Fish Passage Center

Weekly Report #02 - 13

June 7, 2002

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SUMMARY OF EVENTS:

- **Due to increases in flow along much of the Columbia and Snake Rivers, storage reservoirs are currently operating to both meet the BiOp flow objectives and refill.**
- **As of June 6th, 2002: Grand Coulee is 18.8 feet from full, Libby is 32.9 feet from full, Dworshak is 23.4 feet from full, Brownlee is 0.7 feet from full (6-5-02), and Hungry Horse is 20.7 feet from full.**
- **Flows at Lower Granite have averaged 82.5 Kcfs between April 3rd and June 6th and 126.2 Kcfs over the week from May 31st to June 6th (BiOp target = 97 Kcfs).**
- **Flows at McNary have averaged 248.6 Kcfs between April 10th and June 6th and 341.4 Kcfs over the week May 31st to June 6th (BiOp target = 246 Kcfs).**
- **Flows at Priest Rapids have averaged 160.3 Kcfs between April 10th and June 6th and 210.8 Kcfs over the week from May 31st to June 6th (BiOp target = 135 Kcfs).**
- **Combined storage in the Upper Snake River System is at 64% of capacity, the same as last week.**

Water Supply: Over the past 2.5 weeks, flows in the Columbia Basin have improved as a result of increasing precipitation and snowmelt. According to the Northwest River Forecast Center (NWRFC), snowmelt is expected to remain steady throughout much of the Columbia Basin over the next few days. Because of the increasing streamflows, storage reservoirs along the Columbia and Snake Rivers have been operating to meet BiOp flow requirements and to refill.

Due to increased flows in the Columbia River, the Grand Coulee Reservoir has been refilling; beginning the week at 1260.8 feet (5-31-02) and ending the week at 1271.2 feet AMSL (6-6-02). Presently, Grand Coulee is 18.8 feet from its full pool elevation of 1290.0 feet AMSL.

Libby has been refilling over the past 8 1/2 weeks. The Libby reservoir has gained 13.8 feet over the last week. Over the past two days, outflows have increased, reaching a daily average of 16.4 Kcfs on 6-6-02. Libby is currently (midnight, 6-6-02) at an elevation of 2426.1 feet AMSL, 32.9 feet from the full pool elevation of 2459.0 feet AMSL.

From 5-31-02 to 6-6-02, the Dworshak reservoir refilled 20.2 feet. Daily average outflows at Dworshak have remained steady at 1.70 Kcfs. Currently (midnight, 6-6-02) Dworshak is at an elevation of 1576.6 feet AMSL; 23.4 feet below the full pool elevation of 1600 feet AMSL.

Over the past week, the Brownlee reservoir remained relatively steady, only fluctuating a few tenths of a foot, between 2076.1 and 2076.5 feet AMSL. Currently (midnight, 6-5-02), Brownlee was at an elevation of 2076.3 feet AMSL; 0.7 feet below its full pool elevation of 2077.0 feet AMSL. For the most part, Brownlee has been passing inflows.

From 5-31-02 to 6-6-02, the Hungry Horse Reservoir refilled 8.1 feet. Over the last week, outflows have ranged between 0.4 and 7.9 Kcfs. Currently (midnight, 6-6-02), Hungry Horse is at an elevation of 3539.3 feet AMSL; 20.7 feet below its full pool elevation of 3560.0 feet AMSL.

Flows along the Columbia River have increased over the past week and are projected to continue to be high over the upcoming week. If flows remain elevated, the storage reservoirs should have no trouble refilling by the BiOp date of June 30th, 2002.

Based upon the April final forecasts, flow objectives are 97 kcfs at Lower Granite between 4/3/02 and 6/20/02, 246 kcfs at McNary between 4/10/02 and 6/30/02, and 135 kcfs at Priest Rapids from 4/10/02 and 6/30/02. The flow objectives are intended to represent averages over the designated time periods. From April 3rd to June 6th, 2002, outflows at Lower Granite have averaged 82.5 Kcfs; from April 10th to June 6th, 2002, outflows at McNary have averaged 248.6 Kcfs; from April 10th to June 6th, 2002, outflows at Priest Rapids have averaged 160.3 Kcfs. Therefore, to date, flow objectives are only being met on a seasonal basis at both McNary and Priest Rapids. Over the week from May 31st to June 6th, 2002 flows have averaged 126.2 Kcfs at Lower Granite, 341.4 Kcfs at McNary, and 210.8 Kcfs at Priest Rapids. On a weekly basis, BiOp flow objectives are being met at all projects that involve BiOp flow objectives.

Over the last week (5-31-02 to 6-6-02), operations have varied along the reservoirs on the Upper Snake River. Currently, as of June 6th, 2002, the entire Upper Snake River System is at 64% of capacity (61% last week). Individually, American Falls is at 66% of capacity (71% last week), Palisades is at 54% of capacity (47% last week), Jackson Lake is at 65% of capacity (52% last week), Island Park is at 95% of capacity (95% last week), Lake Walcott is at 101% of capacity (98% last week), Milner is at 96% of capacity (94% last week), and Grassy Lake is at 87% of capacity (87% last week).

Spill: A fault on the 500 kV line at Dworshak Dam resulted in 1 Kcfs spill through the regulating outlet for a number of hours on June 6, 2002. Other than this incident, no spill occurred at Dworshak Dam as the project operates at minimum outflow and refills. In general, the increase in Snake River flows resulted in increased spill levels at the Lower Snake Projects. Spill at Lower Granite Dam averaged 49% of daily flows this past week. At Little Goose Dam spill levels averaged 40% of average daily flow. At Lower Monumental Dam flows exceeded the hydraulic capacity of the project and involuntary spill occurred on several days this past week. Spill averaged 6% of average daily flow. At Ice Harbor Dam spill averaged 68% of daily flows over the past week.

Lower River flows also increased considerably over the past week. Spill averaged 50% of average daily flow at McNary Dam, 43% of average daily flow at John Day Dam, 41% of average daily flow at The Dalles Dam and 49% of average daily flow at Bonneville Dam. All Mid Columbia River projects saw increases in spill percentages over the past week as well. Correspondingly, the total dissolved gas levels at all federal and Mid Columbia hydroprojects are higher this past week than the week before, with many projects exceeding the water quality waiver standards. Fish have been observed with minor signs of GBT this past week at several monitoring locations, however, the incidence of the observations remains far below the action criteria.

Smolt Monitoring: The subyearing chinook migration is well underway in the Snake and Lower Columbia rivers as the spring migration winds down. The yearling chinook numbers collected at Snake River basin Traps were down this week with a total of 338 collected at all SMP traps versus over 661 last week. The average daily collection for all traps combined decreased from 33 to 23. Steelhead numbers were down as well compared to the previous week with the average daily collection at all sites combined at 59 this week compared to 218 the previous week, with the largest numbers collected at the Imnaha Trap this past week. Subyearling chinook were captured in large numbers at the Snake River Trap in the past week as supplementation fish continued to pass the site. A few subyearling chinook were also captured at the Grande Ronde Trap this past week. The White Bird Trap is out for the season and this will be the last week of sampling for the Snake Trap and the Grande Ronde Trap.

The numbers of yearling chinook continued to decline at Lower Granite this week with the average daily index at 3,700 compared to 9,100 last week. Steelhead numbers also were declining over the past week with the average daily index down to 23,000 versus 49,000 last week. Sockeye

numbers continued tapering off this week with the average daily index at 450 versus 780 last week. The subyearling chinook are rapidly increasing in numbers this week with an average daily index of 4,100 this week compared to 30 per day last week.

At Little Goose the average daily index for chinook also declined from 20,000 last week to 11,000 this week. The steelhead index decreased from 52,000 daily average last week to 48,000 this week.

