Fish Passage Center

Weekly Report #02 - 14

June 14, 2002

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SUMMARY OF EVENTS:

- **Storage reservoirs are currently operating to both meet the BiOp flow objectives and refill, without filling too soon and causing an uncontrolled spill.**
- **As of June 13th, 2002: Grand Coulee is 12.5 feet from full, Libby is 25.8 feet from full, Dworshak is 10.4 feet from full, Brownlee is 0.7 feet from full, and Hungry Horse is 18.4 feet from full.**
- **Flows at Lower Granite have averaged 83 Kcfs between April 3rd and June 13th and 87.7 Kcfs over the week from June 7th and June 13th. (BiOp target = 97 Kcfs).**
- **Flows at McNary have averaged 257 Kcfs between April 10th and June 13th and 326.8 Kcfs over the week from June 7th and June 13th (BiOp target = 246 Kcfs).**
- **Flows at Priest Rapids have averaged 168.3 Kcfs between April 10th and June 6th and 234.4 Kcfs over the week from June 7th and June 13th (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 last week, precipitation has ranged from 26% to 196% of average. WY 2002 is appears to be approximately average in terms of cumulative precipitation.

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

Location	June 2002		Cumulative 10/1/01 – 6/11/02	
	Observed (inches)	% Avg	Observed (inches)	% Avg
Columbia Above Coulee	1.11	127	19.67	104
Snake R. Above Ice Harbor	0.58	109	12.80	90
Columbia Above The Dalles	0.76	115	18.39	99
Kootenai	0.90	100	18.44	95
Clark Fork	1.39	196	14.00	108
Flathead	1.89	195	18.92	110
Pend Oreille/Spokane	0.75	93	30.00	116
Central Washington	0.32	136	6.92	92
Snake R. Plain	0.22	62	6.63	74
Clearwater	1.23	135	27.06	107
SW Washington Cascades/Cowlitz	0.42	39	68.60	108
Willamette Valley	0.21	26	54.54	100

The NWRFC released the June Final water supply forecast on June 10, 2002. Table 2 displays the 2002 June Final runoff volume forecast along with the May Final forecast for multiple reservoirs.

Table 2. May Final and June Final Runoff Volume Forecasts for various reservoirs within the Columbia and Snake River Basins during WY 2002.
(next page)

Site	May Final		June Final	
	Runoff Volume (Kaf)	% of Avg	Runoff Volume (Kaf)	% of Avg
Mica (April-Sept)	11700	94	12100	97
Hungry Horse (April-Sept)	2180	103	2280	107
Libby (April-Sept)	6750	102	7710	116
Grand Coulee (Jan-July)	62300	99	65300	104
The Dalles (Jan-July)	98200	92	100000	93
Brownlee (April-July)	3580	57	3320	53
Dworshak (April-July)	3050	115	3050	115
Lower Granite (Jan-July)	24200	81	23100	77
Heise (ID) (April-July)	2870	81	2810	78
Weiser (ID) (April-July)	3130	54	2970	52

Of the ten locations listed in Table 2, five sites reported increasing forecasts between the June Final and May Final water supply forecasts, four sites reported decreasing forecasts and one did not change.

Over the past week, flows in the Columbia Basin have continued to be high as a result of precipitation and snowmelt. Storage reservoirs along the Columbia and Snake Rivers are being operated to meet BiOp flow requirements and to refill. The refill is occurring rapidly enough that reservoir outflows have been increased. The increases have been initiated to prevent filling reservoirs too soon, which could result in the need to pass inflow and the potential for uncontrolled spill.

The Grand Coulee Reservoir has been refilling; beginning the week at 1271.7 feet (6-07-02) and ending the week at 1277.5 feet AMSL (6-13-02). Presently, Grand Coulee is 12.5 feet from its full pool elevation of 1290.0 feet AMSL.

Libby has been refilling over the past week. The Libby Reservoir has gained 4.97 feet over the last week; with outflows increasing from 18 to 26 Kcfs. Libby is currently (midnight, 6-13-02) at an elevation of 2433.15 feet AMSL, 25.85 feet from the full pool elevation of 2459.0 feet AMSL.

From 6-07-02 to 6-13-02, the Dworshak Reservoir refilled 10.28 feet. Outflows at Dworshak were increased on June 12, 2002 to slow the refill of the project and decrease the potential of having to pass inflow and cause an uncontrolled spill situation. Currently (midnight, 6-13-02) Dworshak is at an elevation of 1589.59 feet AMSL; just about 10 feet below the full pool elevation of 1600 feet AMSL.

Over the past week, the Brownlee reservoir has continued to pass inflow. Currently (midnight, 6-13-02), Brownlee was at an elevation of 2076.27 feet AMSL; operating within the top foot of its full pool elevation of 2077.0 feet AMSL.

