



Fish Passage Center

Weekly Report #08 - 23

August 8, 2008

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Summary of Events:

Water Supply: Precipitation throughout the Columbia Basin has varied between 2% and 73% of average at individual sub-basins over the first four weeks of July. Precipitation above The Dalles has been 42% of average over July. Over the entire water year, precipitation has generally been near average.

Table 1. Summary of July 1-28 precipitation and cumulative October through July precipitation with respect to average (1971-2000), at select locations within the Columbia and Snake River Basins.

Location	Water Year 2008		Water Year 2008	
	July 1-28		October 1, 2007 to July 28, 2008	
	Observed (inches)	% Average	Observed (inches)	% Average
Columbia Above Coulee	0.91	56	21.06	95
Snake River Above Ice Harbor	0.22	27	15.34	96
Columbia Above The Dalles	0.48	42	20.03	96
Kootenai	0.96	56	19.70	87
Clark Fork	0.42	39	15.52	102
Flathead	1.05	73	20.03	99
Pend Oreille/ Spokane	0.23	18	27.76	97
Central Washington	0.07	21	5.82	70
Snake River Plain	0.23	42	7.94	78
Salmon/Boise/ Payette	0.38	53	18.28	100
Clearwater	0.16	12	27.61	98
SW Washington Cascades/Cowlitz	0.45	36	60.98	91
Willamette Valley	0.02	2	57.14	101

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 67.9 Kcfs between June 21st, 2008 and August 7th, 2008. Flows at Lower Granite averaged 44.0 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 199.5 Kcfs over the summer flow period (July 1-August 7) and have averaged 142.1 Kcfs last week.

Grand Coulee Reservoir is at 1284.6 feet (8-7-08) and has drafted 0.6 feet over the last week. Outflows at Grand Coulee have ranged between 70.5 and 91.7 Kcfs over the last week. Inflows last week have ranged between 81.5 Kcfs and 93.5 Kcfs. The end of August draft elevation is 1280 feet at Grand Coulee this year.

The Libby Reservoir is currently at elevation 2443.0 feet (8-7-08) and drafted 0.8 feet last week. Inflows at Libby have ranged between 7.4 Kcfs and 10.1 Kcfs over the last week. At the August 6th, 2008 TMT Meeting, a Libby/Canadian Storage Exchange was again discussed which would 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. This operation has been agreed upon by all TMT parties as long as the flows in the lower Columbia are not reduced. The agreement has been finalized and the Action Agencies have reduced Libby outflows to 10 Kcfs.

Hungry Horse is currently at an elevation of 3551.5 ft (8-7-08) and has drafted 2.7 feet last week. Outflows are currently 6.5 Kcfs; inflows ranged between 1.4 Kcfs and 2.5 Kcfs last week.

Dworshak is currently at an elevation of 1571.5 feet (8-7-08) and has drafted 8.3 feet last week. Outflows at Dworshak are approximately 14 Kcfs; inflows have ranged between 2.4 and 2.6 Kcfs last week. SOR 2008-5 was submitted to the Action Agencies on August 6th, 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 31st, 2008. This SOR requested that the action agencies analyze reservoir operations and system flexibility to provide equivalent water volume prior to August 31 to assist juvenile fish migration and to implement the Biological Opinion. Discussions are still ongoing and this topic will be discussed at the 8-13-08 TMT Meeting.

The Brownlee Reservoir is at an elevation of 2058.4 feet (August 7th, 2008), and has drafted 6.4 feet last week. Outflows at Brownlee Dam have been 17.2 to 20.1 Kcfs over the last week. Inflows at Brownlee Dam have been 11.5 to 13.0 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 were 14.0 Kcfs over the past week, which is above hydraulic capacity, resulting in 4.0-4.3 Kcfs spill. Lower Granite, Little Goose and Lower Monumental dams have all generally spilled to the Court Order over the past week. Several hours of spill have been less than the Court Order at Lower Monumental Dam over the last week; however this reduced spill has been necessary for barge loading operations. 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 17th) 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 94 to 130 Kcfs.

Total dissolved gas did not exceed the 120% tailrace or 115% forebay limits this past week, except for the Camas Washougal monitor. The 12-hour average TDG at the Camas Washougal monitor was above 115% on August 3rd through August 7th with a peak 12-hour average recorded on August 5th of 118.4% TDG. The TDG exceedences at the Camas Washougal monitor have led to the spill cap at Bonneville Dam being reduced to approximately 94 Kcfs.

