



## Fish Passage Center

# Weekly Report #02 - 23

August 16, 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 44.0 Kcfs at Lower Granite and 206.4 Kcfs at McNary; therefore, flow objectives are being met on a seasonal basis only at McNary. Weekly average flows between 8-9-02 and 8-16-02 at Lower Granite and McNary were 30.2 and 155.7 Kcfs; therefore, flow objectives are not being met at either project on a weekly basis.**
- **Combined storage in the Upper Snake River System is less than 33% of capacity.**

**Water:** River flows within the Columbia Basin are low. Storage reservoirs along the Columbia and Snake Rivers are drafting.

Grand Coulee has drafted 1.3 feet over last week; beginning the week at 1282.2 feet (8-9-02) and ending at 1280.9 feet (8-15-02). Total outflows have averaged 117.5 Kcfs over the past week (8-9-02 to 8-15-02). 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 2.9 feet remains to be drafted over the next two weeks.

The Libby reservoir has drafted 2.6 feet over the past week (8-9-02 to 8-15-02); reservoir elevations have ranged from 2451.0 to 2448.4 feet. Outflows have ranged between 17 Kcfs and 18 Kcfs over the last week. Currently (8-15-02), Libby is at an elevation of 2448.4 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 (8-9-02 to 8-15-02) to supplement flows and decrease temperatures at Lower Granite. Operations at Dworshak continue to involve spilling between 3.7 and 3.8 Kcfs of reservoir water. Currently (midnight, 8-15-02) Dworshak is at an elevation of 1558.2 feet, drafting 8.4 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 with out drafting Dworshak below 1520 feet.

Over the past week the Brownlee reservoir has drafted five feet, beginning the week at 2071.0 ending the week at 2066.0 feet. During the week, outflows have varied between 7.9 and 9.3 Kcfs.

The Hungry Horse Reservoir continues to draft; beginning the week at an elevation of 3553.8 feet and ending the week at 3551.3 feet. Total outflows at Hungry Horse have been steady at 6.0 Kcfs over the last week (8-9-02 to 8-15-02). Currently (mid-night, 8-15-02) Hungry Horse is at an elevation of 3551.3 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 44.0 Kcfs at Lower Granite and 206.4 Kcfs at McNary. Summer BiOp flow objectives are being met at McNary, but not Lower Granite, on a seasonal basis. Over the past week (8-9-02 to 8-16-02), flows have averaged 30.2 Kcfs at Lower Granite and 155.7 Kcfs at McNary. Therefore, on a weekly basis, flow objectives are not being met at either McNary or Lower Granite.

Currently, as of August 10th, 2002, the entire Upper Snake River System less than 33% of capacity. Most reservoirs on the Upper Snake River have been drafting. Individually, American Falls is at 17% of capacity, Palisades is at 21% of capacity, Jackson Lake is at 61% of capacity, Island Park is at 41% of capacity, Lake Walcott is at 103% of capacity, Milner is at 97% 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 3.7 Kcfs over the past week. Tailwater total dissolved gas levels have remained at 106%. At Ice Harbor Dam spill averaged 83% 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 28% of average daily flow at John Day Dam, 39% of average daily flow at The Dalles Dam and 64% 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 this past week at all sites. At Lower Granite Dam the number of subyearling chinook decreased compared to last week with the average daily index at 800 this week compared to 1,800 last week. At Rock Island Dam the subyearling chinook index decreased compared to last week also, with 140 average daily index this week compared to 290 daily last week. In the lower Columbia, the passage index increased at McNary and John Day. At McNary the index more than doubled from 19,000 last week to 45,000 per day this week. At John Day Dam passage index for subyearling chinook was also up, with the index averaging 7,500 this week versus 3,900 last week. At Bonneville Dam subyearling chinook numbers decreased with an average daily index this week of 5,700 versus 8,900 last week.