At Lower Monumental the project began sampling on 5/1 with samples collected two days and then no sample the third day as fish are sent through primary bypass, so that indices are only available on those days when fish are being collected. Based on this sampling regime the daily average index for yearling chinook decreased, with the index down this week to 19,000 fish per day compared to 34,000, while steelhead indices were up to about 111,000 fish per day compared to 75,000 average index last week.

Rock Island Dam yearling chinook index was down 27% over the past week with the average daily index decreasing from 490 to 360. Steelhead numbers also decreased from an average daily index of last week of 1,000 to 440. The sockeye numbers have increased at Rock Island Dam with 370 average daily index this week versus 230 last week. Coho passage decreased 50% over the past week with an average daily index of 2,400 this week compared to 4,800 last week.

In the lower Columbia, McNary had a large decrease in yearling chinook migrants this past week, with an average index of 19,000 yearling chinook this week down from 86,000 last week. Steelhead numbers also declined this week with an average daily index of 17,600 this week compared to 19,700 last week. Sockeye indices were down again this week, with the average daily index of 5,900 compared to 16,000 per day last week. Subyearling chinook numbers were up substantially with an average index of 20,500 this week compared to 5,500 the previous week. Coho indices increased at McNary, with average daily index of 10,700 this week versus 7,200 last week.

At John Day Dam passage index for yearling chinook averaged 30,000 per day this week compared to 57,000 last. Steehead indices averaged 7,800 compared to 11,700 last week. Coho numbers increased from an average index of 13,800 this week versus about 2,800 per day last week, and sockeye average index dropped from 27,000 to 11,000 over the past week.

At Bonneville Dam yearling chinook numbers decreased dramatically with an average daily index this week of 40,000 versus 104,000 last week. While steelhead numbers rose 20% to 40,000 per day versus 36,000 per day for last week. This week the subyearling chinook index averaged 19,000 compared to 3,300 the previous week. Coho numbers dropped to 7% of last week with an average index of 39,000 versus 41,000 last week. The sockeye index decreased quite rapidly this week with daily average index of 10,000 versus 21,000 last week.

Adult Fish Passage: At Bonneville Dam, chinook counts beginning June 1 are listed as summer chinook. So far, the summer chinook counts at Bonneville Dam are returning at a higher rate than in 2001 and greater than 4 times the 10-year average through June 6. The daily counts averaged 2,435 per day for the week with the cumulative count through June 6 at 14,608. Based on PIT tags passing Bonneville Dam, a good portion of these fish will be destined for the Snake River basin, i.e., S. Fork Salmon River and the Imnaha River. The early returning fish in the summer chinook run are normally Snake River origin fish (early June) with the upper Columbia River fish normally arriving at Bonneville from June 15 through the end of July. There are no hatchery releases of summer chinook below McNary Dam, so fish passing Bonneville Dam should move through the lower river with few turnoffs or delays in their upstream passage.

The 2002 season total of 268,826 adult spring chinook compares to about 390,000 in 2001 and 104,000 for the 10-year average through May 31. Overall, this year's spring chinook run at Bonneville ranked 2nd in the fish count total since 1938. At The Dalles Dam, 181,003 adult spring chinook were counted, about 59.6% and 264.1% of the respective 2001 count and the ten-year average. The percentage of spring chinook adults

tallied at Bonneville and then passing The Dalles Dam is 67.3% through the end of the spring chinook run. At McNary Dam, a total of 125,955 adult spring chinook have been counted with about 80,700 turning off into the Snake River (count at Ice Harbor Dam) and 62,600 counted at Lower Granite Dam. Adult spring chinook at Priest Rapids Dam totaled about 31,500 through June 4. The 2002 counts at Priest Rapids Dam are 64% and 237% of the respective 2001 and 10-year average. The Yakima River count of adult spring chinook at Prosser Dam through June 2 was 12,200. About 124,400 adult spring chinook of the 126,000 counted at McNary have been counted at upstream dams so far (near 99% of the McNary count).

The count of jack spring chinook salmon at Bonneville Dam was 6,477, about 46% of the 2001 count and 114% of the ten-year average through the end of the spring chinook count season. Considering the low number of juvenile salmon that migrated to the ocean in 2001 and the drought conditions, i.e., low river flows that were prevalent in that year, the number of jack spring chinook salmon returning this year exceeds expectations.

New Item - Detections of PIT tagged adult fish at Bonneville and McNary dams in the lower Columbia River and up to Lower Granite Dam on the Snake River and Wells Dam on the upper Columbia River have allowed travel time estimates for fish passing through these mainstem dams. As an example, about 500 PIT tagged adult spring chinook destined for Rapid River H or Dworshak NFH have been detected at 3-dams. The approximate river miles from Bonneville Dam to McNary Dam are 146 and the river miles from McNary Dam to Lower Granite Dam is 139 (about equal distance). The median travel time for these fish to travel from Bonneville to McNary Dam was 7.6 days or 19.4 miles per day with the median travel time from McNary Dam to Lower Granite Dam being 6.3 days or about 22.1 miles per day. These adult returns were through May 29, 2002.

Hatchery Releases: For the past two weeks, approximately 8.5 million juvenile chinook, coho and steelhead were directly or volitionally released from State, Federal or Tribal facilities in the Columbia River basin. For the upcoming two weeks, about 18.6 million chinook are scheduled for release from hatcheries in the Columbia River basins.

Snake River -The initial release of subyearling fall chinook from CPT Johns, Pittsburg Landing and Big Canyon (Clearwater) was completed in late May with the final releases from CPT Johns and Big Canyon scheduled for June 18-20. A direct release of subyearling chinook from Lyons Ferry H is also scheduled for mid-June.

Mid-Columbia [above McNary Dam] - About 10 million subyearling fall chinook are scheduled for release from Priest Rapids and Ringold Springs hatchery beginning June 12 and on going through late June. In addition, subyearling summer chinook will be released from Wells and Turtle Rock hatcheries in late June through mid-July. Our records indicate that about 1.7 million subyearling fall chinook were previously released in the Yakama River basin.

Lower Columbia [Bonneville Dam to McNary Dam]- About four million subyearling fall chinook will be released into the Klickitat River beginning June 3 and lasting through about July 12. Three separate releases will be scheduled with the initial release planted on June 3. Also, a release of subyearling fall chinook from the Umatilla River should be migrating through the lower river. About 2 million subyearling fall chinook from Little White Salmon are scheduled for release on June 20.

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

	Grand Coulee		Chief Joseph		Wells		Rocky Reach		Rock Island		Wanapum		Priest Rapids	
Date	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill
05/24/02	119.7	0.0	124.0	0.0	145.5	9.1	147.5	19.7	155.6	27.6	160.2	34.4	160.8	97.6
05/25/02	103.4	0.0	104.9	0.0	124.4	8.3	124.0	18.2	131.2	24.2	140.3	34.7	147.8	89.9
05/26/02	123.7	0.0	129.6	0.0	144.3	10.3	140.9	16.3	148.8	21.4	146.9	46.2	139.4	85.0
05/27/02	139.2	0.0	135.9	0.0	156.5	14.9	158.6	23.8	169.9	24.7	178.4	72.7	177.6	111.5
05/28/02	131.7	0.0	131.4	0.0	154.6	16.2	155.3	25.2	166.7	33.3	175.9	61.6	184.3	111.9
05/29/02	117.4	0.0	126.4	0.0	159.8	14.9	158.9	25.8	172.3	34.6	176.1	62.6	162.2	99.8
05/30/02	109.2	0.0	113.8	0.0	151.2	10.8	155.9	25.2	174.4	35.7	183.7	64.8	183.9	112.4
05/31/02	125.6	0.0	125.1	0.0	162.0	17.5	161.3	29.8	172.3	31.3	175.0	65.4	170.7	105.2
06/01/02	94.8	0.0	97.8	1.3	132.3	21.4	142.4	29.8	158.4	29.7	181.7	68.2	197.6	125.2
06/02/02	135.1	0.0	137.6	15.6	161.2	16.9	154.2	23.3	164.2	29.9	157.1	56.0	143.3	88.5
06/03/02	170.6	0.0	168.7	14.1	194.0	41.9	191.9	40.7	198.3	34.1	205.8	83.6	202.5	133.2
06/04/02	196.0	0.0	210.7	14.9	237.8	75.6	234.5	74.7	241.6	42.3	257.6	126.1	257.7	191.5
06/05/02	202.6	0.0	199.5	9.5	232.6	75.2	235.9	74.2	242.1	35.5	259.4	120.6	258.6	183.4
06/06/02	188.0	0.0	185.7	19.8	219.5	66.6	218.5	57.8	228.2	36.1	243.3	108.3	245.1	162.8