From 6-7-02 to 6-13-02, the Hungry Horse Reservoir refilled 1.32 feet. Over the last week, outflows have ranged between 8 and 10 Kcfs. Currently (midnight, 6-13-02), Hungry Horse is at an elevation of 3541.65 feet AMSL; 18.35 feet below its full pool elevation of 3560.0 feet AMSL.

Flows along the Columbia River have continued to be high over the past week.

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 13th, 2002, outflows at Lower Granite have averaged 83 Kcfs; from April 10th to June 13th , 2002, outflows at McNary have averaged 257 Kcfs; from April 10th to June 13th, 2002, outflows at Priest Rapids have averaged 168.3 Kcfs. Therefore, to-date, flow objectives are only being met at Priest Rapids and McNary Dams. Over the week from June 7th through June 13th, 2002 flows have averaged 87.7 Kcfs at Lower Granite, 326.8 Kcfs at McNary, and 234.4 Kcfs at Priest Rapids. On a weekly basis, BiOp flow objectives are being met at both Priest Rapids and McNary. Lower Granite has been below the BiOp flow objectives.

Over the last week (6-07-02 to 6-13-02), operations have varied along the reservoirs on the

Upper Snake River. Currently, as of June 13th , 2002, the entire Upper Snake River System is at 64% of capacity (64% last week). Individually, American Falls is at 61% of capacity (66% last week), Palisades is at 56% of capacity (54% last week), Jackson Lake is at 72% of capacity (65% last week), Island Park is at 92% of capacity (95% last week), Lake Walcott is at 99% of capacity (101% last week), Milner is at 96% of capacity (96% last week), and Grassy Lake is at 87% of capacity (87% last week).

Spill: No spill occurred at Dworshak Dam this past week. In general, the decrease in Snake River flows resulted in lower spill levels at the Lower Snake Projects. Spill at Lower Granite Dam averaged 41% of daily flows this past week. At Little Goose Dam spill levels averaged 28% of average daily flow. At Lower Monumental Dam flows were less than hydraulic capacity and no spill occurred. At Ice Harbor Dam spill averaged 72% of daily flows over the past week.

Lower River flows also decreased over the past week. Spill averaged 50% of average daily flow at McNary Dam, 35% of average daily flow at John Day Dam, 37% of average daily flow at The Dalles Dam and 44% of average daily flow at Bonneville Dam. Over last weekend, some spill occurred at Grand Coulee Dam.

The total dissolved gas levels at the federal and Mid Columbia hydroprojects remain high, with some 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: Numbers of spring migrants continued decreasing systemwide this week while subyearling chinook numbers increased, especially in the Lower Columbia. Releases from acclimation ponds in the Snake and Clearwater rivers and Hells Canyon, of hatchery subyearling chinook, predominate the run in the lower Snake River. The subyearling chinook are passing Lower Granite Dam in low numbers, but holding steady compared to last week with an average daily index of 4,200 this week compared to 4,200 per day last week. There was a small peak on 6/11 when the index reached 9,300. The numbers of yearling chinook continued to decline at Lower Granite this week with the average daily index at 1,200 compared to 3,700 last week. Steelhead numbers also were declining over the past week with the average daily index down to 4,300 versus 23,000 last week. Sockeye numbers continued tapering off as well this week with the average daily index at 280 versus 450 last week.

At Little Goose the average daily index for yearling chinook declined from 11,000 last week to 2,100 this week. The steelhead index decreased from 48,000 daily average last week to 5,000 this week. At the same time subyearling chinook numbers increased from 680 average index last week to 3,500 this week.

On June 11 Lower Monumental changed from every other day sampling to a daily sample. Based on this sampling regime the daily average index for yearling chinook decreased, with the index down this week to 3,700 fish per day compared to 19,500, while steelhead indices were down to about 19,000 fish per day compared to 111,000 average index last week. Subyearling chinook numbers increased from an average index of 126 last week to 2,400 this week.

Rock Island Dam yearling chinook index was down over the past week with the average daily index decreasing from 360 to 340. Steelhead numbers also decreased from an average last week of 440 to 140. The sockeye numbers have decreased at Rock Island Dam with 230 average daily index this week versus 370 last week. Coho passage decreased 55% over the past week with an average daily index of 1,060 this week compared to 2,400 last week.

In the lower Columbia, McNary had a large decrease in yearling chinook migrants this past week, with an average index of 4,600 yearling chinook this week down from 19,000 last week. Steelhead numbers also declined this week with an average daily index of 6,100 this week compared to 17,600 last week. Sockeye indices were down again this week, with the average daily index of 3,800 compared to 5,900 per day last week. Coho

indices decreased at McNary nearly 60%, with average daily index of 4,600 this week versus 10,700 last week. Subyearling chinook numbers nearly doubled with an average index of 38,000 this week compared to 20,500 the previous week. At John Day Dam passage index for yearling chinook averaged 5,600 per day this week compared to 30,000 last. Steehead indices averaged 5,300 compared to 7,800 last week. Coho numbers decreased from an average index of 7,000 this week versus about 13,800 per day last week, and sockeye average index dropped from 11,000 to 4,300 over the past week. Subyearling chinook were up to 19,000 this week versus 9,000 last week.

