



## Fish Passage Center

# Weekly Report #08 - 24

August 15, 2008

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### Summary of Events:

**Water Supply:** Precipitation throughout the Columbia Basin has varied between 10% and 89% of average at individual sub-basins over the first eleven days of August. Precipitation above The Dalles has been 75% of average over August. Over the entire water year, precipitation has generally been near average.

**Table 1. Summary of August 1-11 precipitation and cumulative October through August precipitation with respect to average (1971-2000), at select locations within the Columbia and Snake River Basins.**

Location	Water Year 2008 August 1-11		Water Year 2008 October 1, 2007 to August 11, 2008	
	Observed (inches)	% Average	Observed (inches)	% Average
Columbia Above Coulee	0.35	58	21.76	95
SNAKE RIVER Above Ice Harbor	0.22	71	15.58	95
Columbia Above The Dalles	0.32	75	20.50	96
Kootenai	0.38	64	20.19	86
Clark Fork	0.16	35	16.16	102
Flathead	0.15	27	20.38	97
Pend Oreille/ Spokane	0.04	10	28.23	97
Central Washington	0.04	26	5.83	69
SNAKE RIVER Plain	0.16	77	8.11	78
Salmon/Boise/ Payette	0.22	89	18.58	99
Clearwater	0.13	30	27.78	97
SW Washington Cascades/Cowlitz	0.26	47	61.36	91
Willamette Valley	0.08	21	57.30	100

The summer Biological Opinion flow at Lower Granite Dam is determined by the June Final Water Supply Forecast and is 52.5 Kcfs this year. Flows at Lower Granite Dam averaged 64.0 Kcfs between June 21<sup>st</sup>, 2008 and August 14<sup>th</sup>, 2008. Flows at Lower Granite averaged 37.2 Kcfs last week.

The summer Biological Opinion flow at McNary Dam is 200 Kcfs and began on July 1, 2008. Flows at McNary Dam have averaged 188.8 Kcfs over the summer flow period (July 1-August 14) and have averaged 130.7 Kcfs last week.

Grand Coulee Reservoir is at 1283.0 feet (8-14-08) and has drafted 1.6 feet over the last week. Outflows at Grand Coulee have ranged between 74.5 and 99.7 Kcfs over the last week. Inflows last week have ranged between 77.7 Kcfs and 85.7 Kcfs. The end of August draft elevation is 1280 feet at Grand Coulee this year.

The Libby Reservoir is currently at elevation 2442.8 feet (8-14-08) and drafted 0.2 feet last week. Inflows at Libby have ranged between 7.4 Kcfs and 8.7 Kcfs over the last week. A Libby/Canadian Storage Exchange has been agreed upon this year which will leave approximately 60 Ksf of water in Libby reservoir over August and release approximately 60 Ksf more water from Canadian projects over the same period. To facilitate this operation, outflows from Libby were reduced to 8 Kcfs on August 12<sup>th</sup>, 2008 and will likely stay at this level throughout the remainder of August.

Hungry Horse is currently at an elevation of 3548.5 ft (8-14-08) and has drafted 2.6 feet last week. Outflows are currently 6.5 Kcfs; inflows ranged between 0.5 Kcfs and 2.5 Kcfs last week.

Dworshak is currently at an elevation of 1561.3 feet (8-14-08) and has drafted 8.7 feet last week. Outflows at Dworshak are approximately 13.5-14.5 Kcfs; inflows have ranged between 2.4 and 3.2 Kcfs last week. SOR 2008-5 was submitted to the Action Agencies on August 6<sup>th</sup>, 2008. This SOR was submitted concerning one of the regulating outlets at Dworshak Dam that has malfunctioned and the Action Agencies have advised that this malfunction may limit the ability

to draft Dworshak to elevation 1535 by August 31<sup>st</sup>, 2008. At the August 13, 2008 TMT Meeting the COE stated that they will likely be able to draft Dworshak to the 1535 ft elevation by the end of August. Outflows from Dworshak will remain near 14 Kcfs through next week then drop to approximately 12 Kcfs for the remainder of August.

The Brownlee Reservoir is at an elevation of 2056.3 feet (August 13<sup>th</sup>, 2008), and has drafted 1.3 feet last week. Outflows at Brownlee Dam have been 11.2 to 16.1 Kcfs over the last week. Inflows at Brownlee Dam have been 11.0 to 11.5 Kcfs over the last week.

**Spill:** The summer spill season was initiated on June 21, 2008 in the Snake River. The Court Order calls for the following spill levels at the Federal Snake River Projects:

Project	Day/Night Spill
Lower Granite	18 Kcfs/18 Kcfs
Little Goose	30%/30%
Lower Monumental	17 Kcfs/17 Kcfs
Ice Harbor	30%/30% vs 45 Kcfs/Gas Cap Study

Dworshak Dam outflows ranged from 13.5-14.0 Kcfs over the past week, which is above hydraulic capacity, resulting in 3.6-4.6 Kcfs spill. Lower Granite, Little Goose and Lower Monumental dams have all generally spilled to the Court Order over the past week. Ice Harbor Dam has generally met the court ordered levels of 45 Kcfs daytime spill and gas cap nighttime spill (study was concluded on July 17<sup>th</sup>) except when daytime spill is below 45 Kcfs due to low flows and powerhouse minimum flows. Ice Harbor Dam has minimum spill of 15.2 Kcfs.

Summer spill in the Lower Columbia River was initiated on July 1, 2008. The Court Order calls for the following summer spill levels at the Federal Lower Columbia River Projects:

Project	Day/Night Spill
McNary	60%/60% vs 40%/40%
John Day	30%/30% vs 40%/40% test days
The Dalles	40%/40%
Bonneville	75 Kcfs/Gas Cap (after completion of 85 Kcfs Test)

Summer spill at McNary was initiated on June 21, 2008 to facilitate the conduct of a research study comparing spill levels of 40%/40% versus 60%/60%. Although the study has been completed, spill at McNary Dam is to continue alternating between 40%/40% versus 60%/60% spill through the end of August, in 2-day blocks. Spill at McNary, John Day, and The Dalles dams has generally met the Court Ordered levels over the past week. The summer spill levels at Bonneville Dam are now 75 Kcfs during daytime hours and gas cap spill at night. The spill cap, and thus nighttime spill at Bonneville Dam has ranged from 85 to 95 Kcfs this past week.

