



## Fish Passage Center

# Weekly Report #03 - 15

June 27, 2003

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**NOTE: There will not be a weekly report next week, July 4th. The next scheduled weekly report will be on July 11th. Please check our website at [www.fpc.org](http://www.fpc.org) for updates. Thanks!**

### Summary of Events:

#### Water Supply:

Precipitation for the month of June through the 23 continues to be below average throughout the Columbia basin. The October through June precipitation for the Columbia above Grand Coulee, the Columbia above The Dalles and the Snake River above Ice Harbor areas are all near 90% of the historical average, unchanged from the past week, as a result of below average precipitation for the week.

**Table 1. Summary of June precipitation and cumulative October through June precipitation with respect to average (1971-2000), at select locations within the Colum-**

Location	June 1-23, 2003		Cumulative October, 1 2002 to June 23, 2003	
	Observed (inches)	% Average	Observed (inches)	% Average
Columbia Above Coulee	1.54	84	18.03	90
Snake River Above Ice Harbor	.39	35	13.93	94
Columbia Above The Dalles	.80	58	17.87	93
Kootenai	1.64	87	17.28	85
Clark Fork	0.94	63	12.90	94
Flathead	1.60	79	15.54	85
Pend Oreille/Spokane	0.77	46	25.35	95
Central Washington	0.03	7	8.27	106
Snake River Plain	0.10	14	6.56	70
Salmon/Boise/Payette	0.45	40	17.32	100
Clearwater	.94	49	27.39	104
SW Washington Cascades/Cowlitz	.80	35	56.96	88
Willamette Valley	.44	25	51.09	92

The June mid-Month forecast was completed and distributed on June 23. The mid-month forecast is included in Table 2, with the April, May June final forecasts. The mid-month forecast includes observed precipitation through June 16 and assumes normal precipitation for the remainder of the month. The mid-month forecasts decreased slightly from the June final forecast.

**Table 2. March Final, April Final and June Final Runoff Volume Forecasts for various reservoirs within the Columbia and Snake River Basins.**

Location	April Final		May Final		June Final		June midmonth	
	% Average (1971-2000)	Probable Runoff Volume (Kaf)	% Average (1971-2000)	Probable Runoff Volume (Kaf)	% Average (1971-2000)	Probable Runoff Volume (Kaf)	% Average (1971-2000)	Probable Runoff Volume (Kaf)
The Dalles (Jan-July)	79	85300	84	90200	83	83900	82	87500
Grand Coulee (Jan-July)	84	52900	88	55500	88	55600	86	54000
Libby Res. Inflow, MI (Jan-July)	79	490	82	520	81	5100	79	490
Hungry Horse Res. Inflow, MI (Jan-July)	81	1800	85	1900	86	1920	83	1850
Lower Granite Res. Inflow (Apr-July)	79	17100	86	18500	84	18100	80	17200
Brownlee Res. Inflow (Apr-July)	53	3370	56	3520	56	3540	56	3520
Dwoshak Res. Inflow (Apr-July)	90	2390	88	2330	87	2300	87	2300

The daily average flows for the past week, June 20 through June 26 at Lower Granite decreased steadily through the week from 74.20 kcfs on June 20 to 47.40 on June 26. The spring flow target ended on June 20, at Lower Granite, and the summer flow target of 50 kcfs began on June 21. The weekly average flow for Lower Granite for the past 7 days was 59.2 Kcfs. The spring flow target continues at McNary Dam until July 1. The weekly average flow at McNary over the past 7 days was 190.8 kcfs, less than the spring flow target for McNary of 237 kcfs. Daily average flow fluctuated at McNary over the past week, starting out at 174 kcfs on June 20 and increasing to 219 kcfs on June 26. The weekly average flow at Priest Rapids over the past 7 days was 137 kcfs. Daily average flows at Priest Rapids fluctuated from 90 kcfs to 181 kcfs over the past week.

For the past week, June 20 through June 26, the Libby Reservoir has continued to fill, filling 3.1 feet over the past week, from elevation 2453.4 feet to 2456.56 feet on June 26. Daily average inflow to the reservoir has steadily decreased through the past week from 40.5 kcfs to 23.6 kcfs..

Hungry Horse reservoir has filled through the June 20 to June 26 period, a total of 1.67 feet, from elevation 3556.05 feet to 3557.72 feet. Daily average inflow has steadily declined over the past week from 9.49 kcfs on June 20 to 3.85 kcfs on June 26. Inflow varied from 8.4 to 9.4 kcfs with outflows maintained at 2.3 kcfs. The project is 3 feet from full elevation.

Grand Coulee has filled 1.7 feet from June 20 to June 26 reaching elevation 1286.5 feet on June 19. The daily average outflow from Grand Coulee for this period had ranged from 71 kcfs to 144 kcfs.

Dworshak Reservoir filled 2.53 feet from June 20 through June 26, reaching elevation 1599.3 feet on June 26. The daily average outflow at Dworshak has steadily declined from 5.9 kcfs to 3.3 kcfs over the past week. The inflow to Dworshak over this period declined from a daily average of 7.9 on June 20 to 5.0 kcfs on June 26. has ranged from 8.2 to 10.1 kcfs.

Brownlee reservoir drafted .8 foot in the period June 20 through June 25, with project

outflows varying from a daily average of 9.9 kcfs to 16.5 kcfs. The project was at elevation 2075.5 feet on June 25.

The USBR Upper Snake River basin reservoir system is presently at 57 % full, while the USBR Boise River basin and Payette River Basin reservoirs are at 94% and 99% capacity respectively.

**Spill:** The Biological Opinion spring spill program at Lower Granite, Little Goose and Lower Monumental dams ended on June 20, 2003. The transportation of juvenile fall chinook will now be prioritized at these projects. At Ice Harbor Dam a summer spill test is being implemented. Spill over the past week averaged 60% of average daily flow at this project.

Spill over the past week at McNary, John Day, The Dalles and Bonneville dams averaged 11%, 27%, 39%, and 63% of average daily flow, respectively.

Total dissolved gas levels are presently below the gas waiver limits at all the federal projects. GBT monitoring is presently being implemented in the Lower Columbia at McNary and Bonneville dams. No fish were detected with signs of GBT this past week.

#### **Smolt Monitoring:**

Spring Migration. The spring migration is near completion throughout the basin. Compared to last week, this week's passage indices of spring migrants entering the hydro system at Lower Granite Dam in the Snake River were 20% lower for coho (averaging 379 fish per day), 47 to 50% lower for yearling chinook and steelhead (averaging 323 and 1,269 fish per day, respectively), and 100% lower for sockeye (averaging no fish per day). The decrease in passage indices of spring migrants in the Mid-Columbia River at Rock Island Dam was even greater at 73 to 88 percent lower this week, averaging 3 yearling chinook, 4 steelhead, 36 coho, and 1 sockeye per day. At the end of the hydro system, passage indices at Bonneville Dam dropped 78 to 92% this week, averaging 1,189 yearling chinook, 2,593 steelhead, 2,140 coho, and 468 sockeye per day.

