



Fish Passage Center

Weekly Report #02 - 24

August 23, 2002

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SUMMARY OF EVENTS:

- **The BiOp summer flow objectives are 51 Kcfs at Lower Granite and 200 Kcfs at McNary. To date, summer flows have averaged 42.5 Kcfs at Lower Granite and 197.8 Kcfs at McNary; therefore, flow objectives are not being met on a seasonal basis at either McNary or Lower Granite. Weekly average flows between 8-16-02 and 8-22-02 at Lower Granite and McNary were 30.6 and 141.9 Kcfs; therefore, flow objectives are also not being met at either project on a weekly basis.**
- **Combined storage in the Upper Snake River System is less than 24% of capacity.**

Water: River flows within the Columbia Basin are low. Storage reservoirs along the Columbia and Snake Rivers have generally been drafting for several weeks.

Grand Coulee has drafted 1.0 feet over the last week; beginning the week at 1281.1 feet (8-16-02) and ending at 1280.1 feet (8-22-02). Total outflows have averaged 103.0 Kcfs over the past week (8-16-02 to 8-22-02). Based upon the April-August July Final Runoff Volume forecast (87.8 Maf), the end of August draft limit at Grand Coulee is 1278.0 feet; therefore, only 2.1 feet remains to be drafted over the next week.

The Libby reservoir has drafted 2.6 feet over the past week (8-16-02 to 8-22-02); reservoir elevations have ranged from 2448.0 to 2445.4 feet. Outflows have ranged between 15.8 Kcfs and 17.0 Kcfs over the last week. Currently (8-22-02), Libby is at an elevation of 2445.4 feet. The current operation at Libby includes drafting to elevation 2442 feet by August 31st, 2002. The BiOp draft limit at Libby is 2439 feet by August 31st; therefore, three feet of

water is projected to remain in the reservoir after August 31st. According to the operation, an amount of water equivalent to the difference in storage between elevation 2442 and 2439 feet (140 Kaf) will be released from Canadian Storage. This operation is in response to SOR #2002-MT-1 drafted by the State of Montana.

The Dworshak reservoir continues to draft. Over the last week, total outflows at Dworshak have been consistent at 13.7 Kcfs (8-16-02 to 8-22-02) to supplement flows and temperatures at Lower Granite. Operations at Dworshak continue to involve spilling between 3.5 and 3.6 Kcfs of reservoir water. Currently (midnight, 8-22-02) Dworshak is at an elevation of 1547.8 feet, drafting 8.9 feet over the last week. SOR #2002-07 (submitted on August 13th of 2002) outlined suggested operations at Dworshak between August 15th and September 14th, 2002. According to this SOR, Dworshak would continue to release approximately 13.8 Kcfs through August 24th, reduce to 12.0 Kcfs from the 25th to the 31st of August, further reduce outflows to 10.0 Kcfs from September 1st through 10th, then ramp flows down at the standard project rate to the minimum discharge of 1.4 Kcfs. According to COE, this operation should provide nearly 200 Kaf of water in September without drafting Dworshak below 1520 feet. This operation was agreed upon at the 8-15-02 TMT meeting.

Over the past week the Brownlee reservoir has drafted four feet, beginning the week at 2064.7 ending the week at 2060.7 feet. During the week, outflows have varied between 10.6 and 16.4 Kcfs.

The Hungry Horse Reservoir continues to draft; beginning the week at an elevation of 3550.8 feet and ending the week at 3548.2 feet. Total outflows at Hungry Horse have been ap-

proximately steady at 6.0 Kcfs over the last week (8-16-02 to 8-22-02). Currently (midnight, 8-22-02) Hungry Horse is at an elevation of 3548.2 feet. The current operational plan at Hungry Horse includes releasing 6.0 Kcfs until 8-25-02, then decreasing outflows to 4 Kcfs through the remainder of August. According to the 2000 Biological Opinion, the Hungry Horse reservoir can draft to elevation 3540 feet by the end of August for summer flow augmentation. The latest SSARR issued by the COE has Hungry Horse drafting to an elevation of 3545 feet by August 31st 2002, five feet above the BiOp draft limit of 3540 feet. The remaining five feet of water in Hungry Horse will be released during the month of September.

The BiOp summer flow objective season began at Lower Granite on 6-21-02 and at McNary on 7-1-02. The summer objectives are 51 Kcfs at Lower Granite and 200 Kcfs at McNary. To date, summer flows have averaged 42.5 Kcfs at Lower Granite and 197.8 Kcfs at McNary. Summer BiOp flow objectives are not being met at either McNary or Lower Granite on a seasonal basis. Over the past week (8-16-02 to 8-22-02), flows have averaged 30.6 Kcfs at Lower Granite and 141.9 Kcfs at McNary. Therefore, on a weekly basis, flow objectives are also not being met at either McNary or Lower Granite.

Currently, as of August 22nd, 2002, the entire Upper Snake River System is at 24% of capacity. Most reservoirs on the Upper Snake River have been drafting. Individually, American Falls is at 10% of capacity, Palisades is at 15% of capacity, Jackson Lake is at 53% of capacity, Island Park is at 31% of capacity, Lake Walcott is at 92% of capacity, Milner is at 99% of capacity, and Grassy Lake is at 87% of capacity.

Spill: Dworshak Reservoir continues to draft water for flow augmentation and temperature regulation. Spill levels have averaged 3.6 Kcfs over the past week. Tailwater total dissolved gas levels have ranged between 105% and 106%. At Ice Harbor Dam spill averaged 82% of daily flows over the past week.

Lower River spill as part of the Biological Opinion spill program is being provided at John Day, The Dalles and Bonneville dams. Spill averaged 30% of average daily flow at John Day Dam, 39% of average daily flow at The Dalles Dam and 69% of average daily flow at Bonneville Dam.

The total dissolved gas levels remain near, or below the water quality waivers. Fish are currently being monitored for signs of GBT at Rock Island, McNary and Bonneville dams. Some fish have been observed with minor signs of GBT this past week at Rock Island Dam.

