



## Fish Passage Center

# Weekly Report #00 - 16

June 23, 2000

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

### SUMMARY OF EVENTS:

**Water Supply:** The precipitation levels for the Columbia above Grand Coulee were 92% of average, for the Snake River above Ice Harbor levels were 62% of average and for the Columbia above The Dalles levels were 87% of average, during the period of June 1-20. The highest precipitation levels of 188% were recorded for Southeast Washington, 162% for SW WA Cascades/Cowlitz, and 177% of average for the NW Slope Washington Cascades. The lowest precipitation levels of 18% of average were recorded for the Snake River Plain, 37% of average for the Upper Deschutes/ Crooked, and 38% of average for the Owyhee/Malheur.

**Reservoir Operations:** Reservoirs continued refilling toward full pool elevations during the week of June 16 through 22. A summary of actual elevations on June 22, and full pool elevations is shown in the following Table:

Project	Actual June 22 Elevation in [ft]	Full Pool Elevation in [ft]
<i>Libby</i>	2414.2	2459.0
<i>Hungry Horse</i>	3556.7	3560.0
<i>Grand Coulee</i>	1277.4	1290.0
<i>Brownlee</i>	2074.2*	2077.0
<i>Dworshak</i>	1598.7	1600.0

\* elevation as of June 21

*Libby* reservoir released 25 Kcfs over the past week for the sturgeon pulse. Inflows to the project fluctuated between 28.4 and 32.9 Kcfs.

*Hungry Horse* continued refilling over the past week. Outflows from the project were increased to prevent the project from filling too fast. Refill will be delayed until inflow to the project is less than 5 Kcfs in order to avoid spill.

*Grand Coulee* continued to refill through the week of June 16-22 from 1270.4 ft to 1277.4 ft. Inflows were increasing from 180.1 Kcfs on June 16 to 137.1 Kcfs on June 21 and outflows were in the range of 77.7 Kcfs-121 Kcfs. *Brownlee* was operated within a three foot range between elevation 2073-2076 feet. The refill of the project is being delayed due to a spill gate issue. Outflow from Hells Canyon Dam for the past week ranged between 7.8 Kcfs on June 17 to 17.2 Kcfs on June 20.

*Dworshak* continued refill operations during June 16-22, but at slower refill rate in order to reach full pool by June 30. The outflow was increased to 6.9 Kcfs on June 22. Inflows were in the range of 7.5 Kcfs to 10.8 Kcfs.

*Upper Snake reservoirs:* As of June 22, the Upper Snake system was drafted to 92% of capacity. American Falls was drafted to 83% of capacity, while Palisades and Jackson Lake were 97% and 99% of capacity, respectively. The irrigation demands in the system continued to increase. Flow at Milner, which is the lowest point in the Upper Snake system, was in the range of 0.24-0.26 kcf, as during previous weeks.

*Boise and Payette River Basins:* As of June 22, the Boise River system was at 99% of capacity. As of June 15, the Payette River system was at 100% of capacity.

**Streamflow:** 1995 Biological Opinion spring flow targets based on the May Final Runoff Volume forecast are 96.3 Kcfs at Lower Granite and 260 Kcfs at McNary. The 1998 Biological Opinion flow target at Priest Rapids is 135 Kcfs beginning on April 10. The Biological Opinion summer flow target of 51.3 Kcfs for Lower Granite is in

place beginning June 21. Weekly average flows for McNary, Priest Rapids and Lower Granite remained below the BiOp required flow targets for the period of June 16-22, decreasing compared to the previous week due to continuation of system refill, delayed snowmelt and below average precipitation in the basin. The average flow for the major run-of-river projects for June 9-22 period are given in the following table:

Project	Average discharge [kcfs]	
	June 9-15	June 16-22
Priest Rapids	128.1	130
McNary	205.5	200.9
Lower Granite	70.8	61.8
Bonneville	216.3	212

**Spill:** Outflow from Dworshak Dam continued with no spill. The Biological Opinion spill program at the Lower Snake projects ended on June 20. The Biological Opinion summer spill program in the Snake only calls for spill at Ice Harbor Dam.

Spill for fish passage ended at McNary Dam as transportation was implemented. Any spill presently occurring is in excess of hydraulic capacity. Biological Opinion spill as modified by the NMFS and Action Agencies' Spill Plan continues at the lower Columbia River projects until the end of the month.

Levels of total dissolved gas were at, or near, the allowable TDGS levels at all locations measured. Monitoring for signs of gas bubble trauma (GBT) on fish collected through the Smolt Monitoring Program was conducted this past week. Snake River sites are sampling steelhead, while the Columbia River sites have switched to subyearling chinook for the duration of the program. Only a few fish were detected with signs of GBT in fins during sampling conducted this past week.

**Smolt Monitoring Program.** Subyearling chinook are now predominating in the collections at all monitoring sites, so all future discussions will be limited to the 2000 subyearling chinook migration. Snake River basin: This week saw subyearling chinook passage indices rise to between 18,000 and 24,000 fish at Lower Granite Dam on June 17 and 18. Likewise, a one-day jump in passage index to approximately 25,000 fish was observed this week on June 21 at Little Goose dam and on June 22 at Lower Monumental Dam. Mid-Columbia River: Passage indices of subyearling chinook doubled the last half of this week at Rock Island Dam to between 135 and 148 fish per day. Lower Columbia River: Passage indices of subyearling chinook at McNary Dam jumped over 200,000 fish the last three days of this week, and closed the week just shy of 300,000 fish. Subyearling chinook passage indices at John Day and Bonneville dams have fluctuated daily but shown no increasing trend. As the large numbers of subyearling chinook now entering the lower Columbia River move downstream, we will see the start of increased subyearling chinook passage indices at John Day and Bonneville dams during the next couple of weeks.

**Adult fish passage:** During the week of June 16-22, numbers of adult summer chinook passing Bonneville Dam increased from the previous week with daily counts ranging between 559 and 735. Counts were not received for the 21<sup>st</sup> and 22<sup>nd</sup> from the COE. The cumulative count for summer chinook through June 20 was 11,386. This total was 173% and 149% of the respective 1999 and 10-year average. At present, the majority of the summer chinook at Bonneville should be Mid-Columbia River fish. The summer chinook counts at The Dalles averaged 529 per day through the week with the cumulative count 8,076 through June 22. At McNary Dam, daily counts of adult summer chinook were near 330 per day early in the week and increased to 400 per day by the end of the week (June 22); the cumulative count through June 22 was 4,744. The Snake River count of adult summer chinook at Ice Harbor Dam was 2,204 with the Mid-Columbia River count at Priest Rapids of

2,106 through June 22. The adult summer chinook counts from Ice Harbor and Priest Rapids correlate well with the McNary Dam count so far.