**Adult Fish Passage:** At Bonneville Dam, counts of adult fall chinook averaged 918 per day for the week with the cumulative count through August 15 at 11,053. This year's count of adult fall chinook is about 1.1 and 1.6 times greater than the respective year 2001 and 10-year average. As a note, the fall chinook run is comprised of two separate stocks of chinook that pass Bonneville Dam, the Upriver Bright and Tule stocks. Tule fall chinook are destined for the Bonneville pool tributaries and mainly to Spring Creek NFH. The Upriver Bright fall chinook are found throughout the mainstem Columbia River above Bonneville Dam, but many are destined for the hatcheries and tributaries above McNary Dam. The Hanford Reach Area still has the largest contingent of wild fall chinook escapement and spawning grounds in the Columbia River. The Snake River count of adult summer chinook at Lower Granite Dam totaled 22,113 through August 15, with daily counts averaging less than 20 per day through the past week. In the Mid-Columbia, the cumulative count of adult summer chinook at Priest Rapids Dam ended up with 90,702 through the end of the season, about 1.7 times and 4.9 times greater than the respective 2001 and 10-year average. At Rock Island Dam about 79,000 have been counted through August 13 with 69,400 counted above Rocky Reach Dam through August 13.

About 38,500 sockeye have been counted at Rock Island Dam with 16,400 counted at Rocky Reach Dam through August 13. Based on the Rock Island count and subtracting off the Rocky Reach count should give an estimated number of sockeye returning to Lake Wenatchee with the sockeye counted at Rocky Reach and Wells Dam bound for Lake Osoyoos. In the Snake River, 52 adult sock-

eye have been counted at Lower Granite Dam through August 15. These sockeye should be destined for the upper Salmon River area (Redfish L, Alturas L, or Pettit L).

Steelhead passage at Bonneville Dam averaged 6,758 per day through the past week with a total of 243,781 counted through August 15. This total is 65% and 186% of the respective 2001 and 10-year average counts to date. Estimated wild steelhead in the passage total was 88,073 (based on visual missing adipose fin on the steelhead). As expected, 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 hold for a time before they begin their migration to upstream spawning areas. Numbers of adult steelhead counted into the Snake River and past Ice Harbor Dam averaged 397 per day with the cumulative count being 23,342 through the reporting week. In the Mid-Columbia, the counts of steelhead at Priest Rapids Dam ranged from 48-238 per day and totaled 5,708 through August 14. The passage of steelhead into the Snake and Mid-Columbia Rivers remains about 1.7 and 1.9 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 for the Snake, Mid-Columbia, and Lower Columbia River Zones.

**Hatchery Release Totals by River Zone for 2002 Migration Season**

	Spr Chin	SumChin	F Chin	Steelhd	Coho	Sockeye	Total
<b>Snake</b>	10,226,650	1,677,497	3,665,801	9,481,688	840,000	182,835	26,074,471
<b>MidCol</b>	3,926,275	3,527,243	10,913,482	1,312,693	2,065,603	308,042	22,053,338
<b>LowCol</b>	5,754,845		26,343,158	620,029	6,116,269		38,834,301
<b>Total</b>	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
08/02/02	134.4	0.1	141.1	0.0	145.4	9.0	146.1	17.8	144.1	25.7	155.0	54.1	152.3	70.2
08/03/02	109.3	0.1	112.1	0.0	116.1	8.1	117.5	16.4	120.4	24.5	124.8	43.5	125.2	65.7
08/04/02	94.8	0.1	91.0	0.0	93.5	7.0	92.4	15.8	93.4	22.1	96.5	33.9	97.7	49.4
08/05/02	112.3	0.1	114.9	0.0	114.0	7.8	116.2	22.4	118.2	30.1	129.7	45.6	130.2	69.3
08/06/02	120.4	0.1	123.2	0.0	123.1	8.2	120.8	19.9	118.9	29.2	115.6	40.7	111.9	61.8
08/07/02	136.0	0.2	140.7	0.0	144.2	8.8	143.1	19.2	141.3	29.7	151.8	53.3	150.5	81.7
08/08/02	140.3	0.1	136.2	0.0	147.3	10.4	147.7	20.7	149.2	28.6	159.9	55.8	159.0	84.5
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