Summer Migration. The summer migration is well underway throughout the basin with large increases in subyearling chinook passage indices this week compared to last week. In the Snake River, passage indices of subyearling chinook increased 38% at Lower Granite Dam, averaging 34,635 fish per day. In the Mid-Columbia River, passage indices of subyearling chinook increased 128%, averaging 259 fish per day. In the lower Columbia River at the end of the hydro system, passage indices of subyearling chinook increased 46% at Bonneville Dam, averaging 95,713 fish per day. Large increases in subyearling chinook arrivals continued to occur this week at McNary Dam as subyearling chinook passage indices nearly doubled to almost half a million fish between June 20 and 22. On subsequent sampling days during this reporting period at McNary Dam, the subyearling chinook have stayed well above half a million fish, being 614,510 fish on June 24 and 529,243 fish on June 26.

**Hatchery Releases** - The preliminary hatchery total of juvenile salmonids released above Bonneville Dam for the 2003 migration season will approximate 86.9 million from Columbia River Basin hatcheries. About 18.4 million juvenile salmonids were released or releases were initiated during the past two weeks, with an additional 5.4 million fish scheduled for release in the upcoming two weeks.

**Snake River** - About 27.9 million smolts were released in the Snake River Basin from State, Federal, and Tribal hatcheries and acclimation ponds for the 2003 migration year. The following denominations are in the FPC database:

Spring Chinook -	10,415,912
Steelhead -	9,687,941
Summer Chinook -	2,332,578
Coho -	1,244,591
Fall Chinook -	4,051,299
Sockeye -	140,410

Total Snake River basin release  
for 2003 = 27,872,731

**Mid-Columbia River** - About 22.1 million yearling and subyearling salmon species will be released in the Mid-Columbia River and its tributaries during the 2003 migration year. All scheduled yearling spring and summer chinook from the Mid-Columbia hatcheries and acclimation ponds are completed for the year.

Subyearling fall chinook releases were initiated and completed in mid-late May in the Yakima River and are on-going (volitional release) from Ringold Hatchery with Priest Rapids Hatchery completing an every other day release of their "sub" fall chinook from 5 separate ponds that started on June 12 and was completed early this week. The Turtle Rock summer chinook will be the latest group out (early July schedule). The on-site Wells hatchery subyearling summer chinook, about 473,000 this year should be passing through mid-Columbia projects (final rel date was June 13). Subyearling summer/fall chinook comprise the highest percentage and numbers of juvenile salmon released in the Mid-Columbia River (about 14.5 million scheduled).

About 209,000 sockeye were released last fall into Lake Wenatchee; there will be no sockeye releases made into the Okanogan R basin in 2003. Summer and fall releases of sockeye into the Wenatchee River basin have begun with 95,000 subyearling sockeye already planted in the White River. These fish (the majority) will migrate in 2004 from Lake Wenatchee after rearing in the lake for about 10-months.

About 1.9 million yearling coho were released in the Yakama River basin, the Wenatchee River basin and the Methow River basin this migration season.

Release of approximately 1.3 million juvenile steelhead was completed by the end of May. Steelhead were released in the Okanogan, Methow, Entiat, Wenatchee, and mainstem Mid-Columbia Rivers for the 2003 migration.

**Lower Columbia River** - The Lower Columbia River Zone will release about 36.9 million salmon and steelhead for the 2003 migration. All yearling spring, fall, steelhead, and coho salmon were released by the end of May.

About 5.4 million yearling spring chinook from State, Tribal and Federal hatcheries were released in 2003 (one small group of subyearling release is included) in the Klickitat, Umatilla, Deschutes, Hood, Wind, and Little White Salmon rivers.

About 509,000 yearling fall chinook were released in the Umatilla River basin in March and April for the 2003 migration.

During this spring, approximately 5.6 million yearling coho salmon were released in the Klickitat, Little White Salmon, and Umatilla rivers. About 580,000 summer and winter steelhead were released in this reach for 2003. Winter steelhead were released in the Hood and Big White Salmon rivers with summer steelhead planted in the Little and Big White Salmon rivers, the Klickitat, Umatilla, Deschutes, and Hood rivers for the 2003 season.

Subyearling fall chinook were released into the Umatilla River in May. Subyearling fall chinook releases in the Klickitat River are basically from early to late June with Little White Salmon Hatchery releasing their subyearling fish on June 26. About 7 million subyearling fall chinook (URB) will be released in these three river basins.

**Adult Fish Passage** - Basically, the adult spring chinook run is completed for the year. See the tables for final counts of adult and jack spring chinook salmon at the mainstem projects.

Adult summer chinook passage at Bonneville Dam ranged between 1,544 and 3,247 for the week ending June 26. The cumulative count was 60,564 about 81.9% and 300% of the respective year 2002 and 10-year average count at Bonneville. The PIT tag data from Bonneville Dam indicates that the majority of adult chinook are now destined for the Mid-Columbia River (areas above Priest Rapids Dam). Counts of adult summer chinook at The Dalles, John Day, and McNary dams averaged about 2,200 adult chinook per day through this past week. Likewise, the counts at Priest Rapids have shown an increase during the week and averaged about 1,200 per day with the cumulative total now 11,979 through June 25. Passage numbers at Ice Harbor were close to 600

per day by the end of the week with the cumulative total now 13,780 through June 25.

Passage of sockeye salmon increased through the week at Bonneville Dam with the cumulative count through June 26 at 17,720, and this total was about 86% and 67% of the respective 2002 and 10-year average counts. These sockeye are mainly destined for Lake Wenatchee or Lake Osoyoos in the Mid-Columbia Reach. Sockeye passage is increasing at Priest Rapids and Rock Island dams as fish are moving upstream toward their spawning areas. The Technical Advisory Committee (TAC) projected a return of 22,000 sockeye to the mouth of the Columbia River for the 2003 season. They are projecting 80 "wild" adult sockeye destined for the Snake River will make it to the Columbia River mouth.

Numbers of steelhead at Bonneville Dam continued to increase through the week with an average of 505 adult steelhead counted per day and a total of 11,255 through June 26. This count compares to 20,344 for 2002 and 12,396 for the 10-year average. For the 2003 season, TAC estimated the upriver combined A- and B-Run steelhead that will return to the Columbia River mouth in 2003 to be 360,900, almost 100,000 less than the 2002 return to the river.

One question that normally arises at this time of year is; how can the Lower Granite Dam count of 16,000 (2003 count) be higher than the Bonneville count of 11,000+? Remember that a Run-Year on Steelhead (upriver fish) will general encompass two calendar years e.g., June 1 of any given year through May 31 of the following year. Large numbers of adult steelhead overwinter in pools below Lower Granite Dam from the fall migration (these fish are already counted at Bonneville Dam in the fall season). The steelhead normally begin their final migration to the spawning grounds in late winter/early spring: Note that fish counting begins on March 1st at LGR. As noted, about 16,000 passed LGR this spring, but since June 1st only 250 steelhead that are new or fresh from the ocean have been counted at the project.