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. Lower Monumental found one fish (out of 61 sampled) with minor signs of GBT in the non paired fins on July 28. Little Goose Dam detected one fish (out of 39 sampled) with minor signs of GBT in the non-paired fins in their July 29th sample and one fish out of 61 sampled on August 5. These were the only fish with GBT detections 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 2,200 per day this past week compared to about 3,000 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. Passage indices continued to decline at Little Goose Dam. But at Lower Monumental Dam indices were up over the week slightly with indices averaging 650 this week compared to 375 per day last week.

At Rock Island Dam indices for subyearling Chinook dropped slightly from 160 per day two weeks ago to 120 per day this past week. At the lower Columbia River dams indices for subyearling Chinook were down as well. At McNary the subyearling Chinook index averaged nearly 7,000 per day this week compared to 19,000 per day last week. While at John Day the index average 11,000 per day this week down from 20,000 per day last week. And at Bonneville Dam subyearling Chinook passage indices averaged 5,000 per day over the past week, compared with 9,500 per day the previous week.

Adult Fish Passage:

Fall Chinook began to pass Bonneville Dam on August 1st. Daily counts of adult fall Chinook ranged from 259 to 485. The 2008 adult fall Chinook count of 2,455 is about 1.28 times greater than the 2007 and is about 77.1% of the 10 year average. The fall Chinook jack count of 361 is about 85.9% of the 2007 count and about 64.5% of the 10 year average. The adult fall Chinook count total at The Dalles Dam is 1,129, about 45.9% of the Bonneville passage total to date.

As of August 7th, 167,176 steelhead had passed Bonneville Dam. The 2008 count was 1.45 times greater than the 2007 count of 114,821 and 1.23 times greater than the 10 year average. The 2008 wild steelhead count at Bonneville Dam was 62,805 fish. The daily steelhead counts at The Dalles Dam ranged between 1,376 and 3,236 for the week with a cumulative count of 91,362. About 54.6% of the steelhead counted at Bonneville Dam had passed The Dalles Dam. The majority of the 40,533 steelhead at McNary Dam have moved up into the Snake River with the cumulative count at Ice Harbor now at 23,159 for the season. The 2008 count Lower Granite Dam steelhead count of 15,033 was 1.15 times greater than the 2007 count and 1.33 times greater than the 10 year average. The cumulative count at Priest Rapids Dam was at 4,995 steelhead for the season. As of August 7th at Bonneville Dam, the adult Shad count was 2,143,057 which was about 83.25% of the 2007 count of 2,573,946 and only 69.3% of the 10 year average count of 3,091,953.

The 2008 Bonneville Dam sockeye count of 213,576 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 192,047 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 3rd at Wells Dam, the 2008 sockeye count of 164,429 was 7.65 times greater than the 2007 count and 4.60 times greater than the 10 year average. Fish counting at Wells Dam is lagging behind this year due to the large numbers of fish passing the dam. To date, 861 sockeye have been counted at Lower Granite. The 2008 Lower Granite Dam adult sockeye is 16.24 times greater than the 2007 count of 53 and is approximately 20.5 times greater than the 10 year average of 42.

The coho salmon run at Bonneville Dam is just beginning with 3 adults and 3 jacks counted to date. Five chum and 59 pink salmon have been observed at Bonneville Dam so far this season. In 2007, by August 7th, 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
07/25/2008	121.3	0.2	130.6	0.0	136.7	10.2	139.5	9.9	141.8	22.9	152.2	21.2	146.3	21.8
07/26/2008	91.9	0.1	92.6	0.0	102.4	9.1	106.2	9.4	110.3	20.7	132.1	19.6	134.7	20.3
07/27/2008	74.4	0.1	70.8	0.0	72.1	7.7	76.7	7.4	78.5	16.9	92.1	18.4	92.1	19.5
07/28/2008	132.0	0.1	128.8	0.0	125.0	9.9	114.0	10.5	111.0	22.4	108.8	17.7	105.1	19.1
07/29/2008	105.9	0.1	117.6	0.0	121.3	10.0	123.2	9.7	124.2	21.7	120.0	19.7	112.5	21.9
07/30/2008	107.3	0.1	104.0	0.0	111.1	9.4	115.3	9.5	118.4	21.3	127.6	19.3	127.2	20.6
07/31/2008	109.5	0.1	111.5	0.0	111.7	9.4	112.6	9.4	113.8	21.0	119.2	18.8	113.5	22.2
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