Total dissolved gas did not exceed the 120% tailrace or 115% forebay limits this past week, except for the Camas Washougal monitor. On August 11<sup>th</sup>, the 12-hour average TDG at the Camas Washougal monitor was 116.0%. The TDG exceedence on August 16<sup>th</sup> at the Camas Washougal monitor is what led to the reduction in the spill cap at Bonneville Dam from about 95 Kcfs earlier in the week to the present cap of about 85 Kcfs. However, there have been no further exceedences at the Camas Washougal monitor since August 11<sup>th</sup>.

Gas bubble trauma (GBT) monitoring at Lower Granite Dam has concluded for the year. Sampling occurred at all other Snake River monitoring sites, Rock Island Dam in the Mid Columbia, and at McNary and Bonneville dams in the lower Columbia. There were no detections of GBT at any of these Snake, Mid-Columbia, or Lower Columbia projects this week.

**Smolt Monitoring:** Subyearling Chinook numbers decreased over the past week at most sites. At Lower Granite Dam in the Snake River the daily passage indices for subyearling Chinook averaged about 1,500 per day this past week compared to about 2,200 per day the previous week. PIT-tag data suggest that hatchery origin fish predominate, and that those fish are arriving from releases in the Snake River as well from several points in the Clearwater River basin as part of the transportation study. Passage indices continued to decline at Little Goose Dam and Lower Monumental Dam.

At Rock Island Dam indices for subyearling Chinook dropped from 120 per day two weeks ago to 60 per day this past week. At the lower Columbia River dams indices for subyearling Chinook were up at McNary Dam. The subyearling Chinook index averaged over 10,000 fish per day this past week compared to less than 7,000 per day last week. While at John Day the index average 5,400 per day this week down from 11,000 per day last week. And at Bonneville Dam subyearling Chinook passage indices averaged 3,000 per day over the past week, compared with 5,000 per day the previous week.

#### **Hatchery Releases:**

**Snake River Zone:** The Snake River Zone encompasses the Snake River and its tributaries from its confluence with the Columbia River to Hells Canyon Dam. There were no scheduled releases of juvenile salmonids to this zone this week and no releases are scheduled over the next two weeks.

**Mid-Columbia Zone:** The Mid-Columbia Zone encompasses the area of the Columbia River and its tributaries from McNary Dam to Chief Joseph Dam. There were no releases of juvenile salmonids to the Mid-Columbia river zone this week. Furthermore, no releases are scheduled for this zone over the next two weeks.

**Lower Columbia Zone:** The Lower Columbia Zone is defined as the Columbia River and its tributaries from Bonneville Dam to McNary Dam. There were no scheduled releases of juvenile salmonids to this zone this week and no releases are scheduled over the next two weeks.

#### **Adult Fish Passage**

Fall Chinook begin to pass Bonneville Dam on August 1<sup>st</sup>. Daily counts of adult fall Chinook ranged from 502 to 895. The 2008 adult fall Chinook count of 7,252 is about 1.39 times greater than the 2007 and has 273 fewer fish than the 10 year average. The fall Chinook jack count of 1,127 is about 1.14 times greater than the 2007 count and has 3 fewer fish than the 10 year average. The adult fall Chinook count total at The Dalles Dam is 3,853, about 53.1% of the Bonneville passage total to date.

As of August 14<sup>th</sup>, 188,648 steelhead had passed Bonneville Dam. The 2008 count was 1.24 times greater than the 2007 count of 151,281 and 1.11 times greater than the 10 year average. The 2008 wild steelhead count at Bonneville Dam was 68,610 fish. The daily steelhead counts at The Dalles Dam ranged between 772 and 1,142 for the week with a cumulative count of 98,200. About 52% of the steelhead counted at Bonneville Dam had passed The Dalles Dam. The majority of the 47,520 steelhead at McNary Dam have moved up into the Snake River with the cumulative count at Ice Harbor now at 28,564 for the season. The 2008 count Lower Granite Dam steelhead count of 18,193 was 1.31 times greater than the 2007 count and 1.52 times greater than the 10 year average. The cumulative count at Priest Rapids Dam was at 6,609 steelhead for the season.

The 2008 Bonneville Dam sockeye count of 213,583 increased about 8.77 times compared to the 2007 count and increased approximately 3.64 times compared to the 10 year average. A total of 192,200 adult sockeye have been counted at Priest Rapids Dam so far this season. Two of the major spawning sites for sockeye in the upper Columbia river zone are Lake Wenatchee and Lake Osoyoos (Okanogan basin). As of August 13<sup>th</sup> at Wells Dam, the 2008 sockeye count of 165,082 was 7.48 times greater than the 2007 count and 4.52 times greater than the 10 year average. To date, 871 sockeye have been counted at Lower Granite. The 2008 Lower Granite Dam adult sockeye is 16.43 times greater than the 2007 count of 53 and is approximately 20.73 times greater than the 10 year average of 42.

The coho salmon run at Bonneville Dam is just beginning with 44 adults and 7 jacks counted to date. Five chum and 59 pink salmon have been observed at Bonneville Dam so far this season. In 2007, by August 14<sup>th</sup>, only 1 pink salmon and 4 chum salmon had been observed.

**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
08/01/2008	70.5	0.1	79.8	0.0	78.2	7.9	81.8	8.7	81.7	19.7	89.1	18.9	84.7	21.9
08/02/2008	79.2	0.1	72.7	0.0	73.0	8.9	70.4	7.4	70.6	14.2	70.8	19.0	73.7	21.5
08/03/2008	73.2	0.1	67.0	0.0	71.7	7.4	76.1	6.2	77.8	14.1	95.7	19.7	84.3	22.8
08/04/2008	88.9	0.1	88.7	0.0	91.2	8.7	93.7	8.9	94.9	16.9	104.6	18.8	108.5	20.8
08/05/2008	91.7	0.1	100.4	0.0	97.5	11.0	94.2	10.4	90.4	17.6	83.5	17.8	81.0	19.3
08/06/2008	83.5	0.1	85.3	0.0	95.4	13.6	96.7	9.4	98.7	20.6	102.1	19.8	92.4	20.8
08/07/2008	91.5	0.1	77.7	0.0	82.5	11.1	78.9	8.3	81.0	21.0	101.2	18.7	103.9	19.6
08/08/2008	76.2	0.1	84.7	0.0	89.3	12.3	86.1	7.7	88.5	18.8	69.2	18.9	58.7	20.2
08/09/2008	74.5	0.1	82.5	0.0	83.9	16.8	76.3	11.7	77.7	12.6	81.5	25.7	70.8	23.6
08/10/2008	79.9	0.2	71.5	0.0	81.9	12.0	85.0	6.7	87.3	14.1	96.2	20.0	97.3	23.5
08/11/2008	99.7	0.1	95.9	0.0	93.4	10.6	84.9	7.4	85.5	17.6	101.7	18.7	99.8	23.3
08/12/2008	71.7	0.1	85.0	0.0	92.1	8.4	95.9	9.1	93.7	18.6	99.3	19.5	95.9	22.8
08/13/2008	91.8	0.1	81.9	0.0	85.3	8.3	85.2	7.1	83.5	18.0	87.8	18.5	87.3	22.5
08/14/2008	99.1	0.1	99.9	0.0	98.9	8.9	94.5	7.0	95.0	18.8	94.7	19.3	91.4	22.8

