



## Fish Passage Center

# Weekly Report #02 - 25

August 30, 2002

2501 SW First Ave., Suite 230  
Portland, OR 97201-4752  
phone: 503/230-4582  
fax: 503/230-7559

### SUMMARY OF EVENTS:

- **Discussions at the August 28, 2002 TMT Meeting were focused upon the Libby/Canadian swap. At this meeting, it was learned that the Canadian projects will be approximately 60 Kaf short of the agreed upon volume of swap water (140 Kaf). BOR has agreed to draft Grand Coulee from approximately 1280.0 feet to 1279.5 feet by the 30th of August, liberating 35 Kaf of water to assist the Libby/Canadian swap deficit.**
- **The BiOp summer flow objectives are 51 Kcfs at Lower Granite and 200 Kcfs at McNary. To date, summer flows have averaged 41.2 Kcfs at Lower Granite and 190.9 Kcfs at McNary; therefore, flow objectives are not being met on a seasonal basis at either McNary or Lower Granite. Weekly average flows between 8-23-02 and 8-29-02 at Lower Granite and McNary were 29.7 and 138.6 Kcfs; therefore, flow objectives are also not being at either project on a weekly basis.**
- **Combined storage in the Upper Snake River System is less than 20% of capacity.**

**Water:** River flows within the Columbia Basin have been low for approximately the last five weeks. Currently, storage reservoirs along the Columbia and Snake Rivers are near their end of August draft limits.

Grand Coulee has held relatively steady over the last week; beginning the week at 1279.8 feet (8-23-02) and ending at 1280.0 feet (8-29-02). Total outflows have averaged 102.3 Kcfs over the past week (8-23-02 to 8-29-02). Our last two weekly reports reflected our confusion concerning the August 31st draft limit at Grand Coulee as outlined in the NMFS 2000 Biological Opinion. The BiOp reads:

Based upon the July final April-to-August runoff volume forecast at The Dalles Dam, the Action

Agencies shall limit the reservoir draft to the following end-of August elevations: 1280 feet in years when the forecast for The Dalles equals or exceeds 92 Maf and 1278 feet in years when the forecast is less than 92 Maf.

The NOAA River Forecast Center (RFC), has not calculated a July Final Water Supply Forecast for this year. The August 31st draft limit at Grand Coulee has been set at 1280 feet. This elevation was based upon the July Early-Bird not final Water Supply Forecast of 94.5 Maf at The Dalles (April-August) issued by the RFC.

The Libby reservoir has drafted 2.6 feet over the past week (8-23-02 to 8-29-02); reservoir elevations have ranged from 2445.0 to 2442.4 feet. Outflows have ranged between 17.0 Kcfs and 14.5 Kcfs over the last week. Currently (8-29-02), Libby is at an elevation of 2442.4 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. Discussions at the August 28, 2002 TMT Meeting were focused upon the Libby/Canadian swap. At this meeting, it was learned that the Canadian projects will be approximately 60 Kaf short of the agreed upon volume of swap water (140 Kaf). In response, TMT agreed to continue operations at Libby as outlined in the agreement, however, asked the Action Agencies if any water was available to offset the Libby/Canadian swap deficit. The BOR agreed to draft Grand Coulee from approximately 1280.0 feet to 1279.5 feet by the 30th of August, releasing 35 Kaf of water.

The Dworshak reservoir continues to draft. Over the last week, total outflows at Dworshak have dropped from 13.7 to 12.0 Kcfs (8-23-02 to 8-29-02) to supplement flows and temperatures at Lower Granite. Currently (midnight, 8-29-02) Dworshak is at an elevation of 1537.1 feet, drafting 9.1 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. This operation was agreed upon at the 8-15-02 TMT meeting and is currently being implemented.

Over the past week the Brownlee reservoir has drafted 2.4 feet, beginning the week at 2060.0 and ending the week at 2057.6 feet. During the week, outflows have varied between 10.5 and 13.8 Kcfs.