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

Date	Dworshak		Hells Brownlee Canyon		Lower Granite		Little Goose		Lower Monumental		Ice Harbor	
	Flow	Spill	Inflow	Outflow	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill
07/25/2008	12.8	3.9	14.4	15.0	45.4	18.4	43.3	13.0	40.7	17.4	44.2	33.5
07/26/2008	13.6	4.0	13.9	12.6	42.7	18.3	45.0	13.4	39.9	17.0	41.2	30.6
07/27/2008	13.6	4.0	13.0	14.2	41.1	18.3	40.5	12.1	37.9	17.3	41.7	31.1
07/28/2008	13.9	4.3	13.2	18.0	42.5	18.5	41.4	12.4	39.2	16.8	42.4	31.7
07/29/2008	14.1	4.4	13.1	14.9	45.3	18.6	45.7	13.5	42.7	17.3	45.3	34.8
07/30/2008	14.0	4.3	12.6	17.1	40.8	18.5	40.1	11.9	39.6	16.9	42.3	31.7
07/31/2008	14.2	4.5	12.0	19.9	45.7	18.6	42.9	12.9	41.5	17.3	44.8	34.2
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	12.1	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	20.6	45.4	18.2	46.3	13.8	43.2	17.3	45.8	35.1
08/07/2008	13.8	4.0	---	---	43.1	18.3	42.4	12.6	40.5	16.7	42.5	32.1

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		
07/25/2008	191.6	114.0	173.3	52.2	172.6	69.1	167.7	90.8	0.1	65.0
07/26/2008	193.4	116.2	174.6	52.2	166.9	66.5	174.8	91.1	0.0	71.8
07/27/2008	153.5	68.5	143.5	43.2	142.7	56.9	165.0	91.7	0.0	61.5
07/28/2008	159.2	64.0	163.1	49.2	154.6	61.8	166.3	91.5	0.9	62.0
07/29/2008	150.3	81.3	141.6	42.4	135.9	54.2	157.2	90.7	6.6	48.0
07/30/2008	181.0	108.9	164.2	49.4	154.8	61.7	160.9	90.5	9.5	49.0
07/31/2008	168.5	75.3	162.3	48.5	158.3	63.4	177.2	90.3	9.3	65.7
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

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
Little Goose Dam											
	07/29/08	Chinook + Steelhead	39	1	1	2.56%	0.00%	1	0	0	0
	08/05/08	Chinook + Steelhead	61	1	1	1.63%	0.00%	1	0	0	0
Lower Monumental Dam											
	07/28/08	Chinook + Steelhead	61	1	1	1.61%	0.00%	0	1	0	0
	08/04/08	Chinook + Steelhead	25	0	0	0.00%	0.00%	0	0	0	0
McNary Dam											
	07/31/08	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
	08/04/08	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
	08/07/08	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
Bonneville Dam											
	07/29/08	Chinook + Steelhead	61	0	0	0.00%	0.00%	0	0	0	0
	08/02/08	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
	08/05/08	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
Rock Island Dam											
	07/31/08	Chinook + Steelhead	50	0	0	0.00%	0.00%	0	0	0	0
	08/04/08	Chinook + Steelhead	50	0	0	0.00%	0.00%	0	0	0	0
	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>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>
7/25	106	107	107	24	108	109	110	17	115	116	116	24	114	115	120	17	113	114	114	24
7/26	107	107	107	24	109	109	110	24	115	115	116	24	115	116	120	24	113	114	114	24
7/27	107	107	108	24	108	108	109	23	115	116	116	24	116	117	121	23	112	113	113	24
7/28	107	107	107	24	107	108	108	24	115	115	115	24	115	116	120	24	113	113	114	24
7/29	107	108	108	24	107	107	108	22	114	115	115	24	115	115	119	22	113	114	114	24
7/30	107	108	108	24	106	107	108	23	114	115	115	24	114	115	117	23	113	113	114	24
7/31	107	107	107	24	106	107	108	21	115	115	115	24	114	115	119	21	112	112	113	17
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

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>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>
7/25	113	113	114	24	114	115	115	24	117	117	119	24	116	117	120	24	116	117	120	24
7/26	114	114	115	24	114	115	115	24	116	116	117	24	116	116	117	24	116	117	117	24
7/27	113	114	115	24	113	113	114	24	115	115	116	24	115	115	115	24	115	115	116	24
7/28	112	113	113	24	112	113	113	24	114	115	116	24	113	113	114	24	113	114	115	24
7/29	113	114	114	24	113	113	114	24	115	115	115	24	113	113	113	24	113	113	114	19
7/30	113	113	114	24	111	112	112	24	113	114	114	24	112	113	113	24	113	113	114	24
7/31	112	112	113	17	113	114	115	22	115	116	117	22	112	112	113	24	111	112	112	24
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

