



Fish Passage Center

Weekly Report #02 - 16

June 28, 2002

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SUMMARY OF EVENTS:

- Dworshak reservoir reached full pool elevation on June 20, ten days in advance of the Biological Opinion target date.
- The spring migration period, as identified in the NMFS Biological Opinion, ended on June 20.
- At Lower Granite Dam, flow shaping did not coincide with migration timing. Highest flows occurred after the peak passage period of spring migrants.

Water Supply: Precipitation in June of 2002 remains below normal throughout much of the Columbia Basin; ranging between 46% and 124% 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 (see next column).

Location	June 2002		Cumulative 10/1/01 – 6/25/02	
	Observed (inches)	% Avg	Observed (inches)	% Avg
Columbia Above Coulee	1.80	90	20.40	101
Snake R. Above Ice Harbor	0.97	79	13.25	89
Columbia Above The Dalles	1.23	82	18.88	97
Kootenai	1.62	79	19.10	93
Clark Fork	1.96	122	14.67	106
Flathead	2.72	124	19.75	107
Pend Oreille/Spokane	1.42	78	30.48	113
Central Washington	0.43	80	7.03	90
Snake R. Plain	0.40	50	6.86	73
Clearwater	2.17	104	27.93	106
SW Washington Cascades/Cowlitz	1.15	46	69.79	107
Willamette Valley	0.92	49	55.30	100

Over the past 4.5 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 and runoff is expected to remain steady or recede slightly throughout much of the Columbia Basin over the next week. 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 continued high flows in the Columbia River, the Grand Coulee Reservoir has been refilling; beginning the week at 1283.2 feet (6-21-

02) and ending the week at 1285.2 feet AMSL (6-21-02). Presently, Grand Coulee is 5.0 feet from its full pool elevation of 1290.0 feet AMSL, therefore should not have a problem refilling by June 30th, 2002. Total outflows at Grand Coulee over the last week (6-21-02 to 6-27-02) have averaged approximately 175.1 Kcfs.

Libby has been refilling over the past nine weeks. The Libby reservoir has gained 8.04 feet over the last week; outflows have remained steady throughout the week averaging 25.2 Kcfs daily. Libby is currently (midnight, 6-27-02) at an elevation of 2453.5 feet AMSL, 5.5 feet from the full pool elevation of 2459.0 feet AMSL. If Libby continues to refill at its current rate, the reservoir will be at or very near full by June 30th, 2002.

Dworshak reservoir filled to within .5 foot of its full elevation on June 20. The reservoir elevation has fluctuated between 1599.5 and 1599.7 over the past week (June 21 through June 27). Daily outflow from Dworshak reservoir has averaged 18.8 kcfs throughout the past week and ranged between 17.5 and 19.6 kcfs. Daily average inflow to the Dworshak project has fluctuated between 18.2 kcfs and 19.4 kcfs. The operation of the Dworshak project throughout May and June has created the potential for forced spill and high dissolved gas levels if inflows continue to occur above 10 kcfs per day.

Over the past week, the Brownlee reservoir has decreased one foot from elevation 2076.6 on June 21 to 2075.2 feet (midnight, 6-27-02). Brownlee was at an elevation of 2075.2 feet AMSL; 1.8 feet below its full pool elevation of 2077.0 feet AMSL. Outflows at Brownlee have averaged approximately 12.5 Kcfs between 6-21-02 and 6-27-02.

From 6-21-02 to 6-27-02, the Hungry Horse Reservoir refilled 5.6 feet. Over the last week, outflows have averaged approximately 5.2 Kcfs. Currently (midnight, 6-27-02), Hungry Horse is at an elevation of 3555.7 feet AMSL; 4.3 feet below its full pool elevation of 3560.0 feet AMSL. If Hungry Horse continues to refill at its current rate, the reservoir will be at or very near full by 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. From April 3rd to June 27th, 2002, outflows at Lower Granite have averaged 83.7 Kcfs; from April 10th to June 27th, 2002, outflows at McNary have averaged 265.6 Kcfs; from April 10th to June 27th, 2002, outflows at Priest Rapids have averaged 178.3 Kcfs. Therefore, to date, flow objectives are being met at McNary and Priest Rapids. Over the week from June 21st to 27th, 2002 flows have averaged 86.0 Kcfs at Lower Granite, 297.8 Kcfs at McNary, and 222.5 Kcfs at Priest Rapids. On a weekly basis, BiOp flow objectives are being met at both Priest Rapids and McNary. The spring BiOp flow objective period at Lower Granite ended on 6-20-02, the spring average was 83.4 kcfs, 13.6 Kcfs below the 97 Kcfs flow objective.

Over the last week (6-21-02 to 6-27-02), some Upper Snake River projects have begun to draft while others continue to refill. Currently, as of June 27th, 2002, the entire Upper Snake River System is at 60% of capacity. Individually, American Falls is at 51% of capacity, Palisades is unchanged at 54% of capacity, Jackson Lake has refilled to 80% of capacity and Island Park has drafted to 86% of capacity, Lake Walcott has refilled to 99% of capacity, Milner has drafted slightly to 98% of capacity and Grassy Lake has filled slightly to 93% of capacity. The Boise River system is presently at 76% full and the Payette system is at 97% full with the Cascade Reservoir at 100% full.

Spill: Dworshak spill continued to cause gas levels in excess of the Idaho State and Nez Perce standard of 110%. The project has been granted a temporary waiver since the reservoir is full. Discharge has been at maximum this past week with spill averaging 10 kcfs. Thursday flows were reduced slightly to 17.7 kcfs with spill reduced to 8.2 kcfs, which did reduce TDGS levels about 1% so far. The project operated with no spill from May 16th until June 16th, and at minimum discharge between May 25th and June 11th.

In general flows and spill have been lower in the Snake River this past week. Spill at Lower Granite averaged 21% of daily flows this past week. At Little Goose Dam spill only occurred on June 27th after having none from the 22nd through the 26th. At Lower Monumental spill did not occur because flows did not exceed hydraulic capacity.

In the lower Columbia River spill averaged 45% of average daily flow at McNary Dam, 28% of average daily flow at John Day, 34% at The Dalles and 37% at Bonneville Dam. Grand Coulee had not spilled since the 22nd but began again on the 27th as flows again increased.

Total dissolved gas levels at all federal and Mid-Columbia hydroprojects remain high with many projects in excess of water quality waiver standards. Fish have been observed with minor signs of GBT this past week at a few of the monitoring locations. At Lower Monumental 19% of steelhead were observed with signs of GBT on June 24th. These fish were likely exposed to relatively high gas levels in the Lower Snake River the few days prior to that when Lower Granite tailwater was at or above 120%.