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

Date	Dworshak		Brownlee Canyon		Hells Granite		Lower Granite		Little Goose		Lower Monumental		Ice Harbor	
	Flow	Spill	Inflow	Outflow	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill
08/02/02	13.6	3.9	7.6	7.7	28.1	0.0	28.5	0.0	28.2	0.0	30.6	24.9		
08/03/02	13.6	3.9	7.6	7.7	25.4	0.0	24.3	0.0	26.0	0.0	28.0	22.3		
08/04/02	13.6	3.8	7.6	7.9	25.8	0.0	25.8	0.0	25.8	0.0	30.3	24.9		
08/05/02	13.7	3.8	7.8	9.2	26.7	0.0	27.0	0.0	27.6	0.0	32.1	26.2		
08/06/02	13.7	3.8	7.8	7.6	28.8	0.0	30.1	0.0	31.2	0.0	31.7	26.1		
08/07/02	13.7	3.8	7.1	9.0	26.3	0.0	27.8	0.0	27.5	0.0	30.9	25.3		
08/08/02	13.7	3.8	8.1	7.7	27.4	0.0	25.7	0.0	26.1	0.0	26.6	20.9		
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	---	---	32.0	1.1	31.0	0.0	32.6	0.0	33.5	27.7		

**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		
08/02/02	160.6	0.1	163.0	36.3	155.6	58.7	166.6	128.6	0.3	31.0
08/03/02	160.3	0.0	166.7	50.0	167.6	65.5	171.2	132.8	0.8	30.9
08/04/02	160.9	0.0	143.3	52.5	139.6	53.0	151.2	91.2	0.0	53.2
08/05/02	150.1	0.0	163.9	48.4	159.6	62.5	178.9	91.8	0.6	79.8
08/06/02	142.8	0.0	155.9	34.3	154.8	61.7	171.4	133.9	0.4	30.4
08/07/02	149.3	0.0	150.1	43.3	149.3	59.8	148.7	110.5	0.2	31.2
08/08/02	170.4	0.0	174.9	55.7	168.4	66.9	172.4	133.9	0.1	31.5
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	201.8	0.0	165.5	45.2	161.6	62.8	164.3	125.0	0.0	32.6

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

Site	Date	Species	Number of Fish	Number w GBT signs	Number w Fin Signs	% Fin GBT	% Severe Fin GBT	Number of Fish with Fin GBT Listed by Highest Rank			
								Rank 1	Rank 2	Rank 3	Rank 4
<b>McNary Dam</b>											
	08/08/02	Subyearling Chinook	100	0	0	0.00%	0.00%	0	0	0	0
	08/12/02	Subyearling Chinook	100	0	0	0.00%	0.00%	0	0	0	0
<b>Bonneville Dam</b>											
	08/06/02	Subyearling Chinook	75	0	0	0.00%	0.00%	0	0	0	0
	08/08/02	Subyearling Chinook	79	0	0	0.00%	0.00%	0	0	0	0
	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
<b>Rock Island Dam</b>											
	08/08/02	Subyearling Chinook	100	1	1	1.00%	0.00%	1	0	0	0
	08/12/02	Subyearling Chinook	61	1	1	1.63%	0.00%	1	0	0	0
	08/15/02	Subyearling Chinook	92	2	2	2.17%	0.00%	2	0	0	0

### Hatchery Releases

There are no hatchery releases for the last two weeks or for the next two weeks.

