



## Fish Passage Center

# Weekly Report #02 - 18

July 12, 2002

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### SUMMARY OF EVENTS:

- Storage reservoirs are currently at or near full.
- As of July 11th, 2002: Grand Coulee is 1.1 feet from full, Libby is 1.1 feet from full, Dworshak is 2.2 feet from full, Brownlee is 3.0 feet from full, and Hungry Horse is 0.2 feet from full.
- The BiOp summer flow objectives are 51 Kcfs at Lower Granite and 200 Kcfs at McNary. To date, summer flows have averaged 65.3 Kcfs at Lower Granite and 267.4 Kcfs at McNary; therefore, flow objectives are being met on a seasonal basis at both projects. Weekly average flows between 7-5-02 and 7-11-02 at Lower Granite and McNary were 41.4 and 238.0 kcf; therefore, flow objectives are not being met on a weekly basis at Lower Granite.
- Combined storage in the Upper Snake River System is at 51 % of capacity.

**Water:** Precipitation has varied within the Columbia Basin throughout the beginning of July 2002; ranging between 13% and 169% of average. WY 2002 continues to be approximately average in terms of cumulative precipitation.

Flows within the Columbia Basin have generally been decreasing. Storage reservoirs along the Columbia and Snake Rivers are generally at or near full.

The Grand Coulee Reservoir has refilled slightly over the past week; beginning the week at 1287.1 feet (7-5-02) and ending the week at 1288.9 feet AMSL (7-11-02). Presently, Grand Coulee is 1.1 feet from its full pool elevation of 1290.0 feet AMSL. Total outflows at Grand Coulee over the last week (7-5-02 to 7-11-02) have averaged approximately 164 Kcfs.

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

Location	July 2002		Cumulative 10/1/01 – 7/9/02	
	Observed (inches)	% Avg	Observed (inches)	% Avg
Columbia Above Coulee	0.84	163	21.75	103
Snow R. Above Ice Harbor	0.07	27	13.52	88
Columbia Above The Dalles	0.45	124	19.69	98
Kootenai	0.93	169	20.48	95
Clark Fork	0.34	98	15.31	105
Flathead	0.62	135	20.72	107
Pend Oreille/Spokane	0.66	166	31.63	114
Central Washington	0.13	118	7.37	91
Snow R. Plain	0.02	13	6.85	70
Clearwater	0.30	71	28.98	106
SW Washington Cascades/Cowlitz	0.28	70	71.65	109
Willamette Valley	0.08	34	56.03	100

The Libby reservoir has gained 1.2 feet over the last week; outflows have varied between 23.6 and 32.6 Kcfs. Libby is currently (midnight, 7-11-02) at an elevation of 2457.9 feet AMSL, 1.1 feet from the full pool elevation of 2459.0 feet AMSL. Because of increased inflows, Libby has been forced to spill significant volumes of water between 6-25-02 and 7-6-02, elevating levels of total dissolved gas below the project. Because of continued high inflows, Libby was also forced to spill a daily average of 1.3 Kcfs on 7-11-02.

The Dworshak reservoir has begun to draft. Total outflows at Dworshak have increased to 13.5 Kcfs (7-11-02) to supplement flows and temperatures at Lower Granite. Operations at Dworshak will include drafting to release approximately 13 Kcfs as a daily average. Dworshak has and will continue to spill between 3.0 and 4.0 Kcfs of water to achieve a total outflow of approximately 13 Kcfs. Currently (midnight, 7-11-02) Dworshak is at an elevation of 1597.8 feet AMSL; 2.2 feet below the full pool elevation of 1600 feet AMSL.

Over the past week, the Brownlee reservoir forebay water surface elevation has remained approximately constant. Currently (midnight, 7-11-02), Brownlee is at an elevation of 2074.0 feet AMSL; 3.0 feet below its full pool elevation of 2077.0 feet AMSL. Outflows at Brownlee have averaged approximately 8.1 Kcfs between 7-5-02 and 7-11-02. Operations at Brownlee will likely include remaining approximately full through July and drafting in response to energy demand in August. It seems very unlikely that Snake River flows will be augmented by reservoir water from Brownlee (other than the pass through of the US Bureau of Reclamation water) in July of 2002. In fact, in a letter addressed to the COE (July 9, 2002) in response to SOR 2002-5, the Idaho Power Company stated:

*"The SOR recommends that the Company operate the Hells Canyon Complex (HCC) to facilitate the delivery of U.S. Bureau of Reclamation (USBR) water released from the Upper Snake River basin, as well as provide additional water from the HCC during July and August to assist in meeting the "summer flow objective of 51 Kcfs at Lower Granite Reservoir." This is not only an inappropriate recommendation, but one that implies that the Company bears some responsibility for meeting those flow objectives and assisting with the migration of juvenile salmonids through the lower Snake River federal projects. The Company does not."*

7-5-02 to 7-11-02, the Hungry Horse Reservoir refilled 1.2 feet. Over the last week, outflows have averaged approximately 4.1 Kcfs. Currently (midnight, 7-11-02), Hungry Horse is at an elevation of 3559.8 feet AMSL; 0.2 feet below its full

pool elevation of 3560.0 feet AMSL. Discussions are currently taking place as to the timing of summer draft at Hungry Horse.

The BiOp summer flow 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 65.3 Kcfs at Lower Granite and 267.4 Kcfs at McNary. Summer BiOp flow objectives are being met at both Lower Granite and McNary on a seasonal basis. Over the past week (7-5-02 to 7-11-02), flows have averaged 41.4 Kcfs at Lower Granite and 238.0 Kcfs at McNary. Therefore, on a weekly basis, flow objectives are not being met at Lower Granite.

Currently, as of July 11th, 2002, the entire Upper Snake River System is at 51% of capacity. Most reservoirs on the Upper Snake River have been drafting. Individually, American Falls is at 36% of capacity, Palisades is at 46% of capacity, Jackson Lake is at 78% of capacity, Island Park is at 72% of capacity, Lake Walcott is at 100% of capacity, Milner is at 99% of capacity, and Grassy Lake is at 94% of capacity.