Smolt Monitoring: The numbers of subyearling chinook being captured at the dams in the Lower Snake continued to decline overall, although, due to a one day index of 1280 on 08/22, the weekly index at Lower Granite remained unchanged compared to last week. At Lower Granite Dam the number of subyearling chinook was very similar to last week with the average daily index at 836 this week compared to 838 last week. At Rock Island Dam the subyearling chinook index increased slightly compared to last week, with 150 average daily index this week compared to 140 daily last week. In the lower Columbia, the passage index decreased at McNary from 45,000 per day last week to nearly 32,000 per day this week. At John Day Dam, the passage index for subyearling chinook was up, with the index averaging 10,800 this week versus 7,500 last week. At Bonneville Dam subyearling chinook numbers decreased with an average daily index this week of 1,600 versus 5,700 last week.

Adult Fish Passage: At Bonneville Dam, counts of adult fall chinook averaged 1,353 per day for the week with the cumulative count through August 22 at 20,526. This year's count of adult fall chinook is about 1.05 and 1.3 times greater than the respective year 2001 and 10-year average. The chinook count increased to 2,900 on 8/22 and should remain at higher levels through mid-September. About 6,000 of the Upriver Bright fall chinook have passed McNary Dam with 600 counted at Ice Harbor Dam and greater than 2,700 at Priest Rapids Dam. Much of the wild component of the upriver run will be destined for the Hanford Reach area (below Priest Rapids Dam) of the Mid-Columbia River.

The sockeye run is nearing completion for the season. About 38,600 sockeye were counted past Rock Island Dam with 16,500 past Rocky Reach and only 10,500 counted at Wells Dam. The 2002 sockeye run into the Wenatchee River basin should exceed the Lake Osoyoos run this season. Into the Snake River, 51 sockeye have been counted at Lower Granite Dam for the 2002 season.

Steelhead passage at Bonneville Dam averaged 3,766 per day through the past week with a total of 270,142 counted through August 22. This total is 65% and 177% of the respective 2001 and 10-year average counts to date. Estimated wild steelhead in the passage total was 95,226 (based on visual missing adipose fin on the steelhead). To

date, less than half the adult steelhead counted past Bonneville Dam have moved upstream past The Dalles Dam. During July - mid September, adult steelhead tend to move into the cooler tributaries in the Bonneville pool and reside for a short time before they begin their migration to upstream spawning areas. Water temperatures this summer have normally been less than 70°F, and probably as a result, steelhead counts at The Dalles remained greater than 2,200 per day for the week. Numbers of adult steelhead counted into the Snake River and past Ice Harbor Dam averaged 1,563 per day with the cumulative count being 34,628 through the end of the reporting week. In the Mid-Columbia, the counts of steelhead at Priest Rapids Dam ranged from 82-327 per day and totaled 7,272 through August 22. The passage of steelhead into the Snake and Mid-Columbia Rivers was about 2.2 and 2.0 times greater than the respective 10-year averages to date.

Hatchery Releases: All hatchery releases for the 2002 fish migration season are completed. The FPC will be updating and finalizing hatchery release groups during the next few months. Preliminary hatchery release totals are listed in the Table below the Snake, Mid-Columbia, and Lower Columbia River Zones. A release of sockeye will be completed next week into Lake Wenatchee. Note that most of these fish are expected to migrate during spring 2003.

Hatchery Release Totals by River Zone for 2002 Migration Season

	Spr Chin	SumChin	F Chin	Steelhd	Coho	Sockeye	Total
Snake	10,226,650	1,677,497	3,665,801	9,481,688	840,000	182,835	26,074,471
MidCol	3,926,275	3,527,243	10,913,482	1,312,693	2,065,603	308,042	22,053,338
LowCol	5,754,845		26,343,158	620,029	6,116,269		38,834,301
Total	19,907,770	5,204,740	40,922,441	11,414,410	9,021,872	490,877	86,962,110