## 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>	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		Avg	Avg			Avg			
8/2	107	107	107	24	114	115	115	24	120	120	121	24	117	118	119	24	117	117	117	24
8/3	106	106	107	22	114	114	115	24	120	120	120	24	117	118	118	24	116	116	117	24
8/4	105	105	106	24	113	113	114	24	119	120	120	24	116	118	119	24	115	116	116	23
8/5	107	108	109	24	113	113	114	24	---	---	---	0	115	115	117	24	115	115	116	24
8/6	109	109	110	20	113	113	114	17	118	118	119	16	118	118	119	16	114	114	115	19
8/7	109	109	110	24	113	113	114	24	117	117	118	24	114	114	116	24	112	113	113	23
8/8	106	109	110	24	112	112	113	24	116	117	117	24	113	114	115	24	112	112	113	23
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

### 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>	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		Avg	Avg			Avg			
8/2	116	116	117	24	115	115	115	24	116	116	117	24	113	114	115	24	113	114	115	24
8/3	116	117	118	24	115	116	117	24	116	117	117	24	113	113	114	24	113	113	114	24
8/4	114	114	115	23	114	115	115	24	115	115	116	24	114	114	114	24	113	114	114	23
8/5	114	115	116	24	112	112	113	24	113	114	114	24	113	113	113	23	113	114	114	23
8/6	114	114	115	19	112	113	114	19	113	114	114	19	111	111	112	19	112	112	112	19
8/7	112	112	113	23	112	112	112	24	113	114	114	24	111	111	111	23	111	111	112	23
8/8	112	112	113	22	111	111	112	24	113	113	116	24	111	112	112	24	112	112	112	24
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

### 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>	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		Avg	Avg			Avg			
8/2	113	113	114	24	117	117	118	24	112	113	113	24	116	117	118	24	113	114	116	24
8/3	112	113	113	24	117	117	117	24	113	114	115	24	117	117	118	24	113	114	117	24
8/4	112	112	113	24	116	117	117	24	111	112	114	24	116	116	118	24	114	115	115	24
8/5	112	113	114	23	117	118	118	23	111	112	113	24	116	116	116	24	113	113	115	24
8/6	112	112	113	19	117	117	118	19	111	111	112	24	115	116	116	24	112	113	114	24
8/7	111	111	112	22	116	116	117	22	112	113	115	24	116	116	117	24	113	114	115	24
8/8	111	112	113	24	116	117	118	24	112	112	113	24	117	117	117	24	114	115	117	24
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	---	---	---	0	---	---	---	0	---	---	---	0
8/15	112	112	113	24	117	117	117	24	---	---	---	0	---	---	---	0	---	---	---	0

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

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

Date	<u>Priest R. Dnst</u>			<u>Pasco</u>			<u>Dworshak</u>			<u>Clrwtr-Peck</u>			<u>Anatone</u>			#				
	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>					
	<u>Avg</u>	<u>Avg</u>		<u>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>
8/2	116	117	120	18	107	107	108	24	105	105	105	24	---	---	---	0	102	103	105	24
8/3	116	117	119	16	106	106	107	24	104	105	105	24	---	---	---	0	102	104	105	24
8/4	115	116	118	24	105	106	106	24	104	104	105	24	105	105	106	24	101	102	103	24
8/5	115	117	118	24	104	105	106	24	---	---	---	0	---	---	---	0	102	103	104	24
8/6	115	116	118	24	104	104	105	17	104	104	104	17	105	105	106	17	101	102	103	17
8/7	116	116	118	13	104	105	106	24	104	104	105	24	104	105	106	24	102	103	104	24
8/8	117	117	118	15	106	107	108	21	105	105	105	24	105	106	107	24	102	103	104	24
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	---	---	---	0	110	110	111	24	106	106	107	24	106	108	109	24	103	104	105	24
8/15	---	---	---	0	109	110	110	24	105	106	106	24	106	107	108	23	103	104	106	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>
8/2	101	103	104	24	104	105	108	24	101	101	102	24	101	102	102	24	101	101	103	24
8/3	101	103	104	24	105	107	107	24	101	102	103	24	102	104	105	24	101	102	102	24
8/4	100	101	102	24	103	104	106	24	101	101	102	24	101	101	103	24	100	100	101	24
8/5	---	---	---	0	103	105	106	24	101	102	102	24	101	102	103	24	100	101	101	24
8/6	100	101	103	17	103	103	104	17	101	101	102	17	101	101	102	17	100	100	100	17
8/7	101	102	104	24	102	103	103	24	101	101	102	24	100	100	101	24	99	100	100	24
8/8	101	102	104	24	101	102	103	23	100	101	101	23	100	100	101	24	99	99	100	24
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