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

	Dworshak		Brownlee	Hells Canyon	Lower Granite		Little Goose		Lower Monumental		Ice Harbor	
Date	Flow	Spill	Inflow	Outflow	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill
05/24/02	9.9	0.0	15.4	19.7	98.9	24.8	104.3	20.6	109.7	0.0	111.8	70.7
05/25/02	10.0	0.0	14.9	13.1	92.5	22.3	89.6	20.6	92.5	0.0	90.9	62.6
05/26/02	9.9	0.0	14.3	13.5	84.0	23.4	81.8	19.4	84.6	0.0	88.7	67.6
05/27/02	7.5	0.0	15.4	16.6	88.8	23.4	86.1	19.3	91.8	0.0	95.5	67.6
05/28/02	1.7	0.0	16.1	19.5	95.7	23.3	92.4	19.2	94.3	0.0	95.9	61.1
05/29/02	1.7	0.0	16.8	16.9	111.5	37.8	108.5	19.0	112.5	0.0	113.6	69.5
05/30/02	1.7	0.0	16.5	18.3	125.5	51.7	116.7	18.8	119.2	3.2	117.4	71.0
05/31/02	1.7	0.0	17.8	20.8	136.6	60.5	135.7	28.2	139.0	16.3	140.3	74.0
06/01/02	1.7	0.0	17.9	18.0	136.7	61.1	130.9	28.1	135.0	12.6	136.5	72.1
06/02/02	1.7	0.0	18.2	19.2	131.5	57.1	126.3	64.1	129.0	8.8	132.1	102.1
06/03/02	1.7	0.0	18.3	18.5	133.7	61.1	130.6	38.0	135.2	14.5	137.2	89.1
06/04/02	1.7	0.0	17.0	20.3	120.4	60.3	114.3	39.4	116.0	5.5	117.6	85.7
06/05/02	1.7	0.0	16.5	18.2	115.1	68.9	110.2	63.6	115.6	0.0	116.7	89.0
06/06/02	1.6	0.3	---	---	109.6	59.9	103.0	64.1	107.5	0.0	109.5	83.1

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

	McNary		John Day		The Dalles				Bonneville	
Date	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	PH1	PH2
05/24/02	266.0	111.1	275.2	76.1	275.8	109.8	276.3	151.0	16.6	102.0
05/25/02	241.8	103.1	246.3	74.0	243.7	96.0	259.1	136.9	29.1	86.5
05/26/02	230.7	99.3	238.9	89.8	236.1	92.6	245.8	92.7	48.8	97.5
05/27/02	268.4	119.7	246.6	70.5	234.0	85.0	246.8	93.0	48.8	97.5
05/28/02	276.3	114.9	284.8	77.3	274.9	88.0	290.5	102.9	70.0	110.9
05/29/02	295.1	133.3	305.9	80.1	301.6	80.8	313.6	129.1	70.1	107.6
05/30/02	294.8	122.8	303.0	82.6	288.8	75.0	295.4	125.4	59.8	103.5
05/31/02	322.2	149.4	305.2	92.1	299.7	75.0	312.1	120.0	74.0	111.3
06/01/02	345.2	171.0	359.2	116.2	345.2	99.2	349.5	134.7	83.9	124.2
06/02/02	300.4	129.4	308.8	154.7	313.2	165.4	312.8	170.7	50.6	84.8
06/03/02	313.1	139.6	312.6	141.6	305.1	122.5	308.5	144.4	61.2	96.3
06/04/02	358.3	193.2	342.5	152.8	333.7	128.3	332.0	184.1	47.3	94.0
06/05/02	376.9	221.5	377.6	195.9	372.9	198.5	361.9	208.0	51.6	97.3
06/06/02	201.8	211.6	383.8	188.9	374.4	179.2	375.2	207.1	63.0	95.5

Gas Bubble Trauma Monitoring Results from Representative Sites on the Snake River and Columbia River

Site	Date	Species	Number of Fish	Number w GBT signs	Number w Fin Signs	% Fin GBT	% Severe Fin GBT	Number of Fish with Fin GBT Listed by Highest Rank: Rank 1	Rank 2	Rank 3	Rank 4
Lower Granite Dam											
	06/04/02	Steelhead	100	2	2	2.00%	0.00%	2	0	0	0
Little Goose Dam											
	05/29/02	Yearling Chinook	26	0	0	0.00%	0.00%	0	0	0	0
	05/29/02	Steelhead	74	0	0	0.00%	0.00%	0	0	0	0
	06/05/02	Steelhead	100	1	1	1.00%	0.00%	1	0	0	0
Lower Monumental Dam											
	06/03/02	Yearling Chinook	13	0	0	0.00%	0.00%	0	0	0	0
	06/03/02	Steelhead	87	0	0	0.00%	0.00%	0	0	0	0
McNary Dam											
	05/30/02	Subyearling Chinook	18	0	0	0.00%	0.00%	0	0	0	0
	05/30/02	Yearling Chinook	59	0	0	0.00%	0.00%	0	0	0	0
	05/30/02	Steelhead	23	1	1	4.34%	0.00%	1	0	0	0
	06/03/02	Subyearling Chinook	23	0	0	0.00%	0.00%	0	0	0	0
	06/03/02	Yearling Chinook	24	0	0	0.00%	0.00%	0	0	0	0
	06/03/02	Steelhead	53	1	1	1.88%	0.00%	1	0	0	0
Bonneville Dam											
	05/30/02	Yearling Chinook	87	0	0	0.00%	0.00%	0	0	0	0
	05/30/02	Steelhead	13	0	0	0.00%	0.00%	0	0	0	0
	06/03/02	Yearling Chinook	45	0	0	0.00%	0.00%	0	0	0	0
	06/03/02	Steelhead	38	0	0	0.00%	0.00%	0	0	0	0
	06/06/02	Yearling Chinook	46	0	0	0.00%	0.00%	0	0	0	0
	06/06/02	Steelhead	42	0	0	0.00%	0.00%	0	0	0	0
Rock Island Dam											
	05/30/02	Yearling Chinook	50	1	1	2.00%	0.00%	1	0	0	0
	05/30/02	Steelhead	50	0	0	0.00%	0.00%	0	0	0	0
	06/06/02	Yearling Chinook	50	1	1	2.00%	0.00%	1	0	0	0
	06/06/02	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