**Spill:** Dworshak Reservoir has begun drafting water for flow augmentation and temperature regulation. Spill levels have increased to 3.5 Kcfs over the past three days. Excess market spill has occurred at Lower Granite and Little Goose dams over the past three days with spill levels averaging 25 and 33% of daily flow, respectively. At Ice Harbor Dam spill averaged 80% 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 at McNary Dam is water in excess of hydraulic capacity at that project. Spill averaged 28% of average daily flow at McNary Dam, 29% of average daily flow at John Day Dam, 38% of average daily flow at The Dalles Dam and 41% of average daily flow at Bonneville Dam.

Libby Dam has been spilling as that project approaches full pool. Both Grand Coulee and Chief Joseph dams are spilling as well.

The total dissolved gas levels have increased at the Upper and Mid Columbia projects, with some exceedences of the water quality waivers. The Snake and Lower Columbia projects remain below the water quality waiver standards. 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 this past week.

**Smolt Monitoring:** The numbers of subyearling chinook migrating past Snake River projects decreased in the last week, while Lower Columbia projects saw the largest numbers moving past McNary Dam.

At Lower Granite Dam the number of subyearling chinook decreased from last week with the average daily index dropping to 15,900 this week compared to 20,200 last week. At Rock Island Dam the subyearling chinook index increased compared to last week, with 520 average daily index this week compared to 400 daily last week. In the lower Columbia, McNary continues to have large numbers of subyearling chinook pass with an average daily index of 143,000 but this is a decrease from 174,000 per day last week. At John Day Dam passage index for subyearling chinook was down to 33,600 this week versus 163,000 last week. And at Bonneville Dam subyearling chinook numbers decreased with an average daily index this week of 105,000 versus 247,000 last week.

**Adult Fish Passage:** At Bonneville Dam, the summer chinook counts averaged 1,906 per day for the week with the cumulative count through July 11 at 106,685. This year's count of adult summer chinook is about 1.8 and 5.1 times greater than the respective year 2001 and 10-year average through July 11. At McNary Dam, the counts of adult summer chinook averaged 2,178 per day through the week with a total count of 78,424 through July 11. The Snake River count of adult summer chinook at Ice Harbor Dam totaled 25,090 through the July 11. Daily counts continue to reduce for summer

chinook; however, this season's count is 1.8 and 5.1 times greater than the respective 2001 and 10-year average at Ice Harbor (same ratio as at Bonneville Dam). In the Mid-Columbia, the count of adult summer chinook at Priest Rapids Dam was 50,574 through July 11; about 2.0 and 5.5 times greater than the respective 2001 and 10-year average. Daily counts of these adult summer fish continue to increase at Rock Island, Rocky Reach and Wells dams.

At Bonneville Dam, sockeye salmon counts for the week ending July 11 ranged from near 2,000 early in the week to 600 per day by the end of the week with the season total at 46,489. The 2002 sockeye count is about 42% and almost identical to the respective 2001 and 10-year average count. These sockeye are mainly destined Lake Wenatchee and Lake Osoyoos. About 26,847 sockeye have passed Priest Rapids Dam through July 11. Small numbers of sockeye were again counted at the Snake River projects during the week with at least 24 adult sockeye now past Lower Granite Dam through July 11. These sockeye should be destined for the upper Salmon River area (Redfish L, Alturas L, or Pettit L).

Steelhead passage at Bonneville Dam averaged 2,386 per day through the past week with a total of 49,210 counted through July 11. This total is 78% and 200% of the respective 2001 and 10-year average counts to date. Estimated wild steelhead in the passage total was 20,403 (based on visual missing adipose fin on the steelhead). Adult steelhead are moving upstream into the Snake River projects with about 200 per day passing Ice Harbor Dam through the week. In the *Mid-Columbia*, the counts of steelhead at Priest Rapids Dam ranged from 40-70 per day and total 619 through June 11.

**Hatchery Releases:** Only one hatchery release group remains for the 2002 fish migration season. All other subyearling fish, fall and summer chinook are in-river. Preliminary hatchery release totals are listed in the Table below the Snake, Mid-Columbia, and Lower Columbia River Zones.

*Snake River* - All subyearling fall chinook in the Snake River basin have been released for the 2002 Migration Year.

*Mid-Columbia [above McNary Dam]*- The final releases of subyearling summer and fall chinook have been completed for the season.

*Lower Columbia [Bonneville Dam to McNary Dam]*- About four million subyearling fall chinook will be released into the Klickitat River beginning June 3 and lasting through about July 26. Three separate releases are scheduled with the initial release planted on June 3, the second release on July 1-5, and the final release from July 19-26. All other subyearling fall chinook have been released earlier this spring/summer.

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

	<b>Spr Chin</b>	<b>SumChin</b>	<b>F Chin</b>	<b>Steelhd</b>	<b>Coho</b>	<b>Sockeye</b>	<b>Total</b>
<b>Snake</b>	10,184,960	1,677,497	3,669,782	9,481,688	840,000	182,835	26,036,762
<b>MidCol</b>	3,926,275	3,527,243	11,633,427	1,311,704	2,065,550	308,042	22,772,241
<b>LowCol</b>	5,759,463		26,299,935	621,855	6,120,857		38,802,110
<b>Total</b>	19,870,698	5,204,740	41,603,144	11,415,247	9,026,407	490,877	87,611,113