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>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>
7/25	115	116	116	24	118	119	119	24	112	113	114	24	115	116	116	24	114	115	116	24
7/26	114	115	116	24	118	118	119	24	111	112	112	24	114	114	115	24	112	113	114	24
7/27	114	114	115	24	118	120	121	24	110	111	112	24	114	115	115	24	110	111	112	24
7/28	112	113	114	24	116	117	119	24	108	108	109	24	112	113	113	24	109	110	111	24
7/29	112	113	113	23	116	116	117	21	109	109	110	24	114	115	116	24	110	110	111	24
7/30	112	112	113	24	115	116	117	24	109	110	110	24	113	114	115	24	110	111	111	24
7/31	112	112	113	24	115	116	118	24	107	109	110	24	113	114	115	24	111	112	113	23
8/1	111	111	112	24	116	117	118	23	---	---	---	0	---	---	---	0	---	---	---	0
8/2	111	112	113	24	117	118	119	22	---	---	---	0	---	---	---	0	---	---	---	0
8/3	111	112	112	24	115	116	118	23	---	---	---	0	---	---	---	0	---	---	---	0
8/4	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
8/5	112	113	113	24	116	117	118	23	---	---	---	0	---	---	---	0	---	---	---	0
8/6	112	113	114	24	117	117	118	24	---	---	---	0	---	---	---	0	---	---	---	0
8/7	113	113	114	24	117	118	118	24	---	---	---	0	---	---	---	0	---	---	---	0

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

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

Date	<u>Priest R. Dnst</u>			#	<u>Pasco</u>			#	<u>Dworshak</u>			#	<u>Clrwtr-Peck</u>			#	<u>Anatone</u>			#
	<u>24 h</u>	<u>12 h</u>	<u>High</u>		<u>24 h</u>	<u>12 h</u>	<u>High</u>		<u>24 h</u>	<u>12 h</u>	<u>High</u>		<u>24 h</u>	<u>12 h</u>	<u>High</u>		<u>24 h</u>	<u>12 h</u>	<u>High</u>	
	Avg	Avg	hr		Avg	Avg	hr		Avg	Avg	hr		Avg	Avg	hr		Avg	Avg	hr	
7/25	115	115	116	24	109	110	110	24	108	109	110	24	106	107	108	24	102	103	103	24
7/26	113	114	115	24	109	110	111	24	108	108	108	24	106	107	108	24	102	102	103	24
7/27	112	113	113	24	108	108	109	24	108	108	108	24	106	107	108	24	101	102	103	24
7/28	111	111	111	24	106	107	108	24	108	109	109	24	106	107	108	24	101	102	103	24
7/29	112	112	113	24	105	106	107	24	109	109	109	24	107	108	109	24	102	102	103	24
7/30	112	113	113	24	105	107	108	24	108	108	109	24	107	108	108	24	101	102	103	24
7/31	113	113	114	24	---	---	---	0	109	109	110	24	107	108	109	24	102	103	104	24
8/1	---	---	---	0	106	107	108	24	108	109	109	24	107	108	109	24	102	103	104	24
8/2	---	---	---	0	105	106	107	24	108	108	109	24	106	107	108	24	102	103	103	24
8/3	---	---	---	0	105	106	107	24	108	108	108	24	106	107	108	24	102	103	104	24
8/4	---	---	---	0	106	107	108	24	108	108	108	24	106	107	108	24	102	103	104	24
8/5	---	---	---	0	107	108	109	24	108	108	108	24	106	107	108	24	102	103	104	24
8/6	---	---	---	0	108	109	109	24	108	108	108	24	106	107	108	24	102	103	104	24
8/7	---	---	---	0	108	109	110	24	108	108	108	24	106	107	108	24	102	103	105	24

