harbor Dam, the 3,176 jack salmon was also the highest count since 1976, similar to Bonneville Dam. Overall, these excellent counts of summer chinook, jack salmon should result in much larger returns of adult salmon for the 2-ocean and potentially 3-ocean age returns to the Columbia River in years 2001 and 2002.

Basically, the sockeye run is about over for the year in the lower Columbia River with the Bonneville count 93,119. Year 2000 count was 5.2 times and 2.2 times the respective 1999 and 10-year average. Sockeye counts at the Mid-Columbia projects were: greater than 89,000 at Priest Rapids, 76,000 at Rock Island and 58,500 at Wells Dam. About 77% of the adult sockeye are destined for the Okanogan River Basin (Lake Osoyoos) with the remaining 23% destined for the Wenatchee River Basin. 311 adult sockeye have been counted at Lower Granite Dam through July 29. (Note: this

count includes night-time video counts). Seventeen were unclipped and the remainder being clipped fish from the Captive Brood Enhancement Program. These sockeye are now arriving at the trapping facility in the upper Salmon River and should continue returning to the upper Salmon River basin through this month and early September.

At Bonneville Dam, the daily steelhead counts averaged 3,652 through the week ending August 3. The cumulative count for the project is 107,001, about 1.6 times and 1.7 times greater than the respective 1999 and 10-year average. Daily counts at Bonneville Dam remained at least twice the daily counts at The Dalles Dam with greater than 60,000 steelhead differential between the two projects. At Bonneville Dam about 40.3% of the passage have been recorded as “unclipped” steelhead or “wild”. The passage of steelhead into the Snake River averaged about 250 per day at Ice Harbor with the cumulative count 9,457. Of this total, about 34% of the Ice Harbor count were unclipped or “wild”. The passage of steelhead into the Mid-Columbia projects through the past week had counts ranging near 100 per day at Priest Rapids Dam with the cumulative count now 2,315 and upstream at Rock Island, 1,374.

Coho salmon are just beginning to arrive at Bonneville Dam, but should continue to increase through the month.

Hatchery Releases—Based on preliminary data, about 82.8 million yearling and subyearling fish were released from State, Federal or Tribal hatcheries or Acclimation Ponds for the Year 2000 Migration.

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
07/21/00	105.9	0.1	113.1	0.0	119.3	7.6	128.4	12.6	133.1	20.2	137.9	47.9	130.8	66.1
07/22/00	91.7	0.1	87.8	0.0	89.8	6.4	86.9	11.0	91.3	20.1	107.5	33.9	110.3	55.4
07/23/00	82.2	0.1	80.1	0.0	84.9	6.3	87.5	0.0	91.3	20.3	93.2	29.9	86.5	43.9
07/24/00	111.9	0.1	120.9	0.0	123.6	7.4	122.7	0.0	120.1	20.4	132.3	41.8	131.0	64.2
07/25/00	123.0	0.1	118.9	0.0	124.7	7.7	127.3	2.6	129.1	20.3	134.4	43.5	125.9	63.2
07/26/00	108.5	0.1	115.1	0.0	125.7	7.3	126.1	12.3	127.1	20.4	126.3	40.2	125.2	63.8
07/27/00	117.7	0.1	118.1	0.0	112.0	6.8	117.1	10.0	118.6	20.0	133.6	42.8	132.2	67.7
07/28/00	119.3	0.0	119.9	0.0	121.5	7.8	122.0	12.6	123.8	20.3	124.2	39.8	124.1	62.0
07/29/00	96.5	0.0	101.8	0.0	105.5	8.0	107.4	11.6	108.8	20.3	115.2	36.8	114.3	57.9
07/30/00	113.5	0.0	114.5	0.0	115.7	7.4	118.3	6.6	117.3	20.0	125.3	40.1	120.4	59.7
07/31/00	135.1	0.0	133.9	0.0	136.1	8.1	138.9	6.7	137.1	20.3	149.5	46.4	155.1	77.9
08/01/00	115.7	0.0	125.6	0.0	132.3	8.0	136.0	2.6	139.3	20.3	153.3	46.2	157.9	80.6
08/02/00	119.5	0.0	121.9	0.0	123.9	8.0	121.5	11.9	121.0	20.0	121.8	36.7	125.5	63.4
08/03/00	119.0	0.0	119.9	0.0	122.6	7.6	---	---	---	---	135.1	39.6	134.1	68.8