**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
06/13/03	136.3	0.2	142.9	0.0	164.8	10.0	164.9	24.4	172.8	33.7	184.9	55.6	189.2	120.8
06/14/03	130.8	0.2	131.9	0.0	145.1	9.1	143.5	20.8	152.0	28.6	155.2	46.5	157.2	100.4
06/15/03	114.4	0.2	117.3	0.0	130.7	8.2	129.6	15.0	136.4	21.5	141.7	42.6	139.8	81.2
06/16/03	161.1	0.5	154.5	3.4	166.4	10.0	161.8	23.4	166.7	31.9	183.7	55.2	184.1	104.2
06/17/03	143.9	0.2	147.1	0.0	164.4	9.6	162.4	22.4	170.7	31.1	173.4	52.2	177.3	102.4
06/18/03	117.6	0.2	128.2	0.0	146.1	9.3	145.5	21.8	152.3	30.0	173.7	51.8	175.2	102.0
06/19/03	115.2	0.2	107.2	0.0	112.8	7.9	113.0	21.8	122.9	29.9	115.2	32.8	116.8	68.0
06/20/03	121.7	0.2	127.3	0.0	138.8	8.6	135.3	21.7	139.5	30.4	131.7	37.0	126.2	73.1
06/21/03	81.2	0.2	83.4	0.0	94.8	6.8	96.7	16.8	103.9	25.8	108.4	30.2	116.9	67.9
06/22/03	71.2	0.2	69.0	0.0	79.5	5.7	81.0	13.0	85.4	15.1	86.0	24.3	90.0	52.4
06/23/03	131.7	0.2	133.0	0.0	135.6	8.3	128.6	20.8	132.8	25.7	151.2	43.5	129.4	74.3
06/24/03	144.4	0.2	143.1	0.0	153.6	8.5	149.1	19.6	148.7	26.6	150.7	48.0	147.3	84.0
06/25/03	144.3	0.2	145.7	0.0	155.0	27.9	150.9	21.9	154.1	30.3	170.4	52.7	169.5	97.4
06/26/03	141.5	0.2	144.3	0.0	153.6	20.3	150.8	21.5	153.8	30.4	179.8	55.5	181.8	103.4

**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
06/13/03	6.2	0.0	16.3	18.3	97.3	20.1	97.1	18.6	97.4	29.5	98.9	58.2	98.9	58.2
06/14/03	2.2	0.0	17.4	15.9	86.0	20.3	85.3	18.6	87.2	32.6	92.3	46.0	92.3	46.0
06/15/03	2.2	0.0	14.8	15.3	80.9	20.8	79.4	19.6	80.7	36.1	82.7	52.4	82.7	52.4
06/16/03	6.0	0.0	16.8	19.1	82.2	20.8	80.8	19.7	80.3	35.9	83.2	61.1	83.2	61.1
06/17/03	5.9	0.0	14.1	18.1	83.0	20.4	83.3	19.6	83.1	36.2	87.2	53.3	87.2	53.3
06/18/03	5.9	0.0	14.1	15.9	80.2	20.3	79.4	19.3	78.7	35.5	81.5	41.1	81.5	41.1
06/19/03	5.9	0.0	13.5	11.2	73.3	20.4	73.0	20.1	72.4	33.3	76.4	50.2	76.4	50.2
06/20/03	5.9	0.0	16.4	16.8	74.2	10.1	72.3	8.8	73.8	6.4	73.8	51.7	73.8	51.7
06/21/03	2.2	0.0	13.6	11.4	70.1	0.0	70.2	0.0	71.6	0.0	74.0	44.9	74.0	44.9
06/22/03	2.2	0.0	14.9	16.1	55.7	0.0	56.0	0.0	59.8	0.0	61.7	30.8	61.7	30.8
06/23/03	6.0	0.0	13.8	18.8	59.6	0.0	56.3	0.0	61.9	0.0	63.9	42.5	63.9	42.5
06/24/03	3.8	0.0	13.5	15.5	58.9	0.0	61.2	0.0	66.8	0.0	67.7	46.5	67.7	46.5
06/25/03	3.2	0.0	12.1	15.7	50.8	0.0	47.4	0.0	47.7	0.0	47.0	38.3	47.0	38.3
06/26/03	3.3	0.0	---	---	47.4	0.0	47.3	0.0	53.6	0.0	50.1	12.2	50.1	12.2

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

Date	McNary		John Day		The Dalles		Bonneville			
	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	PH1	PH2
06/13/03	260.9	87.9	258.7	70.4	260.7	100.2	281.9	95.4	69.6	110.2
06/14/03	284.4	109.4	287.3	72.2	283.2	108.9	294.6	96.4	74.6	116.9
06/15/03	239.1	65.1	212.0	62.2	219.4	87.3	260.1	154.3	19.5	79.7
06/16/03	247.0	87.0	253.0	70.6	243.6	94.6	244.1	152.0	0.2	85.3
06/17/03	255.0	80.5	254.6	69.9	258.1	101.7	281.8	92.9	67.0	115.3
06/18/03	266.0	95.2	253.2	64.0	255.6	99.5	275.9	93.3	63.4	109.9
06/19/03	235.5	79.0	230.9	60.8	237.6	93.9	268.1	146.4	20.5	94.5
06/20/03	174.1	32.0	183.7	56.0	177.2	69.4	208.0	150.3	0.0	51.0
06/21/03	194.1	19.5	191.2	50.8	189.3	74.5	198.4	94.1	6.4	91.3
06/22/03	180.7	5.0	174.2	45.3	172.4	68.0	203.4	95.9	11.5	89.2
06/23/03	161.8	0.0	173.3	43.6	175.9	69.8	199.8	151.9	0.0	41.2
06/24/03	188.3	15.6	190.8	51.9	187.0	73.7	193.5	144.0	0.0	42.8
06/25/03	219.4	43.9	204.6	50.1	200.8	78.3	209.3	141.2	0.0	61.4
06/26/03	201.8	43.6	229.7	59.4	222.4	86.6	249.7	143.6	0.0	99.5

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

Site	Date	Species	Number of Fish	Number w GBT signs	Number w Fin Signs	% Fin GBT	% Severe Fin GBT	Number of Fish with Fin GBT Listed by Highest Rank				Fish with L. Line GBT	
								Rank 1	Rank 2	Rank 3	Rank 4	Num Fish	Avg. Rank
<b>Lower Granite Dam</b>													
	05/06/03	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0		
	06/17/03	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0		
<b>Little Goose Dam</b>													
	06/18/03	Chinook + Steelhead	48	1	1	2.08%	0.00%	1	0	0	0		
<b>Lower Monumental Dam</b>													
<b>McNary Dam</b>													
	06/19/03	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0		
	06/23/03	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0		
<b>Bonneville Dam</b>													
	06/19/03	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0		
	06/23/03	Chinook + Steelhead	6	0	0	0.00%	0.00%	0	0	0	0		
	06/26/03	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0		
<b>Rock Island Dam</b>													
	06/19/03	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0		
	06/23/03	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0		