The Hungry Horse Reservoir continues to draft; beginning the week at an elevation of 3547.7 feet and ending the week at 3545.4 feet. Total outflows at Hungry Horse have been ramped downward from 6.0 Kcfs to 3.9 Kcfs over the last week (8-23-02 to 8-29-02). Currently (midnight, 8-29-02) Hungry Horse is at an elevation of 3545.4 feet. The operational plan at Hungry Horse includes 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. It appears that Hungry Horse will draft 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 41.2 Kcfs at Lower Granite and 190.9 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 (8-23-02 to 8-29-02), flows have averaged 29.7 Kcfs at Lower Granite and 138.6 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 29th, 2002, the entire Upper Snake River System is at 20% of capacity. Most reservoirs on the Upper Snake River have been drafting. Individually, American Falls is at 7% of capacity, Palisades is at 12% of capacity, Jackson Lake is at 48% of capacity, Island Park is at 25% of capacity, Lake Walcott is at 88% of capacity, Milner is at 96% of capacity, and Grassy Lake is at 84% of capacity.

**Spill:** Dworshak Reservoir continues to draft water for flow augmentation and temperature regulation. Spill levels have ranged between 3.5 and 1.8 Kcfs over the past week. Tailwater total dissolved gas levels have ranged between 105% and 103%. At Ice Harbor Dam spill averaged 58% 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 25% of average daily flow at John Day Dam, 40% of average daily flow at The Dalles Dam and 55% 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. This is the last week of GBT monitoring for 2002.

**Smolt Monitoring:** Low numbers of subyearling chinook are being captured at the dams in the Lower Snake River and Columbia River as the overall number of migrants continues to decline. At Granite the number of subyearling chinook was well above last week with the average daily index at 1,670 this week compared to 840 last week, although both numbers are relatively small compared to peak migration. At other Snake River dams the numbers of subyearlings continued to decrease with Little Goose and Lower Monumental having average weekly indices of 180 and 360 respectively.

At Rock Island Dam, in the mid-Columbia, the subyearling chinook index increased slightly compared to last week, with 120 average daily index this week compared to 150 daily last week. The increased index at Rock Island was due in large part to 404 fish index on 08/29, the highest daily index since the first week of August at the site. In the lower Columbia, the passage index decreased at McNary from 32,000 per day last week to nearly 15,800 per day this week. At John Day Dam passage index for subyearling chinook was down, with the index averaging 2,300 this week versus 10,800 last week. And at Bonneville Dam subyearling chinook numbers were up with an average daily index this week of 1,900 versus 1,600 last week.

**Adult Fish Passage:** At Bonneville Dam, counts of adult fall chinook averaged greater than 12,000 per day for the week with the cumulative count through August 29 at 106,775. This year's count of adult fall chinook was about 1.4 and 2.4 times greater than the respective year 2001 and 10-year average. The adult fall chinook count exceeded 17,000 on 8/29 and counts should remain at these higher levels through mid-September. Through August 27, approximately 17,000 of the adult fall chinook counted at Bonneville Dam were "Tule" stock fall chinook that will be destined for Spring Creek NFH and other Bonneville pool tributaries. At The Dalles, about 43,000 Upriver Bright (URB) fall chinook have been counted with 15,500 URBs past McNary Dam. To date about 1,350 adult fall chinook have been counted at Ice Harbor Dam; slightly less than 10% of the total past McNary Dam. At Priest Rapids Dam, 4,247 adult fall chinook were counted through August 28. 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.