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
07/21/00	12.5	2.8	10.2	12.0	38.7	0.0	38.1	0.0	37.7	0.0	42.6	32.7
07/22/00	12.5	2.8	10.0	16.3	36.3	0.0	34.9	0.0	34.4	0.0	38.6	31.9
07/23/00	12.5	2.8	10.6	17.6	36.3	0.0	38.4	0.0	35.8	0.0	39.2	32.2
07/24/00	12.6	2.8	9.6	14.9	35.5	0.0	36.0	0.0	35.5	0.0	41.0	33.9
07/25/00	12.6	2.8	11.2	15.0	37.1	0.0	38.7	0.0	40.5	0.0	44.5	37.1
07/26/00	12.8	3.0	9.6	18.3	38.0	0.0	38.8	0.0	38.9	0.0	41.0	34.4
07/27/00	12.8	3.0	9.8	11.5	36.8	0.0	37.6	0.0	39.4	0.0	41.6	32.9
07/28/00	12.8	3.0	9.5	8.7	36.4	0.0	37.4	0.0	39.2	0.0	42.5	32.8
07/29/00	12.9	3.1	9.6	8.7	30.4	0.0	30.2	0.0	31.4	0.0	33.3	25.9
07/30/00	13.2	3.3	9.4	8.9	22.7	0.0	21.8	0.0	20.5	0.0	19.6	12.8
07/31/00	13.1	3.1	10.3	8.9	30.2	0.0	32.8	0.0	34.0	0.0	37.0	29.8
08/01/00	12.8	2.9	9.4	7.1	29.4	0.0	28.5	0.0	30.6	0.0	32.5	24.9
08/02/00	12.9	2.9	---	---	30.5	0.0	31.8	0.0	31.4	0.0	34.1	26.0
08/03/00	12.9	2.9	---	---	27.7	0.0	29.3	0.0	30.4	0.0	33.0	26.2

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		
07/21/00	181.1	6.8	180.3	76.1	178.9	70.7	192.4	82.8	87.5	11.7
07/22/00	157.5	7.1	145.0	40.0	140.8	56.9	158.1	101.4	40.9	5.4
07/23/00	126.9	0.0	146.2	39.0	141.8	56.2	148.1	98.8	33.4	5.5
07/24/00	167.4	0.0	167.4	44.5	164.9	65.3	173.8	91.9	66.1	5.4
07/25/00	170.3	0.0	159.7	67.5	157.7	63.2	170.0	81.5	72.7	5.4
07/26/00	159.3	0.0	161.1	68.9	158.4	62.2	169.3	81.4	72.1	5.4
07/27/00	157.0	0.0	165.1	69.2	164.1	64.0	177.8	81.3	77.4	8.6
07/28/00	154.9	0.0	165.2	43.8	160.5	63.5	164.0	98.5	48.8	6.3
07/29/00	154.6	0.0	156.1	43.2	159.7	63.6	181.3	98.6	66.8	5.5
07/30/00	138.1	0.0	137.6	36.8	131.7	52.9	142.3	91.2	36.0	4.7
07/31/00	186.2	14.3	169.3	36.0	164.0	64.0	167.7	95.0	52.6	9.7
08/01/00	169.8	0.0	162.4	39.4	162.5	64.8	173.4	95.0	52.7	15.3
08/02/00	173.6	14.1	181.2	48.0	175.9	68.5	179.4	96.0	51.1	22.4
08/03/00	155.5	0.0	178.3	76.0	177.5	70.4	190.3	82.3	67.7	31.0

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
McNary Dam													
	07/27/00	Subyearling Chinook	100	0	0	0.00%	0.00%	0	0	0	0	0	0
	07/31/00	Subyearling Chinook	100	2	0	0.00%	0.00%	0	0	0	0	2	1
	08/03/00	Subyearling Chinook	100	12	0	0.00%	0.00%	0	0	0	0	11	1
Bonneville Dam													
	07/25/00	Subyearling Chinook	100	0	0	0.00%	0.00%	0	0	0	0	0	0
	07/27/00	Subyearling Chinook	100	2	0	0.00%	0.00%	0	0	0	0	2	1
	08/01/00	Subyearling Chinook	100	0	0	0.00%	0.00%	0	0	0	0	0	0
	08/03/00	Subyearling Chinook	100	1	0	0.00%	0.00%	0	0	0	0	1	1
Rock Island Dam													
	07/27/00	Subyearling Chinook	100	2	2	2.00%	0.00%	2	0	0	0	0	0
	07/31/00	Subyearling Chinook	100	5	2	2.00%	0.00%	2	0	0	0	3	1
	08/03/00	Subyearling Chinook	100	1	1	1.00%	0.00%	1	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	<u>Hungry H. Dnst</u>				<u>Boundary</u>				<u>Grand Coulee</u>				<u>Grand C. Tlwr</u>				<u>Chief Joseph</u>			
	<u>24 h</u>		<u>12 h</u>		#	<u>24 h</u>		<u>12 h</u>		#	<u>24 h</u>		<u>12 h</u>		#	<u>24 h</u>		<u>12 h</u>		#
	Avg	Avg	High	hr		Avg	Avg	High	hr		Avg	Avg	High	hr		Avg	Avg	High	hr	
7/21	106	106	106	24	111	112	114	24	114	114	114	24	113	113	115	24	112	113	113	23
7/22	106	106	107	24	113	113	114	24	114	114	115	24	113	115	116	24	112	113	113	23
7/23	106	106	106	24	112	113	115	24	113	113	113	24	113	114	116	24	111	112	112	23
7/24	107	108	139	24	114	114	116	23	113	113	113	24	112	113	114	24	112	112	112	23
7/25	106	106	106	24	114	115	116	24	113	114	114	24	113	114	115	24	112	113	113	23
7/26	106	107	107	24	116	117	117	24	113	114	114	23	113	115	117	24	112	113	113	23
7/27	108	109	142	22	116	117	118	20	113	114	121	24	113	114	116	24	111	112	112	21
7/28	106	106	107	19	111	112	112	19	112	113	113	19	113	114	116	19	111	111	112	19
7/29	106	107	107	22	116	116	117	22	112	112	112	22	113	115	117	22	111	111	112	23
7/30	107	107	107	24	114	115	115	24	112	112	112	24	113	115	116	24	111	112	112	23
7/31	107	107	107	24	114	116	117	24	110	110	114	5	113	114	117	17	111	111	112	23
8/1	107	108	108	24	117	117	118	24	---	---	---	0	111	111	112	8	110	111	111	23
8/2	108	108	109	24	117	118	118	24	---	---	---	0	113	115	117	24	110	111	111	23
8/3	108	108	109	24	118	118	119	24	---	---	---	0	114	116	119	24	111	112	112	23