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

Date	Grand Coulee		Chief Joseph		Wells		Rocky Reach		Rock Island		Wanapum		Priest Rapids	
	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill
06/28/02	220.7	26.9	221.5	22.8	245.2	105.7	244.9	103.1	248.9	44.6	270.6	133.9	268.6	159.8
06/29/02	181.9	13.4	188.4	9.5	217.9	90.8	219.2	84.6	227.1	37.9	245.0	123.4	246.2	154.5
06/30/02	186.7	17.5	179.8	15.4	197.0	50.8	194.3	46.2	202.1	33.5	213.3	89.6	208.6	116.4
07/01/02	221.0	29.2	221.1	39.4	241.0	118.3	242.8	93.2	241.9	43.2	265.9	138.9	258.6	156.1
07/02/02	237.9	29.7	228.8	30.8	250.7	139.5	250.9	101.4	249.6	37.5	272.7	150.9	273.1	160.0
07/03/02	221.4	29.8	225.0	25.3	249.3	121.2	248.4	96.9	249.6	45.8	272.5	149.3	265.8	152.1
07/04/02	191.9	25.4	198.6	20.7	219.1	50.2	218.4	59.0	217.7	36.6	237.0	109.3	239.6	136.5
07/05/02	177.0	0.1	174.1	0.0	186.8	22.3	188.5	42.2	191.2	25.5	201.5	79.9	200.2	111.3
07/06/02	171.4	0.1	173.6	0.0	190.4	20.7	189.1	39.0	188.1	37.2	204.6	81.3	203.2	113.0
07/07/02	111.2	0.2	116.2	0.0	143.2	10.9	159.5	26.3	162.8	32.6	207.4	72.4	211.7	112.7
07/08/02	148.1	0.1	148.1	0.0	151.9	10.0	142.6	21.6	144.0	44.0	180.8	62.7	189.6	101.5
07/09/02	189.1	12.4	178.1	15.6	184.4	16.9	174.8	26.3	176.7	35.9	137.3	48.1	137.4	73.3
07/10/02	188.9	16.2	189.8	6.8	206.7	29.8	205.6	44.0	206.5	36.8	208.6	83.4	193.2	108.4
07/11/02	186.4	14.5	187.7	3.4	203.8	25.1	204.3	42.3	205.0	40.0	224.4	88.0	235.9	128.0

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

Date	Dworshak		Brownlee Canyon		Lower Granite		Little Goose		Lower Monumental		Ice Harbor	
	Flow	Spill	Inflow	Outflow	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill
06/28/02	17.8	8.3	11.2	16.2	84.4	36.3	78.0	30.6	79.2	0.0	82.2	65.6
06/29/02	18.7	9.1	9.4	11.0	81.7	19.5	80.2	16.1	83.2	0.0	87.2	70.0
06/30/02	19.5	10.0	9.3	8.6	80.2	21.5	79.4	18.6	79.1	0.0	81.0	62.5
07/01/02	16.0	6.5	8.7	8.5	68.7	36.9	64.2	31.1	66.4	0.0	68.7	52.5
07/02/02	11.5	2.1	9.0	9.6	59.0	20.5	57.1	16.2	60.3	0.0	66.4	56.6
07/03/02	9.5	0.0	8.5	13.0	53.3	14.4	49.9	14.7	50.6	0.0	50.7	39.9
07/04/02	9.1	0.0	7.7	7.9	52.3	18.7	48.8	17.9	50.7	0.0	53.8	43.2
07/05/02	8.5	0.0	8.1	7.9	46.1	0.0	46.6	0.0	48.8	0.0	50.8	40.6
07/06/02	7.4	0.0	7.3	8.3	40.1	0.0	42.6	0.0	43.6	0.0	47.6	39.5
07/07/02	7.4	0.0	8.4	8.6	39.1	0.0	39.0	0.0	40.1	0.0	43.6	33.3
07/08/02	8.1	0.0	7.8	7.5	38.2	0.0	38.3	0.0	38.3	0.0	39.7	30.2
07/09/02	11.1	1.6	7.9	7.4	43.0	13.8	42.4	13.6	42.9	0.0	48.0	37.4
07/10/02	13.0	3.5	8.2	10.1	40.6	7.6	41.0	13.1	39.8	0.0	39.6	31.2
07/11/02	13.5	4.0	---	---	42.9	10.9	41.9	14.5	43.8	0.0	48.6	41.3

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

Date	McNary		John Day		The Dalles		Bonneville		PH1	PH2
	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill		
06/28/02	344.0	181.4	337.8	149.9	327.6	133.7	324.0	148.0	56.0	113.7
06/29/02	344.2	173.3	355.7	131.5	354.0	166.0	356.4	167.0	70.5	112.2
06/30/02	304.8	132.0	301.1	139.2	292.0	98.5	310.7	112.4	71.0	121.8
07/01/02	308.6	139.5	317.0	125.8	316.4	173.0	313.1	166.8	36.9	102.7
07/02/02	332.1	157.4	327.4	101.2	315.6	125.6	314.3	150.8	55.5	105.0
07/03/02	322.0	149.5	313.5	78.1	303.3	117.3	299.3	139.5	53.8	99.3
07/04/02	313.0	140.9	320.7	159.0	311.6	100.0	313.4	125.6	76.3	105.0
07/05/02	248.8	76.7	268.8	97.4	259.7	101.1	285.1	87.6	79.7	111.1
07/06/02	259.9	86.9	262.4	73.9	259.7	98.9	258.2	87.3	61.5	102.7
07/07/02	249.0	75.6	245.0	70.0	234.6	86.3	252.5	89.5	56.6	99.7
07/08/02	239.8	66.9	230.0	67.1	226.0	86.3	248.6	86.3	58.3	97.4
07/09/02	204.0	36.5	214.7	62.1	212.5	81.3	228.2	109.7	18.5	93.4
07/10/02	204.5	36.7	209.5	60.9	206.9	80.2	216.7	115.4	8.0	86.7
07/11/02	201.8	90.1	244.0	56.1	232.9	85.0	236.3	122.8	12.1	94.6

## 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>Lower Granite Dam</b>											
	07/02/02	Steelhead	15	0	0	0.00%	0.00%	0	0	0	0
<b>Little Goose Dam</b>											
	07/03/02	Steelhead	4	0	0	0.00%	0.00%	0	0	0	0
<b>McNary Dam</b>											
	07/05/02	Subyearling Chinook	100	0	0	0.00%	0.00%	0	0	0	0
	07/08/02	Subyearling Chinook	100	0	0	0.00%	0.00%	0	0	0	0
<b>Bonneville Dam</b>											
	07/08/02	Subyearling Chinook	87	0	0	0.00%	0.00%	0	0	0	0
	07/11/02	Subyearling Chinook	17	0	0	0.00%	0.00%	0	0	0	0
<b>Rock Island Dam</b>											
	07/04/02	Subyearling Chinook	100	6	6	6.00%	0.00%	6	0	0	0
	07/08/02	Subyearling Chinook	100	7	7	7.00%	0.00%	7	0	0	0
	07/11/02	Subyearling Chinook	100	0	0	0.00%	0.00%	0	0	0	0