Steelhead passage at Bonneville Dam averaged 5,474 per day through the past week with a total of 308,462 counted through August 29. This total is 66.5% and 174% of the respective 2001 and 10-year average counts to date. Estimated wild steelhead in the passage total was 106,403 (based on visual missing adipose fin on the steelhead). To date, about half (49.7%) of the adult steelhead counted past Bonneville Dam have been counted 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 in the Columbia River this summer have normally been less than 70°F, and during the week, steelhead counts at The Dalles averaged near 3,100 per day. Numbers of adult steelhead counted into the Snake River and past Ice Harbor Dam averaged 1,310 per day with the cumulative count being 43,802 through the end of the reporting week. In the Mid-Columbia, the counts of steelhead at Priest Rapids Dam ranged from 231-316 per day and totaled 8,626 through August 28. The passage of steelhead into the Snake and Mid-Columbia Rivers was about 2.3 and 2.1 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 was completed on August 28 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
<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
08/16/02	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	116.8	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	131.5	8.2	125.3	0.0	127.7	23.1	124.9	1.9	125.2	1.1
08/23/02	109.6	0.1	114.1	0.0	119.5	7.8	116.5	0.0	122.2	22.8	128.9	1.8	132.7	1.1
08/24/02	90.3	0.2	95.4	0.0	96.8	7.4	95.8	0.0	96.0	19.2	105.9	1.7	109.7	0.9
08/25/02	70.7	0.2	70.0	0.0	73.5	5.5	69.1	0.0	71.4	21.4	72.1	1.5	79.6	0.7
08/26/02	113.5	0.2	111.2	0.0	116.3	4.0	112.5	0.0	113.9	0.1	109.5	1.8	100.5	0.8
08/27/02	104.8	0.2	108.8	0.0	109.7	0.0	109.1	0.0	111.7	0.0	122.9	1.7	125.2	0.8
08/28/02	120.1	0.1	116.5	0.0	118.3	0.0	116.3	0.0	119.3	0.0	113.3	1.6	114.5	0.8
08/29/02	106.9	0.2	107.7	0.0	107.4	0.0	108.8	0.0	113.1	0.0	118.2	1.8	119.2	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
08/16/02	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	8.8	13.6	28.5	0.0	25.2	4.2	27.2	0.0	32.6	27.0
08/23/02	13.7	3.5	9.0	14.0	31.3	0.0	37.8	0.0	40.1	0.0	41.0	35.4
08/24/02	13.6	3.4	9.0	11.9	31.1	0.0	32.2	0.0	33.7	0.0	39.8	34.0
08/25/02	12.1	1.9	8.5	9.9	29.0	0.0	28.6	0.0	28.8	0.0	27.5	13.5
08/26/02	12.1	1.9	9.9	14.8	27.1	0.0	27.2	0.0	29.1	0.0	30.5	16.2
08/27/02	12.1	1.9	9.6	11.1	31.7	0.0	31.4	0.0	31.6	0.0	31.5	12.4
08/28/02	12.1	1.9	10.2	14.4	28.1	0.0	27.1	0.0	28.8	0.0	29.7	14.4
08/29/02	12.0	1.8	---	---	29.8	0.0	30.2	0.0	30.7	0.0	32.5	14.4

**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		
08/16/02	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	151.8	0.0	149.9	53.7	151.8	59.5	152.5	91.8	6.1	47.9
08/23/02	159.1	0.0	139.1	41.8	132.0	52.1	156.6	91.9	0.0	58.0
08/24/02	129.2	0.0	145.1	42.8	147.7	58.5	163.3	86.3	3.9	66.4
08/25/02	122.1	0.0	118.1	35.7	123.3	48.7	135.8	85.9	0.0	43.3
08/26/02	142.5	0.0	141.3	30.2	140.0	55.2	140.8	87.9	0.9	45.3
08/27/02	134.1	0.0	142.2	41.5	141.1	55.7	139.4	85.2	2.8	44.7
08/28/02	142.8	0.0	142.0	29.3	139.5	55.1	157.7	77.8	1.5	71.7
08/29/02	201.8	0.0	125.8	18.9	125.9	49.4	137.9	54.2	0.5	76.5

## 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>											
	08/22/02	Subyearling Chinook	100	0	0	0.00%	0.00%	0	0	0	0
	08/26/02	Subyearling Chinook	100	0	0	0.00%	0.00%	0	0	0	0
	08/29/02	Subyearling Chinook	100	0	0	0.00%	0.00%	0	0	0	0
<b>Bonneville Dam</b>											
	08/22/02	Subyearling Chinook	100	0	0	0.00%	0.00%	0	0	0	0
	08/25/02	Subyearling Chinook	100	0	0	0.00%	0.00%	0	0	0	0
	08/29/02	Subyearling Chinook	67	0	0	0.00%	0.00%	0	0	0	0
<b>Rock Island Dam</b>											
	08/22/02	Subyearling Chinook	85	1	1	1.17%	0.00%	1	0	0	0
	08/26/02	Subyearling Chinook	26	0	0	0.00%	0.00%	0	0	0	0
	08/29/02	Subyearling Chinook	51	3	3	5.88%	0.00%	3	0	0	0