Total Dissolved Gas Saturation Data at Mid Columbia River Sites

Date	<u>Chief J. Dnst</u>				<u>Wells</u>				<u>Wells Dwnstrm</u>				<u>Rocky Reach</u>				<u>Rocky R. Tlwr</u>			
	<u>24 h</u>		<u>12 h</u>		#	<u>24 h</u>		<u>12 h</u>		#	<u>24 h</u>		<u>12 h</u>		#	<u>24 h</u>		<u>12 h</u>		#
	Avg	Avg	High	hr		Avg	Avg	High	hr		Avg	Avg	High	hr		Avg	Avg	High	hr	
7/21	112	112	113	23	112	112	113	24	112	113	113	24	111	112	113	23	114	114	114	23
7/22	113	114	114	23	112	112	114	22	112	113	113	22	111	111	112	24	113	114	114	24
7/23	112	112	113	23	110	111	111	24	111	111	112	24	109	110	111	23	111	112	112	22
7/24	112	112	113	23	110	111	112	24	111	112	112	24	109	110	111	24	111	111	111	21
7/25	112	113	114	23	111	111	112	23	112	113	114	23	110	111	112	24	112	112	113	24
7/26	113	114	114	23	111	111	112	24	112	112	113	24	111	111	111	20	112	113	113	20
7/27	112	112	114	21	110	111	111	24	111	112	112	24	109	110	111	24	112	113	114	24
7/28	111	111	113	23	110	110	111	22	111	112	112	22	110	110	110	23	111	111	112	23
7/29	111	112	113	23	110	111	111	22	111	112	112	22	110	110	110	23	112	112	114	23
7/30	111	112	113	23	111	112	113	24	112	112	113	24	110	110	111	24	112	113	115	24
7/31	111	111	112	23	111	111	111	24	111	112	112	24	110	111	111	24	112	112	114	22
8/1	110	111	111	23	109	110	110	24	110	111	111	24	110	110	111	23	111	111	112	22
8/2	110	111	111	23	110	110	111	24	110	111	112	24	109	110	110	20	111	112	112	19
8/3	111	111	112	23	110	111	112	24	111	112	113	24	110	110	111	22	112	112	112	20

