Fish Passage Center

Weekly Report #09 - 14

June 12, 2009

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Summary of Events:

Water Supply: Precipitation throughout the Columbia Basin has varied between 26% and 579% of average at individual sub-basins over June. Precipitation above The Dalles has been 147% of average over June. Over the entire water year, precipitation has generally been near average.

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.

Location	Water Year 2009 June 1-8		Water Year 2009 October 1, 2008 to June 8, 2009	
	Observed (inches)	% Average	Observed (inches)	% Average
Columbia Above Coulee	0.35	55	16.84	90
Snake River Above Ice Harbor	1.39	356	15.39	110
Columbia Above The Dalles	0.70	147	18.03	98
Kootenai	0.22	34	16.21	84
Clark Fork	0.57	110	13.40	105
Flathead	0.49	70	15.30	105
Pend Oreille/ Spokane	0.34	58	23.86	93
Central Washington	0.15	88	6.53	87
Snake River Plain	1.48	579	9.47	107
Salmon/Boise/ Payette	1.16	296	15.32	93
Clearwater	0.76	114	27.15	109
SW Washington Cascades/Cowlitz	0.21	26	57.86	91
Willamette Valley	0.67	111	46.81	86

Average snowpack in the Columbia River for basins above the Snake River confluence is 66% of average, for Snake River Basins the average snowpack is 65% of average, and for lower Columbia Basins between McNary and Bonneville Dam average snowpack is 64% of average.

Table 2 displays the May Final and June Final runoff volume forecasts for multiple reservoirs. The current forecast at The Dalles between January and July is 92000 Kaf (86% of average).

Table 2. May Final and June Final Runoff Volume Forecasts for various reservoirs within the Columbia and Snake River Basins.

Location	May Final		June Final	
	% Average (1971-2000)	Probable Runoff Volume (Kaf)	% Average (1971-2000)	Probable Runoff Volume (Kaf)
The Dalles (Jan-July)	85	91100	86	92000
Grand Coulee (Jan-July)	87	55000	85	53700
Libby Res. Inflow, MT (Apr-Aug)	84	5270 5209*	80	5000 5062*
Hungry Horse Res. Inflow, MT (Jan-July)	92	2050	93	2060
Lower Granite Res. Inflow (Apr- July)	97	20900	102	21900
Brownlee Res. Inflow (Apr-July)	79	5000	76	4780
Dworshak Res. Inflow (Apr-July)	99 98*	2610 2631*	98	2590 2597*

* Denotes COE Forecast

The Biological Opinion flow period began on April 3rd in the lower Snake River (Lower Granite) and began on April 10th in the mid (Priest Rapids) and lower (McNary) Columbia River. According to the April Final Water Supply Forecast, the flow objectives this spring are 100 Kcfs at Lower Granite, 228 Kcfs at McNary, and 135 Kcfs at Priest Rapids. At Lower Granite flows from April 3-June 11 have averaged 111.4 Kcfs and 144.1 Kcfs over the last week, flows at Priest Rapids from April 10-June 11 averaged 138.9 Kcfs and 174.9 Kcfs over the last week, and flows at McNary have averaged 272.6 Kcfs between April 10-June 11 and 336.4 Kcfs over the last week.

Grand Coulee Reservoir is at 1282.8 feet (6-11-09) and has refilled 2.9 feet over the last week. Outflows at Grand Coulee have ranged between 125.9 and 152.2 Kcfs over the last week.

The Libby Reservoir is currently at elevation 2425.8 feet (6-11-09) and has refilled 3.0 feet last week. Outflows at Libby have been 13.4-26.3 Kcfs over the last week.

Hungry Horse is currently at an elevation of 3546.3 ft (6-11-09) and has refilled 3.5 feet last week. Outflows at Hungry Horse have been 3.2-4.2 Kcfs last week.

Dworshak is currently at an elevation of 1593.4 feet (6-11-09) and has refilled 5.1 feet last week. Outflows at Dworshak have ranged between 6.9-7.2 Kcfs over the last week.

The Brownlee Reservoir was at an elevation of 2075.5 feet on June 11th, 2009, drafting 1.1 feet last week. Outflows at Brownlee Dam have been 25.8 to 39.8 Kcfs over the last week.

Spill: Over the last ten days some spill has occurred at Dworshak Dam due to a unit outage. Spill at Dworshak has ranged between 1.8-3.0 Kcfs over the last ten days with TDG ranging between approximately 106.2 and 109.8 % TDG below Dworshak Dam.

The 2009 planned spring spill program at the lower Snake River Projects began on April 3 at 0001 hours and will continue through June 20, 2009. The following table shows the planned operations for 2009.