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

Date	Dworshak		Brownlee Canyon		Hells Granite		Lower Granite		Little Goose		Lower Monumental		Ice Harbor	
	Flow	Spill	Inflow	Outflow	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill
08/01/2008	14.0	4.3	13.0	19.3	45.2	18.5	45.5	13.5	42.9	17.2	44.9	34.1		
08/02/2008	14.0	4.3	12.9	20.6	44.6	18.5	41.7	12.4	39.8	17.5	41.8	31.4		
08/03/2008	14.0	4.3	12.5	17.2	45.5	18.6	45.1	13.5	42.9	17.1	46.6	36.6		
08/04/2008	14.0	4.3	11.5	16.8	41.8	18.5	39.9	12.0	37.6	17.4	39.6	29.5		
08/05/2008	14.0	4.2	11.9	19.9	42.6	18.4	39.6	11.8	37.6	17.2	40.2	29.7		
08/06/2008	13.9	4.1	11.9	19.9	45.4	18.2	46.3	13.8	43.2	17.3	45.8	35.1		
08/07/2008	13.8	4.0	12.5	20.0	43.1	18.3	42.4	12.6	40.5	16.7	42.5	32.1		
08/08/2008	13.7	3.8	11.5	15.6	43.7	18.3	41.9	12.3	39.2	17.4	43.0	32.7		
08/09/2008	13.5	3.6	11.5	15.3	36.1	18.6	34.5	10.3	32.9	17.0	32.6	22.6		
08/10/2008	13.5	3.6	11.4	10.5	38.9	18.6	37.0	11.0	35.4	17.4	39.1	29.0		
08/11/2008	13.8	3.9	11.0	12.6	36.2	18.6	34.3	10.3	32.8	17.0	33.9	23.8		
08/12/2008	14.2	4.3	11.4	13.6	35.4	18.4	32.7	9.6	31.6	17.5	34.0	23.9		
08/13/2008	14.5	4.6	11.0	11.4	37.6	18.3	37.7	11.2	34.0	17.3	37.8	27.7		
08/14/2008	14.5	4.5	---	---	32.7	18.4	32.7	9.8	29.4	17.4	30.1	20.2		

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

Date	McNary		John Day		The Dalles		Bonneville			
	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	PH1	PH2
08/01/2008	155.9	62.6	136.0	40.9	129.5	51.9	151.7	91.8	3.0	44.9
08/02/2008	131.1	68.2	129.8	39.0	123.5	49.4	138.0	92.1	0.0	34.0
08/03/2008	130.4	74.9	127.4	38.0	123.9	49.4	135.5	90.0	0.0	33.6
08/04/2008	139.4	62.3	127.2	38.2	123.2	49.3	130.7	86.9	2.2	29.7
08/05/2008	148.6	59.8	142.1	42.6	135.0	54.2	143.5	88.4	2.1	41.0
08/06/2008	136.0	74.9	147.7	44.3	142.9	57.5	153.3	86.9	6.2	48.3
08/07/2008	153.8	69.4	136.7	40.9	113.4	53.2	161.3	82.2	10.6	56.6
08/08/2008	141.9	77.1	126.4	38.1	123.1	49.4	134.7	81.3	0.0	41.4
08/09/2008	105.3	49.2	103.0	30.9	106.1	42.2	123.8	81.0	0.0	31.0
08/10/2008	125.6	69.9	111.1	33.2	99.6	39.7	124.4	80.7	0.0	31.7
08/11/2008	137.6	82.7	125.0	37.5	125.9	50.4	136.3	81.5	5.2	37.7
08/12/2008	143.7	63.6	131.1	39.2	121.3	48.5	138.3	80.4	10.1	35.9
08/13/2008	130.2	52.3	130.7	39.2	130.1	51.9	145.2	78.5	9.7	45.1
08/14/2008	130.6	69.6	131.6	39.3	124.5	49.8	121.4	78.4	0.0	31.1

## 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>Little Goose Dam</b>											
	08/05/08	Chinook + Steelhead	61	1	1	1.63%	0.00%	1	0	0	0
	08/12/08	Chinook + Steelhead	10	0	0	0.00%	0.00%	0	0	0	0
<b>Lower Monumental Dam</b>											
	08/11/08	Chinook + Steelhead	20	0	0	0.00%	0.00%	0	0	0	0
<b>McNary Dam</b>											
	08/07/08	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
	08/11/08	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
	08/14/08	Chinook + Steelhead	100	1	1	1.00%	0.00%	1	0	0	0
<b>Bonneville Dam</b>											
	08/05/08	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
	08/09/08	Chinook + Steelhead	57	0	0	0.00%	0.00%	0	0	0	0
	08/12/08	Chinook + Steelhead	104	0	0	0.00%	0.00%	0	0	0	0
<b>Rock Island Dam</b>											
	08/07/08	Chinook + Steelhead	50	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	<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>#</u>	<u>24 h</u>	<u>12 h</u>		<u>#</u>	<u>24 h</u>	<u>12 h</u>		<u>#</u>	<u>24 h</u>	<u>12 h</u>		<u>#</u>	<u>24 h</u>	<u>12 h</u>		<u>#</u>
	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>
8/1	107	107	107	24	106	106	107	22	114	115	115	24	114	115	120	22	---	---	---	0
8/2	107	107	108	24	105	105	107	23	114	114	114	24	114	115	117	23	---	---	---	0
8/3	106	106	107	24	105	105	106	23	113	113	113	24	113	114	115	23	---	---	---	0
8/4	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
8/5	106	106	107	24	105	105	106	20	112	112	112	24	113	114	115	20	113	113	114	24
8/6	106	107	107	24	105	106	107	21	111	112	112	24	114	115	117	21	113	114	114	24
8/7	106	106	106	24	106	107	108	23	112	112	113	24	114	115	116	23	113	113	114	24
8/8	106	106	107	24	106	106	107	23	110	111	112	24	114	114	116	23	112	113	113	24
8/9	106	106	107	24	106	106	107	23	110	110	111	24	113	115	119	23	111	112	112	24
8/10	106	106	106	24	105	105	106	23	108	109	109	24	112	113	114	23	111	111	112	24
8/11	105	105	106	24	105	105	106	20	108	108	108	24	111	112	114	20	110	110	111	24
8/12	105	106	106	24	105	106	107	23	108	109	110	24	111	112	117	23	110	110	111	24
8/13	105	105	106	24	105	106	107	22	108	109	110	24	110	111	116	22	110	111	111	24
8/14	105	105	105	24	105	106	107	21	108	109	109	24	109	110	113	21	109	110	110	24