### Hatchery Release Summary

From: **8/16/02** to **8/29/02**

<u>Agency</u>	<u>Hatchery</u>	<u>Species</u>	<u>Race</u>	<u>MigYr</u>	<u>NumRel</u>	<u>RelStart</u>	<u>RelEnd</u>	<u>RelSite</u>	<u>RelRiver</u>
WDFW	East Bank	SO	UN	2003	96,500	08-28-02	08-28-02	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>		
8/16	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
8/23	103	103	104	24	106	107	107	24	110	110	110	24	110	111	114	24	110	110	111	23
8/24	103	103	103	24	107	107	108	24	110	111	111	24	111	111	114	24	110	110	111	23
8/25	103	103	104	24	107	107	108	24	110	111	111	24	111	112	115	24	109	109	110	23
8/26	103	103	103	24	106	106	107	24	110	111	111	24	110	110	112	24	109	109	109	23
8/27	102	102	103	9	107	107	107	5	110	110	110	24	109	109	111	8	109	109	110	23
8/28	103	103	104	24	107	108	109	24	110	111	111	24	109	110	112	24	109	110	110	23
8/29	103	104	104	24	108	109	110	24	111	111	111	24	109	110	112	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>		
8/16	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
8/23	110	111	112	21	109	110	110	24	111	112	112	24	109	109	110	24	109	110	110	24
8/24	111	112	112	22	109	110	111	24	111	112	112	24	110	110	110	23	110	110	110	23
8/25	110	110	112	23	109	109	110	24	110	110	111	24	109	110	110	24	109	110	110	24
8/26	109	109	110	23	108	108	109	24	109	110	111	24	109	110	110	24	109	110	110	24
8/27	109	109	110	21	107	108	108	24	107	107	107	24	109	110	110	24	109	110	110	24
8/28	108	110	111	22	108	109	109	23	107	108	108	23	109	109	110	24	109	109	110	24
8/29	110	111	112	23	109	109	109	23	108	108	109	23	108	108	109	23	108	109	109	23

### 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>		
8/16	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
8/23	109	109	110	24	114	115	118	24	---	---	---	0	---	---	---	0	---	---	---	0
8/24	109	109	110	23	114	115	115	23	---	---	---	0	---	---	---	0	---	---	---	0
8/25	108	108	109	24	116	117	117	24	---	---	---	0	---	---	---	0	---	---	---	0
8/26	108	108	108	24	117	117	117	24	---	---	---	0	---	---	---	0	---	---	---	0
8/27	108	108	108	24	117	117	117	24	---	---	---	0	---	---	---	0	---	---	---	0
8/28	108	109	110	24	125	129	130	23	---	---	---	0	---	---	---	0	---	---	---	0
8/29	108	108	109	23	132	133	135	23	---	---	---	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>#</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>		
8/16	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
8/23	---	---	---	0	102	103	105	24	105	105	105	24	105	106	107	24	103	105	107	24
8/24	---	---	---	0	104	105	105	24	105	105	105	24	105	106	107	24	103	104	106	24
8/25	---	---	---	0	105	105	106	24	103	104	104	24	104	105	106	24	102	104	105	24
8/26	---	---	---	0	104	105	106	24	103	103	104	24	104	105	106	24	102	104	105	24
8/27	---	---	---	0	105	105	106	24	103	103	104	24	104	105	106	24	103	104	106	24
8/28	---	---	---	0	105	105	106	24	103	104	104	24	104	106	106	24	103	105	107	24
8/29	---	---	---	0	105	106	107	24	103	103	104	23	104	105	106	24	102	102	102	9