Total Dissolved Gas Saturation Data at Snake River Sites

Date	<u>Clrwtr-Lewiston</u>			#	<u>Lower Granite</u>			#	<u>L. Granite Tlwr</u>			#	<u>Little Goose</u>			#	<u>L. Goose Tlwr</u>			#
	<u>24 h</u>	<u>12 h</u>	<u>High</u>		<u>24 h</u>	<u>12 h</u>	<u>High</u>		<u>24 h</u>	<u>12 h</u>	<u>High</u>		<u>24 h</u>	<u>12 h</u>	<u>High</u>		<u>24 h</u>	<u>12 h</u>	<u>High</u>	
	Avg	Avg	hr		Avg	Avg	hr		Avg	Avg	hr		Avg	Avg	hr		Avg	Avg	hr	
7/25	106	108	109	24	101	101	101	24	110	110	112	24	107	107	107	24	108	108	109	24
7/26	105	108	109	24	101	101	102	24	110	110	111	24	106	107	107	24	108	108	109	24
7/27	105	108	110	24	102	103	103	24	110	111	112	24	107	107	107	24	108	108	108	24
7/28	105	107	109	24	103	104	104	24	110	111	111	24	107	107	107	24	110	111	112	24
7/29	105	107	108	24	103	103	104	24	110	110	111	24	107	107	107	24	110	111	111	24
7/30	105	107	109	24	101	101	102	24	111	111	111	24	106	106	106	24	112	113	113	24
7/31	105	108	110	24	102	103	103	24	110	110	111	24	106	107	107	24	113	113	114	24
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

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

Date	<u>Lower Mon.</u>			#	<u>L. Mon. Tlwr</u>			#	<u>Ice Harbor</u>			#	<u>Ice Harbor Tlwr</u>			#	<u>McNary-Oregon</u>			#
	<u>24 h</u>	<u>12 h</u>	<u>High</u>		<u>24 h</u>	<u>12 h</u>	<u>High</u>		<u>24 h</u>	<u>12 h</u>	<u>High</u>		<u>24 h</u>	<u>12 h</u>	<u>High</u>		<u>24 h</u>	<u>12 h</u>	<u>High</u>	
	Avg	Avg	hr		Avg	Avg	hr		Avg	Avg	hr		Avg	Avg	hr		Avg	Avg	hr	
7/25	110	110	110	24	115	115	116	24	111	111	112	24	114	115	115	24	---	---	---	0
7/26	109	110	110	24	115	116	116	24	111	111	112	24	114	115	115	24	---	---	---	0
7/27	109	109	110	24	116	116	117	24	112	112	112	24	114	115	115	24	---	---	---	0
7/28	108	108	109	24	115	116	116	24	111	111	112	24	114	114	115	24	---	---	---	0
7/29	106	107	108	24	114	115	115	24	111	111	111	24	113	113	114	24	---	---	---	0
7/30	105	106	106	24	115	115	116	24	109	109	110	24	113	114	114	24	---	---	---	0
7/31	106	107	107	24	115	116	116	24	109	110	111	24	114	115	115	24	---	---	---	0
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

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>High</u>	#	<u>24 h</u>	<u>12 h</u>	<u>High</u>	#	<u>24h</u>	<u>12h</u>	<u>High</u>	#	<u>24h</u>	<u>12h</u>	<u>High</u>	#	<u>24h</u>	<u>12h</u>	<u>High</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>		
7/25	107	108	108	24	115	116	117	24	104	104	105	24	116	117	119	24	108	108	108	24
7/26	108	109	109	24	115	116	116	24	104	104	105	24	115	116	118	24	107	107	107	24
7/27	108	109	109	24	115	116	117	24	103	103	103	24	114	114	116	24	107	107	107	24
7/28	107	108	109	24	116	117	117	24	102	103	103	24	115	116	118	24	105	106	106	24
7/29	108	108	110	24	114	115	116	24	103	103	103	24	114	115	115	24	106	107	107	24
7/30	106	106	107	24	114	115	116	24	103	104	104	24	115	117	118	24	105	105	106	24
7/31	106	106	107	23	115	116	116	23	104	105	105	24	115	116	116	24	107	108	109	23
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

Total Dissolved Gas Saturation Data at Lower Columbia River Sites

Date	<u>The Dalles Dnst</u>			<u>Bonneville</u>			<u>Warrendale</u>			<u>Camas\Washougal</u>			<u>Cascade Island</u>							
	<u>24 h</u>	<u>12 h</u>	<u>High</u>	#	<u>24 h</u>	<u>12 h</u>	<u>High</u>	#	<u>24h</u>	<u>12h</u>	<u>High</u>	#	<u>24h</u>	<u>12h</u>	<u>High</u>	#	<u>24h</u>	<u>12h</u>	<u>High</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>		
7/25	113	114	114	24	107	107	108	24	---	---	---	0	112	114	116	24	116	117	120	24
7/26	113	113	113	24	107	107	107	24	---	---	---	0	112	114	116	24	116	117	120	24
7/27	112	113	113	24	107	107	107	24	---	---	---	0	111	113	115	24	115	117	120	24
7/28	113	113	114	24	107	108	108	24	---	---	---	0	113	116	118	24	116	117	120	24
7/29	112	113	114	24	107	107	108	24	---	---	---	0	112	114	115	24	115	117	120	24
7/30	112	112	113	24	107	107	108	24	---	---	---	0	112	115	117	24	115	117	119	24
7/31	114	114	115	23	108	108	109	24	---	---	---	0	114	115	117	24	115	117	119	24
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