### 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>
8/2	101	102	103	24	101	101	102	24	102	102	104	24	109	110	111	24	109	111	112	24
8/3	102	103	104	24	101	101	102	24	102	103	103	24	109	111	112	24	109	110	113	24
8/4	100	101	102	24	100	100	102	24	101	101	102	24	109	110	110	24	107	107	109	24
8/5	100	100	101	24	100	101	103	24	101	101	103	24	110	111	112	24	107	109	110	24
8/6	100	100	100	17	100	100	102	17	100	100	101	17	109	111	112	17	107	107	108	17
8/7	99	100	101	24	99	100	102	24	100	100	101	23	109	110	111	23	106	108	110	24
8/8	99	100	101	24	99	99	100	24	100	100	100	24	108	110	111	24	108	111	113	24
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

## 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>12h</u>	<u>#</u>		
	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	AVG	High	hr
8/2	108	109	109	24	107	108	108	24	100	101	101	24	109	115	117	24	105	106	107	23
8/3	110	112	113	24	109	110	110	24	101	101	103	24	110	117	118	24	104	107	111	23
8/4	108	109	111	24	107	108	109	24	100	100	101	23	115	116	118	24	104	107	111	22
8/5	106	106	107	24	106	106	106	24	100	100	101	24	115	115	116	24	106	107	108	20
8/6	105	105	106	16	105	105	106	17	100	100	100	19	106	109	115	17	105	105	106	16
8/7	105	106	108	24	104	105	105	24	99	100	101	23	109	116	118	24	103	104	108	22
8/8	107	108	109	24	106	106	107	24	100	101	101	23	110	118	119	24	106	109	111	22
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

**Total Dissolved Gas Saturation Data at Lower Columbia River Sites**

Date	<u>The Dalles Dnst</u>				<u>Bonneville</u>				<u>Warrendale</u>				<u>CamasWashugal</u>			
	<u>24 h</u>	<u>12 h</u>	<u>#</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	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
8/2	113	114	114	24	106	107	107	24	117	117	118	24	110	113	115	24
8/3	113	113	114	24	107	107	107	24	117	118	118	24	113	115	116	24
8/4	114	115	116	24	106	106	107	23	113	115	117	23	112	113	114	24
8/5	114	115	116	24	106	106	106	24	112	113	115	24	110	111	113	24
8/6	113	113	114	16	107	107	107	19	117	118	119	19	108	108	112	16
8/7	112	112	113	20	107	107	107	23	115	115	116	23	113	114	115	24
8/8	114	115	116	24	106	107	107	23	117	118	119	23	112	114	115	24
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



## 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/currentsmpsubmitdata.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											
	WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date	(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
08/02/2002	---	---	---	---	0	4	10	0	0	28	0
08/03/2002	---	---	---	---	10	4	25	0	67	0	0
08/04/2002 *	---	---	---	---	5	0	30	0	0	0	0
08/05/2002	---	---	---	---	0	4	0	0	0	0	0
08/06/2002	---	---	---	---	0	0	0	1	0	0	0
08/07/2002	---	---	---	---	0	0	5	1	0	0	0
08/08/2002	---	---	---	---	0	2	5	3	0	0	0
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
<b>Total:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>15</b>	<b>17</b>	<b>107</b>	<b>5</b>	<b>95</b>	<b>28</b>	<b>0</b>
<b># Days:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>
<b>Average:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>8</b>	<b>0</b>	<b>7</b>	<b>2</b>	<b>0</b>
<b>YTD</b>	<b>38,199</b>	<b>29,095</b>	<b>8,013</b>	<b>7,847</b>	<b>2,459,176</b>	<b>2,843,809</b>	<b>2,221,795</b>	<b>28,981</b>	<b>3,519,254</b>	<b>2,104,926</b>	<b>3,328,043</b>