The number of jack, summer chinook salmon counted at Bonneville Dam totals 4,461 through June 20, and this compares to 1,549 in 1999 and 619 for the 10-year average. This year's count of summer chinook jacks remains well ahead of the 1999 and 10-year average.

Through June 20, 33,618 sockeye were counted at Bonneville Dam. The year 2000 count is about 17 times greater than the 1999 and 6.3 times greater than the 10-year average. Daily counts exceeded 7,000 by June 20, but no further counts were received for the week. Unofficially, there was one adult sockeye counted at Lower Granite Dam on June 22; none were reported at any lower Snake River dams. Sockeye counts are increasing rapidly at Priest Rapids and upper Mid-Columbia projects.

At Bonneville Dam, the steelhead counts are increasing with daily counts near 300 per day early in the week and reaching a high of 611 by June 20. The cumulative count for the project is 8,654. The number of steelhead passing The Dalles and upriver sites is also on the rise with the June 22 count at The Dalles exceeding 200.

**Hatchery Releases:** Subyearling fall chinook releases in the Mid-Columbia River from Priest Rapids and Ringold hatcheries were mostly completed during the week. Priest Rapids fall chinook will be released between June 14 and June 26 (change of end date) while Ringold Hatchery fall chinook were released between June 13 and June 19. Subyearling summer chinook were released from Wells Hatchery this past week. Turtle Rock Hatchery is tentatively scheduled to release their subyearling summer chinook the last week of June or the 1st week of July.

In the Lower Columbia Reach (McNary to Bonneville Dam), 2 million subyearling fall chinook were released into Drano Lake/Little White Salmon River on June 22 from Little White Salmon Hatchery. The next and final hatchery release of about 1.0 million subyearling fall chinook will be released into the Klickitat River during the 1st week of July.

In the Snake River, the second group of subyearling fall chinook will be released from the acclimation ponds at Captain John Rapids and Big Canyon Creek tentatively June 26-30.

The Hatchery Zone Report Table gives the preliminary numbers from hatchery releases for the 2000 migration season. Numbers will be updated as they are finalized by the agencies. These hatchery release totals include the chinook and sockeye released in fall 1999.

Hatchery Zone Release Report – Year 2000.

	Snake River	mid-Columbia River	Lower Columbia River	
	# Release	# Release	# Release	Total Release
Spring Chinook	5,952,991	3,940,605	5,265,190	15,158,786
Summer Chinook	1,147,487	2,866,216	0	4,013,703
Fall Chinook	3,155,895	12,047,000	23,511,572	38,714,467
Sockeye	40,419	142,901	0	183,320
Steelhead	9,914,038	1,381,784	612,268	11,908,090
Coho	797,474	1,564,705	8,388,500	10,750,679
	21,008,304	21,943,211	37,777,530	80,729,045

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

Date	Grand Coulee		Chief Joseph		Wells		Rocky Reach		Rock Island		Wanapum		Priest Rapids	
	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill
06/09/00	77.1	0.0	82.9	0.0	97.0	6.9	99.1	0.0	109.0	30.9	104.9	40.8	89.2	49.6
06/10/00	82.5	0.0	77.9	0.0	93.9	6.1	97.5	0.0	107.8	30.9	117.4	44.4	111.9	63.2
06/11/00	103.9	0.0	103.3	0.0	112.9	6.8	110.6	0.0	115.9	31.0	113.6	44.5	107.9	61.8
06/12/00	121.7	0.0	124.1	0.0	136.4	15.8	139.1	9.6	141.1	31.0	144.3	58.8	137.8	78.5
06/13/00	110.5	0.0	122.2	0.0	133.8	18.0	134.7	20.8	145.8	15.9	153.6	53.7	147.4	90.3
06/14/00	114.5	0.0	111.3	0.0	129.3	14.7	131.4	18.3	137.9	0.0	144.7	27.8	148.1	42.0
06/15/00	100.4	0.0	100.1	0.0	113.2	8.5	119.0	4.4	131.9	0.0	138.7	13.0	154.3	9.3
06/16/00	82.9	0.1	90.0	0.0	99.8	6.1	98.8	1.7	111.9	0.0	115.1	1.9	104.3	1.7
06/17/00	93.7	0.1	91.0	0.0	102.8	14.6	105.2	6.8	115.2	0.0	114.9	9.6	112.6	2.1
06/18/00	77.7	0.1	84.5	0.0	98.0	10.1	99.2	5.3	109.7	0.0	114.9	7.0	116.6	4.3
06/19/00	121.0	0.1	116.4	0.0	126.6	10.0	126.4	3.2	132.3	0.0	130.6	14.0	125.8	9.3
06/20/00	108.5	0.1	114.2	0.0	133.9	13.9	142.8	7.6	153.5	0.0	159.2	26.3	158.0	12.4
06/21/00	116.9	0.1	118.9	0.0	134.3	8.2	136.0	17.7	142.1	0.0	143.9	8.3	146.6	1.9
06/22/00	118.0	0.1	125.2	0.0	134.6	9.4	134.9	17.8	144.9	0.0	---	---	---	---

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

Date	Dworshak		Brownlee Canyon		Lower Granite		Little Goose		Lower Monumental		Ice Harbor	
	Flow	Spill	Inflow	Outflow	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill
06/09/00	1.6	0.0	15.8	11.7	73.8	32.3	68.7	15.8	69.9	23.9	77.1	59.7
06/10/00	1.6	0.0	14.1	16.8	68.9	32.5	67.5	18.5	68.5	35.1	71.6	55.6
06/11/00	1.6	0.0	15.4	13.5	65.9	32.4	62.5	22.3	62.8	42.7	67.6	56.4
06/12/00	1.6	0.0	16.3	18.0	62.8	30.4	59.3	23.6	60.9	46.9	65.5	53.3
06/13/00	1.9	0.0	17.4	17.8	70.1	30.2	67.2	23.6	68.2	48.2	72.5	58.7
06/14/00	4.4	0.0	16.8	16.6	75.8	30.3	72.3	24.2	73.7	45.0	78.6	64.2
06/15/00	4.8	0.0	16.7	12.9	78.2	30.9	74.0	25.2	75.9	41.5	79.1	58.0
06/16/00	4.8	0.0	14.7	7.2	77.7	30.3	74.8	26.0	76.7	41.7	83.4	59.8
06/17/00	4.8	0.0	13.0	16.7	66.8	28.8	65.0	24.0	67.7	36.7	73.5	57.7
06/18/00	4.8	0.0	13.5	16.5	57.3	27.6	53.4	23.6	54.3	33.3	59.9	50.4
06/19/00	4.8	0.0	12.7	17.3	62.4	30.4	59.4	21.9	58.8	28.4	59.6	50.4
06/20/00	5.3	0.0	12.7	14.6	59.7	15.1	58.3	10.4	59.9	6.3	66.7	52.3
06/21/00	5.3	0.0	---	---	55.4	0.0	56.5	0.0	57.5	0.0	60.0	52.1
06/22/00	6.9	0.0	---	---	53.4	0.0	53.8	0.0	56.6	0.0	60.4	45.0