Two-Week Summary of Passage Indices

Source: Fish Passage Center

Updated: 8/8/2008 8:12

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/currentsmpsubmitdata.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)
07/25/2008	---	---	---	---	25	0	3	1	0	0	0
07/26/2008	---	---	---	---	0	0	7	0	0	64	0
07/27/2008	---	---	---	---	0	0	4	0	0	64	0
07/28/2008	---	---	---	---	0	0	7	0	0	0	0
07/29/2008	---	---	---	---	0	0	0	0	17	57	0
07/30/2008	---	---	---	---	0	0	0	2	0	0	0
07/31/2008	---	---	---	---	0	0	0	0	0	0	0
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	---	---	---	---	---	---	---	---	---	---	---
<hr/>											
Total:	0	0	0	0	28	0	25	3	50	242	0
# Days:	0	0	0	0	14	14	14	14	14	14	14
Average:	0	0	0	0	2	0	2	0	4	17	0
YTD	56,037	78,597	19,672	13,632	3,584,856	2,743,410	1,971,491	22,431	1,360,591	1,693,999	1,291,078

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)
07/25/2008	---	---	---	---	5,296	6,689	377	206	13,420	21,138	11,532
07/26/2008	---	---	---	---	3,393	9,719	283	178	27,159	19,145	13,868
07/27/2008	---	---	---	---	2,430	6,992	624	156	25,189	23,293	13,685
07/28/2008	---	---	---	---	2,077	3,255	454	105	14,216	14,864	6,874
07/29/2008	---	---	---	---	2,872	2,660	350	164	24,969	26,503	8,240
07/30/2008	---	---	---	---	3,081	2,500	387	174	16,938	19,559	4,343
07/31/2008	---	---	---	---	2,161	1,317	178	118	12,834	17,169	8,157
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	---	---	---	---	---	---	---	---	---	---	---
<hr/>											
Total:	0	0	0	0	37,030	58,850	7,184	1,938	181,866	221,271	102,839
# Days:	0	0	0	0	14	14	14	14	14	14	14
Average:	0	0	0	0	2,645	4,204	513	138	12,990	15,805	7,346
YTD	0	0	2	119	713,361	1,100,763	326,082	15,263	2,165,992	1,713,159	3,708,296

Two-Week Summary of Passage Indices

COMBINED COHO											
	WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date	(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
07/25/2008	---	---	---	---	0	14	0	4	0	0	0
07/26/2008	---	---	---	---	0	0	0	2	26	0	0
07/27/2008	---	---	---	---	0	0	0	3	25	0	46
07/28/2008	---	---	---	---	0	0	0	5	0	0	0
07/29/2008	---	---	---	---	0	0	0	0	0	0	0
07/30/2008	---	---	---	---	0	0	0	5	0	0	0
07/31/2008	---	---	---	---	0	0	0	2	0	0	0
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	---	---	---	---	---	---	---	---	---	---	---
Total:	0	0	0	0	3	14	0	37	51	0	66
# Days:	0	0	0	0	14	14	14	14	14	14	14
Average:	0	0	0	0	0	1	0	3	4	0	5
YTD	0	0	0	326	108,966	166,074	142,692	52,274	169,410	362,537	358,643

COMBINED STEELHEAD											
	WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date	(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
07/25/2008	---	---	---	---	0	43	0	1	26	0	0
07/26/2008	---	---	---	---	9	29	4	2	26	0	0
07/27/2008	---	---	---	---	0	0	0	0	25	0	0
07/28/2008	---	---	---	---	0	29	0	2	0	0	0
07/29/2008	---	---	---	---	0	14	0	3	0	0	0
07/30/2008	---	---	---	---	0	0	0	0	0	0	0
07/31/2008	---	---	---	---	7	0	0	0	0	0	0
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	---	---	---	---	---	---	---	---	---	---	---
Total:	0	0	0	0	33	206	4	12	89	0	27
# Days:	0	0	0	0	14	14	14	14	14	14	14
Average:	0	0	0	0	2	15	0	1	6	0	2
YTD	4,565	22,292	5,891	10,708	3,444,070	3,694,300	1,546,161	22,778	507,325	1,132,932	450,264