### 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>#</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>		
8/16	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
8/23	103	105	107	24	109	110	113	24	102	103	104	24	104	106	107	24	101	101	102	24
8/24	103	104	105	24	110	111	112	24	102	102	103	24	105	106	107	24	100	101	101	24
8/25	103	104	105	24	108	109	110	24	101	102	103	24	104	105	107	24	100	100	100	24
8/26	103	104	106	24	104	105	109	24	101	101	101	24	100	100	101	24	99	99	101	24
8/27	103	105	106	24	106	108	112	24	101	102	102	24	101	102	104	24	100	100	101	24
8/28	103	105	107	24	111	114	115	24	102	103	104	24	105	108	109	24	101	101	102	24
8/29	103	104	105	24	112	113	114	24	103	104	105	24	108	110	110	24	101	102	102	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>#</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>		
8/16	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
8/23	104	105	106	24	102	103	104	23	102	102	103	24	111	112	112	24	104	106	109	23
8/24	106	107	110	24	103	104	104	24	101	101	102	24	111	112	113	24	105	107	109	24
8/25	105	106	107	24	105	106	109	24	103	104	106	24	106	109	111	24	106	108	109	24
8/26	104	105	105	24	103	104	104	24	100	101	101	24	106	110	111	24	107	108	109	24
8/27	105	107	109	24	102	103	104	24	101	102	103	24	106	109	111	24	108	110	112	24
8/28	107	108	110	24	102	103	104	24	102	103	103	24	107	109	110	24	109	111	113	24
8/29	105	106	108	24	101	102	104	21	104	105	106	24	107	110	110	24	109	111	113	24

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

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

Date	<u>McNary-Wash</u>			<u>McNary Tlwr</u>			<u>John Day</u>			<u>John Day Tlwr</u>			<u>The Dalles</u>							
	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24h</u>	<u>12h</u>	<u>#</u>	<u>24h</u>	<u>12h</u>	<u>#</u>	<u>24h</u>	<u>12h</u>	<u>#</u>					
	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	AVG	High	hr				
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
8/23	105	106	108	24	104	104	105	24	104	105	107	23	114	115	115	24	110	111	112	23
8/24	105	106	108	24	104	104	105	24	103	104	105	23	115	115	115	24	107	108	108	23
8/25	105	106	107	24	104	104	105	24	101	101	102	23	113	114	115	24	106	106	107	23
8/26	104	105	105	24	104	104	104	24	100	101	101	23	108	114	118	24	103	104	104	23
8/27	108	110	113	24	106	106	107	24	101	102	104	23	109	116	117	24	103	104	107	21
8/28	109	110	112	24	106	106	107	24	102	103	106	23	109	116	118	24	108	110	112	23
8/29	107	108	110	24	106	106	107	24	102	102	103	23	108	113	115	24	107	111	113	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>	<u>12 h</u>	<u>#</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>#</u>		
	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
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
8/23	116	116	117	24	107	107	108	23	115	117	119	23	111	113	114	24
8/24	114	115	116	24	109	110	110	23	113	114	116	23	111	112	114	24
8/25	113	113	114	24	108	108	108	23	112	113	116	23	109	111	111	24
8/26	112	112	112	24	105	105	106	23	112	114	115	23	108	109	110	24
8/27	112	113	113	24	105	105	106	23	112	115	115	23	110	111	111	24
8/28	115	116	117	24	107	107	109	19	113	114	115	23	112	114	115	24
8/29	115	116	118	24	110	110	110	23	110	111	112	23	109	110	112	24



Source: Fish Passage Center

Updated: 8/30/02 8:23

## 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: [Daily Catch Report](#)

For sockeye and yearling chinook (Snake only) race information see: [Current Passage Index Query](#)

If the text appears garbled, please hit the refresh button on your browser

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)
08/16/2002 *	---	---	---	---	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
08/23/2002	---	---	---	---	0	0	7	0	0	0	0
08/24/2002	---	---	---	---	0	0	4	0	0	0	0
08/25/2002	---	---	---	---	0	0	8	0	0	0	0
08/26/2002	---	---	---	---	0	0	5	0	0	0	0
08/27/2002 *	---	---	---	---	4	0	5	0	0	0	10
08/28/2002	---	---	---	---	0	0	5	0	0	0	0
08/29/2002	---	---	---	---	0	0	10	7	0	0	0
<b>Total:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>2</b>	<b>119</b>	<b>7</b>	<b>50</b>	<b>0</b>	<b>33</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>0</b>	<b>9</b>	<b>1</b>	<b>4</b>	<b>0</b>	<b>2</b>
<b>YTD</b>	<b>38,199</b>	<b>29,095</b>	<b>8,013</b>	<b>7,847</b>	<b>2,459,180</b>	<b>2,843,811</b>	<b>2,221,914</b>	<b>28,988</b>	<b>3,519,369</b>	<b>2,104,926</b>	<b>3,328,076</b>