Total Dissolved Gas Saturation at Mid Columbia River Sites

Date	<u>Rock Island</u>				<u>Rock I. Tlwr</u>				<u>Wanapum</u>				<u>Wanapum Tlwr</u>				<u>Priest Rapids</u>			
	<u>24 h</u>		<u>12 h</u>		#	<u>24 h</u>		<u>12 h</u>		#	<u>24 h</u>		<u>12 h</u>		#	<u>24 h</u>		<u>12 h</u>		#
	Avg	Avg	High	hr		Avg	Avg	High	hr		Avg	Avg	High	hr		Avg	Avg	High	hr	
7/21	108	108	109	22	---	---	---	0	115	117	119	24	114	115	117	24	116	117	120	24
7/22	108	108	109	23	---	---	---	0	113	115	115	24	113	113	115	24	115	116	118	24
7/23	106	107	107	24	---	---	---	0	109	109	110	24	111	112	112	24	112	112	115	24
7/24	106	106	107	12	---	---	---	0	111	113	114	24	113	113	115	24	113	114	116	24
7/25	---	---	---	0	---	---	---	0	112	112	113	8	114	115	116	24	115	115	117	23
7/26	---	---	---	0	---	---	---	0	---	---	---	0	113	113	116	24	114	114	115	24
7/27	105	105	106	16	116	116	120	14	111	111	112	18	113	113	115	24	113	114	114	24
7/28	107	107	107	23	116	116	118	21	112	113	113	24	113	114	115	24	114	115	117	23
7/29	107	107	108	24	117	117	119	22	112	114	115	24	113	114	114	23	114	114	115	24
7/30	107	107	108	23	116	117	120	21	115	117	118	24	114	115	116	22	116	116	117	24
7/31	107	108	108	21	116	117	120	17	114	115	116	24	114	115	117	23	115	115	116	14
8/1	108	108	113	22	115	116	118	22	111	111	112	24	113	114	114	23	114	115	116	24
8/2	107	107	108	23	116	116	118	22	112	113	115	24	112	113	114	24	115	116	117	24
8/3	107	108	108	22	116	116	118	20	---	---	---	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>	High	<u>24 h</u>	<u>12 h</u>	High	<u>24 h</u>	<u>12 h</u>	High	<u>24 h</u>	<u>12 h</u>	High	<u>24 h</u>	<u>12 h</u>	High					
	Avg	Avg		#	Avg		Avg	#		Avg	Avg		#	Avg			Avg	#		
7/21	120	121	121	24	113	113	114	24	108	108	108	15	107	108	109	24	---	---	---	0
7/22	119	120	122	24	110	112	113	24	107	108	108	24	107	108	109	24	97	98	100	24
7/23	116	116	117	24	108	109	110	24	107	107	107	24	106	107	108	24	98	99	101	24
7/24	117	120	122	24	109	111	111	24	107	107	108	23	107	108	109	24	99	101	102	24
7/25	119	120	121	24	110	112	113	24	107	108	109	24	107	108	109	24	99	101	102	24
7/26	119	120	121	24	110	111	112	23	108	108	108	24	107	108	109	24	99	100	102	24
7/27	119	120	120	24	110	111	111	24	107	108	108	23	107	108	109	24	99	100	101	24
7/28	118	120	121	24	111	111	112	24	107	108	108	24	107	108	109	24	98	98	100	19
7/29	118	119	120	24	111	112	112	24	---	---	---	0	---	---	---	0	---	---	---	0
7/30	118	120	121	24	111	112	112	24	109	109	110	24	108	109	110	24	96	96	97	5
7/31	120	121	122	16	111	112	113	24	108	108	109	24	108	109	110	23	---	---	---	0
8/1	121	121	123	24	111	112	112	24	107	107	108	24	107	108	109	24	---	---	---	0
8/2	119	120	122	24	112	113	114	24	107	108	108	24	107	108	109	24	104	104	107	11
8/3	---	---	---	0	111	112	112	24	108	108	109	24	108	109	110	24	103	105	107	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>	High	<u>24 h</u>	<u>12 h</u>	High	<u>24 h</u>	<u>12 h</u>	High	<u>24 h</u>	<u>12 h</u>	High	<u>24 h</u>	<u>12 h</u>	High					
	Avg	Avg		#	Avg		Avg	#		Avg	Avg		#	Avg			Avg	#		
7/21	105	107	109	24	111	113	115	24	104	104	105	24	108	110	112	24	102	103	103	24
7/22	104	106	108	24	108	110	112	24	103	104	104	24	104	107	110	24	101	102	103	24
7/23	104	106	108	24	105	105	106	24	102	103	103	24	100	101	101	24	99	100	100	24
7/24	104	106	108	22	108	111	112	24	103	104	106	24	101	102	104	24	100	101	101	24
7/25	104	107	108	24	107	110	112	24	103	103	104	24	101	102	103	23	100	101	101	23
7/26	104	106	108	23	103	104	105	24	102	102	102	24	100	101	102	24	100	100	101	24
7/27	105	106	108	19	103	104	105	23	101	102	102	22	100	101	101	24	100	100	100	24
7/28	104	106	108	24	108	111	112	24	103	103	104	24	102	103	104	24	101	102	103	24
7/29	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
7/30	105	107	108	24	111	116	118	24	102	103	103	24	102	104	106	24	100	101	102	24
7/31	105	106	108	24	108	109	111	24	102	102	102	24	102	103	106	24	100	100	100	24
8/1	105	106	108	24	106	107	109	24	101	102	103	24	99	100	100	24	99	99	99	24
8/2	105	106	108	24	110	113	116	24	102	103	104	24	101	102	103	24	100	100	101	24