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)
08/02/2002	---	---	---	---	2,740	824	745	278	20,771	6,092	21,183
08/03/2002	---	---	---	---	2,695	1,027	1,925	235	13,767	4,290	5,319
08/04/2002 *	---	---	---	---	1,605	791	830	276	7,652	6,226	4,521
08/05/2002	---	---	---	---	1,665	849	960	332	8,240	3,643	9,934
08/06/2002	---	---	---	---	1,535	545	415	260	13,550	2,529	14,360
08/07/2002	---	---	---	---	1,610	595	395	240	19,474	2,676	3,059
08/08/2002	---	---	---	---	995	309	210	434	49,617	1,755	4,358
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
<b>Total:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>18,700</b>	<b>5,995</b>	<b>9,008</b>	<b>3,058</b>	<b>451,288</b>	<b>79,499</b>	<b>102,744</b>
<b># Days:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>
<b>Average:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,336</b>	<b>428</b>	<b>643</b>	<b>218</b>	<b>32,235</b>	<b>5,679</b>	<b>7,339</b>
<b>YTD</b>	<b>0</b>	<b>4</b>	<b>26</b>	<b>3,488</b>	<b>696,511</b>	<b>327,214</b>	<b>297,510</b>	<b>23,751</b>	<b>8,010,249</b>	<b>3,365,227</b>	<b>6,959,314</b>

## Two-Week Summary of Passage Indices

8/16/02

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)
08/02/2002	---	---	---	---	0	0	5	6	0	28	0
08/03/2002	---	---	---	---	0	2	15	1	0	42	0
08/04/2002 *	---	---	---	---	0	6	5	4	25	19	0
08/05/2002	---	---	---	---	5	2	5	5	5	0	55
08/06/2002	---	---	---	---	0	2	0	4	12	0	0
08/07/2002	---	---	---	---	0	4	0	3	24	0	0
08/08/2002	---	---	---	---	0	8	0	3	16	33	0
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
<b>Total:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>82</b>	<b>86</b>	<b>37</b>	<b>195</b>	<b>270</b>	<b>67</b>
<b># Days:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>
<b>Average:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>6</b>	<b>3</b>	<b>14</b>	<b>19</b>	<b>5</b>
<b>YTD</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>101</b>	<b>124,048</b>	<b>104,435</b>	<b>66,080</b>	<b>86,223</b>	<b>201,998</b>	<b>315,244</b>	<b>2,331,561</b>

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)
08/02/2002	---	---	---	---	45	4	65	3	0	0	0
08/03/2002	---	---	---	---	30	12	65	0	0	0	0
08/04/2002 *	---	---	---	---	0	4	20	1	0	20	0
08/05/2002	---	---	---	---	5	6	25	1	0	0	0
08/06/2002	---	---	---	---	25	4	25	0	5	0	0
08/07/2002	---	---	---	---	10	6	45	0	0	0	0
08/08/2002	---	---	---	---	5	0	10	0	12	0	0
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
<b>Total:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>172</b>	<b>61</b>	<b>527</b>	<b>13</b>	<b>27</b>	<b>30</b>	<b>0</b>
<b># Days:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>
<b>Average:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>4</b>	<b>38</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>0</b>
<b>YTD</b>	<b>2,833</b>	<b>32,043</b>	<b>3,494</b>	<b>11,810</b>	<b>2,602,878</b>	<b>2,273,184</b>	<b>1,792,497</b>	<b>28,707</b>	<b>794,451</b>	<b>545,814</b>	<b>1,455,004</b>