At Bonneville Dam yearling chinook numbers continued to decrease dramatically with an average daily index this week of 9,900 versus 40,000 last week. Steelhead numbers declined to 25,000 per day versus 40,000 per day for last week. This week the subyearling chinook index averaged 33,000 compared to 19,000 the previous week. Coho numbers dropped this week with an average index of 19,000 versus 39,000 last week. The sockeye index decreased quite rapidly this week with daily average index of 6,100 versus 10,400 last week.

Adult Fish Passage: This year's summer chinook count at Bonneville Dam is about 1.65 and 5.1 times greater than the respective year 2001 and 10-year average through June 13. At Bonneville Dam, the daily counts averaged 2,592 per day for the week with the cumulative count through June 13 at 32,757. Based on PIT tags passing Bonneville Dam, many of these fish are destined for the Snake River basin, i.e., S. Fork Salmon River and the Imnaha River. PIT tag returns from fish tagged at Rock Island Dam and other areas in the Mid to Upper Columbia River are starting to arrive at Bonneville Dam. The early portion of the summer chinook run is normally comprised of 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. All lower Columbia River projects are counting salmon as summer run fish with Ice Harbor Dam switching to summer run chinook on June 12. The initial count for the Snake River was 1,986 with an additional 111 jack chinook counted as well.

Sockeye salmon are starting to increase at Bonneville Dam with 12 counted at the beginning of the report week and ending on June 13 with 326 counted. The cumulative total through June 13 is 806. Sockeye passage appears to be off to a slow start this year.

Steelhead passage at Bonneville Dam is also increasing with daily counts averaging 275 per day through the past week. The total counted through June 13 was 9,762. A small portion of these steelhead are beginning to pass The Dalles Dam, but most are still destined for Bonneville pool tributaries.

Hatchery Releases: For the past two weeks, approximately 13.3 million juvenile chinook were directly or volitionally released from State, Federal or Tribal facilities in the Columbia River basin. For the upcoming two weeks, about 17.3 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 next week, June 18-20. A direct release of subyearling chinook from Lyons Ferry H is also scheduled for mid- to late June, probably June 24, depending on the water flows and temperatures in the Snake River next week.

Mid-Columbia [above McNary Dam] - About 10 million subyearling fall chinook are scheduled for release from Priest Rapids and Ringold Springs hatchery, beginning June 11 at Priest Rapids H and June 17 at Ringold Springs H. In addition, subyearling summer chinook will be released from Wells and Turtle Rock hatcheries in

late June through mid-July. Approximately 1.7 million subyearling fall chinook have been 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 are 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 will be released 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
05/31/02	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
06/07/02	205.3	6.7	209.3	27.8	235.1	76.5	237.6	75.5	241.5	47.7	256.0	118.0	255.7	169.3
06/08/02	193.0	18.4	197.9	12.1	221.4	73.6	229.2	68.3	238.0	37.6	258.3	116.1	261.5	177.1
06/09/02	190.0	13.7	192.9	17.9	207.7	33.1	202.4	43.1	206.6	29.9	213.0	75.1	214.9	133.1
06/10/02	204.8	0.1	203.1	18.9	230.4	65.5	226.7	64.1	228.9	36.3	241.7	99.7	239.8	154.7
06/11/02	179.4	0.1	182.1	14.3	203.5	30.6	202.8	43.2	209.1	27.3	223.6	84.3	227.9	144.4
06/12/02	178.1	0.1	181.2	0.0	208.6	61.6	209.4	57.9	217.1	14.9	232.0	94.4	238.2	149.7
06/13/02	157.1	0.1	159.3	0.0	189.2	53.9	185.9	34.0	198.2	13.5	208.4	72.8	203.0	123.6

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
05/31/02	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	16.8	18.6	115.1	68.9	110.2	63.6	115.6	0.0	116.7	89.0
06/06/02	1.6	0.3	15.7	16.6	109.6	59.9	103.0	64.1	107.5	0.0	109.5	83.1
06/07/02	1.5	0.0	15.8	16.2	107.8	53.1	102.5	40.9	106.1	0.0	108.2	74.4
06/08/02	1.6	0.0	14.6	16.1	104.9	40.6	98.3	28.5	102.3	0.0	100.8	67.6
06/09/02	1.6	0.0	14.4	14.2	89.6	29.2	86.8	24.3	89.2	0.0	93.1	71.3
06/10/02	1.6	0.0	14.1	17.0	79.0	55.7	72.4	19.4	74.5	0.0	75.8	58.5
06/11/02	1.7	0.0	14.1	14.5	82.1	28.0	76.0	19.0	80.6	0.0	84.9	63.3
06/12/02	4.0	0.0	13.0	14.0	75.0	23.1	71.3	17.5	72.4	0.0	75.1	50.8
06/13/02	7.4	0.0	---	---	75.7	22.6	72.9	15.8	76.0	0.0	79.9	57.3