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

### Total Dissolved Gas Saturation Data at Upper Columbia River Sites

Date	Hungry H. Dnst			Boundary				Grand Coulee				Grand C. Tlwr			Chief Joseph					
	24 h	12 h	High	#	24 h	12 h	High	hr	#	24 h	12 h	High	hr	#	24 h	12 h	High	hr	#	
6/28	105	105	106	18	133	134	134	24	122	122	123	24	119	119	119	24	118	118	118	24
6/29	105	105	106	23	133	134	134	24	122	123	123	24	119	119	119	24	118	118	118	24
6/30	104	104	104	19	133	134	134	24	121	121	122	24	119	120	120	24	117	117	118	23
7/1	104	104	105	20	133	133	134	24	121	121	121	24	119	119	119	24	117	117	118	23
7/2	104	105	105	18	132	133	134	24	121	121	121	24	119	119	119	24	118	119	119	23
7/3	105	105	106	23	131	132	132	24	122	122	122	24	119	119	120	24	118	119	119	23
7/4	105	105	106	24	131	132	132	24	121	121	122	24	118	119	119	24	117	117	118	23
7/5	104	105	105	22	131	132	133	24	120	121	121	24	118	118	119	24	117	117	118	23
7/6	105	105	105	19	131	132	132	24	120	120	121	24	118	118	118	24	117	118	118	23
7/7	105	105	106	21	131	131	132	24	119	120	120	24	118	118	119	24	118	118	119	23
7/8	105	105	105	20	125	130	131	24	119	119	120	24	116	117	118	24	116	117	117	23
7/9	104	104	105	20	127	128	128	24	118	118	119	24	117	117	117	24	116	116	117	23
7/10	105	105	106	21	128	129	130	24	118	119	119	24	117	117	117	24	117	118	118	23
7/11	106	106	106	21	127	128	129	24	119	119	120	24	117	118	118	24	117	117	118	23

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

Date	Chief J. Dnst			Wells				Wells Dwnstrm				Rocky Reach			Rocky R. Tlwr					
	24 h	12 h	High	#	24 h	12 h	High	hr	#	24 h	12 h	High	hr	#	24 h	12 h	High	hr	#	
6/28	119	120	120	24	116	116	117	22	129	133	137	22	125	127	129	24	125	127	128	24
6/29	118	119	120	24	115	116	117	24	128	132	134	24	125	126	129	24	125	126	128	24
6/30	117	118	119	23	114	115	116	24	120	124	131	24	123	125	126	24	123	125	126	24
7/1	123	127	136	23	115	116	117	23	131	135	139	23	118	120	123	24	121	124	127	24
7/2	122	124	129	23	118	118	119	22	134	136	140	22	128	132	133	24	128	130	131	24
7/3	123	126	129	23	118	118	119	22	132	135	138	22	131	132	134	19	130	131	132	23
7/4	121	122	122	23	116	117	117	24	121	124	130	24	126	129	131	24	126	128	130	24
7/5	116	117	117	23	115	116	116	24	117	118	121	24	118	121	123	24	119	121	125	24
7/6	117	118	118	23	116	116	117	23	116	117	117	23	116	117	118	24	118	119	121	24
7/7	118	119	119	23	117	117	118	24	117	117	117	24	117	118	119	24	118	119	120	24
7/8	116	116	117	23	115	116	117	24	116	116	117	24	114	115	115	24	115	116	116	24
7/9	116	118	123	23	114	115	116	23	116	116	119	23	113	113	113	24	114	114	115	24
7/10	116	116	119	23	116	117	118	24	119	120	125	24	114	115	118	24	116	117	119	24
7/11	115	116	117	23	117	117	117	24	119	120	125	24	118	119	120	23	119	120	121	23