Smolt Monitoring: Numbers of spring migrants continued decreasing system-wide this week while subyearling chinook numbers increased especially in the Lower Columbia. The subyearling chinook are passing Lower Granite Dam in low numbers, but increased from last week with the average daily index rising to 10,700 this week compared to 4,000 last week.

At Rock Island Dam the subyearling chinook index held steady compared to last week, with relatively low numbers still passing that project. In the lower Columbia, McNary continues to have large numbers of subyearling chinook pass with an average daily index of 387,000 compared to 64,000 per day last week. At John Day Dam passage index for subyearling chinook were up to 105,000 this week versus 24,000 last week. And at Bonneville Dam subyearling chinook numbers continued to increase dramatically with an average daily index this week of 104,000 versus 33,000 last week.

Adult Fish Passage: This year's summer chinook count at Bonneville Dam is about 1.9 and 5.4 times greater than the respective year 2001 and 10-year average through June 27. At Bonneville Dam, the daily counts averaged 3,387 per day for the week with the cumulative count through June 27 at 77,204. Because of the excellent return of these summer chinook, a sport harvest was initiated below Bonneville Dam on June 28. This was the first opportunity to fish for summer chinook in the lower river since the 1970s. Upstream at McNary Dam, counts exceeded 2,000 per day through the week with 41,489 reported through June 27. The Snake River count of adult summer chinook at Ice Harbor Dam totaled 18,951 through June 27, and was 1.8 and 5.3 times greater than the respective 2001 and 10-year average. Up the Mid-Columbia, the count of adult summer chinook at Priest Rapids Dam was up to 16,375 by June 27. That count was about 1.2 and 7.5 times greater than the respective 2001 and 10-year average.

Sockeye salmon continued their increase at Bonneville Dam with counts averaging 2,537 per day this past week. The cumulative total through June 27 is 24,013, about 27% and 79% of the respective 2001 and 10-year average count. The sockeye are progressing upriver with most sockeye destined for Lake Wenatchee and Lake Osoyoos. Interestingly, a small number of sockeye have been counted at the Snake River projects this week, 8 were counted up to Little Goose Dam by June 27.

Steelhead passage at Bonneville Dam averaged 1,167 per day through the past week with the total through June 27 being 21,666. Numbers of steelhead upstream past The Dalles Dam increased from about 200 per day early in the week to greater than 800 on June 27. So far, steelhead counts are less than last season's record run, but are about 1.8 times greater than the 10-year average at Bonneville Dam.

Hatchery Releases: For the past two weeks, approximately 17.4 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 4.7 million chinook are scheduled for release from hatcheries in the Columbia River basins.

Snake River - Subyearling fall chinook from Lyons Ferry H were released on June 24. This was the last production release of subyearling fall chinook in the Snake River basin for the 2002 Migration Year.

Mid-Columbia [above McNary Dam] - Release of subyearling fall chinook was completed this week from Ringold Springs H. The final release of subyearling summer chinook is scheduled from Turtle Rock H. on evening of July 2. Approximately 1.7 million subyearling fall chinook were released in the Yakama River basin in late May.

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 26. Three separate releases are scheduled with the initial release planted on June 3, the second release on July 1-5, and the final release from July 19-26. Subyearling fall chinook from the Umatilla River were released in late May. About 2 million subyearling fall chinook from Little White Salmon Hatchery were released on June 20.

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

Date	Grand Coulee		Chief Joseph		Wells		Rocky Reach		Rock Island		Wanapum		Priest Rapids	
	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill
06/14/02	162.9	0.1	169.6	3.4	199.2	47.3	194.4	42.7	203.9	19.6	209.2	75.4	205.6	128.4
06/15/02	147.5	2.6	145.1	4.1	176.3	19.1	181.5	34.4	198.5	27.4	213.0	77.3	214.1	126.8
06/16/02	133.1	0.1	139.8	0.0	169.7	12.2	172.6	29.8	183.2	32.7	196.8	68.8	197.7	109.3
06/17/02	175.1	0.2	169.9	0.0	192.8	31.6	190.6	39.4	199.5	41.1	210.7	80.1	209.0	118.7
06/18/02	185.6	14.5	186.3	16.1	213.8	52.2	212.8	53.6	215.4	46.9	228.7	93.7	227.6	135.0
06/19/02	211.4	33.4	200.1	24.1	230.8	69.5	233.3	75.8	236.5	45.7	258.5	123.2	257.5	152.3
06/20/02	218.9	17.9	221.6	23.0	248.3	101.2	254.2	99.3	251.1	41.7	275.7	139.3	272.4	157.7
06/21/02	183.0	9.9	200.9	9.5	229.4	76.0	234.6	80.9	236.0	36.3	258.9	120.3	256.0	143.1
06/22/02	148.8	0.1	150.9	0.0	185.3	27.9	194.8	44.1	200.6	31.4	220.6	88.5	220.8	121.7
06/23/02	123.6	0.2	116.4	0.0	147.4	13.2	157.8	1.4	171.8	24.2	209.9	73.8	213.8	115.3
06/24/02	184.1	0.2	180.7	4.3	185.6	14.0	176.7	13.3	181.1	40.4	185.3	65.8	192.2	102.3
06/25/02	188.9	0.2	192.7	8.9	216.0	37.7	214.9	49.7	215.8	45.2	211.4	79.8	198.4	110.3
06/26/02	191.3	0.2	192.2	6.2	208.8	50.6	207.3	51.0	211.6	42.3	226.4	90.2	223.7	127.7
06/27/02	206.2	14.9	211.3	19.6	232.6	94.5	235.5	88.2	239.4	43.1	256.6	119.2	252.4	147.9