8/3	104	106	107	24	112	114	116	24	103	104	105	24	104	105	107	24	101	102	103	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>	High	<u>24 h</u>	<u>12 h</u>	High	<u>24 h</u>	<u>12 h</u>	High	<u>24 h</u>	<u>12 h</u>	High	<u>24 h</u>	<u>12 h</u>	High					
	Avg	Avg		#	Avg		Avg	#		Avg	Avg		#	Avg			Avg	#		
7/21	106	109	112	24	102	102	103	24	103	105	108	24	111	112	113	24	110	112	115	24
7/22	103	106	109	24	101	102	103	24	100	100	103	24	109	110	110	24	108	108	109	24
7/23	101	101	102	24	100	101	102	24	99	99	100	24	109	110	111	24	108	109	110	24
7/24	101	101	102	24	100	101	102	24	100	101	102	24	110	111	112	24	112	114	116	24
7/25	101	101	102	24	100	101	102	24	100	101	101	24	110	111	112	24	108	109	110	24
7/26	101	101	103	24	100	101	101	24	101	102	104	24	110	113	113	24	108	110	111	23
7/27	101	101	101	23	100	101	103	24	100	101	103	24	111	112	114	24	109	110	111	24
7/28	101	101	102	24	100	101	102	24	101	102	104	24	110	112	114	24	111	115	117	24
7/29	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	112	115	117	24
7/30	104	106	110	24	100	101	102	23	101	103	104	24	107	109	112	24	113	115	116	24
7/31	103	106	107	24	100	101	102	24	99	100	102	24	110	111	112	24	113	114	116	24
8/1	101	102	104	24	100	101	102	24	100	102	106	24	109	111	113	24	112	114	116	24
8/2	104	105	110	24	100	101	102	24	102	103	106	24	109	112	113	24	113	115	116	24
8/3	105	107	111	24	101	102	103	24	102	103	105	24	109	111	112	24	112	115	117	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>					
	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High	Avg	AVG	High					
7/21	111	111	113	24	110	111	114	24	104	105	106	23	117	118	118	24	109	110	112	23
7/22	108	109	109	24	109	110	114	24	103	104	105	23	110	116	118	24	106	108	112	22
7/23	107	107	108	24	107	107	107	24	101	102	102	23	110	116	118	24	102	103	104	23
7/24	109	109	111	24	107	107	107	24	102	102	102	23	110	116	118	23	106	108	109	23
7/25	107	108	110	24	106	106	107	24	102	102	102	23	116	117	118	24	105	107	110	22
7/26	107	107	108	23	106	107	107	23	102	102	102	23	116	117	118	24	106	107	109	22
7/27	106	107	107	23	106	106	106	18	101	101	102	23	116	117	118	22	106	108	109	21
7/28	107	108	109	24	106	106	107	23	101	101	101	23	109	116	118	24	107	108	110	23
7/29	109	110	112	24	106	107	108	24	101	102	102	23	110	117	118	24	105	107	109	23
7/30	111	112	113	24	108	108	109	24	102	102	105	23	109	115	117	24	105	107	111	22
7/31	111	111	113	24	110	112	112	24	101	102	102	23	109	115	117	24	106	108	110	22
8/1	109	110	112	24	108	108	109	24	101	101	102	23	109	115	117	24	103	104	106	23
8/2	110	111	111	24	110	112	117	24	101	102	102	23	110	117	118	24	104	106	109	23
8/3	111	111	113	24	109	109	110	24	102	102	106	11	117	118	119	24	105	108	112	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>CamasWashugal</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>					
	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High	Avg	AVG	High					
7/21	116	116	116	24	107	108	108	19	115	118	120	23	116	118	120	23	113	115	116	24
7/22	113	115	116	24	---	---	---	0	115	116	118	22	119	120	121	22	111	112	114	24
7/23	112	112	112	24	---	---	---	0	116	116	117	21	120	120	121	23	115	115	129	15
7/24	113	114	116	24	---	---	---	0	113	114	116	20	118	119	120	23	130	131	131	24
7/25	113	114	115	24	---	---	---	0	112	112	113	20	116	117	119	22	119	124	131	24
7/26	113	114	114	24	106	107	107	20	112	113	115	23	116	117	119	23	112	114	115	24
7/27	113	114	114	23	106	106	106	22	111	112	113	20	116	117	118	21	112	114	115	22
7/28	114	114	115	24	107	107	107	23	115	117	124	23	119	120	120	23	112	114	115	24
7/29	113	114	115	24	108	108	109	23	115	116	117	23	120	120	121	23	115	116	116	24
7/30	113	114	115	24	109	109	109	23	116	117	118	19	119	120	121	23	115	116	117	24
7/31	112	113	115	23	107	108	109	23	115	116	117	22	119	119	120	23	121	126	130	24
8/1	111	112	113	24	105	105	105	23	113	114	114	23	116	118	119	23	113	114	115	24
8/2	112	113	114	24	104	104	105	23	114	115	116	23	115	117	118	23	113	114	115	24
8/3	114	115	115	24	105	105	106	23	111	111	112	23	111	113	115	23	113	113	114	24