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)
07/25/2008	---	---	---	---	0	0	0	0	0	0	82
07/26/2008	---	---	---	---	17	0	0	0	26	0	42
07/27/2008	---	---	---	---	0	0	0	2	0	0	102
07/28/2008	---	---	---	---	7	0	0	3	0	0	52
07/29/2008	---	---	---	---	0	0	0	0	17	0	0
07/30/2008	---	---	---	---	0	7	0	2	0	0	139
07/31/2008	---	---	---	---	7	7	0	0	0	0	0
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	---	---	---	---	---	---	---	---	---	---	---
Total:	0	0	0	0	86	21	0	12	52	0	444
# Days:	0	0	0	0	14	14	14	14	14	14	14
Average:	0	0	0	0	6	2	0	1	4	0	32
YTD	37	0	0	111	27,431	36,565	45,480	38,957	222,926	331,815	145,353

* 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 & 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)}

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:

8/8/08 8:11 AM

07/25/08 TO 08/08/08

		Species					
Site	Data	CH0	CH1	CO	SO	ST	Grand Total
LGR	Sum of NumberCollected	21,393	17	2	50	19	21,481
	Sum of NumberBarged	21,244	17	2	45	16	21,324
	Sum of NumberBypassed	0	0	0	0	0	0
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of SampleMorts	66	0	0	3	1	70
	Sum of FacilityMorts	83	0	0	2	2	87
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	149	0	0	5	3	157
LGS	Sum of NumberCollected	41,041		10	15	144	41,210
	Sum of NumberBarged	40,941		10	12	142	41,105
	Sum of NumberBypassed	5		0	0	0	5
	Sum of Numbertrucked	0		0	0	0	0
	Sum of SampleMorts	19		0	1	1	21
	Sum of FacilityMorts	76		0	2	1	79
	Sum of ResearchMorts	0		0	0	0	0
	Sum of TotalProjectMorts	95		0	3	2	100
LMN	Sum of NumberCollected	4,034	14			2	4,050
	Sum of NumberBarged	3,912	14			2	3,928
	Sum of NumberBypassed	86	0			0	86
	Sum of Numbertrucked	0	0			0	0
	Sum of SampleMorts	11	0			0	11
	Sum of FacilityMorts	25	0			0	25
	Sum of ResearchMorts	0	0			0	0
	Sum of TotalProjectMorts	36	0			0	36
MCN	Sum of NumberCollected	85,657	30	20	25	35	85,767
	Sum of NumberBarged	91,683	30	20	25	34	91,792
	Sum of NumberBypassed	0	0	0	0	0	0
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of SampleMorts	83	0	0	0	0	83
	Sum of FacilityMorts	1,545	0	0	0	1	1,546
	Sum of ResearchMorts	15	0	0	0	0	15
	Sum of TotalProjectMorts	1,643	0	0	0	1	1,644
Total Sum of NumberCollected		152,125	61	32	90	200	152,508
Total Sum of NumberBarged		157,780	61	32	82	194	158,149
Total Sum of NumberBypassed		91	0	0	0	0	91
Total Sum of Numbertrucked		0	0	0	0	0	0
Total Sum of SampleMorts		179	0	0	4	2	185
Total Sum of FacilityMorts		1,729	0	0	4	4	1,737
Total Sum of ResearchMorts		15	0	0	0	0	15
Total Sum of TotalProjectMorts		1,923	0	0	8	6	1,937

YTD Transportation Summary

Source: Fish Passage Center

Updated:

8/8/08 8:11 AM

TO: 08/08/08

		Species					
Site	Data	CH0	CH1	CO	SO	ST	Grand Total
LGR	Sum of NumberCollected	405,726	2,398,632	68,796	13,304	2,165,405	5,051,863
	Sum of NumberBarged	396,027	1,966,899	66,902	12,837	1,786,607	4,229,272
	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	340	154	2	6	50	552
	Sum of FacilityMorts	1,649	2,841	44	37	818	5,389
	Sum of ResearchMorts	5,130	2,789	0	0	0	7,919
	Sum of TotalProjectMorts	7,119	5,784	46	43	868	13,860
LGS	Sum of NumberCollected	724,311	1,706,944	95,850	21,802	2,309,419	4,858,326
	Sum of NumberBarged	717,027	1,314,157	93,080	21,707	1,590,206	3,736,177
	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	143	40	1	4	14	202
	Sum of FacilityMorts	1,714	3,451	4	24	458	5,651
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	1,857	3,491	5	28	472	5,853
LMN	Sum of NumberCollected	238,689	1,216,508	83,198	28,104	957,121	2,523,620
	Sum of NumberBarged	236,071	276,428	9,246	10,128	230,244	762,117
	Sum of NumberBypassed	2,199	940,234	73,949	17,975	726,648	1,761,005
	Sum of NumberTrucked	0	0	0	0	0	0
	Sum of SampleMorts	51	39	0	0	22	112
	Sum of FacilityMorts	368	798	3	1	207	1,377
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	419	837	3	1	229	1,489
MCN	Sum of NumberCollected	1,057,244	752,365	78,640	102,268	276,930	2,267,447
	Sum of NumberBarged	297,456	159	20	115	50	297,800
	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	263	112	3	23	25	426
	Sum of FacilityMorts	7,248	654	56	114	218	8,290
	Sum of ResearchMorts	87	58	3	5	20	173
	Sum of TotalProjectMorts	7,598	824	62	142	263	8,889
Total Sum of NumberCollected		2,425,970	6,074,449	326,484	165,478	5,708,875	14,701,256
Total Sum of NumberBarged		1,646,581	3,557,643	169,248	44,787	3,607,107	9,025,366
Total Sum of NumberBypassed		760,141	2,506,855	157,120	120,471	2,099,934	5,644,521
Total Sum of NumberTrucked		0	0	0	0	0	0
Total Sum of SampleMorts		797	345	6	33	111	1,292
Total Sum of FacilityMorts		10,979	7,744	107	176	1,701	20,707
Total Sum of ResearchMorts		5,217	2,847	3	5	20	8,092
Total Sum of TotalProjectMorts		16,993	10,936	116	214	1,832	30,091

Cumulative Adult Passage at Mainstem Dams Through: 08/07

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	08/07	125545	17552	67482	16860	151523	9831	78271	11621	47412	13539	71262	9127	2455	361	1913	420	3181	559
TDA	08/07	95440	15801	53524	15567	106828	7522	65073	12206	40123	11318	61862	6875	1129	269	565	287	1218	255
JDA	08/07	81771	14925	44005	13864	89148	6122	63649	13680	35773	11582	57243	6930	412	310	146	132	407	112
MCN	08/07	68085	12133	39497	12393	82136	6227	54548	11215	32084	9281	54914	6222	0	0	0	0	0	0
IHR	08/06	53142	7757	28380	7371	54980	3897	23573	4944	7530	2493	11340	2091	0	0	0	0	0	0
LMN	08/07	54512	6885	28397	7102	52688	3599	27146	2835	11196	1392	11321	1626	0	0	0	0	0	0
LGS	08/05	50401	7805	23960	7227	50024	3685	21444	4778	7627	2834	9369	2050	0	0	0	0	0	0
LGR	08/07	50146	10946	22905	9085	50643	4197	22312	5026	7019	3214	9231	2256	0	0	0	0	0	0
PRD	08/04	12173	620	6708	489	17360	563	37503	1313	28625	944	47714	1820	0	0	0	0	0	0
RIS	08/06	12490	1119	5572	2066	13979	962	35833	2664	26443	5520	44185	4609	0	0	0	0	0	0
RRH	08/06	4065	371	2424	920	5404	397	26664	1754	19501	4476	31760	3044	0	0	0	0	0	0
WEL	08/03	2708	426	2041	752	3980	281	16887	727	10355	2297	20045	1105	0	0	0	0	0	0
WFA	07/23	13913	344	22490	228	-	-	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	3	3	27	8	14	0	213576	24342	58526	167176	114821	135617	62805
TDA	0	0	5	-1	0	0	177966	19089	49445	91362	37732	54651	37949
JDA	0	0	3	1	3	0	193337	24153	54025	64552	26092	39118	25028
MCN	0	0	0	0	0	0	146908	18124	44981	40533	21696	27970	14023
IHR	-1	0	0	0	0	0	536	55	34	23159	9088	12920	6994
LMN	0	0	0	0	0	0	718	43	33	23534	10586	11669	8292
LGS	0	0	0	0	0	0	590	34	37	12202	5176	6984	4328
LGR	0	0	0	0	0	0	861	53	42	15033	12993	11234	5380
PRD	3	0	0	1	3	0	192047	24433	55969	4995	1778	2841	0
RIS	0	0	0	0	1	0	193543	24951	52127	4399	1422	2201	1845
RRH	0	0	0	0	1	0	161030	20404	36474	3359	1028	1493	1207
WEL	0	0	0	0	0	0	164429	21484	35725	1358	397	584	746
WFA	0	0	2	0	-	-	0	0	-	17996	17713	-	-

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: 08/08/08

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