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

Total Dissolved Gas Saturation Data at Upper Columbia River Sites

Date	<u>Hungry H. Dnst</u>			<u>Boundary</u>			<u>Grand Coulee</u>			<u>Grand C. Tlwr</u>			<u>Chief Joseph</u>							
	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>		
	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
6/13	104	106	106	24	120	122	123	24	114	114	115	24	108	109	109	24	111	111	112	23
6/14	105	105	106	24	120	121	122	24	114	114	114	24	107	107	108	24	111	111	111	23
6/15	105	106	106	24	119	121	122	24	114	114	114	24	108	109	109	24	110	111	111	23
6/16	105	105	106	24	119	121	122	24	114	114	114	24	108	108	109	24	111	111	112	23
6/17	105	106	106	24	119	121	122	24	114	115	115	24	108	109	109	24	112	112	112	23
6/18	107	108	108	24	118	121	122	24	116	117	117	24	110	110	111	24	113	113	113	23
6/19	107	107	108	24	118	120	122	24	117	117	118	24	113	114	114	23	113	113	114	23
6/20	107	107	108	24	119	121	121	24	117	117	117	24	113	113	114	24	112	113	113	23
6/21	106	107	107	24	117	120	121	24	117	117	117	24	113	114	114	24	112	112	113	23
6/22	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
6/23	105	105	105	23	117	118	120	23	116	117	117	23	113	113	114	23	111	111	112	23
6/24	104	105	106	24	116	119	120	24	116	116	116	24	112	113	113	24	112	112	113	23
6/25	104	105	106	24	116	120	120	24	115	116	116	24	112	112	113	24	112	112	112	23
6/26	---	---	---	0	116	118	120	24	115	115	116	24	112	113	113	24	112	112	113	24

Total Dissolved Gas Saturation Data at Mid Columbia River Sites

Date	<u>Chief J. Dnst</u>			<u>Wells</u>			<u>Wells Dwnstrm</u>			<u>Rocky Reach</u>			<u>Rocky R. Tlwr</u>							
	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>		
	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
6/13	111	111	112	23	110	111	111	24	112	112	113	24	111	111	112	21	112	112	113	21
6/14	110	110	111	23	109	109	109	23	111	111	112	23	110	110	110	24	111	111	112	23
6/15	110	110	110	23	109	110	111	24	111	111	112	24	109	110	110	23	110	111	111	22
6/16	111	112	115	23	110	110	111	24	111	112	112	24	110	111	112	23	111	112	113	22
6/17	112	112	113	23	111	112	112	24	113	113	113	24	112	112	113	22	112	113	114	19
6/18	113	113	115	15	112	113	113	24	113	114	114	24	113	113	114	22	113	114	115	22
6/19	---	---	---	0	112	112	113	22	113	113	114	22	113	113	113	23	113	114	114	22
6/20	112	112	112	10	111	111	112	22	112	112	113	22	111	112	112	24	112	112	113	24
6/21	112	113	113	23	110	110	111	24	111	112	112	24	110	110	110	23	111	111	112	23
6/22	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
6/23	111	111	113	23	110	110	111	19	111	112	112	19	109	110	110	22	110	111	111	22
6/24	111	111	112	23	111	111	111	23	112	112	113	23	110	111	111	23	111	112	112	23
6/25	111	111	111	23	111	112	112	24	115	118	122	24	111	111	112	22	112	112	113	20
6/26	111	111	112	24	112	112	112	24	114	116	122	24	113	116	119	23	114	116	120	23

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>		
	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
6/13	112	112	112	21	116	117	118	20	111	111	111	24	115	115	116	24	112	113	114	24
6/14	111	111	111	24	115	116	117	22	109	110	110	24	114	115	115	24	111	113	115	24
6/15	110	110	111	22	114	115	116	19	110	111	111	24	115	115	116	24	112	112	113	24
6/16	111	111	112	23	115	116	117	22	111	111	113	24	115	115	116	24	114	114	115	24
6/17	112	113	113	21	116	117	118	21	113	114	116	24	115	116	116	24	115	115	116	24
6/18	113	113	113	22	117	118	118	22	111	112	114	24	115	116	117	24	114	115	116	24
6/19	112	113	113	23	117	117	118	20	111	112	113	24	114	115	115	24	111	112	113	24
6/20	111	111	112	24	116	117	118	23	110	110	112	24	113	114	115	24	110	110	111	24
6/21	110	111	111	23	116	117	118	23	108	108	109	24	113	113	114	24	109	110	110	24
6/22	---	---	---	0	---	---	---	0	107	107	107	24	112	112	113	24	108	109	110	24
6/23	110	111	112	21	115	116	120	19	107	109	111	24	113	113	114	24	109	110	111	24
6/24	110	111	112	23	115	116	117	23	107	108	111	24	114	114	114	24	111	112	113	24
6/25	111	112	113	21	115	116	116	19	107	108	110	24	114	114	114	24	111	112	113	24
6/26	112	113	113	23	116	117	118	21	---	---	---	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	Priest R. Dnst			#	Pasco			#	Dworshak			#	Clrwtr-Peck			#	Anatone			#
	24 h Avg	12 h Avg	High		24 h Avg	12 h Avg	High		24 h Avg	12 h Avg	High		24 h Avg	12 h Avg	High		24 h Avg	12 h Avg	High	
6/13	---	---	---	0	113	113	113	24	104	105	107	24	102	103	103	24	105	106	107	24
6/14	---	---	---	0	113	114	115	24	104	106	114	24	102	103	104	24	105	106	106	24
6/15	118	118	119	8	113	114	114	24	103	104	105	24	102	103	104	24	105	106	107	24
6/16	120	120	121	24	113	114	115	24	103	103	104	16	102	103	104	24	105	106	107	24
6/17	120	121	122	24	115	117	117	24	104	104	108	24	103	103	104	24	105	106	107	24
6/18	120	120	121	24	115	115	116	24	104	105	106	24	103	104	104	24	105	106	106	24
6/19	117	119	119	24	112	113	114	24	105	105	110	24	102	103	103	24	104	105	106	23
6/20	116	117	118	24	109	110	110	24	104	104	109	24	101	102	102	24	104	104	105	23
6/21	116	117	118	24	108	109	110	24	104	104	105	24	101	102	103	24	104	104	105	24
6/22	113	115	116	24	109	110	111	24	104	104	105	24	102	102	103	24	104	105	105	19
6/23	115	117	118	24	109	110	111	24	103	104	108	24	102	103	104	24	105	108	143	23
6/24	117	118	119	24	111	113	114	24	104	105	111	17	102	103	104	24	104	104	105	24
6/25	118	119	120	24	113	114	115	24	102	103	103	24	102	103	104	24	104	104	105	24
6/26	---	---	---	0	114	115	115	24	102	103	103	24	102	103	104	23	104	105	106	24