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
05/31/02	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	374.0	211.6	383.8	188.9	374.4	179.2	375.2	207.1	63.0	95.5
06/07/02	344.8	184.1	348.0	146.3	337.4	142.3	348.4	166.2	71.2	104.3
06/08/02	370.8	212.8	376.3	165.2	364.9	145.0	353.2	182.6	68.4	95.3
06/09/02	332.6	163.5	341.3	132.6	329.8	139.2	321.5	150.9	62.9	100.8
06/10/02	294.7	128.4	295.2	72.5	288.6	108.8	305.4	118.4	74.1	106.1
06/11/02	338.7	168.7	349.8	124.3	340.8	110.0	337.1	153.7	72.7	104.0
06/12/02	297.8	145.2	298.8	89.4	289.5	99.8	298.1	115.3	71.6	106.1
06/13/02	201.8	143.8	314.8	86.8	303.2	96.7	308.4	118.5	74.2	109.0

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
	06/11/02	Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
Little Goose Dam											
	06/05/02	Steelhead	100	1	1	1.00%	0.00%	1	0	0	0
	06/12/02	Steelhead	39	0	0	0.00%	0.00%	0	0	0	0
Lower Monumental Dam											
	06/11/02	Steelhead	100	8	8	8.00%	0.00%	6	2	0	0
McNary Dam											
	06/06/02	Subyearling Chinook	38	0	0	0.00%	0.00%	0	0	0	0
	06/06/02	Yearling Chinook	21	0	0	0.00%	0.00%	0	0	0	0
	06/06/02	Steelhead	41	2	2	4.87%	0.00%	2	0	0	0
Bonneville Dam											
	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
	06/10/02	Subyearling Chinook	100	1	0	0.00%	0.00%	0	0	0	0
	06/13/02	Subyearling Chinook	100	0	0	0.00%	0.00%	0	0	0	0
Rock Island Dam											
	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
	06/10/02	Yearling Chinook	50	3	3	6.00%	0.00%	3	0	0	0
	06/10/02	Steelhead	50	1	1	2.00%	0.00%	1	0	0	0
	06/13/02	Yearling Chinook	50	2	2	4.00%	0.00%	2	0	0	0
	06/13/02	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
5/31	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
6/7	97	98	99	24	131	132	133	24	114	115	116	21	110	110	111	24	109	109	109	23
6/8	96	96	97	24	131	131	132	24	116	117	118	24	112	113	113	24	109	109	109	23
6/9	96	96	96	8	131	131	131	5	114	115	115	24	116	116	117	4	111	112	112	23
6/10	96	96	96	24	131	131	132	24	114	115	115	24	112	112	113	24	113	114	115	23
6/11	96	96	96	23	132	132	133	24	115	115	116	24	112	113	113	24	112	113	113	23
6/12	100	103	106	19	131	132	132	17	115	116	116	24	113	113	114	16	113	113	114	23
6/13	107	107	107	24	131	131	132	24	116	116	116	24	114	115	115	24	113	114	114	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
5/31	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
6/7	119	120	123	23	109	109	110	24	119	121	125	24	115	117	118	23	118	120	122	23
6/8	114	118	122	23	109	109	109	24	120	123	128	24	117	119	121	24	119	120	122	24
6/9	117	121	122	23	109	110	110	24	113	115	126	24	118	121	122	24	120	122	122	24
6/10	117	120	122	23	111	112	112	24	120	124	129	24	113	115	121	24	116	119	123	24
6/11	117	121	123	23	113	114	114	23	117	119	126	23	117	120	122	24	119	121	124	24
6/12	112	112	113	23	112	112	112	24	121	124	128	24	116	117	120	24	118	120	123	24
6/13	113	113	114	19	112	112	113	24	119	121	124	24	115	116	117	24	117	117	118	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
5/31	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	116	117	117	24	122	124	128	24	118	120	123	24
6/7	117	118	119	23	121	122	123	23	116	117	118	24	123	125	127	24	119	120	123	24
6/8	118	119	120	24	121	121	122	24	117	118	120	24	123	126	128	24	119	121	124	24
6/9	119	120	120	24	121	122	122	24	118	119	122	24	118	118	119	24	118	119	121	24
6/10	116	117	119	24	119	121	122	24	119	120	121	24	121	123	125	24	120	122	123	24
6/11	118	120	122	24	120	123	124	24	121	122	124	24	120	121	126	24	121	123	125	24
6/12	119	120	121	24	120	121	122	24	120	122	125	24	121	123	128	24	121	123	124	24
6/13	119	120	120	24	120	121	121	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
5/31	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	123	123	124	24	115	116	116	24	107	110	114	24	103	104	104	24	105	105	106	24
6/7	123	123	124	24	114	115	116	21	107	108	113	21	103	104	104	21	105	105	106	21
6/8	124	124	125	24	114	115	116	24	105	106	106	24	102	102	103	24	104	104	104	23
6/9	122	122	123	24	115	116	116	24	106	107	108	24	102	102	103	24	104	104	105	24
6/10	123	123	124	24	115	116	117	24	107	107	108	24	102	102	103	24	104	105	105	24
6/11	123	124	124	24	117	118	119	24	107	109	111	24	102	104	105	24	104	105	106	24
6/12	123	124	125	24	117	118	118	24	104	105	109	24	102	103	105	24	104	105	106	24
6/13	---	---	---	0	118	119	119	24	103	103	104	24	102	103	104	24	104	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
5/31	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
6/7	101	102	102	21	104	104	104	21	120	122	125	21	114	115	116	21	116	120	124	21
6/8	100	101	101	24	103	104	104	24	116	121	125	24	115	116	118	24	116	119	124	24
6/9	100	101	101	24	103	103	103	24	113	116	117	24	115	116	117	24	116	117	117	24
6/10	101	101	102	24	102	103	103	24	119	120	124	24	113	114	114	24	115	117	117	24
6/11	102	103	104	24	103	104	106	24	113	118	119	24	112	113	116	24	114	116	117	24
6/12	102	103	104	24	105	105	107	24	113	120	120	23	113	115	117	24	113	116	117	24
6/13	102	103	104	24	106	108	109	24	113	120	121	24	116	117	118	24	116	117	117	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
5/31	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
6/7	120	122	123	21	119	121	122	21	115	115	116	21	117	119	122	21	114	115	115	21
6/8	120	122	123	24	119	121	122	24	115	116	116	24	116	117	118	24	113	114	114	24
6/9	116	117	118	24	115	116	118	24	117	117	118	24	116	118	119	24	113	113	114	24
6/10	115	116	116	24	114	115	116	24	117	117	118	24	114	115	117	24	115	116	118	24
6/11	116	117	118	24	115	116	117	24	115	116	117	24	115	116	118	24	115	116	118	24
6/12	117	118	119	24	116	116	117	24	115	116	117	24	114	115	116	24	117	118	120	24
6/13	117	117	119	24	116	116	117	24	116	117	119	24	114	115	117	24	117	118	120	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
5/31	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
6/7	114	115	115	21	122	123	124	21	110	110	110	23	121	122	124	21	114	117	119	23
6/8	113	113	114	24	123	124	124	24	109	110	110	23	121	122	125	24	112	115	120	23
6/9	113	113	113	24	120	121	122	24	112	112	112	23	119	121	125	24	114	116	120	23
6/10	114	115	116	24	118	119	119	24	112	112	112	23	115	119	119	24	112	112	115	14
6/11	115	115	116	24	119	121	122	24	114	115	117	23	119	119	121	24	113	115	116	22
6/12	116	118	120	24	107	109	112	16	116	116	117	23	119	120	120	24	115	115	116	23
6/13	117	118	119	24	120	120	120	11	116	117	118	23	119	120	120	24	115	115	116	18