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
08/09/02	138.8	0.1	137.7	0.0	137.6	8.4	132.8	22.7	134.1	29.0	134.8	47.4	132.9	71.0
08/10/02	105.3	0.1	111.4	0.0	116.2	8.4	117.5	16.7	121.0	23.8	132.3	46.4	132.7	71.2
08/11/02	95.4	0.1	95.0	0.0	98.3	7.0	95.3	14.1	97.3	20.5	108.6	38.4	108.8	58.9
08/12/02	122.0	0.1	122.4	0.0	125.3	8.5	124.4	19.5	123.9	26.7	118.1	41.8	110.4	59.2
08/13/02	125.9	0.1	128.3	0.0	131.1	8.1	125.4	19.3	126.5	29.5	132.0	46.2	129.2	69.0
08/14/02	119.8	0.1	122.0	0.0	126.1	8.0	124.8	18.8	126.1	27.1	130.6	45.7	127.9	69.4
08/15/02	115.0	0.1	120.0	0.0	123.4	8.1	122.5	17.7	125.1	25.9	133.4	47.4	131.7	70.2
08/16/02	89.7	0.1	94.6	0.0	98.3	7.6	104.9	16.8	103.8	21.5	108.1	12.8	110.5	22.1
08/17/02	84.1	0.1	80.8	0.0	81.4	6.6	75.4	14.3	77.3	19.8	79.0	2.1	78.8	0.9
08/18/02	82.9	0.1	79.9	0.0	81.3	6.5	81.6	14.9	83.9	20.2	84.6	2.2	83.7	1.1
08/19/02	111.7	0.1	116.9	0.0	121.4	7.4	118.1	17.9	116.9	25.0	118.7	2.1	121.0	0.9
08/20/02	109.2	0.2	111.2	0.0	117.6	7.6	114.5	15.6	116.0	22.8	120.2	1.8	123.7	0.8
08/21/02	117.4	0.1	115.2	0.0	116.7	7.8	110.9	0.0	114.3	19.6	115.4	1.9	116.9	0.9
08/22/02	125.8	0.1	126.8	0.0	130.5	8.2	125.3	0.0	127.7	23.1	124.9	1.9	125.2	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
08/09/02	13.7	3.8	7.9	10.8	25.9	0.0	27.7	0.0	28.9	0.0	32.0	26.5
08/10/02	13.7	3.8	8.6	13.1	29.9	0.0	30.1	0.0	30.2	0.0	32.1	26.4
08/11/02	13.7	3.7	8.0	11.0	30.8	0.0	30.5	0.0	31.1	0.0	36.0	29.8
08/12/02	13.7	3.7	8.6	12.4	29.1	0.0	30.4	0.0	31.1	0.0	34.7	29.1
08/13/02	13.7	3.7	9.3	15.6	29.6	0.0	28.9	0.0	29.1	0.0	31.7	25.9
08/14/02	13.7	3.7	8.2	17.1	34.3	1.0	35.7	0.0	36.0	0.0	37.4	31.7
08/15/02	13.7	3.7	9.0	16.6	32.0	1.1	31.0	0.0	32.6	0.0	33.5	27.7
08/16/02	13.7	3.6	8.6	16.2	35.5	0.0	36.6	0.0	38.9	0.0	42.8	37.3
08/17/02	13.7	3.6	8.8	15.3	32.2	0.0	31.4	0.0	30.8	0.0	33.7	27.7
08/18/02	13.7	3.6	8.2	10.7	32.4	0.0	33.7	0.0	34.5	0.0	36.4	30.6
08/19/02	13.7	3.6	8.6	15.0	26.7	0.0	26.6	2.9	26.3	0.0	24.4	18.7
08/20/02	13.7	3.5	8.2	11.8	31.3	0.0	28.4	2.9	29.3	0.0	33.2	27.5
08/21/02	13.7	3.6	9.0	11.2	27.9	0.0	27.9	6.3	27.4	0.0	27.5	21.4
08/22/02	13.6	3.5	---	---	28.5	0.0	25.2	4.2	27.2	0.0	32.6	27.0

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		
08/09/02	168.1	0.0	170.6	45.1	170.1	67.5	181.6	143.5	0.0	31.4
08/10/02	147.0	0.0	142.1	51.9	139.8	55.4	152.0	87.6	0.0	57.7
08/11/02	146.5	0.0	149.8	43.9	148.7	57.8	166.3	86.9	0.0	72.7
08/12/02	154.7	0.0	148.1	43.3	150.3	58.7	158.6	84.9	0.0	67.0
08/13/02	159.5	0.0	163.0	48.9	159.9	62.7	170.3	89.1	0.0	74.5
08/14/02	156.8	0.0	147.7	29.6	147.2	56.2	162.3	123.5	0.0	32.1
08/15/02	157.2	0.0	165.5	45.2	161.6	62.8	164.3	125.0	0.0	32.6
08/16/02	158.2	0.0	158.6	53.3	160.2	64.4	179.0	98.7	0.0	73.5
08/17/02	125.6	0.0	124.3	37.3	128.4	50.3	146.4	93.4	0.0	46.3
08/18/02	126.1	0.0	128.6	30.2	124.1	46.4	139.1	101.9	0.0	30.5
08/19/02	127.7	0.0	132.8	39.2	136.6	50.9	147.2	109.5	0.0	31.1
08/20/02	158.4	0.0	157.8	43.7	150.0	59.2	158.3	120.7	0.0	30.9
08/21/02	145.6	0.0	159.0	47.3	159.4	63.3	162.2	124.4	0.0	31.1
08/22/02	201.8	0.0	149.9	53.7	151.8	59.5	152.5	91.8	6.1	47.9

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			
								Rank 1	Rank 2	Rank 3	Rank 4
McNary Dam											
	08/19/02	Subyearling Chinook	100	0	0	0.00%	0.00%	0	0	0	0
	08/22/02	Subyearling Chinook	100	0	0	0.00%	0.00%	0	0	0	0
Bonneville Dam											
	08/13/02	Subyearling Chinook	100	0	0	0.00%	0.00%	0	0	0	0
	08/15/02	Subyearling Chinook	27	0	0	0.00%	0.00%	0	0	0	0
	08/22/02	Subyearling Chinook	100	0	0	0.00%	0.00%	0	0	0	0
Rock Island Dam											
	08/15/02	Subyearling Chinook	92	2	2	2.17%	0.00%	2	0	0	0
	08/19/02	Subyearling Chinook	100	0	0	0.00%	0.00%	0	0	0	0
	08/22/02	Subyearling Chinook	85	1	1	1.17%	0.00%	1	0	0	0

Hatchery Release Schedule Next Two Weeks

Hatchery Release Summary

From: 8/23/02 to 9/5/02

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	
RelSite	RelRiver							
WDFW	East Bank	SO UN	2003	114,000		08-26-02	08-30-02	Lake
Wenatchee	Wenatchee River							