### 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)
08/16/2002 *	---	---	---	---	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
08/23/2002	---	---	---	---	1,300	212	253	101	17,976	4,503	3,152
08/24/2002	---	---	---	---	1,272	242	436	79	18,700	3,872	2,391
08/25/2002	---	---	---	---	1,788	248	636	80	21,533	2,353	2,435
08/26/2002	---	---	---	---	1,968	179	398	38	13,068	902	2,170
08/27/2002 *	---	---	---	---	1,880	132	250	39	17,577	844	1,338
08/28/2002	---	---	---	---	1,712	105	266	86	16,601	1,356	1,199
08/29/2002	---	---	---	---	1,776	124	289	404	5,425	1,995	1,013
<b>Total:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>17,562</b>	<b>3,510</b>	<b>5,691</b>	<b>1,923</b>	<b>332,214</b>	<b>91,561</b>	<b>25,043</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>1,254</b>	<b>251</b>	<b>407</b>	<b>137</b>	<b>23,730</b>	<b>6,540</b>	<b>1,789</b>
<b>YTD</b>	<b>0</b>	<b>4</b>	<b>26</b>	<b>3,488</b>	<b>713,195</b>	<b>330,449</b>	<b>303,201</b>	<b>25,674</b>	<b>8,301,773</b>	<b>3,451,351</b>	<b>6,982,331</b>

## Two-Week Summary of Passage Indices

### COMBINED COHO

Date	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (INDEX)	LGS (INDEX)	LMN (INDEX)	RIS (INDEX)	MCN (INDEX)	JDA (INDEX)	BO2 (INDEX)
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
08/23/2002	---	---	---	---	0	1	0	0	0	0	0
08/24/2002	---	---	---	---	0	3	4	1	0	0	0
08/25/2002	---	---	---	---	0	3	2	0	0	0	0
08/26/2002	---	---	---	---	4	1	9	1	0	0	0
08/27/2002 *	---	---	---	---	0	1	4	0	0	0	0
08/28/2002	---	---	---	---	0	3	2	0	0	0	0
08/29/2002	---	---	---	---	4	7	4	0	0	0	0
<b>Total:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>84</b>	<b>86</b>	<b>4</b>	<b>0</b>	<b>36</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>6</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>
<b>YTD</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>101</b>	<b>124,056</b>	<b>104,504</b>	<b>66,166</b>	<b>86,227</b>	<b>201,998</b>	<b>315,280</b>	<b>2,331,561</b>

### COMBINED STEELHEAD

Date	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (INDEX)	LGS (INDEX)	LMN (INDEX)	RIS (INDEX)	MCN (INDEX)	JDA (INDEX)	BO2 (INDEX)
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
08/23/2002	---	---	---	---	12	17	74	0	0	0	0
08/24/2002	---	---	---	---	16	14	115	0	0	0	0
08/25/2002	---	---	---	---	4	6	241	1	0	0	0
08/26/2002	---	---	---	---	12	17	252	0	0	0	0
08/27/2002 *	---	---	---	---	8	13	131	1	0	0	0
08/28/2002	---	---	---	---	12	4	52	1	0	0	0
08/29/2002	---	---	---	---	0	2	80	7	0	0	0
<b>Total:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>108</b>	<b>184</b>	<b>1,759</b>	<b>12</b>	<b>0</b>	<b>0</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>8</b>	<b>13</b>	<b>126</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>YTD</b>	<b>2,833</b>	<b>32,043</b>	<b>3,494</b>	<b>11,810</b>	<b>2,602,978</b>	<b>2,273,364</b>	<b>1,794,256</b>	<b>28,719</b>	<b>794,500</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