### 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>#</u>	<u>24 h</u>	<u>12 h</u>		<u>#</u>	<u>24 h</u>	<u>12 h</u>		<u>#</u>	<u>24 h</u>	<u>12 h</u>		<u>#</u>	<u>24 h</u>	<u>12 h</u>		<u>#</u>
	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>
8/1	---	---	---	0	112	112	113	24	114	114	115	24	112	112	113	24	109	110	112	24
8/2	---	---	---	0	111	111	112	24	114	115	118	24	112	113	113	24	109	110	112	24
8/3	---	---	---	0	111	113	113	24	113	114	115	24	112	113	113	24	109	109	110	24
8/4	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
8/5	113	113	114	24	113	113	114	24	115	116	117	24	112	113	113	24	110	112	113	24
8/6	114	114	115	24	113	114	115	24	116	116	117	24	113	113	114	24	111	112	113	24
8/7	113	114	114	24	114	114	115	24	116	116	117	24	114	114	115	24	111	112	113	24
8/8	113	113	114	24	113	114	114	24	115	116	116	24	114	115	115	24	111	112	113	24
8/9	112	113	114	24	112	113	113	24	116	117	119	24	114	114	114	24	110	112	115	24
8/10	111	111	113	24	110	111	111	24	113	114	115	24	112	112	113	24	110	111	111	24
8/11	110	111	111	24	110	111	111	24	112	113	114	24	111	112	112	24	110	111	112	24
8/12	110	111	112	24	110	111	112	24	113	113	114	24	112	112	112	24	111	112	113	24
8/13	110	111	112	24	110	112	113	24	112	113	114	24	112	112	113	24	110	111	111	24
8/14	110	111	111	24	110	112	113	24	113	114	114	24	111	112	112	24	110	111	112	24

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

Date	<u>Rock Island</u>			<u>Rock I. Tlwr</u>			<u>Wanapum</u>			<u>Wanapum Tlwr</u>			<u>Priest Rapids</u>							
	<u>24 h</u>	<u>12 h</u>		<u>#</u>	<u>24 h</u>	<u>12 h</u>		<u>#</u>	<u>24 h</u>	<u>12 h</u>		<u>#</u>	<u>24 h</u>	<u>12 h</u>		<u>#</u>	<u>24 h</u>	<u>12 h</u>		<u>#</u>
	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>
8/1	111	111	112	24	116	117	118	23	107	109	110	24	115	116	116	18	110	111	112	24
8/2	111	112	113	24	117	118	119	22	107	108	109	24	114	115	116	24	111	111	112	24
8/3	111	112	112	24	115	116	118	23	107	107	108	24	114	115	117	24	110	111	113	24
8/4	---	---	---	0	---	---	---	0	106	106	109	21	114	115	116	24	113	113	114	23
8/5	112	113	113	24	116	117	118	23	105	107	108	24	114	115	116	24	113	113	114	24
8/6	112	113	114	24	117	117	118	24	106	107	108	24	115	116	117	24	113	113	114	24
8/7	113	113	114	24	117	118	118	24	107	109	110	24	115	115	117	24	114	114	115	24
8/8	114	114	114	24	118	118	119	23	109	111	113	24	116	116	117	24	114	114	115	24
8/9	112	112	113	24	116	117	120	24	109	109	110	24	115	116	121	24	112	113	113	24
8/10	112	113	113	24	116	117	119	24	108	109	110	24	115	115	115	24	110	111	112	24
8/11	111	112	112	24	116	117	118	24	106	108	108	24	113	113	114	24	112	112	113	24
8/12	112	112	113	24	116	117	118	24	107	109	111	24	114	114	115	24	112	113	114	24
8/13	111	112	112	24	116	117	119	23	109	109	111	24	114	114	116	24	112	113	113	24
8/14	111	112	112	24	115	116	118	22	---	---	---	0	---	---	---	0	---	---	---	0