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

Date	Dworshak		Brownlee Canyon		Hells Granite		Lower Granite		Little Goose		Lower Monumental		Ice Harbor	
	Flow	Spill	Inflow	Outflow	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill
06/14/02	7.3	0.0	12.0	12.3	76.2	18.0	74.4	13.5	76.0	0.0	76.9	57.0		
06/15/02	5.3	0.0	11.9	12.7	77.6	22.9	73.7	16.0	74.5	0.0	76.9	57.6		
06/16/02	5.4	0.0	11.6	12.8	82.3	19.8	80.9	12.0	81.5	0.0	84.4	60.8		
06/17/02	8.1	0.7	12.5	12.3	94.3	27.3	94.2	13.0	98.0	0.0	97.7	65.2		
06/18/02	10.2	2.8	12.3	13.2	96.9	39.5	90.4	13.5	91.6	0.0	96.8	62.7		
06/19/02	11.8	3.4	11.3	12.7	99.4	40.5	96.9	14.8	100.7	0.0	99.2	68.0		
06/20/02	14.1	4.5	10.7	11.4	89.9	29.1	84.5	7.4	87.4	0.0	91.7	65.9		
06/21/02	17.5	8.0	10.5	11.4	85.9	20.4	85.0	3.2	88.3	0.0	88.0	60.2		
06/22/02	17.7	8.2	11.4	11.7	79.7	4.9	79.3	0.0	80.6	0.0	83.5	63.2		
06/23/02	19.6	10.1	11.7	12.4	87.1	11.3	85.1	0.0	87.3	0.0	91.4	63.0		
06/24/02	19.6	10.1	11.7	15.0	89.5	25.4	86.8	0.0	90.1	0.0	92.3	61.7		
06/25/02	19.6	10.1	12.0	14.9	91.5	25.2	87.3	0.0	92.1	0.0	94.4	60.8		
06/26/02	19.6	10.1	11.0	13.1	83.1	8.0	82.4	0.0	83.4	0.0	84.7	52.6		
06/27/02	17.7	8.2	---	---	85.5	29.0	83.7	15.7	84.8	0.0	83.9	61.2		

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

Date	McNary		John Day		The Dalles		Bonneville		PH1	PH2
	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill		
06/14/02	281.8	121.3	278.4	75.5	268.3	85.8	285.2	96.6	72.0	109.9
06/15/02	306.1	134.8	297.6	76.7	286.8	80.0	300.4	106.3	74.2	113.2
06/16/02	271.0	98.0	262.3	72.8	249.3	83.8	278.4	101.4	65.6	104.7
06/17/02	297.7	141.1	303.8	102.2	303.2	94.6	304.5	123.5	65.5	108.7
06/18/02	328.2	166.7	310.9	83.6	301.0	101.9	298.0	107.8	63.2	120.0
06/19/02	345.7	179.5	358.6	79.8	336.6	105.0	342.7	149.1	64.5	122.4
06/20/02	361.1	188.7	370.3	111.9	355.8	110.8	359.5	163.6	66.3	122.9
06/21/02	350.6	176.6	363.9	105.4	354.4	114.2	350.7	156.9	65.9	121.3
06/22/02	323.1	149.8	313.4	69.5	312.3	110.0	323.2	132.0	70.5	114.0
06/23/02	305.2	135.0	298.2	101.8	291.1	110.5	301.7	98.1	72.9	124.0
06/24/02	300.0	129.0	324.9	95.4	322.7	115.7	326.1	113.2	77.9	128.2
06/25/02	295.7	121.9	286.7	82.8	279.6	108.0	291.6	93.7	70.2	121.1
06/26/02	308.1	135.7	293.9	83.3	278.0	75.1	288.5	93.1	66.3	122.4
06/27/02	201.8	140.0	316.2	86.8	303.6	103.0	310.7	116.4	66.5	121.4

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											
	06/18/02	Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
	06/25/02	Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
Little Goose Dam											
	06/19/02	Steelhead	60	0	0	0.00%	0.00%	0	0	0	0
	06/26/02	Steelhead	36	1	1	2.77%	0.00%	1	0	0	0
Lower Monumental Dam											
	06/24/02	Steelhead	81	16	16	19.75%	0.00%	16	0	0	0
McNary Dam											
	06/20/02	Subyearling Chinook	100	0	0	0.00%	0.00%	0	0	0	0
	06/24/02	Subyearling Chinook	100	0	0	0.00%	0.00%	0	0	0	0
	06/27/02	Subyearling Chinook	100	0	0	0.00%	0.00%	0	0	0	0
Bonneville Dam											
	06/20/02	Subyearling Chinook	100	0	0	0.00%	0.00%	0	0	0	0
	06/24/02	Subyearling Chinook	100	0	0	0.00%	0.00%	0	0	0	0
	06/27/02	Subyearling Chinook	100	0	0	0.00%	0.00%	0	0	0	0
Rock Island Dam											
	06/20/02	Yearling Chinook	34	0	0	0.00%	0.00%	0	0	0	0
	06/20/02	Steelhead	45	0	0	0.00%	0.00%	0	0	0	0
	06/24/02	Subyearling Chinook	61	1	1	1.63%	0.00%	1	0	0	0
	06/27/02	Subyearling Chinook	54	2	2	3.70%	0.00%	2	0	0	0

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

Total Dissolved Gas Saturation Data at Upper Columbia River Sites

Date	<u>Hungry H. Dnst</u>			<u>Boundary</u>			<u>Grand Coulee</u>			<u>Grand C. Tlwr</u>			<u>Chief Joseph</u>							
	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>		
	<u>Avg</u>	<u>Avg</u>		<u>High</u>	<u>Avg</u>		<u>Avg</u>	<u>High</u>		<u>Avg</u>	<u>Avg</u>		<u>High</u>	<u>Avg</u>		<u>Avg</u>	<u>High</u>		<u>Avg</u>	<u>Avg</u>
6/14	103	107	107	24	132	132	133	24	117	117	118	21	115	116	116	24	115	115	116	23
6/15	98	99	99	24	132	132	133	24	118	118	119	24	116	117	117	24	116	116	116	23
6/16	99	99	100	24	132	132	133	24	118	118	119	24	116	117	117	24	116	116	117	23
6/17	100	101	103	24	132	132	134	4	119	119	119	24	116	117	117	24	116	117	117	23
6/18	102	103	104	24	131	131	133	10	119	119	120	24	116	117	117	24	116	116	117	24
6/19	101	103	103	24	132	132	133	24	118	118	119	24	116	117	117	24	115	115	115	23
6/20	99	99	99	24	131	132	133	24	118	118	119	24	116	117	118	24	115	117	118	23
6/21	99	99	100	24	131	131	132	24	118	119	119	21	117	117	117	24	117	117	118	23
6/22	99	99	99	24	131	132	132	24	119	119	120	24	117	117	117	24	117	117	118	23
6/23	99	99	99	24	131	131	132	24	119	119	119	24	116	117	117	24	117	117	117	23
6/24	99	99	102	24	131	132	132	24	119	119	119	24	116	117	117	24	116	116	117	23
6/25	99	99	99	24	131	132	132	24	119	120	120	24	117	117	117	24	116	117	118	23
6/26	99	99	99	22	133	134	135	24	120	121	121	24	118	119	119	24	117	118	119	23
6/27	100	101	105	19	132	133	134	24	122	122	122	24	119	119	119	24	118	118	119	23