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

Date	McNary		John Day		The Dalles		Bonneville		PH1	PH2
	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill		
06/09/00	182.3	69.2	210.3	55.9	207.1	83.4	217.4	91.3	90.2	25.5
06/10/00	185.6	66.0	181.2	75.5	175.7	70.5	199.4	79.5	88.8	20.8
06/11/00	183.9	81.4	179.3	79.8	178.0	71.9	188.5	81.0	82.3	14.8
06/12/00	197.7	83.6	184.4	78.8	181.7	71.8	199.1	83.1	81.7	24.0
06/13/00	233.7	102.8	239.4	100.9	229.6	91.5	225.9	82.7	88.0	44.8
06/14/00	217.1	84.7	215.1	94.8	208.6	84.8	252.3	82.9	97.7	61.3
06/15/00	238.1	92.9	231.0	100.4	231.0	91.0	231.7	81.9	95.0	44.4
06/16/00	196.2	73.7	245.7	71.4	236.6	96.2	259.4	102.4	95.8	50.9
06/17/00	203.6	83.3	182.4	49.8	186.2	74.3	197.0	108.7	72.4	5.5
06/18/00	190.1	76.2	182.5	51.7	181.3	73.0	188.2	105.5	66.9	5.4
06/19/00	183.0	69.6	185.5	50.8	182.9	72.5	190.1	102.3	69.1	8.3
06/20/00	200.3	63.5	210.6	56.4	210.9	83.8	210.9	101.8	87.4	11.3
06/21/00	227.2	59.4	213.3	58.5	205.1	81.3	223.9	100.4	90.4	22.7
06/22/00	206.0	38.5	203.3	85.7	204.2	81.0	214.5	80.3	96.0	27.8

## 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				Fish with L. Line GBT	
								Rank 1	Rank 2	Rank 3	Rank 4	Num Fish	Avg. Rank
<b>Lower Granite Dam</b>													
	06/19/00	Steelhead	100	0	0	0.00%	0.00%	0	0	0	0	0	0
<b>Little Goose Dam</b>													
	06/14/00	Steelhead	23	1	1	4.34%	0.00%	1	0	0	0	0	0
	06/21/00	Steelhead	31	1	1	3.22%	0.00%	1	0	0	0	0	0
<b>Lower Monumental Dam</b>													
	06/19/00	Steelhead	20	7	4	20.00%	0.00%	4	0	0	0	5	1
<b>Ice Harbor Dam</b>													
<b>McNary Dam</b>													
	06/15/00	Subyearling Chinook	100	1	0	0.00%	0.00%	0	0	0	0	1	1
	06/15/00	Steelhead	18	0	0	0.00%	0.00%	0	0	0	0	0	0
	06/19/00	Subyearling Chinook	100	0	0	0.00%	0.00%	0	0	0	0	0	0
	06/22/00	Subyearling Chinook	100	0	0	0.00%	0.00%	0	0	0	0	0	0
<b>Bonneville Dam</b>													
	06/15/00	Subyearling Chinook	100	0	0	0.00%	0.00%	0	0	0	0	0	0
	06/15/00	Steelhead	17	0	0	0.00%	0.00%	0	0	0	0	0	0
	06/19/00	Subyearling Chinook	100	0	0	0.00%	0.00%	0	0	0	0	0	0
	06/22/00	Subyearling Chinook	100	0	0	0.00%	0.00%	0	0	0	0	0	0
<b>Rock Island Dam</b>													
	06/15/00	Yearling Chinook	51	4	3	5.88%	0.00%	1	2	0	0	2	1
	06/19/00	Subyearling Chinook	25	1	1	4.00%	0.00%	1	0	0	0	0	0
	06/22/00	Subyearling Chinook	49	3	3	6.12%	0.00%	2	1	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>24 h</u>	<u>12 h</u>	#	<u>24 h</u>	<u>12 h</u>	#	<u>24 h</u>	<u>12 h</u>	#	<u>24 h</u>	<u>12 h</u>	#	<u>24 h</u>	<u>12 h</u>	#		
	Avg	Avg		High	Avg		Avg	High		Avg	Avg		High	Avg		Avg	High		Avg	Avg
6/9	100	100	100	24	115	117	118	24	114	115	115	24	113	113	114	24	113	113	114	23
6/10	100	100	100	24	116	117	118	24	113	114	114	24	111	112	112	24	112	113	113	23
6/11	102	104	107	21	115	118	119	24	113	114	114	24	111	111	113	24	111	112	112	23
6/12	107	107	107	24	117	118	120	24	113	114	114	24	111	112	113	24	112	112	113	23
6/13	107	107	107	24	119	121	122	24	113	113	113	24	111	111	112	24	110	110	111	23
6/14	102	106	107	24	119	120	121	24	113	113	114	24	111	111	113	24	110	111	111	23
6/15	98	100	102	24	119	121	122	24	112	113	113	24	111	111	113	24	110	111	112	23
6/16	98	99	100	24	119	121	122	24	112	112	114	24	111	112	115	24	111	111	112	23
6/17	99	99	99	24	120	122	123	24	111	112	112	24	111	112	114	24	112	112	113	23
6/18	99	99	100	24	121	122	123	24	112	113	114	24	112	113	116	24	113	113	114	21
6/19	98	99	99	24	122	123	126	24	112	112	113	24	111	111	113	24	112	112	113	23
6/20	98	98	99	24	123	124	125	24	111	111	112	24	111	111	112	24	111	112	112	23
6/21	99	99	100	8	123	125	126	24	112	112	112	24	111	112	113	24	112	112	113	23
6/22	106	106	114	17	123	124	126	24	112	112	112	24	111	111	112	24	112	112	113	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>24 h</u>	<u>12 h</u>	#	<u>24 h</u>	<u>12 h</u>	#	<u>24 h</u>	<u>12 h</u>	#	<u>24 h</u>	<u>12 h</u>	#	<u>24 h</u>	<u>12 h</u>	#		
	Avg	Avg		High	Avg		Avg	High		Avg	Avg		High	Avg		Avg	High		Avg	Avg
6/9	112	113	113	23	110	111	111	24	111	112	112	24	110	111	111	24	111	111	111	22
6/10	111	112	112	23	110	110	110	24	111	111	112	24	110	110	110	23	110	110	110	21
6/11	110	111	111	23	109	110	110	24	110	111	111	24	108	108	108	20	109	109	109	20
6/12	110	111	112	23	110	110	111	24	113	114	120	24	105	106	107	22	109	110	114	21
6/13	109	109	109	23	108	108	109	24	111	113	119	24	102	103	103	22	110	112	117	19
6/14	109	109	110	23	109	109	110	14	112	113	119	14	103	104	104	21	111	112	113	21
6/15	109	110	112	23	108	108	108	2	110	110	110	2	104	104	107	12	113	113	114	10
6/16	111	111	112	23	109	109	110	17	110	110	111	17	106	106	107	20	116	117	118	17
6/17	111	112	113	23	111	112	112	22	114	115	117	22	106	107	108	24	120	121	122	24
6/18	113	114	114	21	111	112	113	23	113	114	116	23	107	107	107	24	124	124	125	23
6/19	112	112	113	23	109	110	110	23	111	111	113	23	108	110	112	22	125	125	126	11
6/20	111	111	112	23	110	111	111	24	113	114	121	24	107	107	107	22	---	---	---	0
6/21	111	112	112	23	111	111	112	24	111	112	112	24	107	108	109	23	---	---	---	0
6/22	111	112	113	23	110	110	110	23	111	112	112	23	106	107	107	24	---	---	---	0