Project	Day/Night Spill
Lower Granite	20Kcfs/20Kcfs
Little Goose	30%/30%
Lower Monumental	Gas Cap/Gas Cap
Ice Harbor	30%/30% vs 45Kcfs/Gas Cap Study

Flow in the Snake River has been decreasing but still remained relatively high over the past week. Over the last two days spill at Lower Granite Dam has been managed near the court order at approximately 20.5 Kcfs. Previous to this time, spill at Lower Granite Dam had been above the court order due to flows in excess of hydraulic and generation capacity. Over the last week, spill at Little Goose Dam generally did not met the 30% court order. However, the 12-hour average for total dissolved gas in the Lower Monumental Dam forebay exceeded 115%, thus lowering the spill caps at Little Goose Dam. The test of bulk versus uniform spill patterns at Lower Monumental Dam ended on June 1st. Since this time, the spill pattern at Lower Monumental Dam has been bulk. For most of this week spill at Lower Monumental Dam has exceeded the gas cap due to flows in excess of hydraulic capacity. However, flows over the past two days have lowered enough to allow for Lower Monumental Dam to spill to the gas cap. The 12-hour average TDG at the Ice Harbor Dam forebay has exceeded the 115% criterion over the past week. The implementation of study-like conditions at Ice Harbor Dam began on April 30th, and spill management has attempted to alternate between 30% spill for 24 hours and 45 Kcfs daytime spill and gas cap nighttime spill, in two day blocks. Uncontrolled spill has also occurred at this project due to the high river flows but has been managed to the court order over the last day.

The 2009 spill program began at the lower Columbia River projects at 0001 hours on April 10th and will continue through June 30th. The following table shows the planned operations for 2009.

Project	Day/Night Spill
McNary	40%/40%
John Day	30%/30% on pre-test days; 30%/30% vs. 40%/40% on test days
The Dalles	40%/40%
Bonneville	100 Kcfs/100 Kcfs

McNary Dam spill has exceeded the Court Order over most of the past week due to high flows. However, flows have become more manageable in the past couple of days as flows begin to recede. At John Day Dam the testing of 30% versus 40% spill has stopped and the TSW has been closed due to an avian predation issue. The current plan at John Day is to spill 30% without the TSW until more modeling work can be completed. John Day spill has been below the 30% level for most of the last week due to excessive TDG at the John Day tailrace. Previous to June 8th spill at The Dalles Dam was below the court ordered 40% level. This is due primarily to reduced spill caps that were implemented because of excess TDG in the Bonneville Dam Forebay prior to June 5th. Since June 8th, spill at The Dalles Dam has met the 40% court order although TDG did exceed the 115% limit at the Bonneville Forebay on June 9th. Bonneville Dam spill levels exceeded the court ordered 100 Kcfs over much of the past week. Only over the last day have flows decreased to the point were spill could be managed to 100 Kcfs. Total Dissolved Gas levels exceeded the 120% limit at Cascade-Island and the 115% limit at Camas-Washougal through most of the past week.

Gas bubble trauma (GBT) monitoring occurred at Lower Granite, Little Goose and Lower Monumental dams in the Snake River, Rock Island in the Mid Columbia River and at McNary and Bonneville dams in the lower Columbia. A few fish with minor signs of GBT were detected in the samples this past week at Little Goose and Bonneville dams.

Smolt Monitoring: Collection of Spring migrants continued to decline at all SMP sites in the Snake River and Lower Columbia this past week, while subyearling Chinook indices remained steady or increased. Sampling at the Imnaha Trap captured a decreasing number of yearling Chinook and steelhead. That reduction is consistent with other recent years as the spring migration winds down in the tributaries as well as in the hydro-system.

At Lower Granite Dam subyearling Chinook predominated in passage numbers followed by steelhead. PIT-tag detections at Lower Granite confirm that the acclimation released subyearling Chinook were arriving at the site over the past week. And releases at Hells Canyon and North Lapwai Valley Acclimation Ponds were also detected.

At Rock Island dam the daily passage indices for coho predominated in the sample. But coho indices dropped below 1,000 per day over the past several days. Subyearling Chinook indices remained low compared to Coho but became higher than yearling Chinook over the past two weeks. Mid to late June is typically the time period when subyearlings predominate at Rock Island.

At McNary Dam subyearling Chinook became more prevalent in the sample than yearling Chinook over the past two weeks also. The passage index for subyearling Chinook averaged over 20,000 per day over the past week.

At Bonneville Dam all Spring migrant indices were down and subyearling Chinook passage predominated there two. The subyearling indices doubled from 4,000 per day average last week to over 8,000 per day this week.