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

Date	Rock Island			Rock I. Tlwr				Wanapum				Wanapum Tlwr			Priest Rapids					
	24 h	12 h	High	#	24 h	12 h	High	hr	#	24 h	12 h	High	hr	#	24 h	12 h	High	hr	#	
6/28	123	124	125	24	125	126	126	24	119	120	121	24	126	128	130	24	121	124	126	24
6/29	123	124	125	24	125	126	127	24	121	121	122	24	126	129	130	24	121	123	124	24
6/30	121	122	123	24	123	124	124	24	120	120	120	24	121	123	127	24	120	121	123	24
7/1	119	121	123	24	122	124	126	24	118	119	119	24	125	129	131	24	120	122	124	23
7/2	125	127	128	24	126	128	128	24	121	122	124	24	128	129	131	24	126	127	128	24
7/3	128	129	130	24	128	129	130	23	123	123	124	24	128	129	131	24	124	126	127	24
7/4	125	126	126	24	126	127	127	24	123	124	124	24	124	127	130	24	123	125	126	24
7/5	120	121	122	24	121	123	123	24	123	125	127	24	121	123	128	24	120	122	124	24
7/6	117	118	119	24	120	120	121	24	124	125	127	24	122	123	128	24	121	123	126	24
7/7	117	118	118	24	119	120	120	24	121	122	124	24	119	120	120	24	120	120	121	24
7/8	114	114	115	24	118	118	120	24	115	117	118	24	116	118	119	24	115	116	117	24
7/9	113	114	115	24	117	118	118	24	115	118	120	24	116	117	117	24	114	115	117	24
7/10	116	117	118	24	118	119	120	24	117	118	120	24	119	121	129	24	118	121	126	24
7/11	118	120	120	23	121	122	122	23	118	120	122	24	120	121	126	24	119	121	124	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 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>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		Avg	Avg	High		Avg	Avg	High		Avg	Avg	High		Avg	Avg	High	
6/28	124	125	125	24	115	116	117	24	116	117	118	24	---	---	---	0	103	104	104	24
6/29	124	125	125	24	115	116	116	24	116	117	117	24	---	---	---	0	103	103	104	24
6/30	122	123	123	24	116	117	117	24	117	118	118	24	108	109	110	24	103	103	104	24
7/1	122	123	124	24	115	116	117	24	111	115	117	24	106	107	109	24	103	104	105	24
7/2	125	125	126	24	117	119	120	24	106	107	107	24	103	103	104	24	103	104	105	24
7/3	124	125	125	24	118	118	119	24	104	104	105	23	103	103	104	23	103	104	105	24
7/4	124	124	124	24	116	117	117	24	104	104	105	24	102	103	103	24	102	103	104	24
7/5	122	123	124	24	116	117	118	21	104	104	105	21	103	103	104	21	102	104	105	20
7/6	122	123	124	24	117	118	118	24	103	104	104	24	103	104	105	24	102	104	105	24
7/7	122	123	124	24	117	118	119	24	104	104	104	24	102	103	104	24	102	103	105	24
7/8	119	120	120	24	113	114	116	23	103	103	104	24	102	102	103	24	101	102	104	23
7/9	117	119	120	24	112	113	115	24	103	104	105	24	103	104	105	24	102	104	105	24
7/10	120	122	124	24	111	113	115	24	106	107	108	24	104	106	107	24	102	104	105	24
7/11	122	123	124	24	114	115	116	24	107	108	108	24	106	107	107	24	102	104	105	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>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		Avg	Avg	High		Avg	Avg	High		Avg	Avg	High		Avg	Avg	High	
6/28	105	106	107	24	106	107	109	24	118	121	122	24	109	111	112	24	114	116	123	24
6/29	105	106	107	24	105	105	106	24	111	116	118	24	109	109	110	24	111	114	117	24
6/30	105	106	107	24	103	103	104	24	111	115	119	24	110	111	112	24	112	113	117	24
7/1	105	106	107	24	103	103	103	24	118	120	120	23	110	111	111	24	116	117	117	24
7/2	101	103	105	23	104	106	107	24	112	118	119	24	108	109	110	24	111	115	115	24
7/3	99	101	102	24	105	105	106	24	109	113	116	24	107	108	109	24	112	116	119	24
7/4	99	100	101	24	105	106	106	24	112	118	120	24	108	109	111	24	113	118	119	24
7/5	99	101	102	21	105	106	109	21	104	104	104	21	111	112	115	21	110	111	111	21
7/6	99	101	102	24	105	107	108	24	103	103	103	24	113	115	118	24	109	110	110	24
7/7	99	101	102	24	107	109	111	24	102	103	108	24	114	115	116	24	108	108	108	24
7/8	98	100	100	24	103	103	105	24	101	101	102	24	108	109	112	24	106	107	107	24
7/9	99	101	102	24	106	109	111	24	107	110	111	24	108	111	113	24	109	111	111	24
7/10	100	102	104	24	106	107	108	24	106	109	112	24	108	109	111	24	110	111	111	24
7/11	101	103	104	24	107	108	110	24	107	111	112	22	108	110	111	24	109	110	111	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>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		Avg	Avg	High		Avg	Avg	High		Avg	Avg	High		Avg	Avg	High	
6/28	108	109	111	24	108	110	111	24	111	111	112	24	115	116	117	24	114	115	116	24
6/29	112	112	113	24	112	112	113	24	108	109	110	24	116	117	118	24	113	113	114	24
6/30	112	112	113	24	112	112	114	24	107	108	108	24	115	116	116	24	113	113	114	20
7/1	110	111	112	24	110	111	112	24	109	109	110	24	114	115	117	24	112	113	114	24
7/2	111	113	115	24	110	112	112	24	111	112	115	24	114	115	117	24	114	114	116	24
7/3	115	116	117	24	114	115	116	24	112	113	113	24	112	114	114	24	115	115	116	24
7/4	115	115	116	24	114	115	115	24	110	110	111	24	112	113	114	24	114	114	114	24
7/5	113	114	116	21	112	112	113	21	109	110	111	21	112	114	114	21	113	114	115	21
7/6	115	117	119	24	111	111	112	24	111	112	113	24	112	113	114	24	114	115	117	24
7/7	115	117	118	24	112	113	115	24	112	114	114	24	111	114	114	24	116	118	119	24
7/8	110	111	113	24	110	110	111	24	111	112	113	24	111	113	114	24	114	114	116	24
7/9	111	113	117	24	109	110	111	21	110	111	114	24	112	114	115	24	113	114	115	24
7/10	111	112	113	24	109	109	110	22	110	111	112	24	111	113	114	23	113	114	118	24
7/11	112	114	116	24	108	109	109	24	110	111	112	24	112	113	115	24	115	116	118	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>			#				
	24 h	12 h	High	24 h	12 h	High	24h	12h	High	24h	12h	High	24h	12h	High					
6/28	114	114	115	24	122	123	125	24	113	113	114	24	120	122	124	24	115	117	121	24
6/29	113	113	113	24	121	122	125	24	111	112	113	24	119	122	124	24	115	116	118	24
6/30	112	113	113	24	118	119	120	24	109	109	110	23	118	118	119	24	111	112	114	19
7/1	113	115	116	24	119	121	123	24	110	110	110	23	119	120	121	24	113	114	117	22
7/2	115	116	117	24	120	122	124	24	111	112	113	23	120	120	121	24	112	114	117	23
7/3	115	116	116	24	119	119	120	20	111	111	111	23	116	119	120	24	110	111	112	23
7/4	114	114	114	24	119	119	119	20	110	111	111	23	119	119	120	24	111	113	114	19
7/5	113	113	114	21	117	118	118	21	112	113	115	23	118	119	119	21	115	116	118	23
7/6	115	117	119	24	117	118	119	24	111	113	115	23	117	119	119	24	112	113	114	22
7/7	117	118	121	24	119	120	120	24	111	112	115	23	118	119	119	24	111	112	112	23
7/8	114	115	116	24	117	118	118	24	110	110	111	23	117	118	118	24	109	109	110	23
7/9	113	113	114	23	116	117	117	24	111	111	112	23	115	117	118	24	111	111	112	23
7/10	113	115	116	23	115	116	117	21	112	114	116	23	115	118	119	24	113	115	117	23
7/11	117	119	122	24	118	119	120	21	112	113	115	23	115	118	119	24	112	114	115	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>			#			
	24 h	12 h	High	24 h	12 h	High	24h	12h	High	24h	12h	High				
6/28	119	121	123	24	114	114	115	24	117	120	124	24	115	117	120	24
6/29	120	121	122	24	115	116	117	24	118	119	120	24	116	119	121	24
6/30	116	117	118	24	116	116	116	23	115	115	117	23	116	116	116	24
7/1	120	121	122	24	113	113	115	23	119	122	123	23	116	118	119	24
7/2	118	119	121	24	116	116	117	23	119	122	126	23	117	120	122	24
7/3	117	118	120	24	113	114	116	23	117	121	126	23	116	118	120	24
7/4	116	118	119	24	112	112	112	19	114	114	117	23	113	114	117	24
7/5	119	120	121	24	113	114	116	23	112	113	114	23	113	114	115	24
7/6	118	118	119	24	118	118	119	22	116	116	117	23	114	117	118	24
7/7	117	118	118	24	116	118	118	23	116	117	119	23	115	116	117	24
7/8	115	115	116	24	111	111	113	23	112	113	115	23	112	113	115	24
7/9	116	117	118	24	111	112	113	23	115	116	116	23	111	111	112	24
7/10	118	119	120	24	113	114	116	23	116	117	118	23	112	114	115	24
7/11	118	118	120	24	115	116	116	23	117	118	118	23	115	117	118	24