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>High</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>#</u>
	<u>Avg</u>	<u>Avg</u>			<u>Avg</u>	<u>Avg</u>			<u>Avg</u>	<u>Avg</u>			<u>Avg</u>	<u>Avg</u>			<u>Avg</u>	<u>Avg</u>		
8/9	103	104	104	24	112	112	113	24	116	117	118	24	114	114	117	24	113	113	114	23
8/10	104	104	104	24	113	113	113	24	117	117	117	24	115	115	118	24	113	114	114	23
8/11	103	104	104	24	112	113	113	24	115	115	116	24	115	117	118	24	113	113	113	23
8/12	103	104	104	24	112	112	113	24	115	116	116	24	114	114	117	24	112	112	113	23
8/13	103	103	104	24	112	113	113	24	114	115	115	24	114	115	116	24	113	113	114	23
8/14	104	104	105	24	113	113	114	24	114	115	115	24	114	115	117	24	113	114	114	23
8/15	103	104	104	24	113	114	115	21	114	114	115	24	114	114	116	20	113	113	115	23
8/16	104	104	104	24	112	112	116	24	112	113	114	24	112	113	115	24	111	112	113	23
8/17	103	104	104	24	108	108	111	24	113	113	113	21	113	114	115	24	111	112	112	24
8/18	103	104	104	24	106	107	107	24	112	113	113	24	112	113	117	24	111	111	112	23
8/19	104	104	105	22	107	108	108	24	113	113	113	24	112	113	116	24	111	112	112	23
8/20	104	104	104	24	107	107	107	24	112	112	113	24	112	112	115	24	111	111	112	23
8/21	103	103	104	24	106	106	106	24	111	111	112	24	111	112	116	24	111	111	111	23
8/22	103	103	103	24	106	106	107	24	111	111	111	24	111	111	116	24	110	110	111	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>High</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>#</u>
	<u>Avg</u>	<u>Avg</u>			<u>Avg</u>	<u>Avg</u>			<u>Avg</u>	<u>Avg</u>			<u>Avg</u>	<u>Avg</u>			<u>Avg</u>	<u>Avg</u>		
8/9	111	113	114	23	112	112	112	24	112	113	114	24	112	112	113	23	112	113	113	23
8/10	111	113	114	23	112	113	113	24	113	114	115	24	112	112	113	24	112	112	113	24
8/11	112	113	114	23	111	112	113	24	112	112	113	24	111	111	112	23	111	111	112	23
8/12	109	111	112	22	111	111	111	24	111	112	112	24	111	111	111	24	111	112	112	24
8/13	110	113	114	21	112	112	112	24	113	113	114	24	111	111	112	18	112	112	113	18
8/14	113	114	115	23	112	113	113	24	113	114	115	24	112	112	112	24	113	113	113	24
8/15	113	113	113	23	112	113	113	24	113	114	115	24	111	112	112	24	112	113	113	24
8/16	112	113	114	23	110	111	112	24	112	113	113	24	111	111	112	23	112	112	113	23
8/17	111	112	114	24	110	110	111	24	110	111	112	24	111	111	112	24	111	112	113	24
8/18	111	112	113	23	110	111	111	24	111	112	113	24	110	111	111	23	111	111	112	23
8/19	111	112	112	22	110	111	112	17	111	112	113	17	111	111	111	24	111	111	112	24
8/20	111	112	113	22	110	111	111	15	112	112	113	15	110	110	110	24	111	111	112	24
8/21	111	111	112	22	110	110	110	24	111	112	112	24	109	109	110	23	109	110	111	23
8/22	110	110	111	23	109	110	110	24	111	112	112	24	109	109	109	24	109	109	110	24

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>High</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>#</u>
	<u>Avg</u>	<u>Avg</u>			<u>Avg</u>	<u>Avg</u>			<u>Avg</u>	<u>Avg</u>			<u>Avg</u>	<u>Avg</u>			<u>Avg</u>	<u>Avg</u>		
8/9	112	113	114	23	117	117	118	23	112	113	114	24	117	117	118	24	115	116	117	17
8/10	113	113	114	24	117	117	118	24	112	113	113	24	117	117	118	24	115	115	117	24
8/11	111	111	112	23	116	116	117	23	112	114	115	24	117	117	118	24	113	113	115	24
8/12	111	112	113	24	116	117	118	24	114	115	118	24	117	118	118	24	115	117	119	24
8/13	112	113	113	18	117	118	118	17	113	114	115	24	117	117	118	24	117	118	119	24
8/14	113	113	113	24	117	117	118	24	111	112	112	24	116	117	118	24	115	116	119	24
8/15	112	112	113	24	117	117	117	24	112	114	115	24	117	117	118	24	114	114	116	24
8/16	111	112	113	23	116	117	119	23	112	113	114	24	114	115	118	24	115	115	116	24
8/17	111	111	112	24	117	118	119	24	112	112	113	24	112	112	113	24	114	115	117	24
8/18	110	111	111	23	116	117	119	23	110	111	112	24	110	111	112	24	110	110	111	24
8/19	111	111	111	24	116	117	117	23	111	111	113	24	112	112	113	24	110	111	112	24
8/20	110	110	111	24	115	116	117	24	109	110	110	24	109	110	111	24	109	109	110	24
8/21	109	110	110	23	114	115	118	23	---	---	---	0	---	---	---	0	---	---	---	0
8/22	108	109	109	24	114	115	118	24	---	---	---	0	---	---	---	0	---	---	---	0

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

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

Date	<u>Priest R. Dnst</u>			<u>Pasco</u>			<u>Dworshak</u>			<u>Clrwr-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>
8/9	116	116	117	4	109	110	110	24	105	106	106	24	105	107	108	24	102	104	105	24
8/10	---	---	---	0	110	111	111	24	106	106	106	24	106	107	108	24	103	104	105	24
8/11	---	---	---	0	108	109	109	24	105	106	106	24	106	107	108	24	102	103	104	24
8/12	118	119	122	15	107	108	108	24	105	106	106	24	106	107	108	24	102	103	104	24
8/13	119	119	121	15	107	108	109	24	105	106	106	24	106	107	108	24	102	104	105	24
8/14	118	118	120	16	110	110	111	24	106	106	107	24	106	108	109	24	103	104	105	24
8/15	116	116	119	10	109	110	110	24	105	106	106	24	106	107	108	23	103	104	106	24
8/16	115	117	119	24	108	108	109	21	105	105	105	24	106	107	107	24	102	103	105	24
8/17	113	113	114	17	107	107	108	24	105	106	106	24	---	---	---	0	103	105	108	24
8/18	---	---	---	0	105	105	106	24	105	106	106	24	106	107	108	24	103	105	107	24
8/19	---	---	---	0	104	104	105	23	106	106	106	24	106	107	108	24	103	105	107	24
8/20	---	---	---	0	103	103	103	24	105	106	106	24	106	107	108	24	102	104	106	24
8/21	---	---	---	0	102	102	103	24	105	105	105	24	105	105	106	24	101	102	104	24
8/22	---	---	---	0	101	101	102	24	105	105	105	24	105	106	107	24	102	103	105	21