### 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>24 h</u>	<u>12 h</u>	#	<u>24 h</u>	<u>12 h</u>	#	<u>24 h</u>	<u>12 h</u>	#	<u>24 h</u>	<u>12 h</u>	#	<u>24 h</u>	<u>12 h</u>	#		
	Avg	Avg		High	Avg		Avg	High		Avg	Avg		High	Avg		Avg	High		Avg	Avg
6/9	107	107	108	22	116	117	117	21	111	111	112	24	113	113	115	24	112	113	113	24
6/10	106	107	107	23	116	117	118	21	110	111	111	24	113	114	116	24	111	112	112	24
6/11	105	106	106	22	116	116	117	22	110	111	111	24	113	115	116	24	111	112	113	24
6/12	106	106	106	23	115	116	116	23	111	112	112	24	115	116	117	24	113	114	115	24
6/13	105	105	106	23	113	116	117	21	110	110	111	24	115	120	128	24	114	116	121	24
6/14	107	107	108	18	113	114	116	17	110	110	110	24	113	114	127	24	113	116	120	24
6/15	107	107	108	13	112	112	114	13	109	109	110	24	110	111	115	24	109	110	111	24
6/16	107	108	108	16	111	111	111	13	110	113	116	24	109	110	110	24	109	110	111	24
6/17	108	109	109	24	112	112	113	23	112	113	113	24	111	112	114	24	111	112	113	24
6/18	109	109	109	24	111	112	112	24	111	112	113	24	111	112	112	24	112	112	112	24
6/19	107	108	108	23	110	111	111	20	108	108	109	20	108	108	109	23	108	109	111	23
6/20	107	108	108	23	110	111	112	22	109	109	110	24	111	114	122	24	110	113	116	24
6/21	108	108	109	24	111	112	114	24	108	109	109	24	109	109	110	24	110	111	113	24
6/22	109	109	109	24	112	113	113	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>Clrwr-Peck</u>			<u>Anatone</u>			#				
	<u>24 h</u>	<u>12 h</u>	High	#	<u>24 h</u>	<u>12 h</u>	High	#	<u>24 h</u>	<u>12 h</u>	High	#	<u>24 h</u>	<u>12 h</u>	High		#			
	Avg	Avg			Avg	Avg			Avg	Avg			Avg	Avg				Avg		
6/9	115	116	118	24	109	109	110	24	108	109	110	24	102	102	103	24	103	104	104	24
6/10	115	115	116	24	105	106	106	24	107	109	109	24	101	101	102	24	102	103	103	24
6/11	115	116	116	24	105	105	106	24	108	109	112	24	102	103	103	24	103	104	104	24
6/12	117	117	118	24	107	108	108	24	108	111	113	24	102	102	102	24	103	103	104	24
6/13	117	117	118	24	107	109	111	24	106	109	110	24	101	102	103	21	103	104	104	21
6/14	113	116	128	24	111	112	112	24	103	105	106	24	102	103	103	24	103	104	105	24
6/15	118	118	118	24	109	110	111	24	105	106	106	24	102	103	103	24	102	103	103	24
6/16	116	116	117	24	107	107	109	24	105	106	107	24	103	104	105	24	102	103	104	24
6/17	115	116	116	24	107	107	108	24	106	107	107	24	103	104	105	24	103	104	105	24
6/18	116	116	117	24	107	107	108	24	107	107	108	24	103	104	104	24	102	103	104	24
6/19	111	113	115	22	105	106	106	24	106	106	107	24	102	102	103	24	101	102	102	24
6/20	112	114	117	24	105	105	106	24	102	103	104	24	102	103	104	24	102	103	104	24
6/21	110	111	112	24	107	108	109	24	103	104	104	24	103	104	105	24	103	105	106	24
6/22	---	---	---	0	107	108	109	24	103	104	104	24	102	103	104	24	103	104	106	24