Total Dissolved Gas Saturation Data at Mid Columbia River Sites

Date	<u>Chief J. Dnst</u>			<u>Wells</u>			<u>Wells Dwnstrm</u>			<u>Rocky Reach</u>			<u>Rocky R. Tlwr</u>							
	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>		
	<u>Avg</u>	<u>Avg</u>		<u>High</u>	<u>Avg</u>		<u>Avg</u>	<u>High</u>		<u>Avg</u>	<u>Avg</u>		<u>High</u>	<u>Avg</u>		<u>Avg</u>	<u>High</u>		<u>Avg</u>	<u>Avg</u>
6/14	115	115	118	23	113	113	114	24	118	121	128	24	118	119	120	23	119	120	122	23
6/15	116	116	117	23	114	114	115	23	117	119	130	23	117	118	119	23	118	119	120	22
6/16	116	116	116	23	114	114	115	23	116	116	118	23	116	119	121	24	117	119	121	24
6/17	116	116	116	23	113	114	114	24	117	119	124	24	113	113	113	24	115	116	119	24
6/18	119	120	121	24	114	114	115	24	120	122	128	24	114	115	118	24	116	119	122	24
6/19	119	120	121	23	114	114	115	24	121	125	133	24	116	119	123	23	119	123	124	23
6/20	116	118	119	20	115	115	116	24	127	130	134	24	121	123	128	23	123	124	127	23
6/21	117	118	120	23	116	116	117	24	124	129	133	24	124	126	128	24	125	126	128	24
6/22	117	117	118	23	116	116	116	24	120	123	131	24	123	126	128	24	123	125	127	24
6/23	117	117	118	23	114	115	115	23	116	117	117	23	119	122	124	24	119	122	123	24
6/24	116	116	117	23	114	114	115	24	115	115	116	24	114	114	114	24	114	115	116	24
6/25	117	117	119	19	115	115	116	24	119	122	125	24	113	113	115	24	115	116	118	24
6/26	117	118	118	23	116	117	117	24	122	126	134	24	117	118	121	24	119	121	123	24
6/27	118	119	120	23	117	117	117	24	129	133	137	24	121	124	127	24	123	125	127	24

Total Dissolved Gas Saturation at Mid Columbia River Sites

Date	<u>Rock Island</u>			<u>Rock I. Tlwr</u>			<u>Wanapum</u>			<u>Wanapum Tlwr</u>			<u>Priest Rapids</u>							
	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>		
	<u>Avg</u>	<u>Avg</u>		<u>High</u>	<u>Avg</u>		<u>Avg</u>	<u>High</u>		<u>Avg</u>	<u>Avg</u>		<u>High</u>	<u>Avg</u>		<u>Avg</u>	<u>High</u>		<u>Avg</u>	<u>Avg</u>
6/14	119	119	120	24	120	121	121	24	121	123	125	24	119	119	121	24	120	121	123	24
6/15	118	118	119	22	120	121	121	22	119	120	121	24	120	121	125	24	119	121	122	24
6/16	116	117	117	24	119	120	120	23	117	117	118	24	118	119	119	24	116	117	118	24
6/17	113	114	115	24	118	119	120	24	113	114	115	24	117	118	127	24	115	116	116	24
6/18	114	116	117	24	119	120	122	24	113	115	116	24	119	122	128	24	116	119	124	24
6/19	118	119	121	23	121	123	124	23	113	114	117	24	123	127	128	24	119	122	123	24
6/20	121	122	123	23	123	124	125	23	118	120	121	24	126	127	129	24	124	125	126	24
6/21	124	124	125	24	125	126	126	24	123	124	125	24	125	128	129	24	125	126	126	24
6/22	123	124	125	24	124	125	125	24	124	125	128	24	122	124	125	24	122	123	124	24
6/23	118	119	120	24	120	121	122	23	121	122	123	24	120	120	121	24	119	120	120	24
6/24	113	114	114	24	117	118	119	24	120	121	123	24	119	119	120	24	118	119	119	24
6/25	115	116	117	24	119	120	121	24	119	119	121	24	119	121	127	24	119	121	123	24
6/26	118	120	121	24	121	122	123	24	119	121	124	24	120	123	127	24	120	123	124	24
6/27	120	122	123	24	122	124	124	24	---	---	---	0	---	---	---	0	---	---	---	0

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

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

Date	<u>Priest R. Dnst</u>			<u>Pasco</u>			<u>Dworshak</u>			<u>Clwrtr-Peck</u>			<u>Anatone</u>			#				
	<u>24 h</u>	<u>12 h</u>	High	#	<u>24 h</u>	<u>12 h</u>	High	#	<u>24 h</u>	<u>12 h</u>	High	#	<u>24 h</u>	<u>12 h</u>	High		#			
	Avg	Avg		hr	Avg	Avg		hr	Avg	Avg		hr	Avg	Avg			hr	Avg	Avg	hr
6/14	123	123	124	24	118	118	118	21	103	104	104	21	102	103	104	21	104	105	105	21
6/15	122	123	124	24	117	118	118	24	103	104	104	24	103	104	105	24	104	105	106	24
6/16	121	121	122	24	115	115	116	24	103	104	104	24	103	104	105	24	104	104	105	24
6/17	120	121	121	24	112	112	114	13	104	104	106	23	103	104	104	23	103	104	104	24
6/18	121	122	123	24	112	113	113	24	107	109	109	24	---	---	---	0	103	104	105	24
6/19	123	124	124	24	114	116	117	24	108	109	110	24	104	105	106	24	104	105	106	24
6/20	125	125	126	24	117	118	118	24	110	112	116	24	105	106	107	23	104	105	106	23
6/21	125	126	126	24	118	119	120	21	116	117	117	21	106	107	107	21	104	104	105	21
6/22	124	124	125	24	118	119	119	24	117	117	119	24	107	107	108	23	104	104	105	24
6/23	122	123	123	24	116	116	117	24	119	119	119	24	108	108	109	24	103	104	105	24
6/24	121	122	122	24	116	117	117	23	118	118	119	24	108	109	109	24	104	105	105	24
6/25	122	123	124	24	116	117	117	24	117	117	118	24	108	109	109	24	104	104	105	24
6/26	123	124	124	24	117	118	119	24	117	117	118	24	108	109	110	24	104	105	106	24
6/27	---	---	---	0	116	117	117	24	116	116	117	24	107	108	109	24	104	104	105	24