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
5/31	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
6/7	119	120	121	24	116	117	117	23	120	122	124	23	119	120	121	24
6/8	118	119	121	24	114	115	115	23	120	122	125	23	118	120	122	24
6/9	119	120	122	24	113	114	114	23	121	124	129	23	118	120	122	24
6/10	118	119	120	24	114	115	116	23	119	120	120	23	115	115	116	24
6/11	118	119	120	24	116	117	118	23	122	124	125	23	116	117	119	24
6/12	119	119	120	24	117	118	119	23	119	121	125	23	118	119	120	24
6/13	119	119	120	24	118	118	118	19	118	119	120	19	117	117	118	20

HATCHERY RELEASE SUMMARY LAST TWO WEEKS

Hatchery Release Summary
From: 5/31/02 to 6/13/02

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
WDFW	Klickitat	CH0	FA	2002	4,000,000	06-03-02	07-12-02	Klickitat H	Klickitat River
WDFW	Priest Rapids	CH0	FA	2002	6,782,000	06-11-02	06-21-02	Priest Rapids H	Mid-Columbia River
WDFW Total					10,782,000				
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					13,320,174				

HATCHERY RELEASE SUMMARY NEXT TWO WEEKS

Hatchery Release Summary
From: 6/14/02 to 6/27/02

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 River
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	06-24-02	06-26-02	Lyons Ferry H	Snake River
WDFW	Priest Rapids	CH0	FA	2002	6,782,000	06-11-02	06-21-02	Priest Rapids H	Mid-Columbia River
WDFW	Ringold Springs	CH0	FA	2002	3,000,000	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					14,354,000				
Grand Total					17,354,000				