	Hungry H. Dnst				Boundary				Grand Coulee				Grand C. Tlwr				Chief Joseph			
	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
5/24	97	97	97	24	126	127	128	24	112	112	112	24	109	109	110	24	109	110	110	23
5/25	97	97	98	24	127	127	128	24	112	112	113	24	109	110	110	24	110	110	111	23
5/26	96	97	97	24	127	128	128	24	112	112	112	24	109	110	110	24	110	110	111	23
5/27	97	97	98	24	126	127	127	24	113	114	114	24	109	110	110	24	110	111	111	23
5/28	98	99	99	24	126	126	127	24	113	114	114	24	110	110	111	24	110	110	110	23
5/29	98	98	98	24	127	127	128	24	114	114	115	24	110	111	111	24	109	109	109	23
5/30	99	99	104	16	127	127	127	13	114	114	115	13	109	109	110	12	109	109	110	15
5/31	103	104	105	14	129	129	130	14	119	119	120	16	110	110	111	15	110	110	111	18
6/1	102	103	104	24	129	129	130	24	125	127	128	24	111	111	112	24	110	111	111	23
6/2	98	99	99	24	129	130	130	24	126	127	128	24	110	110	111	24	111	111	112	23
6/3	97	97	98	24	130	131	132	24	121	125	127	21	109	110	110	24	110	111	112	23
6/4	97	97	97	24	130	131	131	24	112	113	114	24	109	109	110	24	110	110	110	23
6/5	97	98	98	24	131	131	132	24	113	114	115	24	109	109	110	24	110	110	110	23
6/6	98	98	101	24	131	131	132	24	114	114	115	24	109	109	110	24	109	109	109	23

Total Dissolved Gas Saturation Data at Mid Columbia River Sites

	Chief J. Dnst				Wells				Wells Dwnstrm				Rocky Reach				Rocky R. Tlwr			
	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
5/24	110	110	111	23	109	109	109	24	110	110	110	24	108	109	109	24	110	110	111	24
5/25	110	111	112	23	109	109	110	24	110	110	111	24	109	109	109	24	110	110	110	24
5/26	110	111	111	23	109	109	110	22	110	111	112	22	109	109	109	24	110	110	110	23
5/27	111	111	112	23	109	110	110	24	112	114	118	24	109	109	109	24	110	110	110	24
5/28	110	111	112	23	109	109	110	22	111	112	115	22	110	111	112	24	112	113	114	22
5/29	110	111	112	23	108	109	109	23	111	112	114	23	109	109	111	24	111	111	112	24
5/30	110	110	112	15	107	107	108	15	109	109	111	15	110	110	113	16	111	112	113	16
5/31	111	111	112	18	109	109	109	13	111	111	112	13	108	108	108	12	109	109	110	12
6/1	112	114	121	23	109	110	110	24	114	117	123	24	110	111	111	24	112	113	114	24
6/2	126	127	128	19	110	111	112	24	112	113	120	24	112	113	115	24	113	114	116	24
6/3	113	115	127	23	111	111	112	23	117	120	124	23	110	110	112	24	112	114	116	24
6/4	112	112	112	23	109	110	110	24	119	121	128	24	115	117	119	24	118	120	121	24
6/5	111	112	116	23	109	109	110	24	118	123	126	24	117	119	120	24	120	121	123	24
6/6	116	119	121	23	108	109	109	23	117	120	123	23	116	118	120	24	118	120	123	24

Total Dissolved Gas Saturation at Mid Columbia River Sites

	Rock Island				Rock I. Tlwr				Wanapum				Wanapum Tlwr				Priest Rapids			
	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
5/24	110	110	111	24	115	115	116	24	111	113	114	24	113	114	115	24	112	113	113	24
5/25	111	111	111	24	115	115	115	24	113	114	116	24	114	115	115	24	113	114	115	24
5/26	111	111	111	23	115	115	115	23	113	113	114	24	115	116	116	24	113	114	115	24
5/27	110	111	111	24	115	115	115	24	113	114	117	24	118	120	127	24	116	118	122	24
5/28	111	112	113	24	116	116	117	24	113	114	114	24	116	116	118	24	114	115	115	24
5/29	111	111	112	24	116	117	117	24	114	114	115	24	116	117	117	24	113	114	115	24
5/30	111	111	113	16	116	116	117	16	114	115	116	24	116	117	119	24	114	115	117	24
5/31	110	110	110	12	115	115	116	12	114	115	118	24	117	118	120	24	114	115	116	24
6/1	112	112	113	24	116	117	117	24	115	116	118	24	119	121	126	24	118	121	123	24
6/2	111	112	114	24	116	117	118	24	113	114	116	24	116	117	117	24	113	114	115	24
6/3	112	112	113	24	116	117	118	24	114	114	115	24	118	120	128	24	114	116	118	24
6/4	116	117	118	24	120	121	122	24	114	115	115	24	124	126	128	24	117	120	123	24
6/5	118	120	121	24	121	123	124	24	116	117	118	24	123	126	129	24	119	122	125	24
6/6	117	119	120	24	120	122	123	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

	Priest R. Dnst				Pasco				Dworshak				Clrwtr-Peck				Anatone			
	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
5/24	118	118	119	24	114	115	115	24	102	103	104	24	103	103	104	24	105	105	106	22
5/25	118	119	119	24	114	114	115	24	103	103	103	24	102	103	103	24	104	105	105	24
5/26	118	119	120	24	114	115	115	24	103	103	103	24	102	103	103	24	104	104	105	24
5/27	120	121	122	24	114	115	116	24	103	103	104	24	103	104	104	24	104	105	105	24
5/28	119	120	121	24	114	115	116	24	107	109	110	24	103	104	104	24	104	104	105	24
5/29	119	119	120	24	114	114	115	23	104	105	106	24	103	104	105	24	104	105	106	24
5/30	119	120	120	24	112	112	113	13	104	104	105	13	103	103	104	13	104	104	104	13
5/31	119	120	120	24	115	115	116	18	104	105	107	18	104	105	106	18	105	106	107	19
6/1	121	121	122	24	115	115	115	24	104	104	104	24	103	103	104	24	105	105	106	24
6/2	118	119	120	24	115	116	117	24	105	106	106	24	104	105	105	24	106	106	107	24
6/3	120	121	122	24	114	115	115	24	104	106	107	24	104	105	105	24	106	107	107	24
6/4	124	125	126	24	115	116	117	24	105	106	107	24	103	104	105	24	106	106	107	24
6/5	124	125	126	24	116	116	117	24	105	106	107	24	103	104	104	24	105	106	106	23
6/6	---	---	---	0	115	116	116	24	107	110	114	24	103	104	104	24	105	105	106	24

Total Dissolved Gas Saturation Data at Snake River Sites

	Clrwtr-Lewiston				Lower Granite				L. Granite Tlwr				Little Goose				L. Goose Tlwr			
	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
5/24	102	103	104	24	104	105	106	24	112	112	113	24	111	112	114	24	114	117	118	24
5/25	102	102	103	24	105	105	107	24	111	115	118	24	114	115	116	24	116	118	119	24
5/26	102	102	103	24	106	106	107	24	113	119	120	24	111	111	112	23	114	116	117	24
5/27	102	103	104	24	106	107	109	24	111	114	120	24	111	112	115	24	114	117	117	24
5/28	101	102	103	24	104	104	105	24	111	111	111	24	111	112	112	24	114	116	117	24
5/29	101	102	102	24	103	104	104	24	117	119	119	24	111	112	113	24	113	115	117	24
5/30	101	101	101	13	103	103	104	13	120	120	123	12	108	108	109	13	112	112	115	13
5/31	102	102	103	18	104	104	106	18	124	124	125	18	112	113	115	18	114	114	116	18
6/1	101	102	103	24	105	105	106	24	123	123	123	24	119	120	120	24	116	117	123	24
6/2	102	103	103	24	105	105	105	24	121	122	123	24	118	119	120	24	122	123	124	24
6/3	102	103	103	24	105	106	106	24	122	123	124	24	117	118	119	23	117	118	123	24
6/4	102	103	103	24	105	106	106	24	120	122	123	24	117	117	118	24	118	121	123	24
6/5	102	102	103	24	105	105	106	24	120	123	124	24	117	117	117	24	121	125	127	24
6/6	101	102	103	24	105	105	105	24	119	123	125	24	114	115	117	24	121	124	124	24