### HATCHERY RELEASE SUMMARY LAST TWO WEEKS

**Hatchery Release Summary**  
**From: 6/28/02 to 7/11/02**

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
WDFW	East Bank	CH0	SU	2002	214,600	07-02-02	07-02-02	Turtle Rock H	Mid-Columbia River
WDFW	East Bank	CH0	SU	2002	481,285	07-02-02	07-02-02	Turtle Rock H	Mid-Columbia River
WDFW	Klickitat	CH0	FA	2002	4,000,000	06-03-02	07-26-02	Klickitat H	Klickitat River
<b>WDFW Total</b>					<b>4,695,885</b>				
<b>Grand Total</b>					<b>4,695,885</b>				

### HATCHERY RELEASE SUMMARY NEXT TWO WEEKS

**Hatchery Release Summary**  
**From: 7/12/02 to 7/25/02**

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
WDFW	Klickitat	CH0	FA	2002	4,000,000	06-03-02	07-26-02	Klickitat H	Klickitat River
<b>WDFW Total</b>					<b>4,000,000</b>				
<b>Grand Total</b>					<b>4,000,000</b>				

## 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.

<b>COMBINED YEARLING CHINOOK</b>											
	WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date	(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
06/28/2002	---	---	---	---	494	333	50	13	2,152	371	1,305
06/29/2002	*	---	---	---	534	93	42	18	427	690	298
06/30/2002	*	---	---	---	338	185	126	5	771	194	279
07/01/2002		---	---	---	1,372	292	73	5	1,306	42	517
07/02/2002	*	---	---	---	0	0	110	0	717	71	1,281
07/03/2002	*	---	---	---	391	31	39	6	1,660	82	430
07/04/2002	*	---	---	---	71	42	14	16	1,559	12	420
07/05/2002	*	---	---	---	93	37	51	3	2,342	12	0
07/06/2002	*	---	---	---	100	32	17	2	288	30	721
07/07/2002	*	---	---	---	250	30	57	0	0	28	696
07/08/2002		---	---	---	50	30	8	0	253	112	352
07/09/2002		---	---	---	50	40	5	1	164	139	339
07/10/2002		---	---	---	0	29	10	3	75	285	695
07/11/2002	*	---	---	---	0	19	20	0	81	98	1,066
<b>Total:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3,743</b>	<b>1,193</b>	<b>622</b>	<b>72</b>	<b>11,795</b>	<b>2,166</b>	<b>8,399</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>267</b>	<b>85</b>	<b>44</b>	<b>5</b>	<b>843</b>	<b>155</b>	<b>600</b>
<b>YTD</b>	<b>38,199</b>	<b>29,095</b>	<b>8,013</b>	<b>7,847</b>	<b>2,458,869</b>	<b>2,843,291</b>	<b>2,219,696</b>	<b>28,948</b>	<b>3,518,203</b>	<b>2,103,678</b>	<b>3,326,752</b>

<b>COMBINED SUBYEARLING CHINOOK</b>											
	WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date	(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
06/28/2002	---	---	---	---	7,652	5,763	1,534	251	234,227	333,940	195,193
06/29/2002	*	---	---	---	10,979	3,587	3,899	128	234,011	214,933	209,705
06/30/2002	*	---	---	---	33,164	15,567	6,794	175	211,976	186,712	401,196
07/01/2002		---	---	---	61,136	18,768	10,911	178	166,629	99,654	335,113
07/02/2002	*	---	---	---	17,495	5,508	8,798	313	128,416	103,011	171,044
07/03/2002	*	---	---	---	7,514	5,490	24,897	1,100	150,956	125,569	216,711
07/04/2002	*	---	---	---	3,673	3,964	10,018	703	91,681	76,005	200,997
07/05/2002	*	---	---	---	8,567	6,011	6,635	617	87,335	30,293	148,609
07/06/2002	*	---	---	---	32,180	7,089	11,893	706	95,204	33,149	138,676
07/07/2002	*	---	---	---	28,850	4,108	14,899	527	185,366	36,689	122,340
07/08/2002		---	---	---	7,300	1,820	3,364	281	116,303	33,748	99,977
07/09/2002		---	---	---	15,850	3,360	1,725	237	142,607	30,378	62,036
07/10/2002		---	---	---	13,988	2,126	3,300	511	237,459	43,252	99,565
07/11/2002	*	---	---	---	4,720	1,767	1,340	744	135,209	27,355	62,807
<b>Total:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>253,068</b>	<b>84,928</b>	<b>110,007</b>	<b>6,471</b>	<b>2,217,379</b>	<b>1,374,688</b>	<b>2,463,969</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>18,076</b>	<b>6,066</b>	<b>7,858</b>	<b>462</b>	<b>158,384</b>	<b>98,192</b>	<b>175,998</b>
<b>YTD</b>	<b>0</b>	<b>4</b>	<b>26</b>	<b>3,488</b>	<b>417,595</b>	<b>205,244</b>	<b>158,724</b>	<b>12,182</b>	<b>5,785,033</b>	<b>2,481,575</b>	<b>5,581,435</b>