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)
05/31/2002	*	---	---	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
06/07/2002	*	---	3	---	16	1,273	3,185	6,790	587	6,104	7,027	15,569
06/08/2002	*	---	3	---	---	1,062	3,466	---	361	6,571	5,713	7,638
06/09/2002	*	---	7	---	---	1,446	2,402	3,135	294	5,867	5,447	8,060
06/10/2002	*	---	1	---	---	1,284	1,913	---	179	0	5,448	9,170
06/11/2002	*	---	1	---	---	2,090	1,402	2,200	433	---	6,062	5,578
06/12/2002	*	---	1	---	---	729	1,561	1,600	195	---	4,529	7,226
06/13/2002	*	---	---	---	---	305	484	4,600	322	---	4,820	16,315
Total:		**0**	**22**	**107**	**141**	**34,290**	**95,816**	**96,438**	**4,882**	**151,973**	**250,806**	**347,935**
# Days:		**0**	**10**	**3**	**5**	**14**	**14**	**9**	**14**	**11**	**14**	**14**
Average:		**0**	**2**	**36**	**28**	**2,449**	**6,844**	**10,715**	**349**	**13,816**	**17,915**	**24,853**
YTD		**38,199**	**28,542**	**8,013**	**7,847**	**2,438,869**	**2,831,995**	**2,211,250**	**28,201**	**3,484,150**	**2,072,791**	**3,269,415**

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)
05/31/2002	*	---	---	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
06/07/2002	*	---	0	---	99	1,630	1,224	872	86	44,882	26,514	30,637
06/08/2002	*	---	0	---	---	2,231	1,061	---	42	49,106	26,228	25,038
06/09/2002	*	---	0	---	---	3,646	4,842	4,627	48	53,822	17,466	37,613
06/10/2002	*	---	0	---	---	5,520	7,288	---	35	3,424	14,908	39,592
06/11/2002	*	---	0	---	---	9,346	5,231	1,800	75	---	13,989	31,931
06/12/2002	*	---	0	---	---	3,389	4,124	1,400	82	---	15,995	37,935
06/13/2002	*	---	---	---	---	3,321	857	3,200	76	---	16,699	27,138
Total:		**0**	**0**	**2**	**907**	**58,469**	**29,397**	**12,402**	**1,196**	**294,730**	**194,511**	**365,689**
# Days:		**0**	**10**	**3**	**5**	**14**	**14**	**9**	**14**	**11**	**14**	**14**
Average:		**0**	**0**	**1**	**181**	**4,176**	**2,100**	**1,378**	**85**	**26,794**	**13,894**	**26,121**
YTD		**0**	**4**	**26**	**3,488**	**61,190**	**29,397**	**12,745**	**1,718**	**414,158**	**208,053**	**2,160,796**

Two-Week Summary of Passage Indices

6/14/02

COMBINED COHO

Date		WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (INDEX)	LGS (INDEX)	LMN (INDEX)	RIS (INDEX)	MCN (INDEX)	JDA (INDEX)	BO2 (INDEX)
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
06/07/2002	*	---	0	---	1	916	771	4,052	1,749	8,927	5,303	30,453
06/08/2002	*	---	0	---	---	1,224	1,027	---	1,464	5,242	11,167	22,247
06/09/2002	*	---	0	---	---	1,145	1,670	4,012	1,061	3,812	10,462	17,374
06/10/2002	*	---	0	---	---	899	1,434	---	687	489	5,524	16,885
06/11/2002	*	---	0	---	---	1,683	1,178	3,300	938	---	6,262	15,059
06/12/2002	*	---	0	---	---	317	822	700	690	---	5,292	9,525
06/13/2002	*	---	---	---	---	363	458	1,300	837	---	5,153	18,253
Total:		**0**	**0**	**0**	**17**	**28,256**	**52,272**	**47,514**	**23,989**	**93,998**	**145,810**	**400,477**
# Days:		**0**	**10**	**3**	**5**	**14**	**14**	**9**	**14**	**11**	**14**	**14**
Average:		**0**	**0**	**0**	**3**	**2,018**	**3,734**	**5,279**	**1,714**	**8,545**	**10,415**	**28,606**
YTD		**0**	**0**	**0**	**101**	**117,006**	**98,946**	**59,061**	**80,423**	**183,061**	**295,073**	**2,257,824**