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)
07/21/00	---	---	---	---	80	12	24	9	225	21	0
07/22/00	---	---	---	---	96	12	30	0	0	0	0
07/23/00	---	---	---	---	54	0	66	3	105	0	0
07/24/00	---	---	---	---	18	25	30	0	0	16	0
07/25/00	---	---	---	---	12	16	24	0	100	50	0
07/26/00	---	---	---	---	40	12	12	1	0	0	0
07/27/00	---	---	---	---	70	18	4	3	0	0	0
07/28/00	---	---	---	---	56	12	4	0	0	0	0
07/29/00	---	---	---	---	32	12	12	0	100	167	0
07/30/00	---	---	---	---	10	0	8	0	0	62	0
07/31/00	---	---	---	---	5	0	0	1	0	19	0
08/01/00	---	---	---	---	20	0	9	0	0	60	0
08/02/00	---	---	---	---	25	10	3	0	0	0	0
08/03/00	---	---	---	---	85	5	2	0	0	0	0
Total:	0	0	0	0	603	134	228	17	530	395	0
# Days:	0	0	0	0	14	14	14	14	14	14	14
Average:	0	0	0	0	43	10	16	1	38	28	0

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)
07/21/00	---	---	---	---	2,900	2,523	420	251	73,225	4,982	3,437
07/22/00	---	---	---	---	4,800	5,876	996	333	86,525	14,728	3,882
07/23/00	---	---	---	---	2,970	4,045	1,572	321	57,749	4,921	518
07/24/00	---	---	---	---	1,884	2,253	594	285	33,600	2,382	244
07/25/00	---	---	---	---	1,920	1,576	384	275	49,800	11,220	643
07/26/00	---	---	---	---	1,935	2,499	390	206	69,600	7,080	284
07/27/00	---	---	---	---	1,420	2,246	568	163	108,900	5,623	300
07/28/00	---	---	---	---	2,204	5,262	228	184	84,000	6,178	4,163
07/29/00	---	---	---	---	3,292	1,717	296	199	75,200	5,276	547
07/30/00	---	---	---	---	2,470	1,240	152	212	77,400	6,871	346
07/31/00	---	---	---	---	2,055	892	368	192	42,600	5,998	0
08/01/00	---	---	---	---	2,805	1,415	363	262	51,899	21,296	3,098
08/02/00	---	---	---	---	2,495	1,526	387	339	72,225	27,613	4,633
08/03/00	---	---	---	---	3,285	2,083	405	282	67,887	47,381	5,799
Total:	0	0	0	0	36,435	35,153	7,123	3,504	950,610	171,549	27,894
# Days:	0	0	0	0	14	14	14	14	14	14	14
Average:	0	0	0	0	2,603	2,511	509	250	67,901	12,254	1,992

* 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)
07/21/00	---	---	---	---	50	228	48	3	75	0	0
07/22/00	---	---	---	---	30	144	42	0	156	83	0
07/23/00	---	---	---	---	48	176	108	0	0	0	0
07/24/00	---	---	---	---	18	88	24	0	0	16	0
07/25/00	---	---	---	---	0	80	42	0	400	66	0
07/26/00	---	---	---	---	20	84	48	0	550	0	0
07/27/00	---	---	---	---	0	18	40	0	400	0	0
07/28/00	---	---	---	---	4	210	32	0	100	0	0
07/29/00	---	---	---	---	56	66	12	0	300	21	0
07/30/00	---	---	---	---	20	42	52	0	0	0	0
07/31/00	---	---	---	---	25	55	20	0	100	57	0
08/01/00	---	---	---	---	5	40	29	0	0	0	0
08/02/00	---	---	---	---	5	25	30	0	0	0	0
08/03/00	---	---	---	---	0	28	22	0	0	70	52
Total:	0	0	0	0	281	1,284	549	3	2,081	313	52
# Days:	0	0	0	0	14	14	14	14	14	14	14
Average:	0	0	0	0	20	92	39	0	149	22	4

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)
07/21/00	---	---	---	---	190	72	84	0	0	21	0
07/22/00	---	---	---	---	774	320	192	1	0	21	0
07/23/00	---	---	---	---	720	617	402	3	210	0	0
07/24/00	---	---	---	---	162	161	102	0	100	16	0
07/25/00	---	---	---	---	84	48	96	1	100	0	0
07/26/00	---	---	---	---	115	72	24	4	50	0	0
07/27/00	---	---	---	---	30	72	52	1	0	0	0
07/28/00	---	---	---	---	144	146	4	0	0	0	0
07/29/00	---	---	---	---	244	18	32	1	0	0	0
07/30/00	---	---	---	---	245	42	16	0	0	0	0
07/31/00	---	---	---	---	125	30	48	1	0	19	0
08/01/00	---	---	---	---	135	50	73	0	0	20	0
08/02/00	---	---	---	---	125	20	76	0	0	0	0
08/03/00	---	---	---	---	135	32	89	2	0	0	0
Total:	0	0	0	0	3,228	1,700	1,290	14	460	97	0
# Days:	0	0	0	0	14	14	14	14	14	14	14
Average:	0	0	0	0	231	121	92	1	33	7	0