### 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>	High	#	<u>24 h</u>	<u>12 h</u>	High	#	<u>24 h</u>	<u>12 h</u>	High	#	<u>24 h</u>	<u>12 h</u>	High		#			
	Avg	Avg			Avg	Avg			Avg	Avg			Avg	Avg						
6/9	101	103	104	24	103	103	104	24	112	119	120	24	110	111	112	24	112	114	115	24
6/10	101	101	102	24	101	102	103	24	112	118	120	24	107	108	110	24	112	116	118	24
6/11	102	103	104	24	100	100	100	24	111	118	119	24	105	106	107	24	112	118	120	24
6/12	102	102	103	24	101	101	101	24	111	118	119	24	107	107	108	24	113	119	120	24
6/13	102	103	105	21	100	100	101	21	110	115	119	21	106	106	106	21	112	116	119	21
6/14	102	103	104	24	102	102	103	24	112	119	120	24	107	108	108	23	113	118	119	23
6/15	102	103	104	24	102	102	103	24	112	119	121	24	108	109	110	24	114	119	120	24
6/16	102	104	105	24	104	105	107	24	112	120	122	24	109	110	111	24	115	120	121	24
6/17	103	105	106	24	105	106	109	24	112	118	120	24	111	112	114	24	115	120	121	24
6/18	103	104	105	24	104	105	105	24	111	118	120	24	113	113	114	24	116	119	120	24
6/19	102	103	104	24	103	103	104	24	112	119	120	24	111	112	113	24	115	118	119	24
6/20	102	104	106	24	103	104	106	24	108	113	122	24	109	109	110	24	112	115	119	24
6/21	103	105	106	24	105	105	106	24	103	103	103	24	109	110	111	24	108	109	110	24
6/22	103	104	106	24	104	104	106	24	102	102	102	24	109	109	110	24	108	108	109	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>	High	#	<u>24 h</u>	<u>12 h</u>	High	#	<u>24 h</u>	<u>12 h</u>	High	#	<u>24 h</u>	<u>12 h</u>	High		#			
	Avg	Avg			Avg	Avg			Avg	Avg			Avg	Avg						
6/9	112	113	115	24	114	115	116	24	112	113	114	24	113	115	117	24	112	112	112	24
6/10	110	110	112	24	116	117	118	24	110	110	111	24	112	113	114	21	110	110	111	21
6/11	109	109	110	24	118	120	121	24	109	109	109	24	113	113	114	24	108	109	109	24
6/12	109	110	111	24	119	120	121	24	110	110	111	24	112	113	114	24	107	107	107	24
6/13	109	110	111	21	120	121	122	21	111	112	114	24	113	114	116	24	107	109	111	24
6/14	110	112	112	24	119	120	121	24	113	114	114	24	114	115	118	24	108	108	109	24
6/15	111	112	114	24	118	119	120	24	115	116	117	24	113	115	118	24	109	112	113	24
6/16	112	114	117	24	118	119	120	24	116	116	117	23	114	115	118	23	111	112	114	24
6/17	114	115	118	24	117	118	119	24	118	119	120	24	113	114	115	24	114	115	120	24
6/18	116	118	120	24	116	117	118	24	119	119	120	24	112	113	114	24	111	112	113	24
6/19	114	116	118	24	115	116	118	24	116	117	118	24	112	113	114	24	109	110	111	24
6/20	112	112	112	24	113	113	114	24	114	114	115	24	112	113	114	24	110	112	115	24
6/21	113	114	114	24	113	114	115	24	114	114	115	24	112	113	113	24	109	111	113	24
6/22	114	115	115	24	113	114	115	24	114	114	115	24	112	113	113	24	110	113	116	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>	High	#	<u>24 h</u>	<u>12 h</u>	High	#	<u>24h</u>	<u>12h</u>	High	#	<u>24h</u>	<u>12h</u>	High					
	Avg	Avg		hr	Avg	Avg		hr	Avg	Avg		hr	Avg	Avg			hr			
6/9	111	112	113	24	115	119	121	24	109	110	110	23	114	117	119	24	109	112	114	23
6/10	109	109	110	23	113	117	119	24	107	108	108	23	117	117	118	24	108	109	112	23
6/11	107	108	108	24	113	118	119	24	108	108	109	23	117	118	119	22	110	112	115	23
6/12	107	107	107	24	113	119	119	24	107	107	108	23	117	118	119	24	112	113	115	23
6/13	106	107	109	24	115	119	121	24	105	105	105	23	118	119	119	24	109	111	113	23
6/14	108	108	108	24	114	119	121	24	105	105	105	23	117	118	119	24	110	112	114	23
6/15	109	110	111	24	115	120	121	24	105	105	106	23	118	119	120	24	109	111	112	23
6/16	111	112	114	24	116	120	121	20	106	107	109	23	112	118	120	24	111	114	115	23
6/17	113	114	116	24	116	120	121	24	109	111	114	23	113	117	118	24	110	112	115	23
6/18	112	113	115	24	115	119	120	24	109	109	112	21	112	115	118	21	109	111	115	21
6/19	108	109	110	24	113	118	118	24	107	107	108	23	112	117	118	24	105	106	109	23
6/20	108	109	111	24	112	115	118	24	107	108	108	23	112	117	118	24	107	109	113	23
6/21	108	109	110	24	113	114	117	24	109	109	109	23	113	116	118	24	109	111	113	23
6/22	109	110	111	24	112	113	113	24	108	109	109	23	117	118	119	24	108	109	111	23

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

Date	<u>The Dalles Dnst</u>			<u>Bonneville</u>			<u>Warrendale</u>			<u>Skamania</u>			<u>Camas\Washugal</u>			#				
	<u>24 h</u>	<u>12 h</u>	High	#	<u>24 h</u>	<u>12 h</u>	High	#	<u>24h</u>	<u>12h</u>	High	#	<u>24h</u>	<u>12h</u>	High					
	Avg	Avg		hr	Avg	Avg		hr	Avg	Avg		hr	Avg	Avg			hr			
6/9	115	116	116	24	110	111	111	23	116	117	118	23	115	115	116	23	113	113	114	24
6/10	114	115	116	24	109	110	110	23	116	117	117	23	114	116	117	23	112	112	113	24
6/11	114	115	116	24	110	111	112	23	117	117	118	23	115	116	118	22	110	111	111	24
6/12	116	117	117	24	110	111	112	23	117	118	120	23	114	117	120	23	110	111	112	24
6/13	115	116	117	24	108	109	109	23	116	116	118	23	114	115	118	23	111	113	116	24
6/14	115	116	117	24	110	111	111	23	117	117	118	23	113	114	115	23	111	113	115	24
6/15	115	115	116	24	109	110	110	23	115	115	115	23	113	115	117	23	110	112	114	24
6/16	116	117	117	24	109	110	111	23	116	117	118	23	114	115	116	23	111	113	114	24
6/17	115	116	118	24	114	115	115	23	121	122	122	23	121	122	122	23	115	118	119	24
6/18	115	116	117	21	114	115	115	23	120	121	122	23	120	120	121	23	116	117	117	24
6/19	112	113	114	24	107	108	110	23	117	118	118	23	118	119	120	23	115	116	117	24
6/20	113	114	116	24	106	107	108	23	116	116	117	23	118	119	119	23	115	116	117	24
6/21	115	116	117	24	109	109	110	23	117	117	118	23	118	118	119	23	115	116	117	24
6/22	115	116	117	24	108	108	109	23	113	115	116	23	114	115	116	23	113	114	115	24