### Total Dissolved Gas Saturation Data at Snake River Sites

Date	Clrwtr-Lewiston			#	Lower Granite			#	L. Granite Tlwr			#	Little Goose			#	L. Goose Tlwr			#
	24 h Avg	12 h Avg	High		24 h Avg	12 h Avg	High		24 h Avg	12 h Avg	High		24 h Avg	12 h Avg	High		24 h Avg	12 h Avg	High	
6/13	---	---	---	0	105	105	106	24	111	118	118	24	109	111	112	24	112	114	115	24
6/14	---	---	---	0	104	104	105	24	111	118	119	24	108	109	110	24	111	115	116	24
6/15	---	---	---	0	103	104	104	24	112	119	120	24	107	108	108	24	112	116	116	24
6/16	103	103	104	9	104	105	106	24	112	119	121	24	109	110	113	24	112	116	116	24
6/17	102	103	105	24	106	108	111	24	112	119	119	23	111	112	113	24	113	116	116	24
6/18	102	102	104	15	106	106	107	24	112	119	120	24	112	112	113	24	114	116	117	24
6/19	---	---	---	0	105	105	106	24	112	119	120	24	110	111	111	23	113	116	124	23
6/20	---	---	---	0	103	104	104	24	107	112	120	24	108	108	109	24	110	112	117	24
6/21	---	---	---	0	102	102	102	24	102	102	103	24	106	106	107	24	105	106	107	24
6/22	---	---	---	0	101	101	101	24	100	100	101	24	104	105	105	24	104	104	105	24
6/23	103	103	104	11	100	101	101	24	100	101	101	24	104	104	105	24	104	104	105	24
6/24	102	103	105	19	100	101	102	24	100	101	101	24	101	101	102	24	101	101	102	24
6/25	103	103	105	12	101	102	102	24	101	101	102	24	100	101	102	24	100	100	101	24
6/26	102	104	105	23	105	106	108	24	102	102	103	24	101	102	105	24	100	100	101	24

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

Date	Lower Mon.			#	L. Mon. Tlwr			#	Ice Harbor			#	Ice Harbor Tlwr			#	McNary-Oregon			#
	24 h Avg	12 h Avg	High		24 h Avg	12 h Avg	High		24 h Avg	12 h Avg	High		24 h Avg	12 h Avg	High		24 h Avg	12 h Avg	High	
6/13	114	116	118	24	118	118	119	24	112	112	112	24	115	117	118	24	112	113	114	24
6/14	111	112	113	24	118	118	119	13	111	112	112	24	114	115	116	24	111	111	113	24
6/15	110	112	113	24	118	119	120	19	112	113	113	24	114	114	117	24	112	114	116	24
6/16	112	114	115	24	118	118	119	4	113	114	115	21	114	115	116	24	112	113	117	24
6/17	114	115	119	24	120	120	124	8	116	117	119	24	115	116	120	24	114	115	117	24
6/18	114	116	117	24	119	119	119	1	117	118	118	20	113	114	115	23	114	114	117	24
6/19	114	115	115	24	118	118	118	1	116	116	116	24	114	114	115	24	113	113	113	24
6/20	111	112	114	24	110	110	111	5	113	114	115	21	113	114	116	24	109	110	111	24
6/21	110	111	111	24	110	110	111	9	111	111	112	24	113	114	116	24	106	106	107	24
6/22	108	110	112	24	109	109	110	12	108	108	109	24	111	112	113	24	105	105	106	24
6/23	105	106	106	24	105	105	107	24	107	107	108	24	113	114	116	24	106	108	109	24
6/24	104	104	105	24	104	105	106	24	107	107	108	24	116	117	118	24	108	111	113	24
6/25	104	104	105	24	103	104	106	24	106	106	108	24	115	117	117	24	108	110	115	24
6/26	104	105	107	24	104	104	105	24	108	110	115	24	110	114	117	24	110	113	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>	
6/13	112	112	112	24	118	119	120	24	107	108	108	23	112	118	119	24	110	113	114	23
6/14	110	111	112	24	118	119	119	24	108	108	109	23	112	118	119	24	109	112	114	23
6/15	111	111	113	24	116	116	119	4	108	108	109	23	112	116	118	24	111	114	116	23
6/16	114	115	117	24	116	118	119	21	110	112	114	23	113	118	119	24	111	114	117	23
6/17	114	115	116	24	116	119	119	24	112	113	116	23	114	118	119	24	113	116	118	23
6/18	114	114	115	24	117	119	119	24	112	112	112	23	114	117	119	24	110	111	111	23
6/19	113	113	114	24	116	118	119	24	111	111	112	23	113	116	117	24	108	110	111	23
6/20	108	109	110	24	110	114	118	24	108	109	110	23	111	116	117	24	107	109	110	23
6/21	105	106	106	24	108	110	112	24	106	106	107	23	110	116	117	24	107	109	110	23
6/22	105	107	135	24	104	106	110	24	104	104	104	23	109	115	117	24	106	108	109	23
6/23	123	136	136	24	104	104	104	24	103	103	103	23	109	115	117	24	105	108	111	23
6/24	106	107	108	24	107	109	112	24	102	102	102	23	109	115	118	24	105	108	111	23
6/25	109	109	111	24	112	113	114	24	102	102	104	23	109	117	118	24	106	110	113	23
6/26	111	113	115	24	113	115	117	24	103	104	104	23	109	116	119	24	107	111	114	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>	
6/13	116	118	119	24	111	112	112	23	113	114	117	23	111	112	113	24
6/14	116	118	119	24	110	111	112	23	113	114	118	23	110	112	115	24
6/15	116	118	119	24	111	112	113	23	118	119	119	23	112	115	116	24
6/16	117	119	120	24	113	113	113	23	119	120	120	23	115	117	118	24
6/17	119	120	121	24	115	115	116	23	116	117	119	23	115	116	118	24
6/18	117	117	119	24	112	113	115	23	113	115	117	23	111	112	113	24
6/19	115	116	116	24	108	109	110	23	116	116	117	23	110	112	112	24
6/20	114	114	115	24	107	107	108	23	117	118	119	23	111	112	113	24
6/21	114	115	116	24	107	107	107	23	112	115	118	23	112	113	114	24
6/22	114	114	116	24	106	106	107	23	112	114	118	23	109	111	113	24
6/23	113	114	115	24	107	107	107	23	117	118	118	23	109	112	114	24
6/24	113	114	115	24	106	107	107	23	118	118	118	23	114	115	116	24
6/25	115	115	115	8	107	108	109	23	116	117	118	23	114	115	115	24
6/26	117	117	119	11	110	111	112	23	117	117	118	23	114	115	116	24