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

	Lower Mon.				L. Mon. Tlwr				Ice Harbor				Ice Harbor Tlwr				McNary-Oregon			
	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
5/24	112	114	116	24	111	114	115	24	111	112	115	24	117	119	120	19	110	111	113	24
5/25	114	115	117	24	113	115	116	24	110	111	112	24	115	116	119	24	114	115	116	24
5/26	115	117	118	24	115	117	118	24	112	112	113	24	116	118	120	24	114	115	118	24
5/27	117	118	119	24	117	118	118	24	114	115	117	24	116	118	120	24	114	115	118	24
5/28	114	115	116	24	114	115	116	24	114	115	115	24	115	117	120	24	113	114	115	24
5/29	113	114	115	24	113	114	115	24	115	115	115	24	117	119	120	24	114	114	115	24
5/30	114	114	115	13	114	114	116	13	113	113	114	13	117	117	120	13	113	113	115	13
5/31	113	114	115	18	114	114	114	17	113	114	117	18	117	118	121	18	114	114	116	18
6/1	115	115	116	24	113	114	115	24	113	114	114	24	118	120	123	24	115	116	117	24
6/2	117	117	118	24	115	116	117	24	113	113	114	24	121	122	124	24	116	117	118	24
6/3	123	124	125	24	116	117	121	24	114	115	117	24	119	121	122	24	115	115	116	24
6/4	119	120	122	24	118	119	121	24	117	118	119	24	119	120	124	24	115	115	116	24
6/5	119	120	122	24	118	120	121	24	117	118	119	24	120	123	124	24	113	113	114	24
6/6	118	119	121	24	117	119	120	24	115	116	116	24	118	119	122	24	113	114	114	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

	McNary-Wash				McNary Tlwr				John Day				John Day Tlwr				The Dalles			
	24 h	12 h		#	24 h	12 h		#	24h	12h		#	24h	12h		#	24h	12h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	AVG	High	hr
5/24	112	114	115	24	117	120	121	24	108	109	110	23	113	119	120	24	111	114	117	23
5/25	113	114	115	24	118	119	121	23	108	108	109	23	113	118	119	24	111	114	116	23
5/26	114	115	116	24	117	118	119	24	110	110	111	23	118	119	120	24	112	116	117	23
5/27	115	115	117	24	117	119	120	23	113	114	114	23	118	119	120	24	111	112	114	23
5/28	114	115	116	23	119	121	123	24	114	115	115	23	120	120	121	24	112	113	114	23
5/29	114	114	115	24	118	120	123	24	115	115	115	23	120	120	121	24	113	113	114	23
5/30	113	113	114	13	117	117	119	13	114	114	115	15	117	118	119	13	112	112	113	15
5/31	114	114	115	18	120	120	121	18	114	114	115	18	116	117	120	18	113	114	117	18
6/1	115	116	116	24	121	122	123	24	114	115	115	23	120	121	121	24	114	115	116	23
6/2	115	115	116	24	118	120	121	24	113	113	113	23	120	120	121	24	112	112	114	19
6/3	115	116	117	24	119	121	121	24	113	114	114	23	120	120	125	24	114	115	116	19
6/4	114	114	115	24	122	124	125	24	113	113	113	23	121	123	125	24	116	119	121	23
6/5	112	113	113	24	124	124	125	24	112	112	113	23	122	124	125	24	115	117	121	23
6/6	112	113	114	24	123	124	124	24	109	110	110	23	122	124	125	24	115	118	119	23

Total Dissolved Gas Saturation Data at Lower Columbia River Sites

	The Dalles Dnst				Bonneville				Warrendale				Camas\Washugal			
	24 h	12 h		#	24 h	12 h		#	24h	12h		#	24h	12h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
5/24	118	120	121	24	114	115	117	23	119	119	120	23	116	118	119	24
5/25	118	119	120	24	116	117	118	23	119	119	120	23	117	118	119	24
5/26	118	120	121	24	116	117	118	23	116	117	118	23	117	118	119	24
5/27	117	118	119	24	116	117	117	23	115	116	118	23	115	116	118	24
5/28	117	118	118	24	115	116	116	23	114	115	116	23	114	115	116	24
5/29	117	118	119	24	115	115	115	23	115	115	115	23	115	115	116	24
5/30	117	117	117	16	115	115	115	15	115	116	116	15	115	116	118	16
5/31	117	118	119	18	113	113	114	18	113	114	114	18	114	115	116	18
6/1	118	119	120	24	114	114	115	23	114	114	115	23	114	115	116	24
6/2	120	121	121	24	112	112	112	19	119	121	123	19	116	119	120	24
6/3	119	120	121	24	114	115	116	23	116	117	125	23	116	118	121	24
6/4	120	122	123	24	116	116	117	23	121	124	126	23	119	122	124	24
6/5	121	122	124	24	116	117	118	23	122	125	129	23	119	122	125	24
6/6	121	122	123	24	116	116	117	23	122	123	124	23	120	121	122	24

HATCHERY RELEASE SUMMARY LAST TWO WEEKS

Hatchery Release Summary
From: 5/24/02 to 6/6/02

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
Nez Perce Tribe	Lyons Ferry	CH0	FA	2002	400,000	05-27-02	05-29-02	Pittsburg Landing	Snake River
Nez Perce Tribe	Lyons Ferry	CH0	FA	2002	500,000	05-24-02	05-28-02	Cpt John Acclim Pd	Snake River
Nez Perce Tribe	Lyons Ferry	CH0	FA	2002	500,000	05-27-02	05-29-02	Big Canyon (Clearwater R)	Clearwater Rvr M F
Nez Perce Tribe Total					**1,400,000**				
Umatilla Tribe	Umatilla	CH0	FA	2002	300,000	05-20-02	05-31-02	Thornhollow Acclim Pd	Umatilla River
Umatilla Tribe	Umatilla	CH0	FA	2002	300,000	05-27-02	05-31-02	Umatilla R	Umatilla River
Umatilla Tribe Total					**600,000**				
WDFW	Klickitat	CH0	FA	2002	4,000,000	06-03-02	07-12-02	Klickitat H	Klickitat River
WDFW Total					**4,000,000**				
Yakima Tribe	Cle Elum	CH1	SP	2002	264,708	03-15-02	06-07-02	Easton Pd	Yakama River
Yakima Tribe	Cle Elum	CH1	SP	2002	286,384	03-15-02	06-07-02	Jack Creek Acclim Pd	Yakama River
Yakima Tribe	Cle Elum	CH1	SP	2002	287,082	03-15-02	06-07-02	Clark Flat Acclim Pd	Yakama River
Yakima Tribe	Prosser	CH0	FA	2002	1,700,000	05-20-02	06-01-02	Prosser Acclim Pd	Yakama River
Yakima Tribe Total					**2,538,174**				
Grand Total					**8,538,174**				