Total Dissolved Gas Saturation Data at Snake River Sites

Date	<u>Clwrtr-Lewiston</u>			<u>Lower Granite</u>			<u>L. Granite Tlwr</u>			<u>Little Goose</u>			<u>L. Goose Tlwr</u>			#				
	<u>24 h</u>	<u>12 h</u>	High	#	<u>24 h</u>	<u>12 h</u>	High	#	<u>24 h</u>	<u>12 h</u>	High	#	<u>24 h</u>	<u>12 h</u>	High		#			
	Avg	Avg		hr	Avg	Avg		hr	Avg	Avg		hr	Avg	Avg			hr	Avg	Avg	hr
6/14	102	103	104	21	107	108	109	21	111	115	120	21	114	115	118	21	113	114	115	21
6/15	102	103	104	24	106	107	110	24	112	116	117	24	113	114	115	24	112	113	113	24
6/16	102	103	104	24	105	106	107	24	111	113	114	23	112	112	113	24	112	112	113	24
6/17	101	102	102	23	103	103	104	24	113	115	118	24	110	110	111	18	110	111	112	17
6/18	101	102	103	24	103	103	103	24	119	121	124	24	108	109	109	24	110	112	113	24
6/19	102	103	104	24	102	103	104	24	120	121	122	24	107	107	109	24	110	113	113	24
6/20	103	104	105	24	103	104	106	24	115	120	122	24	112	114	117	24	112	113	114	24
6/21	105	106	106	21	104	105	107	21	113	118	121	21	115	115	117	21	114	115	116	21
6/22	104	105	106	24	106	107	109	24	107	108	111	24	117	118	119	24	117	117	117	24
6/23	105	106	107	24	105	106	106	24	107	108	108	24	113	114	118	24	112	114	117	24
6/24	106	107	108	24	105	106	107	24	113	118	121	24	110	111	113	24	109	111	112	24
6/25	106	107	108	24	106	107	108	24	114	118	121	24	109	110	113	24	107	107	107	24
6/26	106	107	108	24	108	109	111	24	108	111	114	24	111	113	118	24	108	109	111	24
6/27	106	107	108	24	107	108	108	24	116	120	122	24	114	114	115	24	113	114	115	24

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

Date	<u>Lower Mon.</u>			<u>L. Mon. Tlwr</u>			<u>Ice Harbor</u>			<u>Ice Harbor Tlwr</u>			<u>McNary-Oregon</u>			#				
	<u>24 h</u>	<u>12 h</u>	High	#	<u>24 h</u>	<u>12 h</u>	High	#	<u>24 h</u>	<u>12 h</u>	High	#	<u>24 h</u>	<u>12 h</u>	High		#			
	Avg	Avg		hr	Avg	Avg		hr	Avg	Avg		hr	Avg	Avg			hr	Avg	Avg	hr
6/14	116	117	119	21	115	115	117	20	117	117	119	21	114	115	117	21	117	118	119	21
6/15	117	117	118	24	117	117	118	24	116	117	117	24	114	115	117	24	118	119	121	24
6/16	115	116	117	24	115	115	117	24	115	115	116	24	115	116	117	23	115	116	117	24
6/17	112	113	113	18	112	112	113	18	114	114	115	24	116	117	118	24	113	113	114	24
6/18	110	111	111	24	110	111	111	24	111	112	113	24	115	117	119	24	110	110	111	24
6/19	109	110	112	24	108	109	110	24	109	109	110	24	116	118	120	24	110	111	113	24
6/20	111	113	116	24	110	112	113	24	110	110	111	24	116	118	120	24	112	113	114	24
6/21	111	113	117	21	110	112	113	21	110	110	112	21	114	115	116	21	116	117	119	21
6/22	112	113	115	24	112	112	113	24	111	112	112	24	115	116	117	24	117	118	119	24
6/23	114	114	115	24	113	114	115	24	110	111	114	24	115	117	119	24	117	117	118	24
6/24	115	115	115	24	115	115	117	24	111	112	114	24	115	117	119	24	116	116	120	24
6/25	113	113	114	24	112	112	113	24	113	114	116	24	115	117	120	24	115	116	117	24
6/26	111	112	113	24	110	111	112	24	115	115	117	23	115	116	120	24	116	117	119	23
6/27	109	109	110	24	108	109	110	24	113	114	115	24	115	117	122	24	116	116	117	24

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

Total Dissolved Gas Saturation Data at Lower Columbia River Sites

Date	<u>McNary-Wash</u>			<u>McNary Tlwr</u>			<u>John Day</u>			<u>John Day Tlwr</u>			<u>The Dalles</u>							
	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24h</u>	<u>12h</u>	<u>#</u>	<u>24h</u>	<u>12h</u>	<u>#</u>	<u>24h</u>	<u>12h</u>	<u>#</u>	<u>24h</u>	<u>AVG</u>	<u>High</u>	<u>#</u>	
	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	AVG	High	hr
6/14	117	118	120	21	120	120	121	21	117	118	118	23	119	119	119	21	115	115	116	23
6/15	118	119	121	24	120	120	121	23	117	117	118	23	118	119	120	24	113	114	114	23
6/16	115	116	118	24	119	119	120	24	115	115	116	23	116	118	119	24	113	113	114	23
6/17	112	113	114	24	119	119	120	24	112	112	112	23	119	120	120	24	113	114	116	23
6/18	110	110	111	24	120	122	123	24	109	110	111	24	119	120	120	24	111	112	113	24
6/19	109	110	112	24	122	122	122	24	108	109	110	23	117	120	120	24	109	109	110	22
6/20	113	114	115	24	123	124	124	24	109	110	111	23	120	120	121	24	111	112	113	23
6/21	116	118	119	21	123	123	124	21	111	113	115	23	118	119	120	21	112	113	114	23
6/22	119	120	122	24	120	121	121	24	115	116	116	23	117	119	119	24	112	113	114	23
6/23	118	118	119	24	119	120	123	24	115	115	116	23	119	120	120	23	111	112	113	23
6/24	116	117	118	24	119	120	122	24	115	115	115	23	120	120	120	24	113	114	115	22
6/25	116	118	120	24	117	118	119	24	115	116	118	23	119	119	120	24	114	115	115	19
6/26	117	119	120	24	119	120	123	21	114	115	116	23	119	120	120	24	114	114	115	23
6/27	116	117	117	24	119	119	120	24	114	114	115	23	118	120	120	24	111	112	113	23