## 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)
06/28/2002	---	---	---	---	0	40	21	47	196	106	1,566
06/29/2002	*	---	---	---	200	106	78	60	214	88	895
06/30/2002	*	---	---	---	135	264	175	119	193	49	558
07/01/2002		---	---	---	171	162	64	172	56	0	259
07/02/2002	*	---	---	---	111	38	55	219	143	37	427
07/03/2002	*	---	---	---	0	62	31	246	342	0	0
07/04/2002	*	---	---	---	42	28	23	103	236	29	420
07/05/2002	*	---	---	---	93	103	38	66	521	0	0
07/06/2002	*	---	---	---	110	128	157	43	577	192	0
07/07/2002	*	---	---	---	100	61	29	36	307	372	0
07/08/2002		---	---	---	50	0	20	19	434	482	705
07/09/2002		---	---	---	150	0	14	80	491	163	1,018
07/10/2002		---	---	---	0	59	20	102	125	34	695
07/11/2002	*	---	---	---	0	19	80	54	82	98	1,066
<b>Total:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,162</b>	<b>1,070</b>	<b>805</b>	<b>1,366</b>	<b>3,917</b>	<b>1,650</b>	<b>7,609</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>83</b>	<b>76</b>	<b>58</b>	<b>98</b>	<b>280</b>	<b>118</b>	<b>544</b>
<b>YTD</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>101</b>	<b>123,768</b>	<b>103,784</b>	<b>65,164</b>	<b>85,786</b>	<b>199,172</b>	<b>314,238</b>	<b>2,329,456</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)
06/28/2002	---	---	---	---	1,975	493	523	14	782	105	2,870
06/29/2002	*	---	---	---	1,869	608	4,394	20	641	690	895
06/30/2002	*	---	---	---	1,691	740	1,839	14	0	273	4,464
07/01/2002		---	---	---	1,801	584	531	7	457	343	4,396
07/02/2002	*	---	---	---	1,661	40	648	16	526	6	4,694
07/03/2002	*	---	---	---	102	250	921	17	293	27	430
07/04/2002	*	---	---	---	297	161	798	14	189	46	420
07/05/2002	*	---	---	---	476	885	381	8	5	45	398
07/06/2002	*	---	---	---	710	250	2,134	5	0	80	721
07/07/2002	*	---	---	---	450	200	510	4	461	65	1,044
07/08/2002		---	---	---	100	60	531	1	289	0	352
07/09/2002		---	---	---	550	64	179	6	131	10	0
07/10/2002		---	---	---	371	102	510	5	249	236	0
07/11/2002	*	---	---	---	123	226	460	14	81	0	0
<b>Total:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>12,176</b>	<b>4,663</b>	<b>14,359</b>	<b>145</b>	<b>4,104</b>	<b>1,926</b>	<b>20,684</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>870</b>	<b>333</b>	<b>1,026</b>	<b>10</b>	<b>293</b>	<b>138</b>	<b>1,477</b>
<b>YTD</b>	<b>2,833</b>	<b>32,043</b>	<b>3,494</b>	<b>11,810</b>	<b>2,600,792</b>	<b>2,271,831</b>	<b>1,781,822</b>	<b>28,627</b>	<b>793,259</b>	<b>545,643</b>	<b>1,454,711</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

<b>COMBINED SOCKEYE</b>												
	WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2	
Date	(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
06/28/2002	---	---	---	---	82	173	21	9	587	369	783	
06/29/2002	*	---	---	---	167	61	25	5	214	88	298	
06/30/2002	*	---	---	---	158	150	32	16	0	161	837	
07/01/2002		---	---	---	171	162	64	12	339	0	1,293	
07/02/2002	*	---	---	---	111	80	46	9	478	164	2,986	
07/03/2002	*	---	---	---	0	62	78	7	146	164	430	
07/04/2002	*	---	---	---	28	71	22	36	236	12	1,677	
07/05/2002	*	---	---	---	23	262	39	26	9	31	796	
07/06/2002	*	---	---	---	40	26	95	14	288	50	721	
07/07/2002	*	---	---	---	0	20	52	7	0	301	0	
07/08/2002		---	---	---	0	70	10	10	289	34	352	
07/09/2002		---	---	---	0	77	17	12	164	151	339	
07/10/2002		---	---	---	37	61	20	13	149	22	695	
07/11/2002	*	---	---	---	0	61	0	17	163	56	0	
<b>Total:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>817</b>	<b>1,336</b>	<b>521</b>	<b>193</b>	<b>3,062</b>	<b>1,603</b>	<b>11,207</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>58</b>	<b>95</b>	<b>37</b>	<b>14</b>	<b>219</b>	<b>115</b>	<b>801</b>	
<b>YTD</b>	<b>18</b>	<b>0</b>	<b>0</b>	<b>261</b>	<b>76.744</b>	<b>65.742</b>	<b>38.596</b>	<b>20.257</b>	<b>1,402.481</b>	<b>931.899</b>	<b>844.718</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: 07/11**