COMBINED STEELHEAD

Date		WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (INDEX)	LGS (INDEX)	LMN (INDEX)	RIS (INDEX)	MCN (INDEX)	JDA (INDEX)	BO2 (INDEX)
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
06/07/2002	*	---	114	---	6	5,695	8,308	20,959	225	15,079	4,110	41,550
06/08/2002	*	---	66	---	---	5,057	5,666	---	209	6,201	5,021	27,376
06/09/2002	*	---	115	---	---	4,926	4,940	28,953	136	2,934	11,327	20,598
06/10/2002	*	---	45	---	---	4,044	5,867	---	95	293	4,994	27,947
06/11/2002	*	---	27	---	---	3,831	5,256	29,000	109	---	2,665	37,230
06/12/2002	*	---	22	---	---	2,407	3,244	3,400	68	---	4,503	11,988
06/13/2002	*	---	---	---	---	3,861	1,437	13,100	116	---	4,390	10,823
Total:		**0**	**769**	**85**	**225**	**189,180**	**370,621**	**540,129**	**4,042**	**147,625**	**92,262**	**486,220**
# Days:		**0**	**10**	**3**	**5**	**14**	**14**	**9**	**14**	**11**	**14**	**14**
Average:		**0**	**77**	**28**	**45**	**13,513**	**26,473**	**60,014**	**289**	**13,420**	**6,590**	**34,730**
YTD		**2,833**	**32,040**	**3,494**	**11,810**	**2,536,041**	**2,245,440**	**1,694,693**	**27,561**	**774,752**	**527,626**	**1,368,643**

* 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.

				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)
05/31/2002	*	---	---	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
06/07/2002	*	---	0	---	11	335	100	145	344	4,970	3,315	3,641
06/08/2002	*	---	0	---	---	288	130	---	208	6,128	4,588	3,178
06/09/2002	*	---	0	---	---	331	485	1,001	134	3,960	4,928	5,732
06/10/2002	*	---	0	---	---	225	433	---	132	293	4,540	7,569
06/11/2002	*	---	0	---	---	406	426	800	312	---	4,663	8,924
06/12/2002	*	---	0	---	---	285	175	300	188	---	4,012	5,419
06/13/2002	*	---	---	---	---	102	100	600	259	---	3,769	8,238
Total:		**0**	**0**	**0**	**43**	**5,144**	**6,510**	**7,309**	**4,216**	**57,166**	**107,766**	**115,995**
# Days:		**0**	**10**	**3**	**5**	**14**	**14**	**9**	**14**	**11**	**14**	**14**
Average:		**0**	**0**	**0**	**9**	**367**	**465**	**812**	**301**	**5,197**	**7,698**	**8,285**
YTD		**18**	**0**	**0**	**261**	**74,570**	**62,546**	**36,661**	**19,466**	**1,388,764**	**914,264**	**797,933**

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: 06/13

	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	32,757	1,471	19,846	2,489	6,422	789	0	0	0	0	0
TDA	181,003	3,851	303,912	9,953	68,558	3,895	20,025	730	14,486	1,599	3,950	453	0	0	0	0	0
JDA	139,858	2,399	264,177	6,208	58,196	3,052	13,240	464	9,459	604	2,821	247	0	0	0	0	0
MCN	127,584	3,748	258,689	6,683	54,462	2,970	7,276	366	7,099	580	1,863	186	0	0	0	0	0
IHR	85,138	1,825	171,173	3,026	32,988	1,807	3,442	175	1,872	158	560	58	0	0	0	0	0
LMN	76,310	1,531	180,787	1,784	32,792	1,811	0	0	0	0	0	0	0	0	0	0	0
LGS	73,903	1,624	172,903	2,849	31,025	1,865	0	0	0	0	0	0	0	0	0	0	0
LWG	68,396	1,827	168,354	2,848	29,296	1,752	0	0	0	0	0	0	0	0	0	0	0
PRD	33,899	193	50,379	987	14,082	343	0	0	0	0	0	0	0	0	0	0	0
RIS	24,014	865	38,744	1,661	10,340	465	0	0	0	0	0	0	0	0	0	0	0
RRH	9,855	164	15,509	503	3,175	120	0	0	0	0	0	0	0	0	0	0	0
WEL	6,294	20	9,151	654	1,581	128	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	806	7,442	2,408	9,762	11,065	6,510	2,661
TDA	0	0	0	0	0	0	220	5,080	0	3,327	2,908	1,902	1,223
JDA	0	0	0	0	0	0	207	3,321	911	8,908	3,900	3,534	3,210
MCN	0	0	0	0	0	0	20	1,536	435	5,183	2,621	2,237	1,962
IHR	0	0	0	0	0	0	0	0	0	4,689	1,754	2,112	1,329
LMN	1	0	0	0	0	0	0	0	0	5,095	1,913	2,098	2,114
LGS	0	0	0	0	0	0	0	0	0	6,203	2,130	1,319	2,538
LWG	0	0	0	0	0	0	0	0	0	12,446	5,867	4,779	3,421
PRD	0	0	0	0	0	0	2	208	120	47	38	33	**
RIS	1	0	0	0	0	0	0	21	10	87	71	97	52
RRH	13	0	0	0	0	0	2	6	6	187	100	87	83
WEL	0	0	0	0	0	0	0	0	0	72	31	33	53

RIS and RRH are through 06/12 and are from Chelan CO PUD - except for Wild ST which are from USACE.
WEL is through 6/12 and is from Douglas CO PUD.
MCN is missing 5/24; LGR is missing 5/29.
**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.