Total Dissolved Gas Saturation Data at Lower Columbia River Sites

Date	<u>The Dalles Dnst</u>				<u>Bonneville</u>			<u>Warrendale</u>			<u>Camas/Washugal</u>					
	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24h</u>	<u>12h</u>	<u>#</u>	<u>24h</u>	<u>12h</u>	<u>#</u>	<u>24h</u>	<u>12h</u>	<u>#</u>	
	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
6/14	119	120	120	16	117	118	119	22	121	122	124	23	117	118	120	24
6/15	117	118	118	24	112	113	114	23	118	118	118	23	114	114	115	24
6/16	118	118	118	24	111	111	112	23	117	117	118	23	112	112	112	24
6/17	117	118	119	24	112	113	115	23	116	118	120	23	112	112	113	24
6/18	117	118	118	24	113	114	115	24	116	118	119	24	113	114	115	24
6/19	115	116	116	24	113	113	114	23	119	120	121	23	114	116	116	24
6/20	116	118	119	24	115	115	116	23	121	121	121	11	117	118	119	24
6/21	117	118	119	24	116	117	118	23	120	120	121	23	118	118	119	24
6/22	118	119	119	24	115	115	116	23	118	118	120	23	117	117	118	24
6/23	117	118	118	24	111	112	113	23	113	114	116	23	113	114	115	24
6/24	118	119	120	24	113	114	114	23	114	115	116	23	113	114	115	24
6/25	119	119	120	24	116	117	117	19	115	115	117	19	116	117	119	24
6/26	118	120	120	24	118	118	119	23	116	117	119	23	117	119	120	24
6/27	117	118	119	24	114	115	116	23	114	115	116	23	115	116	116	24

HATCHERY RELEASE SUMMARY LAST 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	07-26-02	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	376,027	06-17-02	06-18-02	Wells H	Mid-Columbia River
WDFW Total					14,358,027				
Grand Total					17,358,027				

HATCHERY RELEASE SUMMARY NEXT TWO WEEKS

Hatchery Release Summary									
From:	6/28/02	to	7/11/02						
Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
WDFW	East Bank	CH0	SU	2002	214,600	07-02-02	07-02-02	Turtle Rock H	Mid-Columbia River
WDFW	East Bank	CH0	SU	2002	481,285	07-02-02	07-02-02	Turtle Rock H	Mid-Columbia River
WDFW	Klickitat	CH0	FA	2002	4,000,000	06-03-02	07-26-02	Klickitat H	Klickitat River
WDFW Total					4,695,885				
Grand Total					4,695,885				

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)	(INDEX)
06/14/2002	*	---	---	---	---	813	234	700	77	1,250	7,838	7,027
06/15/2002		---	---	---	---	1,305	523	600	70	4,353	6,491	6,947
06/16/2002	*	---	---	---	---	1,529	267	200	39	4,055	5,420	9,832
06/17/2002	*	---	---	---	---	1,507	596	500	29	3,472	4,369	5,097
06/18/2002		---	---	---	---	3,029	1,340	1,050	36	2,591	2,159	5,092
06/19/2002	*	---	---	---	---	1,563	2,183	900	59	961	1,506	4,396
06/20/2002		---	---	---	---	864	1,506	1,300	62	916	1,597	2,701
06/21/2002	*	---	---	---	---	641	764	1,050	73	425	1,457	2,283
06/22/2002	*	---	---	---	---	717	643	650	73	401	1,131	1,570
06/23/2002		---	---	---	---	855	640	150	52	1,259	1,154	807
06/24/2002		---	---	---	---	972	272	300	6	285	821	1,188
06/25/2002		---	---	---	---	1,209	364	50	28	768	705	127
06/26/2002	*	---	---	---	---	1,004	396	300	35	1,153	599	1,170
06/27/2002	*	---	---	---	---	249	285	74	36	369	906	701
Total:		0	0	0	0	16,257	10,013	7,824	675	22,258	36,153	48,938
# Days:		0	0	0	0	14	14	14	14	14	14	14
Average:		0	0	0	0	1,161	715	559	48	1,590	2,582	3,496
YTD		38,199	29,095	8,013	7,847	2,455,126	2,842,008	2,219,074	28,876	3,506,408	2,101,512	3,318,353

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)	(INDEX)
06/14/2002	*	---	---	---	---	2,536	528	2,100	127	4,425	13,189	27,125
06/15/2002		---	---	---	---	2,937	1,454	1,550	162	5,753	9,225	22,597
06/16/2002	*	---	---	---	---	3,655	1,784	550	147	27,179	8,620	36,183
06/17/2002	*	---	---	---	---	2,071	3,458	750	261	38,072	20,171	28,923
06/18/2002		---	---	---	---	5,337	15,477	1,800	415	148,357	23,965	36,471
06/19/2002	*	---	---	---	---	7,543	18,496	3,200	477	110,094	33,267	46,041
06/20/2002		---	---	---	---	4,078	11,464	5,300	428	113,998	58,078	34,831
06/21/2002	*	---	---	---	---	3,564	8,690	5,050	126	164,187	91,670	54,644
06/22/2002	*	---	---	---	---	3,507	8,391	4,050	145	267,018	108,567	69,787
06/23/2002		---	---	---	---	7,735	4,583	1,400	239	291,212	68,924	71,127
06/24/2002		---	---	---	---	10,080	1,960	834	321	211,339	68,733	106,589
06/25/2002		---	---	---	---	19,070	1,648	1,100	432	589,014	91,296	111,070
06/26/2002	*	---	---	---	---	18,386	6,630	4,999	376	594,094	94,828	151,963
06/27/2002	*	---	---	---	---	12,838	6,356	3,289	337	588,754	208,310	159,319
Total:		0	0	0	0	103,337	90,919	35,972	3,993	3,153,496	898,843	956,670
# Days:		0	0	0	0	14	14	14	14	14	14	14
Average:		0	0	0	0	7,381	6,494	2,569	285	225,250	64,203	68,334
YTD		0	4	26	3,488	164,527	120,316	48,717	5,711	3,567,654	1,106,887	3,117,466