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>			#				
	<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>
8/9	101	103	105	24	105	107	108	24	101	102	103	24	101	102	104	23	100	100	101	24
8/10	101	103	105	24	107	107	108	24	102	103	104	24	102	102	103	24	100	101	101	24
8/11	101	102	103	24	104	105	106	24	102	102	102	24	101	102	103	24	100	100	101	24
8/12	100	102	104	24	105	106	107	24	103	103	107	24	104	105	106	23	101	102	103	24
8/13	100	103	105	24	106	107	108	24	103	104	105	24	105	106	106	24	101	102	102	24
8/14	102	105	108	23	106	107	108	24	104	105	109	24	104	104	106	24	102	102	102	24
8/15	104	106	107	24	107	108	109	24	105	108	119	24	104	106	108	24	102	102	103	24
8/16	103	105	106	24	105	106	106	24	102	102	103	24	103	104	106	24	102	102	105	24
8/17	103	105	107	24	107	107	109	24	102	103	103	24	104	105	106	24	102	103	103	24
8/18	103	105	107	24	106	107	108	24	101	102	102	24	103	104	106	24	101	102	102	24
8/19	103	105	106	24	107	108	109	24	101	102	102	24	104	105	105	24	112	121	124	24
8/20	103	104	106	24	104	104	105	24	100	101	101	24	102	102	103	24	110	117	121	24
8/21	102	103	104	24	105	107	109	24	100	100	101	24	101	102	103	24	108	114	114	24
8/22	103	104	105	24	106	107	109	23	101	101	102	23	102	103	105	24	110	117	119	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>
8/9	101	102	104	23	100	101	102	23	101	101	102	24	110	110	110	24	110	114	116	24
8/10	102	103	104	24	100	101	102	24	101	101	102	24	110	111	112	24	112	115	116	24
8/11	101	102	104	24	100	100	101	24	101	101	101	24	111	112	112	24	113	116	117	24
8/12	103	104	104	24	101	101	103	24	101	102	102	24	110	112	112	24	113	115	117	24
8/13	102	103	104	24	100	101	101	24	102	102	104	24	110	111	113	24	114	115	118	24
8/14	102	102	104	24	101	101	105	24	102	102	103	24	110	112	112	24	114	116	119	24
8/15	104	106	108	24	102	102	105	24	102	102	103	24	110	111	112	24	113	115	117	24
8/16	103	104	105	24	101	101	102	24	102	102	103	24	111	112	113	24	110	111	113	24
8/17	103	104	104	24	101	102	102	24	102	102	103	24	110	111	112	24	111	112	114	24
8/18	102	103	104	24	101	101	102	24	100	100	101	24	110	112	113	24	109	110	112	24
8/19	103	103	104	24	102	102	104	24	100	100	101	24	108	109	111	24	110	112	113	24
8/20	102	102	103	24	102	102	102	24	100	100	101	24	109	112	115	24	108	108	108	13
8/21	102	102	103	24	101	102	104	24	100	100	100	24	108	111	115	24	107	107	109	13
8/22	103	104	105	24	101	101	102	24	101	102	103	24	110	111	112	24	105	106	108	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> Avg	<u>12 h</u> Avg	High	# hr	<u>24 h</u> Avg	<u>12 h</u> Avg	High	# hr	<u>24h</u> Avg	<u>12h</u> Avg	High	# hr	<u>24h</u> Avg	<u>12h</u> Avg	High	# hr	<u>24h</u> Avg	<u>AVG</u>	High	# hr
8/9	108	109	109	24	108	108	109	24	101	101	102	23	110	118	119	24	107	110	114	20
8/10	111	111	112	24	109	110	111	24	102	102	103	23	115	116	118	24	106	109	114	22
8/11	112	114	115	24	111	111	112	24	102	103	104	23	115	115	115	24	106	107	108	23
8/12	113	114	116	24	111	112	112	24	104	106	107	23	115	115	115	24	106	107	107	23
8/13	112	113	114	24	111	111	112	24	105	106	107	23	115	115	116	24	108	108	108	23
8/14	112	113	113	24	111	111	112	24	104	105	106	23	110	115	118	24	108	109	109	22
8/15	111	113	115	24	110	111	111	24	104	104	105	23	111	117	118	24	105	106	111	23
8/16	111	111	113	24	110	110	110	24	104	105	106	23	115	116	117	24	105	107	112	22
8/17	110	110	111	24	109	110	110	20	104	104	105	24	114	115	115	24	109	110	111	24
8/18	109	110	113	24	108	108	108	24	104	105	107	23	111	116	118	24	106	106	106	23
8/19	109	110	111	24	108	109	109	24	105	105	106	23	112	118	118	24	106	107	108	23
8/20	106	107	107	13	106	106	107	10	103	104	104	23	111	118	118	24	105	107	108	23
8/21	106	106	108	13	105	105	105	12	102	103	104	23	111	118	118	24	104	106	108	23
8/22	106	107	109	24	104	104	104	24	103	104	107	23	115	117	118	24	107	109	111	23