### COMBINED SOCKEYE

Date	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (INDEX)	LGS (INDEX)	LMN (INDEX)	RIS (INDEX)	MCN (INDEX)	JDA (INDEX)	BO2 (INDEX)
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
08/23/2002	---	---	---	---	0	0	1	1	25	0	0
08/24/2002	---	---	---	---	12	0	1	0	33	0	0
08/25/2002	---	---	---	---	12	0	0	3	67	0	0
08/26/2002	---	---	---	---	4	0	0	1	0	0	23
08/27/2002 *	---	---	---	---	12	1	0	0	25	0	0
08/28/2002	---	---	---	---	12	1	0	1	0	0	0
08/29/2002	---	---	---	---	4	0	0	7	0	0	0
<b>Total:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>80</b>	<b>20</b>	<b>10</b>	<b>30</b>	<b>753</b>	<b>286</b>	<b>70</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>6</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>54</b>	<b>20</b>	<b>5</b>
<b>YTD</b>	<b>18</b>	<b>0</b>	<b>0</b>	<b>261</b>	<b>77,566</b>	<b>66,605</b>	<b>38,981</b>	<b>20,626</b>	<b>1,409,451</b>	<b>934,026</b>	<b>848,188</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: 08/29**

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	106,775	5,435	75,364	12,840	44,164	4,217
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	43,062	2,603	25,075	4,438	19,518	1,946
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	26,292	2,275	11,177	2,742	11,957	1,261
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	15,531	1,424	7,540	2,093	7,739	834
IHR	85,207	1,826	171,173	3,026	32,988	1,807	26,607	2,437	15,270	2,397	5,356	857	1,356	156	670	143	397	37
LMN	76,304	1,537	180,787	1,784	32,792	1,811	23,743	1,686	19,287	1,612	5,597	792	990	154	560	242	243	48
LGS	77,232	1,815	174,823	2,990	31,528	1,921	20,844	2,253	15,929	2,803	5,147	995	710	58	419	115	137	21
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	460	46	270	98	95	19
PRD	34,083	196	50,379	987	14,082	343	90,709	1,377	53,170	3,207	18,552	1,069	4,247	258	3,835	896	3,246	334
RIS	24,734	892	39,785	1,761	10,725	505	80,826	2,717	48,844	13,086	16,340	3,328	2,961	292	1,907	1,407	1,037	369
RRH	11,204	215	15,895	543	3,314	135	71,771	2,684	39,174	5,548	9,858	1,394	2,342	217	1,979	617	739	268
WEL	7,587	39	9,989	892	1,799	176	62,564	389	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	2,631	228	26,927	1,549	3,761	305	49,624	114,933	50,283	308,462	464,226	177,576	106,403
TDA	114	35	738	126	223	41	40,555	102,560	40,060	153,422	204,878	71,305	57,776
JDA	34	3	237	27	93	15	41,914	107,793	43,268	111,124	113,098	46,604	41,423
MCN	7	0	29	15	16	0	39,173	97,162	39,888	81,824	104,691	36,408	30,605
IHR	0	0	32	7	2	0	59	38	13	43,802	49,582	19,203	12,652
LMN	1	0	2	0	0	0	45	32	21	38,723	49,116	16,617	12,671
LGS	0	0	1	0	0	0	38	71	24	28,425	29,974	9,783	10,737
LWG	0	0	0	0	0	0	51	36	23	28,555	24,527	10,986	9,689
PRD	36	4	27	34	3	0	45,537	111,249	48,760	8,926	14,197	4,360	***
RIS	6	0	31	0	6	0	38,643	104,764	43,337	7,435	11,964	3,440	2,014
RRH	15	0	38	0	4	0	16,510	66,173	27,199	5,745	8,200	2,240	1,780
WEL	0	0	0	0	0	0	10,545	74,416	27,017	4,058	5,569	1,426	1,851

WEL ,RRH, and RIS are through 08/28. 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