Two-Week Summary of Passage Indices

COMBINED COHO											
	WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date	(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
06/14/2002	*	---	---	---	476	226	200	700	866	4,888	8,292
06/15/2002		---	---	---	705	310	1,300	765	1,648	2,460	13,105
06/16/2002	*	---	---	---	528	159	50	509	1,743	2,221	10,095
06/17/2002	*	---	---	---	590	278	200	439	2,002	992	7,008
06/18/2002		---	---	---	837	352	450	319	1,522	1,155	4,954
06/19/2002	*	---	---	---	646	447	1,500	284	1,068	1,639	5,618
06/20/2002		---	---	---	207	396	650	241	541	1,324	2,559
06/21/2002	*	---	---	---	179	483	500	177	637	1,262	1,712
06/22/2002	*	---	---	---	307	231	300	225	801	1,016	2,569
06/23/2002		---	---	---	321	400	0	116	899	738	941
06/24/2002		---	---	---	190	79	33	87	95	436	2,377
06/25/2002		---	---	---	363	110	0	48	256	334	1,520
06/26/2002	*	---	---	---	251	166	67	50	116	197	1,404
06/27/2002	*	---	---	---	0	131	48	37	0	80	1,869
Total:		0	0	0	5,600	3,768	5,298	3,997	12,194	18,742	64,023
# Days:		0	0	0	14	14	14	14	14	14	14
Average:		0	0	0	400	269	378	286	871	1,339	4,573
YTD		0	0	0	101	122,606	102,714	64,359	84,420	195,255	2,321,847

COMBINED STEELHEAD												
	WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2	
Date	(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	
06/14/2002	*	---	---	---	2,606	801	6,400	81	481	4,427	8,151	
06/15/2002		---	---	---	5,012	1,290	16,200	100	647	1,640	10,802	
06/16/2002	*	---	---	---	5,030	1,118	4,900	119	1,423	1,265	13,241	
06/17/2002	*	---	---	---	2,975	1,338	3,045	140	1,471	1,121	4,205	
06/18/2002		---	---	---	3,764	2,200	5,550	104	1,060	1,166	2,890	
06/19/2002	*	---	---	---	2,990	2,055	6,550	93	1,068	1,329	3,786	
06/20/2002		---	---	---	2,972	1,540	8,700	85	291	2,236	2,843	
06/21/2002	*	---	---	---	4,154	2,465	7,300	60	425	1,847	2,140	
06/22/2002	*	---	---	---	5,196	2,737	4,050	43	200	983	4,281	
06/23/2002		---	---	---	2,714	1,140	3,050	28	360	476	4,303	
06/24/2002		---	---	---	2,917	1,250	3,014	12	382	450	3,803	
06/25/2002		---	---	---	5,803	1,001	1,200	5	855	196	1,900	
06/26/2002	*	---	---	---	3,451	1,794	1,833	24	4,264	394	1,521	
06/27/2002	*	---	---	---	2,991	797	978	27	1,476	342	1,518	
Total:		0	0	0	52,575	21,526	72,770	921	14,403	17,872	65,384	
# Days:		0	0	0	14	14	14	14	14	14	14	
Average:		0	0	0	3,755	1,538	5,198	66	1,029	1,277	4,670	
YTD		2,833	32,043	3,494	11,810	2,588,616	2,266,966	1,767,463	28,482	789,155	543,717	1,434,027

* 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)	(INDEX)
06/14/2002	*	---	---	---	---	168	63	400	73	770	3,690	6,465
06/15/2002		---	---	---	---	144	79	100	72	1,778	3,007	4,887
06/16/2002	*	---	---	---	---	111	143	0	66	1,138	1,815	5,244
06/17/2002	*	---	---	---	---	92	65	100	81	1,961	1,512	2,931
06/18/2002		---	---	---	---	144	285	50	65	571	606	1,651
06/19/2002	*	---	---	---	---	102	208	400	52	641	843	1,954
06/20/2002		---	---	---	---	69	277	50	48	458	1,278	1,990
06/21/2002	*	---	---	---	---	51	179	100	23	637	1,360	999
06/22/2002	*	---	---	---	---	51	128	50	31	801	1,525	2,283
06/23/2002		---	---	---	---	256	100	50	14	360	761	1,076
06/24/2002		---	---	---	---	47	75	67	9	668	676	1,782
06/25/2002		---	---	---	---	60	49	0	25	341	442	2,913
06/26/2002	*	---	---	---	---	0	164	33	10	346	253	936
06/27/2002	*	---	---	---	---	62	45	14	29	185	281	467
Total:		0	0	0	0	1,357	1,860	1,414	598	10,655	18,049	35,578
# Days:		0	0	0	0	14	14	14	14	14	14	14
Average:		0	0	0	0	97	133	101	43	761	1,289	2,541
YTD		18	0	0	261	75,927	64,406	38,075	20,064	1,399,419	930,296	833,511

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: 06/27

DAM	Spring Chinook						Summer Chinook						Fall Chinook					
	2002		2001		10-Yr Avg.		2002		2001		10-Yr Avg.		2002		2001		10-Yr Avg.	
	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack
BON	268,813	6,477	391,367	14,172	104,143	5,654	77,204	4,205	40,914	6,560	14,259	2,052	0	0	0	0	0	0
TDA	180,861	3,884	303,912	9,953	68,558	3,895	60,160	2,627	36,022	4,303	10,969	1,345	0	0	0	0	0	0
JDA	139,890	2,403	264,177	6,208	58,196	3,052	48,647	1,770	30,078	2,903	9,477	973	0	0	0	0	0	0
MCN	128,890	3,806	258,689	6,683	54,462	2,970	41,489	2,176	28,671	2,874	8,115	849	0	0	0	0	0	0
IHR	85,207	1,825	171,173	3,026	32,988	1,807	18,951	1,241	10,691	1,143	3,593	465	0	0	0	0	0	0
LMN	76,304	1,531	180,787	1,784	32,792	1,811	15,332	669	11,871	769	3,388	407	0	0	0	0	0	0
LGS	77,232	1,815	174,823	2,990	31,528	1,921	12,284	867	9,096	881	2,876	414	0	0	0	0	0	0
LWG	75,025	2,132	171,958	3,135	30,329	1,865	11,799	656	7,359	1,071	2,506	378	0	0	0	0	0	0
PRD	34,064	195	50,379	987	14,107	363	16,375	127	14,107	363	2,198	110	0	0	0	0	0	0
RIS	24,734	892	39,785	1,761	10,725	505	3,542	92	10,725	505	1,119	99	0	0	0	0	0	0
RRH	11,204	215	15,895	543	3,314	135	1,584	27	3,314	135	275	19	0	0	0	0	0	0
WEL	7,047	39	9,956	883	1,776	172	0	0	0	0	0	0	0	0	0	0	0	0