## HATCHERY RELEASE SUMMARY LAST TWO WEEKS

Hatchery Release Summary									
From:	6/13/2003		to	6/26/2003					
Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
Nez Perce Tribe	Lyons Ferry Hatchery	CH0	FA	2003	300,000	06-16-03	06-30-03	Cpt John Acclim Pond	Snake River
<b>Nez Perce Tribe Total</b>					<b>300,000</b>				
U.S. Fish and Wildlife Service	Little White Salmon NFH	CH0	FA	2003	2,000,000	06-26-03	06-26-03	Little White Salmon Hatchery	Little White Salmon River
<b>U.S. Fish and Wildlife Service Total</b>					<b>2,000,000</b>				
Umatilla Tribe	Oxbow-Idaho	CH0	FA	2003	332,226	06-01-03	06-16-03	Hells Canyon Dam	Snake River
<b>Umatilla Tribe Total</b>					<b>332,226</b>				
Washington Dept. of Fish and Wildlife	Eastbank Hatchery	CH0	SU	2003	426,747	06-16-03	07-07-03	Turtle Rock Hatchery	Mid-Columbia River
Washington Dept. of Fish and Wildlife	Klickitat Hatchery	CH0	FA	2003	4,000,000	06-03-03	06-30-03	Klickitat Hatchery	Klickitat River
Washington Dept. of Fish and Wildlife	Priest Rapids Hatchery	CH0	FA	2003	3,500,000	06-06-03	06-23-03	Ringold Springs Hatchery	Mid-Columbia River
Washington Dept. of Fish and Wildlife	Priest Rapids Hatchery	CH0	FA	2003	6,700,000	06-12-03	06-25-03	Priest Rapids Hatchery	Mid-Columbia River
Washington Dept. of Fish and Wildlife	Turtle Rock Hatchery	CH0	SU	2003	658,745	06-16-03	07-07-03	Turtle Rock Hatchery	Mid-Columbia River
Washington Dept. of Fish and Wildlife	Wells Hatchery	CH0	SU	2003	473,100	06-12-03	06-13-03	Wells Hatchery	Mid-Columbia River
<b>Washington Dept. of Fish and Wildlife Total</b>					<b>15,758,592</b>				
<b>Grand Total</b>					<b>18,390,818</b>				

## HATCHERY RELEASE SUMMARY NEXT TWO WEEKS

Hatchery Release Summary									
From:	6/27/2003		to	7/10/2003					
Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
Nez Perce Tribe	Lyons Ferry Hatchery	CH0	FA	2003	300,000	06-16-03	06-30-03	Cpt John Acclim Pond	Snake River
<b>Nez Perce Tribe Total</b>					<b>300,000</b>				
Washington Dept. of Fish and Wildlife	Eastbank Hatchery	CH0	SU	2003	426,747	06-16-03	07-07-03	Turtle Rock Hatchery	Mid-Columbia River
Washington Dept. of Fish and Wildlife	Klickitat Hatchery	CH0	FA	2003	4,000,000	06-03-03	06-30-03	Klickitat Hatchery	Klickitat River
Washington Dept. of Fish and Wildlife	Turtle Rock Hatchery	CH0	SU	2003	658,745	06-16-03	07-07-03	Turtle Rock Hatchery	Mid-Columbia River
<b>Washington Dept. of Fish and Wildlife Total</b>					<b>5,085,492</b>				
<b>Grand Total</b>					<b>5,385,492</b>				

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

## Two-Week Summary of Passage Indices

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)
06/13/2003 *	---	9	---	---	1,698	25,572	785	28	---	2,494	8,844
06/14/2003	---	6	---	---	956	993	759	2	3,721	1,377	9,777
06/15/2003 *	---	8	---	---	400	2,086	386	6	---	1,441	11,888
06/16/2003	---	3	---	---	512	3,043	339	6	3,712	468	6,758
06/17/2003 *	---	9	---	---	166	88	468	11	---	902	3,874
06/18/2003 *	---	17	---	---	233	178	217	10	1,795	1,304	3,321
06/19/2003 *	---	18	---	---	303	44	110	8	---	359	6,850
06/20/2003 *	---	21	---	---	310	46	68	1	1,891	361	1,889
06/21/2003 *	---	14	---	---	200	0	460	8	---	757	1,044
06/22/2003 *	---	17	---	---	500	0	450	0	1,067	194	1,474
06/23/2003 *	---	29	---	---	350	102	18	0	---	294	2,429
06/24/2003 *	---	19	---	---	300	67	30	4	1,007	119	450
06/25/2003 *	---	13	---	---	300	204	23	6	---	153	434
06/26/2003	---	---	---	---	300	0	25	0	1,761	170	601
<b>Total:</b>	<b>0</b>	<b>183</b>	<b>0</b>	<b>0</b>	<b>6,528</b>	<b>32,423</b>	<b>4,138</b>	<b>90</b>	<b>14,954</b>	<b>10,393</b>	<b>59,633</b>
<b># Days:</b>	<b>0</b>	<b>13</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>7</b>	<b>14</b>	<b>14</b>
<b>Average:</b>	<b>0</b>	<b>14</b>	<b>0</b>	<b>0</b>	<b>466</b>	<b>2,316</b>	<b>296</b>	<b>6</b>	<b>2,136</b>	<b>742</b>	<b>4,260</b>
<b>YTD</b>	<b>32,064</b>	<b>34,022</b>	<b>11,123</b>	<b>2,417</b>	<b>3,597,448</b>	<b>2,502,213</b>	<b>784,482</b>	<b>15,304</b>	<b>1,618,049</b>	<b>2,072,989</b>	<b>4,038,633</b>

COMBINED SUBYEARLING CHINOOK											
	WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date	(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
06/13/2003 *	---	15	---	---	34,970	7,278	11,631	107	---	45,687	66,330
06/14/2003	---	3	---	---	20,529	13,653	10,453	67	50,457	24,923	66,686
06/15/2003 *	---	7	---	---	29,032	10,520	8,271	53	---	47,140	76,347
06/16/2003	---	2	---	---	22,509	23,503	7,919	78	68,216	22,478	55,905
06/17/2003 *	---	9	---	---	22,262	19,641	8,286	133	---	25,986	51,916
06/18/2003 *	---	0	---	---	25,762	36,064	11,135	106	342,558	28,398	77,986
06/19/2003 *	---	1	---	---	21,230	7,045	1,380	251	---	34,104	62,473
06/20/2003 *	---	0	---	---	20,418	11,889	2,212	232	250,655	35,955	29,257
06/21/2003 *	---	1	---	---	46,825	29,332	14,900	163	---	59,613	39,677
06/22/2003 *	---	7	---	---	58,250	25,099	11,532	177	490,363	39,840	113,116
06/23/2003 *	---	0	---	---	36,900	15,303	26,824	246	---	34,485	154,308
06/24/2003 *	---	0	---	---	28,700	14,218	6,081	355	614,510	39,556	121,175
06/25/2003 *	---	5	---	---	33,701	18,206	8,505	413	---	40,779	79,014
06/26/2003	---	---	---	---	17,650	7,970	3,912	227	529,243	150,133	133,445
<b>Total:</b>	<b>0</b>	<b>50</b>	<b>0</b>	<b>0</b>	<b>418,738</b>	<b>239,721</b>	<b>133,041</b>	<b>2,608</b>	<b>2,346,002</b>	<b>629,077</b>	<b>1,127,635</b>
<b># Days:</b>	<b>0</b>	<b>13</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>7</b>	<b>14</b>	<b>14</b>
<b>Average:</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>29,910</b>	<b>17,123</b>	<b>9,503</b>	<b>186</b>	<b>335,143</b>	<b>44,934</b>	<b>80,545</b>
<b>YTD</b>	<b>1</b>	<b>118</b>	<b>74</b>	<b>355</b>	<b>970,382</b>	<b>449,161</b>	<b>257,353</b>	<b>7,395</b>	<b>2,879,284</b>	<b>1,199,265</b>	<b>3,534,512</b>