HATCHERY RELEASE SUMMARY NEXT TWO WEEKS

Hatchery Release Summary
From: 6/7/02 to 6/20/02

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
Nez Perce Tribe	**Lyons Ferry**	CH0	FA	2002	500,000	06-18-02	06-20-02	Big Canyon (Clearwater R)	Clearwater Rvr M F
Nez Perce Tribe	Lyons Ferry	CH0	FA	2002	500,000	06-18-02	06-20-02	Cpt John Acclim Pd	Snake River
Nez Perce Tribe Total					**1,000,000**				
USFWS	L White Salmon	CH0	FA	2002	2,000,000	06-20-02	06-20-02	Little White Salmon H	Little White Salmon R
USFWS Total					**2,000,000**				
WDFW	Klickitat	CH0	FA	2002	4,000,000	06-03-02	07-12-02	Klickitat H	Klickitat River
WDFW	Lyons Ferry	CH0	FA	2002	200,000	06-17-02	06-21-02	Lyons Ferry H	Snake River
WDFW	Priest Rapids	CH0	FA	2002	6,700,000	06-12-02	06-22-02	Priest Rapids H	Mid-Columbia River
WDFW	Ringold Springs	CH0	FA	2002	3,500,000	06-17-02	06-25-02	Ringold Springs H	Mid-Columbia River
WDFW	Wells	CH0	SU	2002	372,000	06-20-02	07-19-02	Wells H	Mid-Columbia River
WDFW Total					**14,772,000**				
Yakima Tribe	Cle Elum	CH1	SP	2002	264,708	03-15-02	06-07-02	Easton Pd	Yakama River
Yakima Tribe	Cle Elum	CH1	SP	2002	286,384	03-15-02	06-07-02	Jack Creek Acclim Pd	Yakama River
Yakima Tribe	Cle Elum	CH1	SP	2002	287,082	03-15-02	06-07-02	Clark Flat Acclim Pd	Yakama River
Yakima Tribe Total					**838,174**				
Grand Total					**18,610,174**				

CH = Chinook, ST = Steelhead, CO = Coho, SO = Sockeye, CT = Cutthroat Trout, CM = Chum

Two-Week Summary of Passage Indices

* See sampling comments http://www.fpc.org/currentDaily/smpcomments.htm
this means that one or more of the sites on this date had an incomplete or biased sample.
For clip information see: http://www.fpc.org/CurrentDaily/catch.htm
For sockeye and yearling chinook (Snake only) race information see: http://www.fpc.org/smoltqueries/currentsmpsubmitdata.asp
NOTE for 2002 Lower Monumental Data: Due to the non-standard operation of Lower Monumental this year, the passage index reliability is in question and is being looked into.

				COMBINED YEARLING CHINOOK								
		WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date		(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
05/24/2002	*	---	3	18	234	17,608	51,986	---	329	192,621	96,781	72,012
05/25/2002	*	---	---	---	---	19,209	26,974	40,571	315	98,361	91,726	127,998
05/26/2002	*	---	---	---	---	5,903	14,201	17,000	329	99,735	66,105	91,689
05/27/2002	*	0	---	0	25	4,707	11,957	---	524	84,074	28,118	136,936
05/28/2002	*	---	9	11	33	4,282	11,383	38,048	600	41,822	24,414	175,260
05/29/2002	*	2	2	42	180	3,827	12,623	38,606	706	38,873	52,870	62,039
05/30/2002	*	---	0	59	43	8,183	12,363	---	641	43,137	41,782	61,305
05/31/2002	*	---	---	48	---	7,372	14,414	37,215	297	48,526	58,891	66,424
06/01/2002	*	---	---	32	---	5,331	14,473	19,967	199	26,078	37,746	47,715
06/02/2002	*	---	---	27	---	4,713	13,548	---	307	11,709	43,336	44,737
06/03/2002	*	---	2	---	33	3,460	15,697	7,959	276	15,340	26,317	28,806
06/04/2002		---	0	---	51	2,659	8,890	12,972	355	13,621	15,016	44,113
06/05/2002	*	---	2	---	31	1,288	8,742	---	584	11,453	17,830	27,644
06/06/2002		---	2	---	10	1,278	5,639	---	493	6,704	12,624	18,940
Total:		**2**	**20**	**237**	**640**	**89,820**	**222,890**	**212,338**	**5,955**	**732,054**	**613,556**	**1,005,618**
# Days:		**2**	**8**	**8**	**9**	**14**	**14**	**8**	**14**	**14**	**14**	**14**
Average:		**1**	**3**	**30**	**71**	**6,416**	**15,921**	**26,542**	**425**	**52,290**	**43,825**	**71,830**
YTD		**38,199**	**28,526**	**8,013**	**7,831**	**2,430,680**	**2,817,582**	**2,192,925**	**25,830**	**3,465,608**	**2,033,745**	**3,199,859**

				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)
05/24/2002	*	---	0	2	4	0	0	---	3	3,087	519	4,982
05/25/2002	*	---	---	---	---	0	0	143	1	3,934	909	1,579
05/26/2002	*	---	---	---	---	0	0	200	0	5,970	584	4,005
05/27/2002	*	0	---	0	16	0	0	---	7	6,598	675	2,705
05/28/2002	*	---	0	1	25	63	0	0	9	4,946	751	3,730
05/29/2002	*	0	0	1	1,253	67	0	0	9	5,286	1,105	1,143
05/30/2002	*	---	0	3	1,207	79	0	---	6	8,690	1,569	4,871
05/31/2002	*	---	---	0	---	790	237	9	33	12,001	3,946	11,901
06/01/2002	*	---	---	2	---	2,349	673	172	52	11,853	5,981	15,541
06/02/2002	*	---	---	0	---	6,707	1,573	---	73	17,332	6,014	13,123
06/03/2002	*	---	0	---	139	8,429	617	9	102	26,964	5,893	22,972
06/04/2002		---	0	---	200	5,638	86	313	206	21,700	9,258	25,075
06/05/2002	*	---	0	---	280	2,254	807	---	106	28,336	13,312	19,694
06/06/2002		---	0	---	189	3,219	777	---	180	25,310	18,308	27,499
Total:		**0**	**0**	**9**	**3,313**	**29,595**	**4,770**	**846**	**787**	**182,007**	**68,824**	**158,820**
# Days:		**2**	**8**	**8**	**9**	**14**	**14**	**8**	**14**	**14**	**14**	**14**
Average:		**0**	**0**	**1**	**368**	**2,114**	**341**	**106**	**56**	**13,001**	**4,916**	**11,344**
YTD		**0**	**4**	**26**	**3,389**	**32,107**	**4,770**	**846**	**1,274**	**262,924**	**76,254**	**1,930,912**

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)
05/24/2002	*	---	0	0	4	5,310	8,092	---	4,930	5,085	2,335	57,841
05/25/2002	*	---	---	---	---	2,668	4,677	1,286	3,234	6,500	3,357	41,481
05/26/2002	*	---	---	---	---	2,108	1,535	1,200	3,421	11,413	407	33,633
05/27/2002	*	0	---	0	4	2,740	2,287	---	5,169	2,262	582	36,515
05/28/2002	*	---	0	0	0	3,211	2,096	1,647	5,567	4,487	2,314	55,257
05/29/2002	*	0	0	0	0	3,684	4,164	2,100	5,919	7,245	6,454	35,397
05/30/2002	*	---	0	0	10	4,648	8,853	---	5,507	13,117	3,875	30,043
05/31/2002	*	---	---	0	---	6,582	11,645	9,475	3,501	14,554	6,832	40,961
06/01/2002	*	---	---	0	---	6,686	11,400	14,137	2,351	14,793	6,013	32,173
06/02/2002	*	---	---	0	---	2,991	8,159	---	1,894	9,725	16,519	34,895
06/03/2002	*	---	0	---	2	1,952	4,416	4,912	1,591	15,038	9,985	19,690
06/04/2002		---	0	---	5	1,383	4,484	5,626	2,537	10,478	14,823	52,780
06/05/2002	*	---	0	---	5	1,073	3,465	---	2,549	5,431	28,149	41,557
06/06/2002		---	0	---	4	1,042	1,343	---	2,140	5,509	14,326	48,625
Total:		**0**	**0**	**0**	**34**	**46,078**	**76,616**	**40,383**	**50,310**	**125,637**	**115,971**	**560,848**
# Days:		**2**	**8**	**8**	**9**	**14**	**14**	**8**	**14**	**14**	**14**	**14**
Average:		**0**	**0**	**0**	**4**	**3,291**	**5,473**	**5,048**	**3,594**	**8,974**	**8,284**	**40,061**
YTD		**0**	**0**	**0**	**100**	**110,459**	**91,586**	**45,697**	**72,997**	**164,591**	**245,910**	**2,128,028**