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

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

Date	<u>Priest R. Dnst</u>				<u>Pasco</u>				<u>Dworshak</u>				<u>Clrwtr-Peck</u>				<u>Anatone</u>			
	<u>24 h</u>		<u>12 h</u>		#	<u>24 h</u>		<u>12 h</u>		#	<u>24 h</u>		<u>12 h</u>		#	<u>24 h</u>		<u>12 h</u>		#
	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>		<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>		<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>		<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	
8/1	111	111	113	16	106	107	108	24	108	109	109	24	107	108	109	24	102	103	104	24
8/2	111	112	113	24	105	106	107	24	108	108	109	24	106	107	108	24	102	103	103	24
8/3	111	112	112	24	105	106	107	24	108	108	108	24	106	107	108	24	102	103	104	24
8/4	113	113	114	24	106	107	108	24	108	108	108	24	106	107	108	24	102	103	104	24
8/5	113	114	114	24	107	108	109	24	108	108	108	24	106	107	108	24	102	103	104	24
8/6	113	114	114	24	108	109	109	24	108	108	108	24	106	107	108	24	102	103	104	24
8/7	114	114	115	24	108	109	110	24	108	108	108	24	106	107	108	24	102	103	105	24
8/8	113	114	114	24	110	110	111	24	108	108	109	24	107	107	109	24	102	103	104	24
8/9	112	113	113	24	107	108	109	24	107	108	108	24	106	107	108	24	101	102	103	24
8/10	112	113	113	24	106	107	108	24	106	107	107	23	106	106	107	24	101	102	103	24
8/11	113	113	114	24	108	109	110	24	107	108	108	24	106	107	108	24	101	102	104	24
8/12	113	113	114	24	109	110	111	24	108	109	109	24	107	108	109	24	102	103	104	24
8/13	113	113	113	24	109	110	110	24	108	108	108	24	106	107	108	24	101	102	103	24
8/14	---	---	---	0	109	110	111	24	107	108	108	24	106	107	108	23	101	102	103	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>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>		<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>		<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>		<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	
8/1	105	107	109	24	101	101	102	24	110	110	111	24	106	106	107	24	110	111	112	24
8/2	105	106	108	24	101	101	101	24	110	111	111	24	106	107	108	24	110	111	112	24
8/3	105	107	109	24	101	101	102	24	110	111	111	24	107	107	107	24	113	114	114	24
8/4	105	107	109	24	101	101	101	24	110	111	112	24	107	108	109	24	113	114	115	24
8/5	105	107	109	24	101	102	102	24	111	111	112	24	108	108	110	24	109	109	112	24
8/6	105	107	108	24	101	102	102	24	110	110	111	24	107	107	108	24	109	109	110	24
8/7	104	106	108	24	102	102	102	24	110	111	111	24	109	111	112	24	109	110	111	24
8/8	104	106	108	24	103	104	104	24	110	111	111	24	111	111	112	24	109	110	110	24
8/9	105	107	108	24	103	104	104	24	111	112	113	24	110	110	111	24	111	112	113	24
8/10	104	106	107	24	101	101	101	24	111	111	112	24	109	109	109	24	112	112	113	24
8/11	104	106	108	24	101	101	101	24	111	112	112	24	108	109	109	24	110	111	112	24
8/12	105	107	108	24	101	101	101	24	111	112	112	24	108	108	108	24	110	111	111	24
8/13	105	107	108	24	100	100	101	24	111	111	112	24	107	107	108	24	108	108	109	24
8/14	105	107	108	24	99	100	100	24	111	111	112	24	107	108	110	24	107	108	108	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>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>		<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>		<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>		<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	
8/1	107	107	107	24	114	114	115	24	109	109	110	24	114	114	115	24	---	---	---	0
8/2	107	107	108	24	115	116	117	24	108	109	109	24	113	114	114	24	---	---	---	0
8/3	108	108	109	24	115	116	117	24	109	109	110	24	114	114	115	24	---	---	---	0
8/4	108	109	109	24	115	116	117	24	109	109	110	24	113	114	114	24	---	---	---	0
8/5	109	109	110	24	115	116	117	24	110	110	111	24	114	114	115	24	---	---	---	0
8/6	111	112	112	24	115	115	116	24	112	113	114	24	113	114	115	22	---	---	---	0
8/7	111	112	112	24	115	116	117	24	114	114	114	24	113	114	115	24	---	---	---	0
8/8	111	111	111	24	116	116	116	24	114	114	114	24	114	114	115	24	---	---	---	0
8/9	108	108	109	24	115	116	116	24	112	112	113	24	113	113	114	24	---	---	---	0
8/10	107	107	107	24	116	116	116	24	109	110	110	24	114	114	115	24	---	---	---	0
8/11	107	107	107	24	116	116	116	24	109	109	109	24	114	114	115	24	---	---	---	0
8/12	106	107	107	24	116	116	116	24	109	109	109	24	114	115	115	24	---	---	---	0
8/13	107	108	109	24	115	116	117	24	109	110	110	24	113	113	114	24	---	---	---	0
8/14	108	109	110	24	116	116	117	24	110	111	112	24	113	114	114	24	---	---	---	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 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				
8/1	105	105	106	24	116	116	116	24	104	104	104	24	114	115	115	24	107	107	108	24
8/2	106	106	107	24	115	116	116	24	103	103	103	24	114	114	115	24	105	106	106	24
8/3	106	106	107	24	114	114	114	24	102	103	103	24	114	114	115	24	105	105	105	24
8/4	107	107	108	24	115	116	116	24	103	103	104	24	114	115	115	24	107	108	108	24
8/5	108	108	110	24	116	117	117	24	105	106	107	24	115	115	115	24	108	109	109	24
8/6	108	108	109	24	114	115	116	24	105	105	106	24	115	116	116	24	108	108	109	24
8/7	109	109	109	24	115	117	118	24	105	106	106	24	115	115	116	24	108	108	109	24
8/8	109	110	110	24	115	116	117	24	105	105	106	24	114	114	115	24	108	108	109	24
8/9	108	109	109	24	115	115	116	24	104	104	105	24	113	114	114	24	105	106	107	24
8/10	106	107	107	24	114	115	116	24	104	104	104	24	113	114	114	24	104	104	105	24
8/11	105	106	106	24	114	114	114	24	104	105	105	24	114	114	115	24	106	107	107	24
8/12	105	106	107	24	115	116	117	24	105	105	105	24	114	115	115	24	108	108	109	24
8/13	106	107	108	24	117	117	117	24	104	104	105	24	114	115	116	24	106	107	107	24
8/14	108	109	110	24	115	116	117	24	105	106	107	24	114	115	115	24	107	108	108	24

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

Date	<u>The Dalles Dnst</u>			<u>Bonneville</u>			<u>Warrendale</u>			<u>CamasWashougal</u>			<u>Cascade Island</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				
8/1	113	113	114	24	107	108	108	24	---	---	---	0	111	113	114	24	116	117	119	24
8/2	112	112	113	24	106	107	107	24	---	---	---	0	112	114	115	24	116	117	119	24
8/3	112	113	113	24	106	106	106	24	---	---	---	0	114	116	118	24	116	117	119	24
8/4	113	114	115	24	106	107	108	24	---	---	---	0	115	117	119	24	115	117	118	24
8/5	114	115	116	24	109	110	111	24	---	---	---	0	117	118	119	24	115	117	118	24
8/6	114	115	115	24	111	112	113	24	---	---	---	0	116	117	118	24	115	117	118	24
8/7	115	115	115	24	111	112	112	24	---	---	---	0	115	116	117	24	115	116	118	24
8/8	114	114	115	24	109	109	110	24	---	---	---	0	113	114	115	24	115	116	117	24
8/9	112	113	113	24	106	107	107	24	---	---	---	0	112	113	114	24	115	116	117	24
8/10	111	111	111	24	105	105	106	24	---	---	---	0	113	115	115	24	115	116	118	24
8/11	112	113	113	24	106	107	108	24	---	---	---	0	115	116	117	24	115	116	118	24
8/12	113	113	114	24	107	108	108	24	---	---	---	0	114	115	115	24	115	116	117	24
8/13	113	113	114	24	107	108	108	24	---	---	---	0	113	114	115	24	115	115	115	6
8/14	113	114	115	24	107	108	108	24	---	---	---	0	113	114	115	24	114	115	117	16



## Two-Week Summary of Passage Indices

Source: Fish Passage Center

Updated: 8/15/2008 9:52

### Two-Week Summary of Passage Indices

\* One or more of the sites on this date had an incomplete or biased sample.