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

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

## 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)
06/13/2003	*	---	0	---	---	881	899	499	796	---	3,282	9,885
06/14/2003		---	0	---	---	574	621	312	428	4,445	2,892	19,304
06/15/2003	*	---	0	---	---	732	133	165	216	---	1,443	21,927
06/16/2003		---	0	---	---	171	89	0	256	2,142	1,030	13,208
06/17/2003	*	---	0	---	---	33	131	180	176	---	2,265	8,007
06/18/2003	*	---	0	---	---	367	220	145	88	1,632	1,681	10,609
06/19/2003	*	---	0	---	---	539	43	28	167	---	719	22,885
06/20/2003	*	---	0	---	---	275	0	54	90	474	180	8,684
06/21/2003	*	---	0	---	---	825	1	100	76	---	417	1,044
06/22/2003	*	---	0	---	---	500	233	90	15	320	563	2,632
06/23/2003	*	---	0	---	---	400	100	16	1	---	312	971
06/24/2003	*	---	0	---	---	150	200	16	30	1,000	271	1,351
06/25/2003	*	---	0	---	---	350	200	29	35	---	34	0
06/26/2003		---	---	---	---	150	133	13	7	881	51	301
<b>Total:</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5,947</b>	<b>3,003</b>	<b>1,647</b>	<b>2,381</b>	<b>10,894</b>	<b>15,140</b>	<b>120,808</b>
<b># Days:</b>		<b>0</b>	<b>13</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>7</b>	<b>14</b>	<b>14</b>
<b>Average:</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>425</b>	<b>215</b>	<b>118</b>	<b>170</b>	<b>1,556</b>	<b>1,081</b>	<b>8,629</b>
<b>YTD</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>17</b>	<b>127,408</b>	<b>115,345</b>	<b>37,259</b>	<b>41,216</b>	<b>103,848</b>	<b>254,374</b>	<b>2,098,508</b>

		COMBINED STEELHEAD										
		WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date		(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
06/13/2003	*	---	20	---	---	4,906	1,866	499	45	---	1,050	14,827
06/14/2003		---	19	---	---	3,379	1,241	759	24	1,082	688	17,549
06/15/2003	*	---	22	---	---	1,931	1,357	551	16	---	361	15,058
06/16/2003		---	17	---	---	1,571	1,443	350	18	427	562	3,993
06/17/2003	*	---	13	---	---	2,120	328	252	8	---	1,203	2,841
06/18/2003	*	---	8	---	---	1,966	840	506	5	295	885	10,124
06/19/2003	*	---	14	---	---	1,786	279	193	11	---	181	19,375
06/20/2003	*	---	17	---	---	1,205	92	14	10	157	300	9,817
06/21/2003	*	---	13	---	---	1,225	566	240	15	---	110	2,283
06/22/2003	*	---	2	---	---	1,350	633	180	1	321	277	4,247
06/23/2003	*	---	4	---	---	1,350	268	34	0	---	158	1,052
06/24/2003	*	---	1	---	---	1,900	268	80	0	201	136	450
06/25/2003	*	---	2	---	---	1,100	201	61	2	---	34	0
06/26/2003		---	---	---	---	750	202	71	0	126	34	301
<b>Total:</b>		<b>0</b>	<b>152</b>	<b>0</b>	<b>0</b>	<b>26,539</b>	<b>9,584</b>	<b>3,790</b>	<b>155</b>	<b>2,609</b>	<b>5,979</b>	<b>101,917</b>
<b># Days:</b>		<b>0</b>	<b>13</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>7</b>	<b>14</b>	<b>14</b>
<b>Average:</b>		<b>0</b>	<b>12</b>	<b>0</b>	<b>0</b>	<b>1,896</b>	<b>685</b>	<b>271</b>	<b>11</b>	<b>373</b>	<b>427</b>	<b>7,280</b>
<b>YTD</b>		<b>2,347</b>	<b>48,399</b>	<b>2,521</b>	<b>5,601</b>	<b>3,343,779</b>	<b>2,590,424</b>	<b>1,864,635</b>	<b>15,374</b>	<b>244,797</b>	<b>552,148</b>	<b>1,629,754</b>

Note 1: 4/27-5/1 Little Goose Dam coho -potential misidentification of species; sample correction pending further analysis

Note 2: May 1 Little Goose Dam sample partly estimated based on electronic counts.

\* See sampling comments

<http://www.fpc.org/currentDaily/smpcomments.htm>

## Two-Week Summary of Passage Indices

	COMBINED SOCKEYE										
	WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date	(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
06/13/2003 *	---	0	---	---	63	64	71	10	---	3,807	8,324
06/14/2003	---	0	---	---	64	0	45	2	5,531	2,754	6,769
06/15/2003 *	---	0	---	---	67	0	0	2	---	1,352	9,775
06/16/2003	---	0	---	---	68	0	0	3	2,000	843	2,765
06/17/2003 *	---	0	---	---	0	0	0	2	---	1,086	2,583
06/18/2003 *	---	0	---	---	0	0	36	2	1,037	487	3,970
06/19/2003 *	---	0	---	---	0	0	55	6	---	449	7,349
06/20/2003 *	---	0	---	---	0	0	14	1	162	150	1,133
06/21/2003 *	---	0	---	---	0	0	20	2	---	173	0
06/22/2003 *	---	0	---	---	0	0	0	0	107	165	1,508
06/23/2003 *	---	0	---	---	0	0	1	0	---	158	486
06/24/2003 *	---	0	---	---	0	0	2	0	1	67	0
06/25/2003 *	---	0	---	---	0	0	2	0	---	18	0
06/26/2003	---	---	---	---	0	0	0	2	377	0	150
<b>Total:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>262</b>	<b>64</b>	<b>246</b>	<b>32</b>	<b>9,215</b>	<b>11,509</b>	<b>44,812</b>
<b># Days:</b>	<b>0</b>	<b>13</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>7</b>	<b>14</b>	<b>14</b>
<b>Average:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>19</b>	<b>5</b>	<b>18</b>	<b>2</b>	<b>1,316</b>	<b>822</b>	<b>3,201</b>
<b>YTD</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>11</b>	<b>16,299</b>	<b>8,052</b>	<b>4,519</b>	<b>9,961</b>	<b>830,106</b>	<b>724,057</b>	<b>1,258,507</b>

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

### 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: 06/26**

DAM	Spring Chinook						Summer Chinook						Fall Chinook					
	2003		2002		10-Yr Avg.		2003		2002		10-Yr Avg.		2003		2002		10-Yr Avg.	
	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack
BON	192,010	14,258	268,813	6,477	122,177	6,086	60,564	6,346	73,946	4,045	20,199	2,271	0	0	0	0	0	0
TDA	131,207	11,522	181,176	3,870	80,975	4,136	48,738	4,092	55,718	2,420	15,347	1,470	0	0	0	0	0	0
JDA	101,436	10,206	139,887	2,403	67,822	3,122	40,933	3,338	48,210	1,731	13,192	1,047	0	0	0	0	0	0
MCN	95,550	11,123	129,357	3,872	62,536	3,162	37,455	3,793	39,722	2,103	11,073	982	0	0	0	0	0	0
IHR	78,170	8,018	85,207	1,826	38,964	1,925	13,780	2,066	17,354	1,083	4,757	490	0	0	0	0	0	0
LMN	70,603	7,219	76,304	1,537	38,073	1,899	12,033	1,526	14,430	631	4,492	433	0	0	0	0	0	0
LGS	69,020	6,919	77,232	1,815	37,097	2,034	8,513	1,205	11,589	779	3,743	449	0	0	0	0	0	0
LWG	70,609	8,295	75,025	2,089	35,689	2,016	8,470	1,277	10,780	586	3,274	386	0	0	0	0	0	0
PRD	18,136	656	34,083	196	15,528	317	11,979	244	10,457	67	2,824	97	0	0	0	0	0	0
RIS	16,868	753	24,017	827	11,565	538	5,953	183	2,438	49	1,075	86	0	0	0	0	0	0
RRH	4,816	450	9,999	161	4,017	126	2,484	68	610	22	267	12	0	0	0	0	0	0
WEL	2,735	172	6,960	38	2,266	147	0	0	0	0	0	0	0	0	0	0	0	0