## Hatchery Release Summary

From 6/9/00 to 6/22/00

Hatchery	Species...	Migration Year	Number Released	...Release Dates... Begin... ..End	Release Site	River Name
<b>USFWS</b>						
<b>L White Salmon</b>						
	FA Chinook	2000	2,000,000	06/22/00 06/22/00	Little White Salmon H	Little White Salmon River
	<b>Agency Totals:</b>		<b>2,000,000</b>	.....		
<b>WDFW</b>						
<b>Klickitat</b>						
	FA Chinook	2000	2,500,000	06/12/00 07/07/00	Klickitat H	Klickitat River
<b>Priest Rapids</b>						
	FA Chinook	2000	6,700,000	06/14/00 06/23/00	Priest Rapids H	Mid-Columbia River
<b>Ringold Springs</b>						
	FA Chinook	2000	3,500,000	06/13/00 06/19/00	Ringold Springs H	Mid-Columbia River
<b>Wells</b>						
	SU Chinook	2000	378,000	06/19/00 06/23/00	Wells H	Mid-Columbia River
	<b>Agency Totals:</b>		<b>13,078,000</b>	.....		
	<b>Total Release..</b>		<b>15,078,000</b>			

## Hatchery Release Summary

From 6/23/00 to 7/6/00

Hatchery	Species...	Migration Year	Number Released	...Release Dates... Begin... ..End	Release Site	River Name
<b>Nez Perce Tribe</b>						
<b>Lyons Ferry</b>						
	FA Chinook	2000	370,000	06/26/00 06/30/00	Cpt John Acclim Pd	Snake River
	FA Chinook	2000	370,000	06/26/00 06/30/00	Big Canyon (Clearwater	Clearwater Rvr M F
	<b>Agency Totals:</b>		<b>740,000</b>	.....		
<b>WDFW</b>						
<b>Turtle Rock</b>						
	SU Chinook	2000	354,000	06/26/00 07/07/00	Turtle Rock H	Mid-Columbia River
	SU Chinook	2000	360,000	06/26/00 07/07/00	Turtle Rock H	Mid-Columbia River
	<b>Agency Totals:</b>		<b>714,000</b>	.....		
	<b>Total Release..</b>		<b>1,454,000</b>			

## Two-Week Summary of Passage Indices

The Total, # Days, and Average are calculated on the last two weeks of data and do not include the current day's passage index.

	WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date	(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
06/09/00	---	4	---	23	5,510	10,267	3,407	121	7,302	6,377	5,683
06/10/00	---	---	---	---	2,862	22,088	1,155	27	13,572	3,746	3,767
06/11/00	---	---	---	---	2,408	21,456	788	88	10,530	1,500	10,133
06/12/00	---	11	---	23	1,747	9,238	586	60	7,813	1,697	1,409
06/13/00	---	12	---	7	685	1,290	98	102	5,601	899	877
06/14/00	---	12	---	24	2,675	1,001	102	108	920	583	2,867
06/15/00	---	7	---	28	2,821	281	82	69	2,040	1,654	6,153
06/16/00	---	---	---	83	1,313	163	82	113	2,801	2,473	3,142
06/17/00	---	---	---	---	2,530	199	48	46	3,693	1,171	5,148
06/18/00	---	---	---	---	2,249	65	70	33	4,278	0	0
06/19/00	---	---	---	---	1,981	274	18	33	1,000	1,003	685
06/20/00	---	---	---	---	1,130	202	61	30	1,448	441	0
06/21/00	---	---	---	---	520	135	39	42	1,318	336	0
06/22/00	---	---	---	---	380	60	144	45	4,715	742	1,110
<b>Total:</b>	<b>0</b>	<b>46</b>	<b>0</b>	<b>188</b>	<b>28,811</b>	<b>66,719</b>	<b>6,680</b>	<b>917</b>	<b>67,031</b>	<b>22,622</b>	<b>40,974</b>
<b># Days:</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>6</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>9</b>	<b>0</b>	<b>31</b>	<b>2,058</b>	<b>4,766</b>	<b>477</b>	<b>66</b>	<b>4,788</b>	<b>1,616</b>	<b>2,927</b>

### COMBINED SUBYEARLING CHINOOK

	WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date	(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
06/09/00	---	0	---	6	10,804	1,703	1,693	22	75,616	63,338	18,283
06/10/00	---	---	---	---	10,979	12,386	4,970	41	36,112	50,117	11,839
06/11/00	---	---	---	---	10,526	16,073	7,546	40	14,675	10,080	28,265
06/12/00	---	0	---	4	6,120	8,914	4,792	24	17,987	7,342	13,037
06/13/00	---	0	---	1	3,079	2,837	1,050	27	49,949	10,239	14,757
06/14/00	---	0	---	12	10,019	35,433	7,185	51	13,158	13,002	30,798
06/15/00	---	0	---	2	6,652	4,721	9,638	61	21,625	11,766	21,766
06/16/00	---	---	---	0	8,907	2,340	4,797	88	43,961	13,738	22,738
06/17/00	---	---	---	---	18,688	13,200	2,433	68	97,424	20,427	17,426
06/18/00	---	---	---	---	23,742	3,287	933	60	136,368	41,764	2,785
06/19/00	---	---	---	---	11,049	1,907	571	72	46,426	16,738	2,741
06/20/00	---	---	---	---	6,662	8,955	2,073	148	219,615	29,319	12,767
06/21/00	---	---	---	---	7,190	25,218	3,686	141	259,632	49,572	21,783
06/22/00	---	---	---	---	8,890	5,057	25,187	135	293,091	46,900	28,312
<b>Total:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>25</b>	<b>143,307</b>	<b>142,031</b>	<b>76,554</b>	<b>978</b>	<b>1,325,639</b>	<b>384,342</b>	<b>247,297</b>
<b># Days:</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>6</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>4</b>	<b>10,236</b>	<b>10,145</b>	<b>5,468</b>	<b>70</b>	<b>94,689</b>	<b>27,453</b>	<b>17,664</b>

\* See sampling comments <http://www.fpc.org/2000Daily/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.