YTD Transportation Summary

TO: 06/14/02

		Species					
Site	Data	**CH0**	**CH1**	**CO**	**SO**	**ST**	**Grand Total**
LGR	Sum of NumberCollected	32,522	1,521,034	75,526	49,164	1,649,440	3,327,686
	Sum of NumberBarged	32,330	1,469,227	75,398	47,409	1,579,036	3,203,400
	Sum of NumberBypassed	1	38,151	5	7	65,895	104,059
	Sum of NumberTrucked	29	9,847	20	343	3,383	13,622
	Sum of TotalProjectMortalities	162	3,809	103	1,405	1,126	6,605
LGS	Sum of NumberCollected	20,840	1,897,078	75,068	44,716	1,538,176	3,575,878
	Sum of NumberBarged	20,790	1,894,441	74,531	44,147	1,535,146	3,569,055
	Sum of NumberBypassed	0	0	0	0	0	0
	Sum of NumberTrucked	0	1,034	4	74	1,024	2,136
	Sum of TotalProjectMortalities	50	1,603	533	495	2,006	4,687
LMN	Sum of NumberCollected	12,700	2,204,037	55,956	36,263	1,653,816	3,962,772
	Sum of NumberBarged	12,659	2,111,660	53,951	35,232	1,617,961	3,831,463
	Sum of NumberBypassed	38	68,125	1,994	213	31,760	102,130
	Sum of NumberTrucked	0	20,104	0	13	356	20,473
	Sum of TotalProjectMortalities	3	4,148	11	810	3,734	8,706
MCN	Sum of NumberCollected	205,381	2,185,353	100,681	895,706	453,355	3,840,476
	Sum of NumberBarged	0	0	0	0	109	109
	Sum of NumberBypassed	205,315	2,184,401	100,660	894,881	452,992	3,838,249
	Sum of NumberTrucked	0	0	0	0	0	0
	Sum of TotalProjectMortalities	67	952	21	825	254	2,119
Total Sum of NumberCollected		271,443	7,807,502	307,231	1,025,849	5,294,787	14,706,812
Total Sum of NumberBarged		65,779	5,475,328	203,880	126,788	4,732,252	10,604,027
Total Sum of NumberBypassed		205,354	2,290,677	102,659	895,101	550,647	4,044,438
Total Sum of NumberTrucked		29	30,985	24	430	4,763	36,231
Total Sum of TotalProjectMortalities		282	10,512	668	3,535	7,120	22,117

Two Week Transportation Summary

06/01/02 TO 06/14/02

		Species					
Site	Data	**CH0**	**CH1**	**CO**	**SO**	**ST**	**Grand Total**
LGR	Sum of NumberCollected	30,739	18,400	15,230	2,730	102,716	169,815
	Sum of NumberBarged	30,655	16,655	18,091	2,811	114,848	183,060
	Sum of NumberBypassed	0	6,064	0	0	11,735	17,799
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of TotalProjectMortalities	134	152	58	212	128	684
LGS	Sum of NumberCollected	20,840	64,546	37,664	4,541	258,381	385,972
	Sum of NumberBarged	20,790	74,326	44,509	5,673	278,786	424,084
	Sum of NumberBypassed	0	0	0	0	0	0
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of TotalProjectMortalities	50	444	478	200	990	2,162
LMN	Sum of NumberCollected	12,357	89,225	44,409	6,911	499,252	652,154
	Sum of NumberBarged	12,316	83,332	42,406	6,681	470,039	614,774
	Sum of NumberBypassed	38	5,477	1,993	113	28,512	36,133
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of TotalProjectMortalities	3	416	10	117	701	1,247
MCN	Sum of NumberCollected	138,467	78,697	47,663	28,692	74,392	367,911
	Sum of NumberBarged	0	0	0	0	42	42
	Sum of NumberBypassed	138,438	78,650	47,650	28,675	74,303	367,716
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of TotalProjectMortalities	30	47	13	17	47	154
Total Sum of NumberCollected		202,403	250,868	144,966	42,874	934,741	1,575,852
Total Sum of NumberBarged		63,761	174,313	105,006	15,165	863,715	1,221,960
Total Sum of NumberBypassed		138,476	90,191	49,643	28,788	114,550	421,648
Total Sum of Numbertrucked		0	0	0	0	0	0
Total Sum of TotalProjectMortalities		217	1,059	559	546	1,866	4,247