Total Dissolved Gas Saturation Data at Lower Columbia River Sites

Date	<u>The Dalles Dnst</u>			<u>Bonneville</u>			<u>Warrendale</u>			<u>Camas/Washugal</u>						
	<u>24 h</u> Avg	<u>12 h</u> Avg	High	# hr	<u>24 h</u> Avg	<u>12 h</u> Avg	High	# hr	<u>24h</u> Avg	<u>12h</u> Avg	High	# hr	<u>24h</u> Avg	<u>12h</u> Avg	High	# hr
8/9	115	116	117	24	108	108	109	23	120	120	121	23	116	118	119	24
8/10	115	117	118	24	109	109	110	23	113	115	119	23	115	115	117	24
8/11	114	115	115	24	107	107	108	23	113	114	116	23	111	112	114	24
8/12	114	115	116	24	107	108	108	23	112	113	113	23	110	111	112	24
8/13	115	116	116	24	109	110	111	23	114	115	117	23	110	112	113	24
8/14	115	115	116	24	111	112	112	23	117	117	118	23	112	114	119	24
8/15	113	114	114	24	109	109	110	23	117	117	118	23	114	115	116	24
8/16	114	115	116	24	106	107	108	23	113	115	118	23	112	113	115	24
8/17	114	115	116	24	107	107	107	24	117	120	122	23	111	113	116	24
8/18	113	113	113	24	107	108	109	23	117	117	118	23	110	112	114	24
8/19	112	113	114	24	106	107	108	23	117	118	118	23	111	112	113	24
8/20	112	112	113	23	105	105	106	23	118	118	119	23	110	111	112	24
8/21	111	112	113	24	103	104	104	23	119	119	120	23	111	112	114	24
8/22	114	114	114	24	105	105	105	23	116	118	120	23	113	114	115	24

Source: Fish Passage Center

Updated: 8/23/02 8:18

Two-Week Summary of Passage Indices

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

For clip information see: <http://www.fpc.org/CurrentDaily/catch.htm>

For sockeye and yearling chinook (Snake only) race information see: <http://www.fpc.org/smoltqueries/currentsmppsubmitdata.asp>

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

COMBINED YEARLING CHINOOK											
Date	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (INDEX)	LGS (INDEX)	LMN (INDEX)	RIS (INDEX)	MCN (INDEX)	JDA (INDEX)	BO2 (INDEX)
08/09/2002	---	---	---	---	0	2	4	0	0	0	0
08/10/2002	---	---	---	---	0	0	8	0	0	0	0
08/11/2002	---	---	---	---	0	0	4	0	0	0	0
08/12/2002	---	---	---	---	0	0	4	0	0	0	0
08/13/2002	---	---	---	---	0	0	8	0	20	0	0
08/14/2002	---	---	---	---	0	0	4	0	0	0	0
08/15/2002	---	---	---	---	0	1	0	0	8	0	0
08/16/2002	*	---	---	---	0	0	28	0	50	0	0
08/17/2002	---	---	---	---	0	0	8	0	0	0	0
08/18/2002	*	---	---	---	0	1	13	0	0	0	0
08/19/2002	---	---	---	---	0	1	5	0	0	0	0
08/20/2002	*	---	---	---	0	0	9	0	0	0	0
08/21/2002	*	---	---	---	0	0	4	0	0	0	5
08/22/2002	---	---	---	---	0	0	8	0	0	0	18
Total:	0	0	0	0	0	5	107	0	78	0	23
# Days:	0	0	0	0	14	14	14	14	14	14	14
Average:	0	0	0	0	0	0	8	0	6	0	2
YTD	38,199	29,095	8,013	7,847	2,459,176	2,843,811	2,221,870	28,981	3,519,254	2,104,926	3,328,066

COMBINED SUBYEARLING CHINOOK											
Date	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (INDEX)	LGS (INDEX)	LMN (INDEX)	RIS (INDEX)	MCN (INDEX)	JDA (INDEX)	BO2 (INDEX)
08/09/2002	---	---	---	---	852	176	296	237	50,981	2,061	8,083
08/10/2002	---	---	---	---	992	155	424	115	67,703	1,648	13,294
08/11/2002	---	---	---	---	1,264	142	940	98	51,812	1,360	5,311
08/12/2002	---	---	---	---	928	102	540	105	46,494	4,420	3,298
08/13/2002	---	---	---	---	592	108	660	176	43,358	11,246	2,443
08/14/2002	---	---	---	---	492	186	304	128	26,716	20,070	4,310
08/15/2002	---	---	---	---	735	186	364	144	31,153	11,483	3,271
08/16/2002	*	---	---	---	878	275	604	155	40,700	5,472	2,119
08/17/2002	---	---	---	---	840	331	476	148	71,107	6,111	2,491
08/18/2002	*	---	---	---	552	548	185	174	40,602	5,473	1,705
08/19/2002	---	---	---	---	724	332	298	190	21,300	14,247	1,223
08/20/2002	*	---	---	---	704	228	429	146	21,552	8,831	1,039
08/21/2002	*	---	---	---	888	273	654	164	9,833	25,999	1,022
08/22/2002	---	---	---	---	1,280	281	517	119	16,240	9,603	1,746
Total:	0	0	0	0	11,721	3,323	6,691	2,099	539,551	128,024	51,355
# Days:	0	0	0	0	14	14	14	14	14	14	14
Average:	0	0	0	0	837	237	478	150	38,539	9,145	3,668
YTD	0	4	26	3,488	701,499	329,207	300,673	24,847	8,190,883	3,435,526	6,968,540

Two-Week Summary of Passage Indices

Date	COMBINED COHO										
	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (INDEX)	LGS (INDEX)	LMN (INDEX)	RIS (INDEX)	MCN (INDEX)	JDA (INDEX)	BO2 (INDEX)
08/09/2002	---	---	---	---	0	6	0	7	67	0	0
08/10/2002	---	---	---	---	0	4	12	1	0	0	0
08/11/2002	---	---	---	---	0	14	20	0	0	19	10
08/12/2002	---	---	---	---	0	6	0	3	28	0	0
08/13/2002	---	---	---	---	0	7	12	0	10	14	0
08/14/2002	---	---	---	---	0	14	4	0	0	47	2
08/15/2002	---	---	---	---	0	7	8	0	8	68	0
08/16/2002	*	---	---	---	0	15	8	1	0	0	0
08/17/2002	---	---	---	---	0	12	16	0	0	36	0
08/18/2002	*	---	---	---	0	3	16	1	0	0	0
08/19/2002	---	---	---	---	0	7	4	0	0	0	0
08/20/2002	*	---	---	---	0	8	9	0	0	0	0
08/21/2002	*	---	---	---	0	12	3	0	0	0	0
08/22/2002	---	---	---	---	0	8	5	0	0	0	0
Total:	0	0	0	0	0	123	117	13	113	184	12
# Days:	0	0	0	0	14	14	14	14	14	14	14
Average:	0	0	0	0	0	9	8	1	8	13	1
YTD	0	0	0	101	124,048	104,485	66,141	86,225	201,998	315,280	2,331,561