## 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)
06/09/00	---	0	---	0	501	2,278	958	584	7,524	6,973	8,895
06/10/00	---	---	---	---	326	1,481	725	320	9,913	2,022	2,422
06/11/00	---	---	---	---	272	221	415	253	8,706	510	12,799
06/12/00	---	0	---	0	98	245	1,384	280	6,408	2,537	2,819
06/13/00	---	0	---	0	70	344	61	239	4,111	515	2,484
06/14/00	---	0	---	0	203	91	401	281	920	1,776	12,041
06/15/00	---	0	---	0	51	31	171	316	1,635	1,294	10,194
06/16/00	---	---	---	0	294	18	235	257	7,162	3,084	5,209
06/17/00	---	---	---	---	100	87	143	179	4,596	504	3,696
06/18/00	---	---	---	---	627	65	23	92	2,854	211	1,393
06/19/00	---	---	---	---	388	96	7	40	1,146	315	0
06/20/00	---	---	---	---	0	10	22	75	1,481	111	1,035
06/21/00	---	---	---	---	160	90	51	55	4,067	59	605
06/22/00	---	---	---	---	150	45	78	47	4,191	273	1,480
<b>Total:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3,240</b>	<b>5,102</b>	<b>4,674</b>	<b>3,018</b>	<b>64,714</b>	<b>20,184</b>	<b>65,072</b>
<b># Days:</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>6</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>231</b>	<b>364</b>	<b>334</b>	<b>216</b>	<b>4,622</b>	<b>1,442</b>	<b>4,648</b>

### 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)
06/09/00	---	603	---	1	6,112	4,810	3,697	40	3,562	2,148	5,683
06/10/00	---	---	---	---	5,037	2,690	1,719	35	1,536	493	1,614
06/11/00	---	---	---	---	3,146	1,550	2,280	49	497	90	3,466
06/12/00	---	155	---	2	2,309	2,454	2,325	24	1,237	371	1,409
06/13/00	---	347	---	4	658	1,723	953	20	1,047	599	438
06/14/00	---	246	---	8	2,635	610	2,130	25	216	127	6,225
06/15/00	---	189	---	7	793	413	1,339	24	1,387	367	2,939
06/16/00	---	---	---	23	1,675	443	855	17	6,209	466	992
06/17/00	---	---	---	---	1,913	571	2,505	11	4,105	111	132
06/18/00	---	---	---	---	3,318	263	630	9	2,856	0	0
06/19/00	---	---	---	---	2,660	193	196	6	550	30	0
06/20/00	---	---	---	---	2,042	125	212	11	908	252	1,380
06/21/00	---	---	---	---	570	362	270	6	1,582	19	0
06/22/00	---	---	---	---	930	420	455	16	1,702	14	185
<b>Total:</b>	<b>0</b>	<b>1,540</b>	<b>0</b>	<b>45</b>	<b>33,798</b>	<b>16,627</b>	<b>19,566</b>	<b>293</b>	<b>27,394</b>	<b>5,087</b>	<b>24,463</b>
<b># Days:</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>6</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>308</b>	<b>0</b>	<b>8</b>	<b>2,414</b>	<b>1,188</b>	<b>1,398</b>	<b>21</b>	<b>1,957</b>	<b>363</b>	<b>1,747</b>

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

	WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date	(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
06/09/00	---	0	---	0	33	300	200	3	364	860	0
06/10/00	---	---	---	---	72	39	54	3	354	773	0
06/11/00	---	---	---	---	39	0	207	1	249	0	800
06/12/00	---	0	---	0	12	0	0	0	562	77	0
06/13/00	---	0	---	0	23	0	6	4	375	94	0
06/14/00	---	0	---	0	31	30	36	3	54	257	573
06/15/00	---	0	---	0	62	0	30	3	82	238	92
06/16/00	---	---	---	0	108	0	18	1	659	191	83
06/17/00	---	---	---	---	40	12	0	0	903	47	132
06/18/00	---	---	---	---	0	0	0	1	357	0	0
06/19/00	---	---	---	---	39	14	2	2	100	91	0
06/20/00	---	---	---	---	0	0	11	3	16	59	0
06/21/00	---	---	---	---	10	45	7	1	113	23	0
06/22/00	---	---	---	---	0	0	21	0	393	28	370
<b>Total:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>469</b>	<b>440</b>	<b>592</b>	<b>25</b>	<b>4,581</b>	<b>2,738</b>	<b>2,050</b>
<b># Days:</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>6</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>34</b>	<b>31</b>	<b>42</b>	<b>2</b>	<b>327</b>	<b>196</b>	<b>146</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)}

LEW and WTB data collected for the FPC by Idaho Dept. of Fish and Game.

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 06/22**

DAM	Spring Chinook						Summer Chinook						Fall Chinook					
	2000		1999		10-Yr Avg.		2000		1999		10-Yr Avg.		2000		1999		10-Yr Avg.	
	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack
BON	178,302	21,259	38,669	8,691	62,347	2,737	11,386	4,461	6,596	1,549	7,666	619	0	0	0	0	0	0
TDA	102,702	14,716	17,563	6,180	36,497	1,828	8,746	3,571	4,864	1,204	5,864	433	0	0	0	0	0	0
JDA	86,502	12,133	15,409	5,089	29,402	1,505	7,176	2,321	4,309	862	4,597	328	0	0	0	0	0	0
MCN	64,647	10,839	9,260	3,972	28,536	1,577	4,744	1,821	2,472	640	3,815	285	0	0	0	0	0	0
IHR	38,234	9,129	5,351	2,657	15,091	720	2,208	1,134	1,739	477	2,077	153	0	0	0	0	0	0
LMN	34,632	9,952	3,924	2,726	14,041	753	1,950	1,052	1,233	403	1,480	110	0	0	0	0	0	0
LGS	33,637	9,840	3,445	2,690	**	**	1,481	963	1,188	293	**	**	0	0	0	0	**	**
LWG	33,818	10,317	3,296	2,507	12,180	669	986	666	816	246	1,034	69	0	0	0	0	0	0
PRD	20,096	1,089	4,139	761	9,052	194	2,106	277	510	49	726	23	0	0	0	0	0	0
RIS	15,336	1,649	3,309	915	6,567	218	****	****	66	39	165	12	0	0	0	0	0	0
RRH	5,336	392	1,389	233	1,501	54	26	4	13	0	13	0	0	0	0	0	0	0
WEL	1,232	369	110	173	701	47	0	0	0	0	0	0	0	0	0	0	0	0

DAM	Coho						Sockeye			Steelhead			
	2000		1999		10-Yr Avg.		10-Yr			10-Yr			Wild
	Adult	Jack	Adult	Jack	Adult	Jack	2000	1999	Avg.	2000	1999	Avg.	2000
BON	0	0	0	0	0	0	33,618	1,964	5,321	8,654	4,912	8,153	2,512
TDA	0	0	0	0	0	0	30,441	1,646	4,244	2,334	1,478	2,855	890
JDA	1	0	0	0	0	0	20,886	1,464	3,008	4,654	4,468	4,090	1,562
MCN	0	0	0	1	0	0	12,085	758	1,725	1,496	999	2,919	359
IHR	0	0	0	0	0	0	0	0	0	1,079	896	2,510	421
LMN	0	0	0	0	0	0	0	0	0	1,065	617	2,423	540
LGS	0	0	0	0	**	**	0	0	**	1,075	940	**	486
LWG	0	0	0	0	0	0	1	0	0	2,557	3,051	5,249	874
PRD	1	0	0	0	0	0	6,432	186	469	69	49	103	***
RIS	1	0	0	0	0	0	1,041	23	45	47	53	126	****
RRH	7	0	0	0	0	0	411	54	24	97	85	92	****
WEL	0	0	0	0	0	0	222	0	6	8	35	40	4

\*\*\*\* PRD data from Grant CO PUD; RIS, RRH data from Chelan CO. PUD.