See Sampling Comments: <http://www.fpc.org/currentDaily/smpcomments.htm>

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>

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)
08/01/2008	---	---	---	---	0	0	0	0	33	57	0
08/02/2008	---	---	---	---	0	0	0	0	0	0	0
08/03/2008	---	---	---	---	0	0	0	0	0	0	0
08/04/2008	---	---	---	---	0	0	4	0	0	0	0
08/05/2008	---	---	---	---	0	0	0	0	0	0	0
08/06/2008	---	---	---	---	3	0	0	0	0	0	0
08/07/2008	---	---	---	---	0	0	0	0	0	0	0
08/08/2008 *	---	---	---	---	0	0	0	0	0	0	0
08/09/2008	---	---	---	---	0	0	17	0	0	0	0
08/10/2008	---	---	---	---	0	0	0	0	0	0	0
08/11/2008	---	---	---	---	0	0	0	0	0	26	0
08/12/2008	---	---	---	---	0	0	4	0	0	26	0
08/13/2008	---	---	---	---	0	0	0	0	0	0	0
08/14/2008	---	---	---	---	0	0	0	2	9	24	0
08/15/2008	---	---	---	---	---	---	---	---	---	---	---
<hr/>											
<b>Total:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>25</b>	<b>2</b>	<b>42</b>	<b>133</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>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>3</b>	<b>10</b>	<b>0</b>
<b>YTD</b>	<b>56,037</b>	<b>78,597</b>	<b>19,672</b>	<b>13,632</b>	<b>3,584,856</b>	<b>2,743,410</b>	<b>1,971,512</b>	<b>22,433</b>	<b>1,360,600</b>	<b>1,694,075</b>	<b>1,291,078</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)
08/01/2008	---	---	---	---	2,096	1,485	580	194	11,282	14,764	9,819
08/02/2008	---	---	---	---	1,710	1,250	271	132	6,527	7,620	7,968
08/03/2008	---	---	---	---	1,214	1,599	289	87	3,458	11,875	4,593
08/04/2008	---	---	---	---	1,834	3,887	428	79	1,600	16,289	2,711
08/05/2008	---	---	---	---	2,451	6,794	843	112	8,815	12,898	2,507
08/06/2008	---	---	---	---	3,054	5,896	1,221	147	9,664	7,259	3,866
08/07/2008	---	---	---	---	3,361	4,807	899	86	5,795	8,895	4,676
08/08/2008 *	---	---	---	---	2,480	4,020	675	74	11,495	5,164	4,639
08/09/2008	---	---	---	---	2,928	5,874	304	43	8,945	4,953	1,122
08/10/2008	---	---	---	---	1,738	2,223	183	74	2,436	3,475	1,959
08/11/2008	---	---	---	---	700	1,062	364	72	2,654	3,789	2,189
08/12/2008	---	---	---	---	749	526	242	73	7,948	4,594	3,154
08/13/2008	---	---	---	---	785	311	199	41	9,965	9,317	3,972
08/14/2008	---	---	---	---	854	573	177	45	28,585	6,910	4,611
08/15/2008	---	---	---	---	---	---	---	---	---	---	---
<hr/>											
<b>Total:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>25,954</b>	<b>40,307</b>	<b>6,675</b>	<b>1,259</b>	<b>119,169</b>	<b>117,802</b>	<b>57,786</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>1,854</b>	<b>2,879</b>	<b>477</b>	<b>90</b>	<b>8,512</b>	<b>8,414</b>	<b>4,128</b>
<b>YTD</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>119</b>	<b>723,595</b>	<b>1,115,352</b>	<b>328,226</b>	<b>15,685</b>	<b>2,238,020</b>	<b>1,751,361</b>	<b>3,729,942</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)
08/01/2008	---	---	---	---	0	0	0	4	0	0	0
08/02/2008	---	---	---	---	0	0	0	3	0	0	0
08/03/2008	---	---	---	---	0	0	0	0	0	0	0
08/04/2008	---	---	---	---	0	0	0	1	0	0	0
08/05/2008	---	---	---	---	0	0	0	1	0	0	0
08/06/2008	---	---	---	---	3	0	0	3	0	0	0
08/07/2008	---	---	---	---	0	0	0	4	0	0	20
08/08/2008 *	---	---	---	---	0	14	0	2	0	0	28
08/09/2008	---	---	---	---	4	0	0	0	13	0	0
08/10/2008	---	---	---	---	0	0	0	0	9	0	0
08/11/2008	---	---	---	---	0	0	0	0	0	0	0
08/12/2008	---	---	---	---	0	0	0	0	0	0	0
08/13/2008	---	---	---	---	0	0	0	0	0	0	0
08/14/2008	---	---	---	---	0	1	0	0	26	0	0
08/15/2008	---	---	---	---	---	---	---	---	---	---	---
<b>Total:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>15</b>	<b>0</b>	<b>18</b>	<b>48</b>	<b>0</b>	<b>48</b>
<b># Days:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>
<b>Average:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>3</b>
<b>YTD</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>326</b>	<b>108,970</b>	<b>166,089</b>	<b>142,692</b>	<b>52,276</b>	<b>169,458</b>	<b>362,537</b>	<b>358,671</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)
08/01/2008	---	---	---	---	0	0	0	0	0	0	27
08/02/2008	---	---	---	---	7	31	0	0	0	0	0
08/03/2008	---	---	---	---	0	11	0	1	0	0	0
08/04/2008	---	---	---	---	0	11	0	1	12	0	0
08/05/2008	---	---	---	---	4	6	0	1	0	0	0
08/06/2008	---	---	---	---	3	16	0	0	0	0	0
08/07/2008	---	---	---	---	3	16	0	1	0	0	0
08/08/2008 *	---	---	---	---	3	0	0	0	0	0	0
08/09/2008	---	---	---	---	0	0	8	0	0	0	0
08/10/2008	---	---	---	---	0	0	0	0	0	0	0
08/11/2008	---	---	---	---	0	0	0	0	0	0	0
08/12/2008	---	---	---	---	0	0	0	0	0	0	0
08/13/2008	---	---	---	---	0	3	0	0	0	19	0
08/14/2008	---	---	---	---	0	3	0	0	9	0	0
08/15/2008	---	---	---	---	---	---	---	---	---	---	---
<b>Total:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>20</b>	<b>97</b>	<b>8</b>	<b>4</b>	<b>21</b>	<b>19</b>	<b>27</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>7</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>2</b>
<b>YTD</b>	<b>4,565</b>	<b>22,292</b>	<b>5,891</b>	<b>10,708</b>	<b>3,444,073</b>	<b>3,694,306</b>	<b>1,546,169</b>	<b>22,778</b>	<b>507,334</b>	<b>1,132,951</b>	<b>450,264</b>