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	106,685	6,228	59,360	10,705	20,828	3,367	0	0	0	0	0	0
TDA	180,861	3,884	303,912	9,953	68,558	3,895	90,666	4,157	52,993	7,160	16,805	2,258	0	0	0	0	0	0
JDA	139,890	2,403	264,177	6,208	58,196	3,052	83,917	3,583	47,037	5,962	15,604	1,832	0	0	0	0	0	0
MCN	128,890	3,806	258,689	6,683	54,462	2,970	78,424	4,443	46,360	5,436	14,723	1,617	0	0	0	0	0	0
IHR	85,207	1,825	171,173	3,026	32,988	1,807	25,090	2,107	13,687	1,781	4,874	724	0	0	0	0	0	0
LMN	76,304	1,531	180,787	1,784	32,792	1,811	21,761	1,385	16,515	1,224	4,954	676	0	0	0	0	0	0
LGS	77,232	1,815	174,823	2,990	31,528	1,921	18,998	1,894	13,272	2,015	4,462	816	0	0	0	0	0	0
LWG	75,025	2,132	171,958	3,135	30,329	1,865	19,875	1,531	11,191	2,414	4,337	833	0	0	0	0	0	0
PRD	34,064	196	50,379	987	14,082	343	50,574	575	25,582	1,091	9,122	377	0	0	0	0	0	0
RIS	24,734	892	39,785	1,761	10,725	505	24,802	632	16,304	2,887	4,956	844	0	0	0	0	0	0
RRH	11,204	215	15,895	543	3,314	135	15,728	350	8,369	904	1,844	200	0	0	0	0	0	0
WEL	7,587	39	9,989	892	1,799	176	12,853	75	6,592	572	1,175	140	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	0	0	2	0	0	0	46,489	111,740	46,486	49,210	63,138	24,582	20,403
TDA	0	0	0	0	0	0	36,906	99,221	36,657	18,734	33,820	10,675	11,274
JDA	0	0	0	0	0	0	36,975	103,663	38,986	22,567	26,426	9,990	9,123
MCN	0	0	0	0	0	0	32,385	91,624	34,146	12,814	16,826	6,574	4,611
IHR	0	0	0	0	0	0	43	28	12	7,761	9,149	4,135	2,326
LMN	0	0	0	0	0	0	26	23	19	7,456	8,011	3,580	2,918
LGS	0	0	0	0	0	0	23	51	19	7,790	5,420	2,148	3,188
LWG	0	0	0	0	0	0	24	20	17	13,628	8,101	5,352	3,878
PRD	0	0	6	8	1	0	26,847	97,394	36,797	619	1,047	410	***
RIS	2	0	29	0	4	0	5,284	71,846	19,498	181	527	267	82
RRH	14	0	24	0	3	0	1,122	41,454	10,377	297	333	169	97
WEL	0	0	0	0	0	0	1,040	47,382	11,113	168	200	96	112

RIS and RRH counts are through 7/7; WEL counts are through 7/10.

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

		06/29/02 TO 07/12/02					
		Species					
Site	Data	CH0	CH1	CO	SO	ST	Grand Total
<b>LGR</b>	Sum of NumberCollected	194,535	2,550	910	540	8,415	206,950
	Sum of NumberBarged	191,621	2,546	906	495	8,155	203,723
	Sum of NumberBypassed	93	0	0	0	0	93
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of TotalProjectMortalities	2,821	4	4	45	40	2,914
<b>LGS</b>	Sum of NumberCollected	65,519	902	843	1,031	3,641	71,936
	Sum of NumberBarged	65,401	892	839	982	3,603	71,717
	Sum of NumberBypassed	0	0	0	0	0	0
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of TotalProjectMortalities	118	10	4	49	38	219
<b>LMN</b>	Sum of NumberCollected	110,007	622	805	521	14,359	126,314
	Sum of NumberBarged	82,383	587	794	495	13,962	98,221
	Sum of NumberBypassed	27,412	0	0	0	17	27,429
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of TotalProjectMortalities	212	35	11	26	380	664
<b>MCN</b>	Sum of NumberCollected	1,357,980	6,509	2,454	1,832	2,362	1,371,137
	Sum of NumberBarged	9,689	0	0	0	0	9,689
	Sum of NumberBypassed	1,262,807	6,456	2,401	1,726	2,302	1,275,692
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of TotalProjectMortalities	1,672	1	0	2	9	1,684
Total Sum of NumberCollected		1,728,041	10,583	5,012	3,924	28,777	1,776,337
Total Sum of NumberBarged		349,094	4,025	2,539	1,972	25,720	383,350
Total Sum of NumberBypassed		1,290,312	6,456	2,401	1,726	2,319	1,303,214
Total Sum of Numbertrucked		0	0	0	0	0	0
Total Sum of TotalProjectMortalities		4,823	50	19	122	467	5,481

### YTD Transportation Summary

TO: 07/12/02

		Species					
Site	Data	CH0	CH1	CO	SO	ST	Grand Total
<b>LGR</b>	Sum of NumberCollected	304,657	1,535,414	80,506	50,734	1,696,825	3,668,136
	Sum of NumberBarged	300,607	1,483,562	80,360	48,882	1,626,101	3,539,512
	Sum of NumberBypassed	94	38,152	5	7	65,895	104,153
	Sum of NumberTrucked	29	9,847	20	343	3,383	13,622
	Sum of TotalProjectMortalities	3,927	3,853	121	1,502	1,226	10,629
<b>LGS</b>	Sum of NumberCollected	168,248	1,906,884	79,298	47,416	1,561,478	3,763,324
	Sum of NumberBarged	168,030	1,904,216	78,733	46,764	1,558,378	3,756,121
	Sum of NumberBypassed	0	0	0	0	0	0
	Sum of NumberTrucked	0	1,034	4	74	1,024	2,136
	Sum of TotalProjectMortalities	218	1,634	561	578	2,079	5,070
<b>LMN</b>	Sum of NumberCollected	158,679	2,212,483	62,059	38,198	1,740,945	4,212,364
	Sum of NumberBarged	129,143	2,119,948	60,029	37,121	1,703,639	4,049,880
	Sum of NumberBypassed	29,272	68,125	1,994	213	31,953	131,557
	Sum of NumberTrucked	0	20,104	0	13	356	20,473
	Sum of TotalProjectMortalities	264	4,306	36	856	4,992	10,454
<b>MCN</b>	Sum of NumberCollected	3,283,588	2,204,246	109,767	903,374	463,706	6,964,681
	Sum of NumberBarged	12,559	0	0	0	109	12,668
	Sum of NumberBypassed	3,182,333	2,203,236	109,690	902,438	463,273	6,860,970
	Sum of NumberTrucked	0	0	0	0	0	0
	Sum of TotalProjectMortalities	2,325	958	24	832	273	4,412
Total Sum of NumberCollected		3,915,172	7,859,027	331,630	1,039,722	5,462,954	18,608,505
Total Sum of NumberBarged		610,339	5,507,726	219,122	132,767	4,888,227	11,358,181
Total Sum of NumberBypassed		3,211,699	2,309,513	111,689	902,658	561,121	7,096,680
Total Sum of NumberTrucked		29	30,985	24	430	4,763	36,231
Total Sum of TotalProjectMortalities		6,734	10,751	742	3,768	8,570	30,565