\* 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)
08/02/2002	---	---	---	---	5	5	0	3	50	14	0
08/03/2002	---	---	---	---	5	0	5	10	67	42	0
08/04/2002 *	---	---	---	---	5	2	0	7	51	0	0
08/05/2002	---	---	---	---	5	4	0	11	100	0	55
08/06/2002	---	---	---	---	5	4	10	4	99	0	140
08/07/2002	---	---	---	---	5	4	0	4	77	35	0
08/08/2002	---	---	---	---	5	0	0	14	148	14	0
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
<b>Total:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>55</b>	<b>44</b>	<b>15</b>	<b>76</b>	<b>1,250</b>	<b>397</b>	<b>328</b>
<b># Days:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>
<b>Average:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>3</b>	<b>1</b>	<b>5</b>	<b>89</b>	<b>28</b>	<b>23</b>
<b>YTD</b>	<b>18</b>	<b>0</b>	<b>0</b>	<b>261</b>	<b>77,490</b>	<b>66,586</b>	<b>38,971</b>	<b>20,596</b>	<b>1,408,732</b>	<b>933,740</b>	<b>848,147</b>

### 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: 08/15**

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	11,053	917	9,935	2,583	6,769	989
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	6,501	666	5,700	1,664	3,076	603
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	3,132	800	3,199	1,107	1,548	360
MCN	129,357	3,872	258,689	6,683	54,462	2,970	109,446	6,818	67,914	9,600	21,443	2,927	1,887	252	2,556	737	1,033	219
IHR	85,207	1,826	171,173	3,026	32,988	1,807	26,591	2,433	15,270	2,397	5,356	857	104	5	74	10	29	1
LMN	76,304	1,537	180,787	1,784	32,792	1,811	23,743	1,686	19,287	1,612	5,597	792	40	9	18	12	12	3
LGS	77,232	1,815	174,823	2,990	31,528	1,921	20,844	2,253	15,929	2,803	5,147	995	0	0	0	0	0	0
LWG	75,025	2,132	171,958	3,135	30,329	1,865	22,113	1,949	13,730	3,804	5,064	1,093	0	0	0	0	0	0
PRD	34,083	196	50,379	987	14,107	363	90,702	1,375	53,170	3,207	18,578	1,091	445	24	637	65	149	19
RIS	24,734	892	39,785	1,761	10,725	505	79,268	2,591	42,271	12,308	15,837	3,159	0	0	0	0	0	0
RRH	11,204	215	15,895	543	3,314	135	69,395	2,463	36,618	4,991	9,226	1,229	0	0	0	0	0	0
WEL	7,587	39	9,989	892	1,779	176	57,361	276	28,852	3,634	5,703	870	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	36	5	477	91	79	14	49,613	114,925	50,279	243,781	375,265	130,822	88,073
TDA	0	0	1	0	1	1	40,554	102,559	40,054	114,951	172,608	50,756	46,986
JDA	0	0	72	4	2	0	41,911	107,787	43,263	82,895	100,438	33,758	33,627
MCN	0	0	2	0	0	0	39,167	97,153	39,882	57,156	88,105	26,963	22,194
IHR	0	0	0	0	0	0	58	38	13	23,342	41,233	14,031	7,479
LMN	0	0	0	0	0	0	45	32	21	21,458	37,113	12,104	7,933
LGS	0	0	0	0	0	0	33	71	24	16,951	20,311	6,716	6,768
LWG	0	0	0	0	0	0	52	36	23	20,881	17,441	8,572	7,086
PRD	32	0	22	31	11	4	45,531	110,867	48,705	5,708	10,731	2,940	***
RIS	4	0	30	0	6	0	38,505	104,576	43,129	4,349	6,982	2,046	1,152
RRH	16	0	31	0	3	0	16,366	65,985	27,028	3,042	4,159	1,213	979
WEL	0	0	0	0	0	0	10,349	74,093	26,721	2,264	2,366	724	406

PRD and WEL are through 08/14

RRH and RIS are through 08/13.