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)
07/21/00	---	---	---	---	0	0	0	9	1,050	63	0
07/22/00	---	---	---	---	0	7	0	9	937	0	0
07/23/00	---	---	---	---	0	0	6	3	421	0	0
07/24/00	---	---	---	---	0	0	0	4	500		0
07/25/00	---	---	---	---	0	0	0	7	1,100	100	0
07/26/00	---	---	---	---	0	12	0	9	1,400	0	0
07/27/00	---	---	---	---	0	0	0	1	500	0	0
07/28/00	---	---	---	---	4	0	0	10	900	0	0
07/29/00	---	---	---	---	4	0	0	9	1,800	42	0
07/30/00	---	---	---	---	0	0	0	9	1,400	103	0
07/31/00	---	---	---	---	5	0	0	4	1,000	19	0
08/01/00	---	---	---	---	0	0	0	5	1,060	100	0
08/02/00	---	---	---	---	15	0	0	4	1,050	331	45
08/03/00	---	---	---	---	5	12	0	8	492	704	0
Total:	0	0	0	0	33	31	6	91	13,610	1,462	45
# Days:	0	0	0	0	14	14	14	14	14	13	14
Average:	0	0	0	0	2	2	0	7	972	112	3

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 08/03

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	30,598	13,386	26,169	4,022	20,522	2,637	1,123	442	742	150	733	116
TDA	102,953	14,796	17,563	6,180	36,497	1,828	25,024	10,409	21,730	3,207	16,441	1,905	0	0	0	0	0	0
JDA	86,502	12,133	15,409	5,089	29,402	1,505	22,799	8,002	21,709	2,408	15,251	1,648	0	0	0	0	0	0
MCN	64,947	10,998	9,260	3,972	28,536	1,577	19,950	6,727	18,211	2,214	15,589	1,634	0	0	0	0	0	0
IHR	38,776	9,389	5,351	2,657	15,091	720	4,187	3,176	3,837	1,307	4,421	456	0	0	0	0	0	0
LMN	35,520	10,336	3,924	2,726	14,041	753	4,609	3,256	3,296	1,322	4,139	459	0	0	0	0	0	0
LGS	34,330	10,152	3,445	2,690	**	**	4,091	3,730	3,208	1,556	**	**	0	0	0	0	**	**
LWG	33,822	10,318	3,296	2,507	12,180	669	3,859	3,701	3,181	1,543	4,161	486	0	0	0	0	0	0
PRD	20,098	1,092	4,139	761	8,052	194	19,698	1,902	17,989	413	12,757	485	0	0	0	0	0	0
RIS	14,400	1,429	3,309	915	6,567	218	16,977	9,746	13,701	1,036	9,737	637	0	0	0	0	0	0
RRH	5,336	392	1,389	233	1,501	54	10,421	2,770	6,670	350	3,732	241	0	0	0	0	0	0
WEL	2,143	457	141	199	752	53	4,749	1,837	4,131	267	2,164	215	0	0	0	0	0	0

DAM	Coho						Sockeye			Steelhead			
	2000		1999		10-Yr Avg.		10-Yr			10-Yr			Wild
	Adult	Jack	Adult	Jack	Adult	Jack	2000	1999	Avg.	2000	1999	Avg.	2000
BON	2	0	4	0	23	8	93,119	17,845	42,006	107,001	66,279	63,192	42,841
TDA	-5	0	0	0	1	0	73,287	13,687	32,774	42,701	34,383	25,415	20,507
JDA	1	0	0	0	0	0	88,172	14,765	34,125	33,665	27,280	18,074	12,327
MCN	0	0	0	1	0	0	58,186	11,755	35,565	21,019	10,602	13,848	7,637
IHR	0	0	0	0	0	0	212	6	7	9,457	5,444	7,222	3,199
LMN	0	0	0	0	0	0	289	12	6	7,029	3,549	5,935	2,548
LGS	0	0	0	0	**	**	291	16	**	4,782	2,907	**	1,786
LWG	0	0	0	0	0	0	271	14	5	5,763	4,677	6,652	2,110
PRD	37	5	4	0	2	0	89,161	15,745	39,725	2,315	779	1,272	***
RIS	12	0	0	0	0	0	76,081	14,798	33,456	1,374	426	774	415
RRH	8	0	22	0	2	0	56,461	11,955	16,602	745	281	469	129
WEL	0	0	0	0	0	0	58,765	10,197	15,226	373	166	344	58

Note: RIS, RRH numbers are from Chelan Co. PUD and are through 07/30.

Note: PRD current year numbers are from Grant Co. PUD and are through 07/25.