DAM	Coho						Sockeye			Steelhead			
	2003		2002		10-Yr Avg.		2003	2002	10-Yr Avg.	2003	2002	10-Yr Avg.	Wild 2003
	Adult	Jack	Adult	Jack	Adult	Jack							
BON	0	0	0	0	0	0	17,720	20,607	26,358	11,255	20,344	12,396	3,949
TDA	0	0	0	0	0	0	11,877	11,757	19,115	3,781	7,032	4,390	1,311
JDA	0	0	0	0	0	0	9,604	9,739	18,460	4,327	11,880	6,103	1,705
MCN	0	0	0	0	0	0	6,624	5,334	12,018	2,998	6,683	3,636	1,163
IHR	0	0	0	0	0	0	8	5	0	2,243	5,067	2,707	882
LMN	0	0	0	0	0	0	5	7	0	2,473	5,426	2,705	1,246
LGS	0	0	0	0	0	0	126	8	0	2,509	6,417	2,034	1,394
LWG	0	0	0	0	0	0	2	4	0	16,080	12,605	5,637	3,770
PRD	0	0	0	0	0	0	2,445	422	3,452	50	109	50	0
RIS	0	0	1	0	0	0	625	27	1,033	60	115	64	41
RRH	0	0	14	0	0	0	389	21	465	62	190	63	38
WEL	1	0	0	0	0	0	131	2	168	22	87	13	13

IHR, PRD, RIS, RRH, WEL are through 06/25.

LGR is missing data for 3/6. Sockeye count at LGS on 6/14 erroneous.

\*\*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.

Page last updated on: 6/27/03

BON counts from January 1, 2003 to March 14, 2003 (our counts begin March 15)

Chinook Adult	Chinook Jack	Steelhead	Wild Steelhead
3,758	0	3,443	408

## Two Week Transportation Summary

06/14/03 TO 06/27/03

		Species					
Site	Data	CH0	CH1	CO	SO	ST	Grand Total
<b>LGR</b>	Sum of NumberCollected	370,901	5,475	5,100	200	22,100	403,776
	Sum of NumberBarged	394,491	6,380	5,315	249	24,380	430,815
	Sum of NumberBypassed	33	0	0	0	1	34
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of TotalProjectMortalities	4,289	38	30	0	111	4,468
<b>LGS</b>	Sum of NumberCollected	208,429	25,193	2,533	50	7,855	244,060
	Sum of NumberBarged	206,573	61,096	2,715	83	9,166	279,633
	Sum of NumberBypassed	0	0	0	0	0	0
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of TotalProjectMortalities	683	57	21	0	55	816
<b>LMN</b>	Sum of NumberCollected	108,917	2,952	1,149	165	2,553	115,736
	Sum of NumberBarged	106,581	3,203	1,335	264	3,187	114,570
	Sum of NumberBypassed	15,435	6	0	0	12	15,453
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of TotalProjectMortalities	177	17	1	1	18	214
<b>MCN</b>	Sum of NumberCollected	1,968,409	10,866	7,815	6,222	1,908	1,995,220
	Sum of NumberBarged	0	0	0	0	0	0
	Sum of NumberBypassed	1,965,943	10,803	7,800	6,198	1,903	1,992,647
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of TotalProjectMortalities	2,466	63	15	24	5	2,573
Total Sum of NumberCollected		2,656,656	44,486	16,597	6,637	34,416	2,758,792
Total Sum of NumberBarged		707,645	70,679	9,365	596	36,733	825,018
Total Sum of NumberBypassed		1,981,411	10,809	7,800	6,198	1,916	2,008,134
Total Sum of Numbertrucked		0	0	0	0	0	0
Total Sum of TotalProjectMortalities		7,615	175	67	25	189	8,071

### YTD Transportation Summary

TO: 06/27/03

		Species					
Site	Data	CH0	CH1	CO	SO	ST	Grand Total
<b>LGR</b>	Sum of NumberCollected	728,322	2,575,233	84,572	9,663	2,325,136	5,722,926
	Sum of NumberBarged	699,788	2,468,950	83,824	9,470	2,254,048	5,516,080
	Sum of NumberBypassed	35	45,588	0	0	53,119	98,742
	Sum of NumberTrucked	816	54,208	40	78	15,402	70,544
	Sum of TotalProjectMortalities	10,053	5,888	558	115	1,818	18,432
<b>LGS</b>	Sum of NumberCollected	366,796	1,848,497	85,381	5,364	1,943,850	4,249,888
	Sum of NumberBarged	354,801	1,794,534	84,898	5,334	1,939,938	4,179,505
	Sum of NumberBypassed	0	22	0	0	3	25
	Sum of NumberTrucked	5	52,601	0	0	850	53,456
	Sum of TotalProjectMortalities	4,058	3,279	353	30	2,864	10,584
<b>LMN</b>	Sum of NumberCollected	206,424	462,537	26,209	3,281	1,228,999	1,927,450
	Sum of NumberBarged	189,227	439,507	25,500	3,236	1,150,072	1,807,542
	Sum of NumberBypassed	15,435	6,866	681	0	75,945	98,927
	Sum of NumberTrucked	60	15,149	0	40	1,637	16,886
	Sum of TotalProjectMortalities	267	990	15	5	1,274	2,551
<b>MCN</b>	Sum of NumberCollected	2,283,471	1,036,090	62,692	534,628	154,320	4,071,201
	Sum of NumberBarged	0	0	0	0	0	0
	Sum of NumberBypassed	2,280,527	1,035,084	62,604	534,272	154,084	4,066,571
	Sum of NumberTrucked	0	0	0	0	0	0
	Sum of TotalProjectMortalities	2,944	913	88	360	193	4,498
Total Sum of NumberCollected		3,585,013	5,922,357	258,854	552,936	5,652,305	15,971,465
Total Sum of NumberBarged		1,243,816	4,702,991	194,222	18,040	5,344,058	11,503,127
Total Sum of NumberBypassed		2,295,997	1,087,560	63,285	534,272	283,151	4,264,265
Total Sum of NumberTrucked		881	121,958	40	118	17,889	140,886
Total Sum of TotalProjectMortalities		17,322	11,070	1,014	510	6,149	36,065