Date	COMBINED STEELHEAD										
	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (INDEX)	LGS (INDEX)	LMN (INDEX)	RIS (INDEX)	MCN (INDEX)	JDA (INDEX)	BO2 (INDEX)
08/09/2002	---	---	---	---	12	2	44	0	0	10	0
08/10/2002	---	---	---	---	0	8	20	4	0	0	0
08/11/2002	---	---	---	---	12	4	104	0	0	0	0
08/12/2002	---	---	---	---	4	2	24	0	0	0	0
08/13/2002	---	---	---	---	4	2	24	1	10	0	0
08/14/2002	---	---	---	---	8	6	20	3	0	0	0
08/15/2002	---	---	---	---	12	1	36	0	0	0	0
08/16/2002	*	---	---	---	8	4	120	1	0	0	0
08/17/2002	---	---	---	---	12	16	171	1	0	0	0
08/18/2002	*	---	---	---	0	14	86	0	0	0	0
08/19/2002	---	---	---	---	8	16	65	0	0	0	0
08/20/2002	*	---	---	---	8	27	99	0	0	0	0
08/21/2002	*	---	---	---	0	22	125	0	0	0	0
08/22/2002	---	---	---	---	8	12	148	0	0	0	0
Total:	0	0	0	0	96	136	1,086	10	10	10	0
# Days:	0	0	0	0	14	14	14	14	14	14	14
Average:	0	0	0	0	7	10	78	1	1	1	0
YTD	2,833	32,043	3,494	11,810	2,602,914	2,273,291	1,793,311	28,709	794,451	545,814	1,455,004

* See sampling comments

<http://www.fpc.org/currentDaily/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.

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

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)
08/09/2002	---	---	---	---	4	2	0	4	133	0	0
08/10/2002	---	---	---	---	4	4	0	3	100	10	0
08/11/2002	---	---	---	---	4	4	0	1	100	19	10
08/12/2002	---	---	---	---	0	4	0	1	129	10	0
08/13/2002	---	---	---	---	4	2	0	4	120	43	47
08/14/2002	---	---	---	---	0	7	0	6	60	142	27
08/15/2002	---	---	---	---	4	2	0	4	16	68	49
08/16/2002	*	---	---	---	4	1	0	6	50	0	29
08/17/2002	---	---	---	---	0	7	2	1	200	0	0
08/18/2002	*	---	---	---	0	6	1	0	100	36	0
08/19/2002	---	---	---	---	0	2	0	6	200	109	18
08/20/2002	*	---	---	---	12	1	1	1	0	94	0
08/21/2002	*	---	---	---	8	0	1	0	33	47	0
08/22/2002	---	---	---	---	0	1	3	3	20	0	0
Total:	0	0	0	0	44	43	8	40	1,261	578	180
# Days:	0	0	0	0	14	14	14	14	14	14	14
Average:	0	0	0	0	3	3	1	3	90	41	13
YTD	18	0	0	261	77,510	66,603	38,979	20,613	1,409,285	934,026	848,165

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: 08/22

DAM	Spring Chinook						Summer Chinook						Fall Chinook					
	2002		2001		10-Yr Avg.		2002		2001		10-Yr Avg.		2002		2001		10-Yr Avg.	
	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack
BON	268,813	6,477	391,367	14,172	104,143	5,654	127,442	7,948	76,156	14,723	26,786	4,828	20,526	1,636	19,635	4,508	16,348	1,787
TDA	181,176	3,870	303,912	9,953	68,558	3,895	113,189	5,743	71,462	10,926	22,478	3,504	11,220	1,067	11,112	2,424	7,648	1,024
JDA	139,887	2,403	264,177	6,208	58,196	3,052	105,788	5,506	64,186	10,049	20,885	3,005	6,679	1,341	4,734	1,657	3,964	665
MCN	129,357	3,872	258,689	6,683	54,462	2,970	109,937	6,818	67,914	9,600	21,443	2,927	5,919	642	4,175	1,318	2,686	461
IHR	85,207	1,826	171,173	3,026	32,988	1,807	26,607	2,437	15,270	2,397	5,356	857	634	82	258	41	121	6
LMN	76,304	1,537	180,787	1,784	32,792	1,811	23,743	1,686	19,287	1,612	5,597	792	400	73	241	134	79	23
LGS	77,232	1,815	174,823	2,990	31,528	1,921	20,844	2,253	15,929	2,803	5,147	995	230	17	248	70	55	11
LWG	75,025	2,132	171,958	3,135	30,329	1,865	22,159	1,953	13,735	3,804	5,072	1,094	147	11	136	50	36	8
PRD	34,083	196	50,379	987	14,082	343	90,309	1,352	53,170	3,207	18,552	1,069	2,741	179	2,678	586	1,195	179
RIS	24,734	892	39,785	1,761	10,725	505	80,826	2,717	48,844	13,086	16,340	3,328	873	95	815	475	275	108
RRH	11,204	215	15,895	543	3,314	135	71,771	2,684	39,174	5,548	9,858	1,394	343	44	177	33	62	31
WEL	7,587	39	9,989	892	1,799	176	60,283	315	31,760	4,267	6,285	1,027	0	0	0	0	0	0