\*\*\*\* No race breakdown available for RIS so SP numbers are actually SP and SU combined.

\*\*\*\* No wild steelhead subtotals available for RIS, RRH.

Note: BON, RIS, RRH are through 06/20; LGS, LMN, WEL are through 06/21.

Note: LGS is missing 06/08, 06/09, 06/12; JDA is missing 06/21; LGR is missing 06/20.

Note: IHR 05/06 is missing the south ladder count.

These numbers were collected from the COE's Running Sums text files.

Wild steelhead numbers are included in the total.

\*\*Adult count records at Little Goose Dam have been maintained since 1991, visual counts were not conducted at Little Goose Dam between 1982 and 1990.

\*\*\*PRD is not reporting Wild Steelhead numbers.

Historic counts (pre-1996) were obtained from CRITFC and compiled by the FPC.

Historic counts 1997 to present were obtained from the Corps of Engineers.

**Two Week Transportation Summary**  
**06/09/00 TO 06/22/00**

		Species					
Site	Data	CH0	CH1	CO	SO	ST	Grand Total
<b>LGR</b>	Sum Of NumberCollected	87,052	16,592	1,944	272	19,428	125,288
	Sum Of NumberBarged	84,891	16,327	2,592	312	23,787	127,909
	Sum Of NumberBypassed	0	1,120	0	0	148	1,268
	Sum Of NumberTrucked	0	0	0	0	0	0
	Sum Of TotalProjectMort	489	17	2	0	23	531
<b>LGS</b>	Sum Of NumberCollected	104,346	47,765	3,846	351	11,931	168,239
	Sum Of NumberBarged	99,333	52,055	5,253	390	13,703	170,734
	Sum Of NumberBypassed	0	0	0	0	0	0
	Sum Of NumberTrucked	0	0	0	0	0	0
	Sum Of TotalProjectMort	238	70	7	1	91	407
<b>LMN</b>	Sum Of NumberCollected	49,391	3,802	2,139	312	9,109	64,753
	Sum Of NumberBarged	21,071	5,068	2,631	336	10,579	39,685
	Sum Of NumberBypassed	5,586	0	0	0	104	5,690
	Sum Of NumberTrucked	0	0	0	0	0	0
	Sum Of TotalProjectMort	157	32	0	0	59	248
<b>MCN</b>	Sum Of NumberCollected	891,978	41,056	40,230	2,801	17,016	993,081
	Sum Of NumberBarged	415,039	4,515	6,198	383	2,439	428,574
	Sum Of NumberBypassed	475,637	36,446	33,971	2,416	14,513	562,983
	Sum Of NumberTrucked	0	0	0	0	0	0
	Sum Of TotalProjectMort	1,303	95	60	2	64	1,524
Total Sum Of NumberCollected		1,132,767	109,215	48,159	3,736	57,484	1,351,361
Total Sum Of NumberBarged		620,334	77,965	16,674	1,421	50,508	766,902
Total Sum Of NumberBypassed		481,223	37,566	33,971	2,416	14,765	569,941
Total Sum Of NumberTrucked		0	0	0	0	0	0
Total Sum Of TotalProjectMort		2,187	214	69	3	237	2,710

**YTD Transportation Summary**  
**TO: 06/22/00**

		Species					
Site	Data	CH0	CH1	CO	SO	ST	Grand Total
<b>LGR</b>	Sum Of NumberCollected	103,900	2,435,990	117,692	5,817	4,999,506	7,662,905
	Sum Of NumberBarged	94,304	2,310,825	117,085	5,586	4,761,029	7,288,829
	Sum Of NumberBypassed	46	115,444	400	16	226,270	342,176
	Sum Of NumberTrucked	117	6,084	16	187	11,238	17,642
	Sum Of TotalProjectMort	563	3,258	41	28	542	4,432
<b>LGS</b>	Sum Of NumberCollected	105,068	1,356,568	34,864	3,198	1,042,686	2,542,384
	Sum Of NumberBarged	99,808	1,346,941	34,773	3,093	1,034,237	2,518,852
	Sum Of NumberBypassed	0	0	0	0	0	0
	Sum Of NumberTrucked	0	4,308	5	76	6,791	11,180
	Sum Of TotalProjectMort	247	5,245	42	29	1,243	6,806
<b>LMN</b>	Sum Of NumberCollected	75,312	606,367	16,210	4,166	756,091	1,458,146
	Sum Of NumberBarged	45,320	554,141	16,119	4,133	753,416	1,373,129
	Sum Of NumberBypassed	6,384	24,873	0	0	905	32,162
	Sum Of NumberTrucked	0	25,741	10	10	810	26,571
	Sum Of TotalProjectMort	247	1,473	3	2	504	2,229
<b>MCN</b>	Sum Of NumberCollected	1,033,129	1,142,648	147,250	59,720	357,201	2,739,948
	Sum Of NumberBarged	415,039	4,515	6,198	383	2,439	428,574
	Sum Of NumberBypassed	616,720	1,137,415	140,936	59,322	354,501	2,308,894
	Sum Of NumberTrucked	0	0	0	0	0	0
	Sum Of TotalProjectMort	1,371	717	115	15	261	2,479
Total Sum Of NumberCollected		1,317,409	5,541,573	316,016	72,901	7,155,484	14,403,383
Total Sum Of NumberBarged		654,471	4,216,422	174,175	13,195	6,551,121	11,609,384
Total Sum Of NumberBypassed		623,150	1,277,732	141,336	59,338	581,676	2,683,232
Total Sum Of NumberTrucked		117	36,133	31	273	18,839	55,393
Total Sum Of TotalProjectMort		2,428	10,693	201	74	2,550	15,946