## Two-Week Summary of Passage Indices

Date	COMBINED SOCKEYE										
	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (INDEX)	LGS (INDEX)	LMN (INDEX)	RIS (INDEX)	MCN (INDEX)	JDA (INDEX)	BO2 (INDEX)
08/01/2008	---	---	---	---	7	0	0	0	0	0	27
08/02/2008	---	---	---	---	7	0	0	0	0	0	0
08/03/2008	---	---	---	---	0	0	0	0	0	0	0
08/04/2008	---	---	---	---	7	0	0	0	0	0	0
08/05/2008	---	---	---	---	7	0	0	3	9	0	0
08/06/2008	---	---	---	---	10	7	0	2	0	0	0
08/07/2008	---	---	---	---	17	0	0	0	0	0	0
08/08/2008 *	---	---	---	---	17	7	0	0	0	0	0
08/09/2008	---	---	---	---	7	0	0	0	0	0	0
08/10/2008	---	---	---	---	0	0	0	0	0	0	0
08/11/2008	---	---	---	---	4	0	0	0	0	0	0
08/12/2008	---	---	---	---	0	0	0	1	0	0	0
08/13/2008	---	---	---	---	18	0	0	0	9	0	0
08/14/2008	---	---	---	---	10	4	0	0	0	0	0
08/15/2008	---	---	---	---	---	---	---	---	---	---	---
<b>Total:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>111</b>	<b>18</b>	<b>0</b>	<b>6</b>	<b>18</b>	<b>0</b>	<b>27</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>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>2</b>
<b>YTD</b>	<b>37</b>	<b>0</b>	<b>0</b>	<b>111</b>	<b>27,487</b>	<b>36,576</b>	<b>45,480</b>	<b>38,958</b>	<b>222,935</b>	<b>331,815</b>	<b>145,353</b>

\* See sampling comments

<http://www.fpc.org/currentDaily/smpcomments.htm>

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.

**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 &amp; 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 &amp; 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.

### Two Week Transportation Summary

Source: Fish Passage Center

Updated:

8/15/08 9:51 AM

		08/01/08 TO 08/15/08						
		Species						
Site	Data	CH0	CH1	CO	SO	ST	Grand Total	
<b>LGR</b>	Sum of NumberCollected	14,468		2	4	61	12	14,547
	Sum of NumberBarged	15,159		2	4	53	14	15,232
	Sum of NumberBypassed	0		0	0	0	0	0
	Sum of Numbertrucked	0		0	0	0	0	0
	Sum of SampleMorts	52		0	0	5	0	57
	Sum of FacilityMorts	44		0	0	2	1	47
	Sum of ResearchMorts	0		0	0	0	0	0
	Sum of TotalProjectMorts	96		0	0	7	1	104
<b>LGS</b>	Sum of NumberCollected	28,123			11	13	68	28,215
	Sum of NumberBarged	28,567			10	14	65	28,656
	Sum of NumberBypassed	3			0	0	0	3
	Sum of Numbertrucked	0			0	0	0	0
	Sum of SampleMorts	22			0	0	0	22
	Sum of FacilityMorts	52			0	0	1	53
	Sum of ResearchMorts	0			0	0	0	0
	Sum of TotalProjectMorts	74			0	0	1	75
<b>LMN</b>	Sum of NumberCollected	3,623		12			4	3,639
	Sum of NumberBarged	3,573		12			4	3,589
	Sum of NumberBypassed	45		0			0	45
	Sum of Numbertrucked	0		0			0	0
	Sum of SampleMorts	10		0			0	10
	Sum of FacilityMorts	10		0			0	10
	Sum of ResearchMorts	0		0			0	0
	Sum of TotalProjectMorts	20		0			0	20
<b>MCN</b>	Sum of NumberCollected	63,917		25	25	10	10	63,987
	Sum of NumberBarged	63,078		25	25	10	9	63,147
	Sum of NumberBypassed	0		0	0	0	0	0
	Sum of Numbertrucked	0		0	0	0	0	0
	Sum of SampleMorts	178		0	0	0	0	178
	Sum of FacilityMorts	661		0	0	0	1	662
	Sum of ResearchMorts	0		0	0	0	0	0
	Sum of TotalProjectMorts	839		0	0	0	1	840
Total Sum of NumberCollected		110,131		39	40	84	94	110,388
Total Sum of NumberBarged		110,377		39	39	77	92	110,624
Total Sum of NumberBypassed		48		0	0	0	0	48
Total Sum of Numbertrucked		0		0	0	0	0	0
Total Sum of SampleMorts		262		0	0	5	0	267
Total Sum of FacilityMorts		767		0	0	2	3	772
Total Sum of ResearchMorts		0		0	0	0	0	0
Total Sum of TotalProjectMorts		1,029		0	0	7	3	1,039

### YTD Transportation Summary

Source: Fish Passage Center

Updated:

8/15/08 9:51 AM

TO: 08/15/08

		Species					
Site	Data	CH0	CH1	CO	SO	ST	Grand Total
<b>LGR</b>	Sum of NumberCollected	411,114	2,398,632	68,798	13,333	2,165,407	5,057,284
	Sum of NumberBarged	400,945	1,966,899	66,904	12,859	1,786,609	4,234,216
	Sum of NumberBypassed	2,580	425,949	1,848	424	377,930	808,731
	Sum of NumberTrucked	0	0	0	0	0	0
	Sum of SampleMorts	367	154	2	8	50	581
	Sum of FacilityMorts	1,668	2,841	44	37	818	5,408
	Sum of ResearchMorts	5,130	2,789	0	0	0	7,919
	Sum of TotalProjectMorts	7,165	5,784	46	45	868	13,908
<b>LGS</b>	Sum of NumberCollected	734,503	1,706,944	95,861	21,810	2,309,423	4,868,541
	Sum of NumberBarged	726,796	1,314,157	93,090	21,712	1,590,208	3,745,963
	Sum of NumberBypassed	5,427	389,296	2,765	67	718,741	1,116,296
	Sum of NumberTrucked	0	0	0	0	0	0
	Sum of SampleMorts	152	40	1	4	14	211
	Sum of FacilityMorts	1,732	3,451	4	24	458	5,669
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	1,884	3,491	5	28	472	5,880
<b>LMN</b>	Sum of NumberCollected	239,775	1,216,518	83,198	28,104	957,125	2,524,720
	Sum of NumberBarged	237,048	276,438	9,246	10,128	230,248	763,108
	Sum of NumberBypassed	2,219	940,234	73,949	17,975	726,648	1,761,025
	Sum of NumberTrucked	0	0	0	0	0	0
	Sum of SampleMorts	55	39	0	0	22	116
	Sum of FacilityMorts	372	798	3	1	207	1,381
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	427	837	3	1	229	1,497
<b>MCN</b>	Sum of NumberCollected	1,095,494	752,370	78,665	102,273	276,935	2,305,737
	Sum of NumberBarged	337,540	164	45	120	55	337,924
	Sum of NumberBypassed	749,935	751,376	78,558	102,005	276,615	1,958,489
	Sum of NumberTrucked	0	0	0	0	0	0
	Sum of SampleMorts	415	112	3	23	25	578
	Sum of FacilityMorts	7,517	654	56	114	218	8,559
	Sum of ResearchMorts	87	58	3	5	20	173
	Sum of TotalProjectMorts	8,019	824	62	142	263	9,310
Total Sum of NumberCollected		2,480,886	6,074,464	326,522	165,520	5,708,890	14,756,282
Total Sum of NumberBarged		1,702,329	3,557,658	169,285	44,819	3,607,120	9,081,211
Total Sum of NumberBypassed		760,161	2,506,855	157,120	120,471	2,099,934	5,644,541
Total Sum of NumberTrucked		0	0	0	0	0	0
Total Sum of SampleMorts		989	345	6	35	111	1,486
Total Sum of FacilityMorts		11,289	7,744	107	176	1,701	21,017
Total Sum of ResearchMorts		5,217	2,847	3	5	20	8,092
Total Sum of TotalProjectMorts		17,495	10,936	116	216	1,832	30,595

Cumulative Adult Passage at Mainstem Dams Through: 08/14

DAM	EndDate	Spring Chinook						Summer Chinook						Fall Chinook					
		2008		2007		10-Yr Avg.		2008		2007		10-Yr Avg.		2008		2007		10-Yr Avg.	
		Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack
BON	08/14	125545	17552	67482	16860	151523	9831	78271	11621	47412	13539	71262	9127	7252	1127	5209	985	7525	1130
TDA	08/14	95440	15801	53524	15567	106828	7522	65073	12206	40123	11318	61862	6875	3853	860	2512	696	3692	750
JDA	08/14	81771	14925	44005	13864	89148	6122	63649	13680	35773	11582	57243	6930	2082	808	1000	482	1972	562
MCN	08/14	68085	12133	39497	12393	82136	6227	54735	11239	32393	9386	55163	6274	1049	133	710	180	1199	269
IHR	08/12	53142	7757	28380	7371	54980	3897	23693	4964	7714	2523	11420	2100	41	6	0	0	9	1
LMN	08/14	54512	6885	28397	7102	52688	3599	27345	2890	11452	1419	11417	1651	27	10	0	0	11	4
LGS	08/14	50401	7805	23960	7227	50024	3685	21724	4806	7887	2857	9488	2070	0	0	0	0	0	0
LGR	08/14	50146	10946	22905	9085	50643	4197	22540	5060	7236	3268	9314	2273	0	0	0	0	0	0
PRD	08/11	12173	620	6708	489	17360	563	38891	2750	30295	1068	50082	2059	0	0	0	0	0	0
RIS	08/13	12490	1119	5572	2066	13979	962	37292	2916	27767	6003	46369	5081	0	0	0	0	0	0
RRH	08/13	4065	371	2424	920	5404	397	28376	1944	21052	4890	33907	3418	0	0	0	0	0	0
WEL	08/13	2708	426	2041	752	3980	281	18577	890	12138	3003	23292	1459	0	0	0	0	0	0
WFA	07/26	13992	357	22635	238	-	-	0	0	0	0	-	-	0	0	0	0	-	-

DAM	Coho						Sockeye			Steelhead			
	2008		2007		10-Yr Avg.		2008	2007	10-Yr Avg.	2008	2007	10-Yr Avg.	Wild 2008
	Adult	Jack	Adult	Jack	Adult	Jack							
BON	44	7	57	15	116	16	213583	24360	58545	188648	151281	169584	68610
TDA	0	0	9	-2	0	0	177982	19122	49460	98200	49359	62567	40067
JDA	-24	2	2	1	3	1	193357	24196	54046	73784	33133	44940	27973
MCN	0	0	0	0	0	0	146917	18149	45002	47520	27312	32422	16257
IHR	-1	0	0	0	0	0	538	55	34	28564	10385	14934	8456
LMN	0	0	0	0	0	0	722	43	33	30447	12337	13514	10539
LGS	0	0	0	0	0	0	593	35	37	17742	6061	8429	6056
LGR	0	0	0	0	0	0	871	53	42	18193	13839	11947	6470
PRD	4	0	0	1	7	0	192200	24602	56162	6609	2710	3872	0
RIS	0	0	0	0	1	0	193672	25040	52367	5825	2240	3080	2489
RRH	0	0	0	0	1	0	161219	20541	36702	4394	1532	2075	1641
WEL	0	0	0	0	0	0	165082	22044	36498	1826	763	1070	963
WFA	0	0	2	0	-	-	0	0	-	18067	17907	-	-

BON and LGR have switched to video counts so the data is delayed.

\*PRD is not posting wild steelhead numbers.

These numbers were collected from USACE, Grant PUD, Douglas PUD, Chelan PUD, ODFW and DART.

Wild steelhead numbers are included in the total. Wild Steelhead are defined as unclipped fish.

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.

Page last updated on: 08/15/08

BON counts from January 1, 2008 to March 14, 2008 (our traditional counts begin March 15):

Year	Chinook Adult	Chinook Jack	Steelhead	Wild Steelhead
2008	42	0	578	278
2007	22	0	1,677	517