DAM	Coho						Sockeye			Steelhead			
	2002		2001		10-Yr Avg.		2002	2001	10-Yr Avg.	2002	2001	10-Yr Avg.	Wild 2002
	Adult	Jack	Adult	Jack	Adult	Jack							
BON	178	44	1,466	229	409	74	49,621	114,929	50,281	270,142	413,570	152,911	95,226
TDA	5	0	32	3	29	6	40,554	102,559	40,059	130,650	187,182	59,685	51,894
JDA	9	0	106	4	11	0	41,913	107,790	43,266	94,292	105,429	38,880	37,075
MCN	0	0	10	8	0	0	39,173	97,157	39,887	71,209	99,693	31,125	27,576
IHR	0	0	4	0	0	0	59	38	13	34,628	46,300	16,098	10,267
LMN	0	0	0	0	0	0	45	32	21	28,439	43,764	14,033	9,949
LGS	0	0	0	0	0	0	38	71	24	20,987	26,080	8,138	8,152
LWG	0	0	0	0	0	0	51	36	23	23,965	21,280	9,744	8,196
PRD	35	4	26	33	3	0	45,533	111,191	48,745	7,272	12,502	3,585	***
RIS	4	0	30	0	6	0	38,589	104,717	43,321	5,882	9,973	2,755	1,535
RRH	15	0	32	0	4	0	16,466	66,118	27,147	4,164	6,240	1,685	1,382
WEL	1	0	0	0	0	0	10,477	74,305	26,926	2,928	4,100	1,078	1,851

WEL is through 08/21; RRH and RIS are through 08/20. PRD is missing the right ladder on 8/9 & 8/12.

TDA is missing one ladder on 8/22; TDA has duplicate counts on 8/19 & 8/20.

RIS, RRH, PRD and WEL data for the last week are from the PUDs.

**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.

Two Week Transportation Summary

		08/10/02	TO	08/23/02				
		Species						
Site	Data	CH0	CH1	CO	SO	ST	Grand Total	
LGR	Sum of NumberCollected	11,668				44	96	11,808
	Sum of NumberBarged	6,624				23	58	6,705
	Sum of NumberBypassed	15				0	0	15
	Sum of Numbertrucked	4,956				19	36	5,011
	Sum of TotalProjectMortalities	73				2	2	77
LGS	Sum of NumberCollected	3,208	5	119	43	128		3,503
	Sum of NumberBarged	1,318	3	72	24	28		1,445
	Sum of NumberBypassed	0	0	0	0	0		0
	Sum of Numbertrucked	1,851	2	43	15	98		2,009
	Sum of TotalProjectMortalities	39	0	4	4	2		49
LMN	Sum of NumberCollected	6,691	107	117	8	1,086		8,009
	Sum of NumberBarged	4,007	59	60	0	346		4,472
	Sum of NumberBypassed	0	0	0	0	724		724
	Sum of Numbertrucked	2,382	46	51	7	0		2,486
	Sum of TotalProjectMortalities	302	2	6	1	16		327
MCN	Sum of NumberCollected	539,551	78	113	1,261	10		541,013
	Sum of NumberBarged	465,256	77	128	1,044	21		466,526
	Sum of NumberBypassed	7,494	0	0	0	0		7,494
	Sum of Numbertrucked	108,417	0	0	353	0		108,770
	Sum of TotalProjectMortalities	7,791	1	0	12	0		7,804
Total Sum of NumberCollected		561,118	190	349	1,356	1,320		564,333
Total Sum of NumberBarged		477,205	139	260	1,091	453		479,148
Total Sum of NumberBypassed		7,509	0	0	0	724		8,233
Total Sum of Numbertrucked		117,606	48	94	394	134		118,276
Total Sum of TotalProjectMortalities		8,205	3	10	19	20		8,257

YTD Transportation Summary

TO: 08/23/02

		Species					
Site	Data	CH0	CH1	CO	SO	ST	Grand Total
LGR	Sum of NumberCollected	580,294	1,535,655	80,758	51,417	1,698,777	3,946,901
	Sum of NumberBarged	567,550	1,483,798	80,608	49,501	1,627,988	3,809,445
	Sum of NumberBypassed	209	38,152	5	7	65,895	104,268
	Sum of NumberTrucked	4,985	9,847	20	362	3,419	18,633
	Sum of TotalProjectMortalities	7,592	3,858	125	1,547	1,255	14,377
LGS	Sum of NumberCollected	285,571	1,907,377	79,895	48,192	1,562,725	3,883,760
	Sum of NumberBarged	282,631	1,904,701	79,281	47,412	1,559,479	3,873,504
	Sum of NumberBypassed	0	0	0	0	0	0
	Sum of NumberTrucked	1,851	1,036	47	89	1,122	4,145
	Sum of TotalProjectMortalities	1,089	1,640	567	691	2,127	6,114
LMN	Sum of NumberCollected	300,628	2,214,657	63,036	38,581	1,752,434	4,369,336
	Sum of NumberBarged	266,730	2,122,021	60,932	37,468	1,713,937	4,201,088
	Sum of NumberBypassed	29,272	68,125	1,994	208	32,682	132,281
	Sum of NumberTrucked	2,382	20,150	51	20	356	22,959
	Sum of TotalProjectMortalities	2,244	4,361	59	885	5,459	13,008
MCN	Sum of NumberCollected	5,208,032	2,205,028	111,899	908,920	464,591	8,898,470
	Sum of NumberBarged	1,785,415	792	2,094	4,976	979	1,794,256
	Sum of NumberBypassed	3,275,849	2,203,242	109,765	902,697	463,311	6,954,864
	Sum of NumberTrucked	108,417	0	0	353	0	108,770
	Sum of TotalProjectMortalities	38,318	994	40	893	301	40,546
Total Sum of NumberCollected		6,374,525	7,862,717	335,588	1,047,110	5,478,527	21,098,467
Total Sum of NumberBarged		2,902,326	5,511,312	222,915	139,357	4,902,383	13,678,293
Total Sum of NumberBypassed		3,305,330	2,309,519	111,764	902,912	561,888	7,191,413
Total Sum of NumberTrucked		117,635	31,033	118	824	4,897	154,507
Total Sum of TotalProjectMortalities		49,243	10,853	791	4,016	9,142	74,045