				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)
05/24/2002	*	---	180	75	168	108,444	88,537	---	1,983	34,553	9,192	24,513
05/25/2002	*	---	---	---	---	93,971	90,228	137,999	1,443	20,529	8,431	16,593
05/26/2002	*	---	---	---	---	41,880	27,384	58,800	2,236	31,960	6,577	16,416
05/27/2002	*	0	---	0	52	24,099	55,219	---	879	11,125	6,201	45,646
05/28/2002	*	---	831	12	28	17,945	42,517	39,313	1,056	10,651	11,475	80,002
05/29/2002	*	0	650	73	115	18,209	32,887	65,085	973	10,791	29,006	40,344
05/30/2002	*	---	235	138	237	40,478	25,871	---	922	18,287	11,575	29,233
05/31/2002	*	---	---	58	---	46,423	60,407	196,469	729	21,805	10,869	45,943
06/01/2002	*	---	---	19	---	38,491	103,206	133,853	705	20,856	7,495	25,630
06/02/2002	*	---	---	8	---	26,737	39,553	---	531	10,189	12,558	63,825
06/03/2002	*	---	85	---	87	16,325	60,712	59,696	422	24,375	8,612	42,662
06/04/2002		---	87	---	66	13,669	34,559	54,699	357	21,959	4,503	49,530
06/05/2002	*	---	105	---	47	10,518	23,632	---	186	12,279	5,606	36,136
06/06/2002		---	103	---	19	7,196	13,834	---	154	11,655	5,609	44,982
Total:		**0**	**2,276**	**383**	**819**	**504,385**	**698,546**	**745,914**	**12,576**	**261,014**	**137,709**	**561,455**
# Days:		**2**	**8**	**8**	**9**	**14**	**14**	**8**	**14**	**14**	**14**	**14**
Average:		**0**	**285**	**48**	**91**	**36,028**	**49,896**	**93,239**	**898**	**18,644**	**9,836**	**40,104**
YTD		**2,833**	**31,651**	**3,494**	**11,804**	**2,506,220**	**2,210,722**	**1,599,281**	**26,603**	**750,245**	**490,567**	**1,191,131**

* See sampling comments http://www.fpc.org/currentDaily/smpcomments.htm

These data are preliminary and have been derived from various sources. For verification and/or origin of these data, contact the operators of the Fish Passage Data System at (503) 230-4099.

Smolt indices, clipped & unclipped or combined, are presented in the following order: yearling chinook (chinook 1's,) subyearling chinook (chinook 0's), steelhead, coho, and sockeye. Two classes of fish counts are shown in these tables: collection counts, which account for sample rates but are not adjusted for flow; and passage indices, which are collection counts divided by the proportion of water passing through the sampled powerhouse. Passage indices are not population estimates, but are used to adjust collection counts for daily fluctuations in the site's or project's operations. The classes of counts presented in the report are defined below for each site. Most samples occur over a 24-hr period that spans two calendar days. In this report, the date shown corresponds with the sample end date.

Two-Week Summary of Passage Indices

				COMBINED SOCKEYE								
		WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date		(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
05/24/2002	*	---	0	0	6	2,236	2,943	---	62	25,786	74,311	58,605
05/25/2002	*	---	---	---	---	667	2,492	2,144	71	22,412	41,425	24,493
05/26/2002	*	---	---	---	---	562	1,539	1,600	115	28,798	23,431	17,618
05/27/2002	*	0	---	0	1	422	1,419	---	236	10,179	10,556	14,539
05/28/2002	*	---	0	0	2	567	1,429	549	491	8,153	13,070	12,204
05/29/2002	*	0	0	0	7	536	1,615	1,387	370	9,625	14,073	9,898
05/30/2002	*	---	0	0	20	516	1,621	---	253	10,457	13,671	11,774
05/31/2002	*	---	---	0	---	176	1,013	1,829	195	11,569	19,082	10,794
06/01/2002	*	---	---	0	---	452	447	1,113	164	8,724	16,202	11,997
06/02/2002	*	---	---	0	---	1,088	1,033	---	190	7,276	15,847	11,333
06/03/2002	*	---	0	---	2	532	887	1,208	277	4,969	6,554	6,563
06/04/2002		---	0	---	7	479	1,055	313	593	3,143	8,185	15,942
06/05/2002	*	---	0	---	10	161	168	---	697	3,660	8,870	11,202
06/06/2002		---	0	---	13	284	58	---	523	2,474	3,211	5,463
Total:		**0**	**0**	**0**	**68**	**8,678**	**17,719**	**10,143**	**4,237**	**157,225**	**268,488**	**222,425**
# Days:		**2**	**8**	**8**	**9**	**14**	**14**	**8**	**14**	**14**	**14**	**14**
Average:		**0**	**0**	**0**	**8**	**620**	**1,266**	**1,268**	**303**	**11,230**	**19,178**	**15,888**
YTD		**18**	**0**	**0**	**250**	**72,598**	**60,697**	**33,815**	**17,889**	**1,373,413**	**884,449**	**755,232**

Definitions for Smolt Index Counts

WTB (Collection) = Salmon River Trap at Whitebird : Collection Counts
IMN (Collection) = Imnaha River Trap : Collection Counts
GRN (Collection) = Grande Ronde River Trap : Collection Counts
LEW (Collection) = Snake River Trap at Lewiston : Collection Counts
LGR (Index) = Lower Granite Dam Bypass Collection System : Passage Index Counts
Passage Index = Collection Counts / {Powerhouse Flow / (Powerhouse Flow + Spill)}
LGS (Index) = Little Goose Bypass Collection System : Passage Index Counts
Passage Index = Collection Counts / {Powerhouse Flow / (Powerhouse Flow + Spill)}
LMN (Index) = Lower Monumental Dam Bypass Collection System : Passage Index Counts
Passage Index = Collection Counts / {Powerhouse Flow / (Powerhouse Flow + Spill)}
RIS (Index) = Rock Island Dam Second Powerhouse Bypass Trap : Passage Index Counts
Passage Index = Collection Counts / {Powerhouse 2 Flow / (Powerhouse 1 & 2 Flow + Spill)}
MCN (Index) = McNary Dam Bypass Collection System : Passage Index Counts
Passage Index = Collection Counts / {Powerhouse Flow / (Powerhouse Flow + Spill)}
JDA (Index) = John Day Dam Bypass Collection System : Passage Index Counts
Passage Index = Collection Counts / {Powerhouse Flow / (Powerhouse Flow + Spill)}
BO2 (Index) = Bonneville Dam Second Powerhouse Bypass Collection System : Passage Index Counts
Passage Index = Collection Counts / {Powerhouse 2 Flow / (Powerhouse 1 & 2 Flow + Spill)}
BO1 (Index) = Bonneville Dam First Powerhouse Bypass Collection System : Passage Index Counts
Passage Index = Collection Counts / {Powerhouse 1 Flow / (Powerhouse 1 & 2 Flow + Spill)}

JDA and BO2 data collected for the FPC by Pacific States Marine Fisheries Commission.
RIS data collected for the FPC by Chelan Co. PUD/Washington Dept. of Fish and Wildlife.
LGR, LMN, and MCN data collected for the FPC by Washington Dept. of Fish and Wildlife.
LGS and GRN data collected for the FPC by Oregon Dept. of Fish and Wildlife.
IMN data collected for the FPC by the Nez Perce Tribe.