DAM	Coho						Sockeye			Steelhead			
	2002		2001		10-Yr Avg.		2002	2001	10-Yr Avg.	2002	2001	10-Yr Avg.	Wild 2002
	Adult	Jack	Adult	Jack	Adult	Jack							
BON	0	0	1	0	0	0	24,013	89,793	30,266	21,666	25,807	12,218	7,508
TDA	0	0	0	0	0	0	15,392	76,233	22,374	7,789	11,882	4,380	3,276
JDA	0	0	0	0	0	0	10,711	73,351	21,680	12,084	11,517	5,445	4,359
MCN	0	0	0	0	0	0	6,417	58,916	14,859	6,814	7,806	3,429	2,497
IHR	0	0	0	0	0	0	7	18	2	5,233	3,956	2,530	1,495
LMN	0	0	0	0	0	0	9	2	0	5,522	3,519	2,383	2,261
LGS	0	0	0	0	0	0	8	7	0	6,450	3,035	1,493	2,647
LWG	0	0	0	0	0	0	2	3	0	12,626	6,482	4,887	3,485
PRD	0	0	1	2	0	0	1,308	21,671	5,209	130	214	120	**
RIS	2	0	7	0	1	0	56	6,332	1,600	109	167	139	82
RRH	13	0	0	0	0	0	31	2,883	713	194	136	108	97
WEL	0	0	0	0	0	0	2	994	287	88	44	45	53

RIS and RRH counts are through 06/26 and are from Chelan County PUD - except for Wild ST which are from the COE.

WEL counts are through 6/26 and are from Douglas County PUD.

JDA is missing 06/25/02. PRD counts are through 06/26 and are from Grant County PUD.

**PRD is not reporting Wild Steelhead numbers.

These numbers were collected from the COE's Running Sums text files, except where otherwise noted.

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.

Two Week Transportation Summary

06/15/02 TO 06/28/02

6/28/02

		Species					
Site	Data	CH0	CH1	CO	SO	ST	Grand Total
LGR	Sum of NumberCollected	77,600	11,830	4,070	1,030	38,970	133,500
	Sum of NumberBarged	76,656	11,789	4,056	978	38,910	132,389
	Sum of NumberBypassed	0	1	0	0	0	1
	Sum of NumberTrucked	0	0	0	0	0	0
	Sum of TotalProjectMortalities	944	40	14	52	60	1,110
LGS	Sum of NumberCollected	81,889	8,904	3,387	1,669	19,664	115,513
	Sum of NumberBarged	81,839	8,883	3,363	1,635	19,629	115,349
	Sum of NumberBypassed	0	0	0	0	0	0
	Sum of NumberTrucked	0	0	0	0	0	0
	Sum of TotalProjectMortalities	50	21	24	34	35	164
LMN	Sum of NumberCollected	35,972	7,824	5,298	1,414	72,770	123,278
	Sum of NumberBarged	34,101	7,701	5,284	1,394	71,716	120,196
	Sum of NumberBypassed	1,822	0	0	0	176	1,998
	Sum of NumberTrucked	0	0	0	0	0	0
	Sum of TotalProjectMortalities	49	123	14	20	878	1,084
MCN	Sum of NumberCollected	1,720,227	12,384	6,632	5,836	7,989	1,753,068
	Sum of NumberBarged	2,870	0	0	0	0	2,870
	Sum of NumberBypassed	1,714,211	12,379	6,629	5,831	7,979	1,747,029
	Sum of NumberTrucked	0	0	0	0	0	0
	Sum of TotalProjectMortalities	586	5	3	5	10	609
Total Sum of NumberCollected		1,915,688	40,942	19,387	9,949	139,393	2,125,359
Total Sum of NumberBarged		195,466	28,373	12,703	4,007	130,255	370,804
Total Sum of NumberBypassed		1,716,033	12,380	6,629	5,831	8,155	1,749,028
Total Sum of NumberTrucked		0	0	0	0	0	0
Total Sum of TotalProjectMortalities		1,629	189	55	111	983	2,967

YTD Transportation Summary

TO: 06/28/02

		Species					
Site	Data	CH0	CH1	CO	SO	ST	Grand Total
LGR	Sum of NumberCollected	110,122	1,532,864	79,596	50,194	1,688,410	3,461,186
	Sum of NumberBarged	108,986	1,481,016	79,454	48,387	1,617,946	3,335,789
	Sum of NumberBypassed	1	38,152	5	7	65,895	104,060
	Sum of NumberTrucked	29	9,847	20	343	3,383	13,622
	Sum of TotalProjectMortalities	1,106	3,849	117	1,457	1,186	7,715
LGS	Sum of NumberCollected	102,729	1,905,982	78,455	46,385	1,557,840	3,691,391
	Sum of NumberBarged	102,629	1,903,324	77,894	45,782	1,554,775	3,684,404
	Sum of NumberBypassed	0	0	0	0	0	0
	Sum of NumberTrucked	0	1,034	4	74	1,024	2,136
	Sum of TotalProjectMortalities	100	1,624	557	529	2,041	4,851
LMN	Sum of NumberCollected	48,672	2,211,861	61,254	37,677	1,726,586	4,086,050
	Sum of NumberBarged	46,760	2,119,361	59,235	36,626	1,689,677	3,951,659
	Sum of NumberBypassed	1,860	68,125	1,994	213	31,936	104,128
	Sum of NumberTrucked	0	20,104	0	13	356	20,473
	Sum of TotalProjectMortalities	52	4,271	25	830	4,612	9,790
MCN	Sum of NumberCollected	1,925,608	2,197,737	107,313	901,542	461,344	5,593,544
	Sum of NumberBarged	2,870	0	0	0	109	2,979
	Sum of NumberBypassed	1,919,526	2,196,780	107,289	900,712	460,971	5,585,278
	Sum of NumberTrucked	0	0	0	0	0	0
	Sum of TotalProjectMortalities	653	957	24	830	264	2,728
Total Sum of NumberCollected		2,187,131	7,848,444	326,618	1,035,798	5,434,180	16,832,171
Total Sum of NumberBarged		261,245	5,503,701	216,583	130,795	4,862,507	10,974,831
Total Sum of NumberBypassed		1,921,387	2,303,057	109,288	900,932	558,802	5,793,466
Total Sum of NumberTrucked		29	30,985	24	430	4,763	36,231
Total Sum of TotalProjectMortalities		1,911	10,701	723	3,646	8,103	25,084