08/17/02 TO 08/30/02

		Species					
Site	Data	CH0	CH1	CO	SO	ST	Grand Total
<b>LGR</b>	Sum of NumberCollected	17,528	4	8	80	108	17,728
	Sum of NumberBarged	1,555	0	0	7	20	1,582
	Sum of NumberBypassed	1	0	0	0	0	1
	Sum of Numbertrucked	14,816	4	4	68	100	14,992
	Sum of TotalProjectMortalities	88	0	0	5	0	93
<b>LGS</b>	Sum of NumberCollected	3,360	2	80	20	173	3,635
	Sum of NumberBarged	458	1	21	3	5	488
	Sum of NumberBypassed	0	0	0	0	0	0
	Sum of Numbertrucked	2,918	2	53	17	163	3,153
	Sum of TotalProjectMortalities	49	0	6	2	4	61
<b>LMN</b>	Sum of NumberCollected	5,691	119	86	10	1,759	7,665
	Sum of NumberBarged	939	27	16	0	114	1,096
	Sum of NumberBypassed	0	0	0	0	1,644	1,644
	Sum of Numbertrucked	4,469	80	72	9	0	4,630
	Sum of TotalProjectMortalities	380	3	2	1	28	414
<b>MCN</b>	Sum of NumberCollected	332,214	50		753		333,017
	Sum of NumberBarged	109,883	49		249		110,181
	Sum of NumberBypassed	5,338	0		0		5,338
	Sum of Numbertrucked	212,849	0		503		213,352
	Sum of TotalProjectMortalities	4,143	1		1		4,145
Total Sum of NumberCollected		358,793	175	174	863	2,040	362,045
Total Sum of NumberBarged		112,835	77	37	259	139	113,347
Total Sum of NumberBypassed		5,339	0	0	0	1,644	6,983
Total Sum of Numbertrucked		235,052	86	129	597	263	236,127
Total Sum of TotalProjectMortalities		4,660	4	8	9	32	4,713

### YTD Transportation Summary

TO: 08/30/02

		Species					
Site	Data	CH0	CH1	CO	SO	ST	Grand Total
<b>LGR</b>	Sum of NumberCollected	591,990	1,535,659	80,766	51,473	1,698,841	3,958,729
	Sum of NumberBarged	567,550	1,483,798	80,608	49,501	1,627,988	3,809,445
	Sum of NumberBypassed	210	38,152	5	7	65,895	104,269
	Sum of NumberTrucked	14,845	9,851	24	411	3,483	28,614
	Sum of TotalProjectMortalities	7,645	3,858	125	1,550	1,255	14,433
<b>LGS</b>	Sum of NumberCollected	286,778	1,907,377	79,914	48,194	1,562,795	3,885,058
	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	2,918	1,036	57	91	1,187	5,289
	Sum of TotalProjectMortalities	1,109	1,640	569	691	2,130	6,139
<b>LMN</b>	Sum of NumberCollected	303,156	2,214,701	63,061	38,583	1,753,379	4,372,880
	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	33,611	133,210
	Sum of NumberTrucked	4,469	20,184	72	22	356	25,103
	Sum of TotalProjectMortalities	2,428	4,362	59	885	5,475	13,209
<b>MCN</b>	Sum of NumberCollected	5,318,918	2,205,096	111,899	909,080	464,620	9,009,613
	Sum of NumberBarged	1,785,415	792	2,094	4,976	979	1,794,256
	Sum of NumberBypassed	3,281,193	2,203,310	109,765	902,707	463,340	6,960,315
	Sum of NumberTrucked	212,849	0	0	503	0	213,352
	Sum of TotalProjectMortalities	39,427	994	40	893	301	41,655
Total Sum of NumberCollected		6,500,842	7,862,833	335,640	1,047,330	5,479,635	21,226,280
Total Sum of NumberBarged		2,902,326	5,511,312	222,915	139,357	4,902,383	13,678,293
Total Sum of NumberBypassed		3,310,675	2,309,587	111,764	902,922	562,846	7,197,794
Total Sum of NumberTrucked		235,081	31,071	153	1,027	5,026	272,358
Total Sum of TotalProjectMortalities		50,609	10,854	793	4,019	9,161	75,436