RIS, RRH, PRD and WEL data for the last week is 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

08/03/02 TO 08/16/02

		Species					
Site	Data	CH0	CH1	CO	SO	ST	Grand Total
<b>LGR</b>	Sum of NumberCollected	19,525	15	5	59	180	19,784
	Sum of NumberBarged	21,982	30	10	57	252	22,331
	Sum of NumberBypassed	27	0	0	0	0	27
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of TotalProjectMortalities	100	0	0	2	3	105
<b>LGS</b>	Sum of NumberCollected	6,270	17	97	45	65	6,494
	Sum of NumberBarged	7,605	16	96	41	70	7,828
	Sum of NumberBypassed	0	0	0	0	0	0
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of TotalProjectMortalities	78	1	1	7	3	90
<b>LMN</b>	Sum of NumberCollected	9,008	107	86	15	527	9,743
	Sum of NumberBarged	9,254	98	74	15	574	10,015
	Sum of NumberBypassed	0	0	0	0	9	9
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of TotalProjectMortalities	231	9	4	0	24	268
<b>MCN</b>	Sum of NumberCollected	491,869	145	195	1,300	27	493,536
	Sum of NumberBarged	430,028	94	193	1,228	26	431,569
	Sum of NumberBypassed	14,657	0	0	0	0	14,657
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of TotalProjectMortalities	6,813	2	2	22	1	6,840
Total Sum of NumberCollected		526,672	284	383	1,419	799	529,557
Total Sum of NumberBarged		468,869	238	373	1,341	922	471,743
Total Sum of NumberBypassed		14,684	0	0	0	9	14,693
Total Sum of Numbertrucked		0	0	0	0	0	0
Total Sum of TotalProjectMortalities		7,222	12	7	31	31	7,303

**YTD Transportation Summary**

**TO: 08/16/02**

		Species					
Site	Data	CH0	CH1	CO	SO	ST	Grand Total
<b>LGR</b>	Sum of NumberCollected	575,306	1,535,655	80,758	51,397	1,698,741	3,941,857
	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	29	9,847	20	343	3,383	13,622
	Sum of TotalProjectMortalities	7,528	3,858	125	1,546	1,255	14,312
<b>LGS</b>	Sum of NumberCollected	283,693	1,907,375	79,849	48,175	1,562,626	3,881,718
	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	0	1,034	4	74	1,024	2,136
	Sum of TotalProjectMortalities	1,062	1,640	564	689	2,126	6,081
<b>LMN</b>	Sum of NumberCollected	297,465	2,214,582	62,975	38,573	1,751,620	4,365,215
	Sum of NumberBarged	265,791	2,121,994	60,916	37,468	1,713,823	4,199,992
	Sum of NumberBypassed	29,272	68,125	1,994	208	31,967	131,566
	Sum of NumberTrucked	0	20,104	0	13	356	20,473
	Sum of TotalProjectMortalities	2,048	4,359	57	884	5,447	12,795
<b>MCN</b>	Sum of NumberCollected	5,027,398	2,205,028	111,899	908,367	464,591	8,717,283
	Sum of NumberBarged	1,675,532	743	2,094	4,727	979	1,684,075
	Sum of NumberBypassed	3,275,849	2,203,242	109,765	902,697	463,311	6,954,864
	Sum of NumberTrucked	0	0	0	0	0	0
	Sum of TotalProjectMortalities	35,613	994	40	892	301	37,840
Total Sum of NumberCollected		6,183,862	7,862,640	335,481	1,046,512	5,477,578	20,906,073
Total Sum of NumberBarged		2,791,504	5,511,236	222,899	139,108	4,902,269	13,567,016
Total Sum of NumberBypassed		3,305,330	2,309,519	111,764	902,912	561,173	7,190,698
Total Sum of NumberTrucked		29	30,985	24	430	4,763	36,231
Total Sum of TotalProjectMortalities		46,251	10,851	786	4,011	9,129	71,028