Note: LMN, LGS and WEL are through 08/02.

Note: LGR is missing 7/12 and 07/31.

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
07/21/00 TO 08/03/00

		Species						
Site	Data	CH0	CH1	CO	SO	ST	Grand Total	
LGR	Sum Of NumberCollected	36,435	603	281	33	3,228	40,580	
	Sum Of NumberBarged	6,441	90	80	0	417	7,028	
	Sum Of NumberBypassed	0	0	0	0	0	0	
	Sum Of NumberTrucked	29,949	422	231	28	2,882	33,512	
	Sum Of TotalProjectMort	323	16	0	0	25	364	
LGS	Sum Of NumberCollected	35,153	134	1,284	31	1,700	38,302	
	Sum Of NumberBarged	5,727	22	305	0	154	6,208	
	Sum Of NumberBypassed	0	0	0	0	0	0	
	Sum Of NumberTrucked	30,249	102	1,012	17	1,576	32,956	
	Sum Of TotalProjectMort	344	17	18	5	20	404	
LMN	Sum Of NumberCollected	7,123	228	549	6	1,290	9,196	
	Sum Of NumberBarged	1,331	45	81	0	167	1,624	
	Sum Of NumberBypassed	0	0	0	0	236	236	
	Sum Of NumberTrucked	6,198	188	471	6	955	7,818	
	Sum Of TotalProjectMort	120	16	11	0	18	165	
MCN	Sum Of NumberCollected	934,375	525	2,075	13,425	450	950,850	
	Sum Of NumberBarged	918,862	515	1,904	13,020	437	934,738	
	Sum Of NumberBypassed	0	0	0	0	0	0	
	Sum Of NumberTrucked	0	0	0	0	0	0	
	Sum Of TotalProjectMort	15,513	10	171	405	13	16,112	
Total	Sum Of NumberCollected	1,013,086	1,490	4,189	13,495	6,668	1,038,928	
Total	Sum Of NumberBarged	932,361	672	2,370	13,020	1,175	949,598	
Total	Sum Of NumberBypassed	0	0	0	0	236	236	
Total	Sum Of NumberTrucked	66,396	712	1,714	51	5,413	74,286	
Total	Sum Of TotalProjectMort	16,300	59	200	410	76	17,045	

YTD Transportation Summary
TO: 08/03/00

		Species						
Site	Data	CH0	CH1	CO	SO	ST	Grand Total	
LGR	Sum Of NumberCollected	568,920	2,449,543	121,739	5,961	5,036,054	8,182,217	
	Sum Of NumberBarged	533,095	2,324,209	121,045	5,697	4,795,307	7,779,353	
	Sum Of NumberBypassed	46	115,444	400	16	226,270	342,176	
	Sum Of NumberTrucked	30,066	6,506	247	215	14,120	51,154	
	Sum Of TotalProjectMort	2,436	3,300	47	28	724	6,535	
LGS	Sum Of NumberCollected	293,606	1,357,068	41,216	3,401	1,054,676	2,749,967	
	Sum Of NumberBarged	282,653	1,348,003	40,149	3,284	1,045,239	2,719,328	
	Sum Of NumberBypassed	0	0	0	0	0	0	
	Sum Of NumberTrucked	30,249	4,410	1,017	93	8,367	44,136	
	Sum Of TotalProjectMort	1,978	5,292	82	35	1,432	8,819	
LMN	Sum Of NumberCollected	173,384	608,488	18,718	4,258	765,194	1,570,042	
	Sum Of NumberBarged	146,077	556,120	18,198	4,239	761,544	1,486,178	
	Sum Of NumberBypassed	19,839	24,873	0	0	1,157	45,869	
	Sum Of NumberTrucked	6,198	25,929	481	16	1,765	34,389	
	Sum Of TotalProjectMort	873	1,564	17	3	729	3,186	
MCN	Sum Of NumberCollected	8,464,990	1,164,608	168,571	86,320	365,657	10,250,146	
	Sum Of NumberBarged	7,758,684	25,995	26,966	26,510	10,650	7,848,805	
	Sum Of NumberBypassed	659,664	1,137,415	140,936	59,322	354,501	2,351,838	
	Sum Of NumberTrucked	0	0	0	0	0	0	
	Sum Of TotalProjectMort	46,643	1,197	668	488	506	49,502	
Total	Sum Of NumberCollected	9,500,900	5,579,707	350,244	99,940	7,221,581	22,752,372	
Total	Sum Of NumberBarged	8,720,509	4,254,327	206,358	39,730	6,612,740	19,833,664	
Total	Sum Of NumberBypassed	679,549	1,277,732	141,336	59,338	581,928	2,739,883	
Total	Sum Of NumberTrucked	66,513	36,845	1,745	324	24,252	129,679	
Total	Sum Of TotalProjectMort	51,930	11,353	814	554	3,391	68,042	