Cumulative Adult Passage at Mainstem Dams Through: 06/06

	Spring Chinook						Summer Chinook						Fall Chinook				
	2002		2001		10-Yr Avg.		2002		2001		10-Yr Avg.		2002		2001	10-Yr Avg.	
DAM	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Adult	Jack
BON	268,826	6,477	391,367	14,172	104,143	5,654	14,608	583	10,076	361	2,968	361	0	0	0	0	0
TDA	181,003	3,851	303,912	9,953	68,558	3,895	4,839	178	5,236	0	0	0	0	0	0	0	0
JDA	139,858	2,399	264,177	6,208	58,196	3,052	760	31	761	77	304	27	0	0	0	0	0
MCN	125,955	3,648	256,022	6,445	53,743	2,904	0	0	0	0	0	0	0	0	0	0	0
IHR	80,737	1,654	166,493	2,818	31,653	1,683	0	0	0	0	0	0	0	0	0	0	0
LMN	69,076	1,235	173,852	1,562	30,733	1,643	0	0	0	0	0	0	0	0	0	0	0
LGS	66,445	1,237	165,327	2,563	28,958	1,687	0	0	0	0	0	0	0	0	0	0	0
LWG	61,739	1,494	160,603	2,388	27,282	1,536	0	0	0	0	0	0	0	0	0	0	0
PRD	33,422	186	49,011	920	13,498	313	0	0	0	0	0	0	0	0	0	0	0
RIS	22,082	764	37,534	1,497	9,674	387	0	0	0	0	0	0	0	0	0	0	0
RRH	8,799	85	15,317	394	2,990	91	0	0	0	0	0	0	0	0	0	0	0
WEL	5,650	14	9,101	538	1,535	96	0	0	0	0	0	0	0	0	0	0	0

	Coho						Sockeye			Steelhead			
	2002		2001		10-Yr Avg.				10-Yr			10-Yr	Wild
DAM	Adult	Jack	Adult	Jack	Adult	Jack	2002	2001	Avg.	2002	2001	Avg.	2002
BON	0	0	0	0	0	0	16	687	293	7,836	7,915	5,249	2,137
TDA	0	0	0	0	0	0	5	377	0	2,896	1,781	1,536	1,064
JDA	0	0	0	0	0	0	9	273	86	8,424	2,850	3,188	3,107
MCN	0	0	0	0	0	0	1	67	24	4,995	2,051	2,028	1,935
IHR	0	0	0	0	0	0	0	0	0	4,657	1,559	2,061	1,324
LMN	1	0	0	0	0	0	0	0	0	5,074	1,760	2,068	2,109
LGS	0	0	0	0	0	0	0	0	0	6,175	2,035	1,301	2,514
LWG	0	0	0	0	0	0	0	0	0	12,433	5,789	4,766	3,417
PRD	0	0	0	0	0	0	2	66	40	45	28	27	**
RIS	1	0	0	0	0	0	0	8	3	83	63	83	47
RRH	9	0	0	0	0	0	2	0	0	185	98	77	84
WEL	0	0	0	0	0	0	0	0	0	66	30	30	51

RIS and RRH are through 06/03 and are from Chelan CO PUD - except for Wild ST which are from USACE.
PRD is through 06/06 and is from Grant CO PUD - note that the COE's chinook count is 2000 less than Grant's count.
WEL is through 06/06. MCN is missing 05/24; LGR is missing 05/29.
**PRD is not reporting Wild Steelhead numbers.
These numbers were collected from the COE's Running Sums text files.
Wild steelhead numbers are included in the total.
Historic counts (pre-1996) were obtained from CRITFC and compiled by the FPC.
Historic counts 1997 to present were obtained from the Corps of Engineers.

Page last updated on: 6/7

Two Week Transportation Summary

05/25/02 TO 06/07/02

		Species					
Site	Data	**CH0**	**CH1**	**CO**	**SO**	**ST**	**Grand Total**
LGR	Sum of NumberCollected	15,410	60,047	29,265	5,645	334,378	444,745
	Sum of NumberBarged	14,000	49,475	28,762	5,220	310,601	408,058
	Sum of NumberBypassed	0	9,952	0	0	21,216	31,168
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of TotalProjectMortalities	56	298	63	308	214	939
LGS	Sum of NumberCollected	3,097	168,184	58,052	13,583	522,861	765,777
	Sum of NumberBarged	2,756	165,268	57,122	13,326	516,009	754,481
	Sum of NumberBypassed	0	0	0	0	0	0
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of TotalProjectMortalities	8	525	402	232	1,078	2,245
LMN	Sum of NumberCollected	801	205,125	37,278	9,745	705,037	957,986
	Sum of NumberBarged	477	184,155	30,136	9,053	625,763	849,584
	Sum of NumberBypassed	38	8,423	1,993	113	28,454	39,021
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of TotalProjectMortalities	0	741	6	317	935	1,999
MCN	Sum of NumberCollected	92,379	405,048	67,837	86,855	141,159	793,278
	Sum of NumberBarged	0	0	0	0	42	42
	Sum of NumberBypassed	92,368	404,880	67,822	86,801	141,053	792,924
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of TotalProjectMortalities	11	168	15	54	64	312
Total Sum of NumberCollected		111,687	838,404	192,432	115,828	1,703,435	2,961,786
Total Sum of NumberBarged		17,233	398,898	116,020	27,599	1,452,415	2,012,165
Total Sum of NumberBypassed		92,406	423,255	69,815	86,914	190,723	863,113
Total Sum of Numbertrucked		0	0	0	0	0	0
Total Sum of TotalProjectMortalities		75	1,732	486	911	2,291	5,495

YTD Transportation Summary

TO: 06/07/02

		Species					
Site	Data	**CH0**	**CH1**	**CO**	**SO**	**ST**	**Grand Total**
LGR	Sum of NumberCollected	17,043	1,516,724	72,086	48,104	1,632,789	3,286,746
	Sum of NumberBarged	15,576	1,465,928	71,530	46,263	1,561,450	3,160,747
	Sum of NumberBypassed	1	36,829	5	7	64,494	101,336
	Sum of NumberTrucked	29	9,847	20	343	3,383	13,622
	Sum of TotalProjectMortalities	83	3,798	91	1,374	1,115	6,461
LGS	Sum of NumberCollected	3,097	1,887,835	69,952	43,381	1,515,828	3,520,093
	Sum of NumberBarged	2,756	1,882,861	69,008	42,883	1,507,111	3,504,619
	Sum of NumberBypassed	0	0	0	0	0	0
	Sum of NumberTrucked	0	1,034	4	74	1,024	2,136
	Sum of TotalProjectMortalities	8	1,549	412	399	1,919	4,287
LMN	Sum of NumberCollected	801	2,185,712	42,592	33,417	1,558,404	3,820,926
	Sum of NumberBarged	477	2,081,616	35,448	32,140	1,473,048	3,622,729
	Sum of NumberBypassed	38	68,125	1,994	213	31,660	102,030
	Sum of NumberTrucked	0	20,104	0	13	356	20,473
	Sum of TotalProjectMortalities	0	4,061	7	794	3,450	8,312
MCN	Sum of NumberCollected	137,724	2,177,099	92,499	888,856	442,597	3,738,775
	Sum of NumberBarged	0	0	0	0	109	109
	Sum of NumberBypassed	137,682	2,176,153	92,479	888,033	442,244	3,736,591
	Sum of NumberTrucked	0	0	0	0	0	0
	Sum of TotalProjectMortalities	42	946	20	823	244	2,075
Total Sum of NumberCollected		158,665	7,767,370	277,129	1,013,758	5,149,618	14,366,540
Total Sum of NumberBarged		18,809	5,430,405	175,986	121,286	4,541,718	10,288,204
Total Sum of NumberBypassed		137,721	2,281,107	94,478	888,253	538,398	3,939,957
Total Sum of NumberTrucked		29	30,985	24	430	4,763	36,231
Total Sum of TotalProjectMortalities		133	10,354	530	3,390	6,728	21,135