Hatchery Release:

Snake River Zone: The Snake River Zone encompasses the Snake River and its tributaries from its confluence with the Columbia River to Hells Canyon Dam. Two releases of subyearling fall Chinook were schedule to take place this week. In all, these releases were expected to total around 400,000 juveniles. Approximately 50% were to be released from the Lukes Gulch Acclimation Facility on the South Fork Clearwater River. The other 50% were to be released from the Cedar Flats Acclimation Facility on the Selway River. These were the only two releases that were scheduled to begin this week. Two releases of subyearling fall Chinook juveniles that began weeks ago continued this week. These releases are expected to run through mid-June.

Releases of subyearling fall Chinook surrogates to the Clearwater River are expected to begin on or around June 15th. These releases are expected to run through early July. Just over 117,000 fall Chinook surrogates are scheduled for release into the Clearwater River. Finally two releases of spring Chinook parr are scheduled to take place over the next two weeks. The first is a release of approximately 61,000 spring Chinook parr to the Lostine River on June 15th. The second is a release of about 305,000 spring Chinook parr to Meadow Creek, a tributary of the Selway River, on June 22nd. Because these are spring Chinook parr, these juveniles are not expected to out-migrate until spring of 2010. There are no other scheduled releases of juvenile salmonids to this zone over the next two weeks.

Mid-Columbia Zone: The Mid-Columbia Zone encompasses the area of the Columbia River and its tributaries from McNary Dam to Chief Joseph Dam.

Ringold Springs Hatchery began releasing subyearling fall Chinook this week. This is a volitional release and is not expected to end until around June 25th. In all, about 3.45 million fall Chinook juveniles are expected to be released from Ringold Springs Hatchery, 94% of which are unmarked. This was the only release of juvenile salmonids that began this week or was scheduled to begin this week to this zone.

About 6.7 million subyearling fall Chinook are scheduled for release from Priest Rapids Hatchery, beginning on or around June 15th. This release is volitional and is expected to run through the end of June. About 72% of these subyearling fall Chinook are unmarked. In addition, nearly 750,000 subyearling summer Chinook are scheduled for release from Turtle Rock Hatchery into the Mid-Columbia River, beginning on or around June 15th. There are no other scheduled releases of juvenile salmonids to this zone over the next two weeks.

Lower Columbia Zone: The Lower Columbia Zone is defined as the Columbia River and its tributaries from Bonneville Dam to McNary Dam. There were no scheduled releases of anadromous salmonid juveniles to this zone over the past week. However, on June 18th approximately 4.5 million subyearling fall Chinook are scheduled for release from Little White Salmon NFH.

Adult Fish Passage: The summer Chinook count began June 1st at Bonneville Dam. Daily passage numbers at Bonneville Dam ranged between 1598 and 2949 adult summer Chinook in the last week. The 2009 summer Chinook count of 23750 is about 1.31 times greater than the 2008 count and 1.49 times greater than the 10 year average. The summer Chinook jack count of 10615 is about 3.35 times greater than the 2008 of 603 and about 5.94 times greater than the 10 year average.

At Willamette Falls Dam, 18799 adult spring Chinook have been counted so far this year. The 2009 adult spring Chinook count at Willamette Falls Dam is 2.89 times greater than the 2008 count of 6490. The adult spring Chinook count at McNary Dam ended on June 8th. At McNary Dam 70413 adult spring Chinook were counted this year. The 2009 adult spring Chinook count at McNary Dam is about 1.03 times greater than the 2008 count and only about 80.9% of the 10 year average. The 2009 McNary Dam spring Chinook jack count of 43328 is 3.57 times greater than the 2008 count of 12133 and 5.85 times greater than the 10 year average count of 7409. Spring Chinook are counted at Ice Harbor Dam through June 11th each year. The 2009 Ice Harbor count of 55435 increased about 1.04 times when compared to the 2008 count. Additionally, it is about 93.9% of the 10 year average. The 2009 IHR spring Chinook jack of 28223 increased about 3.64 times compared to the 2008 count and 6.06 times compared to the 10 year average. The 2009 adult spring Chinook count at Lower Granite Dam does not end until June 17th. As of June 11th, the 2009 adult spring Chinook count at Lower Granite Dam was 42829. The LGR 2009 adult spring Chinook count was 96.8% of the 2008 count and 84.3% of the 10 year average. The 2009 Lower Granite spring Chinook jack count of 27876 is about 2.91 times greater than the 2008 count and 5.94 times greater than the 10 year average.

The Bonneville Dam 2009 steelhead count of 6750 is about 1.22 times greater than the 2008 count of 5490. The 2009 steelhead count is about 1.10 times greater then of the 10-year average of 6150. In the Snake River, this year's Lower Granite steelhead count of 10808 is 1.39 times greater than the 2008 count of 7795 and 1.39 times greater than the 10 year average of 7790. The 2009 wild steelhead count as of June 11th was 3389. At Rock Island Dam, as of June 9th, 108 adult steelhead have been counted and at Rocky Reach Dam, 435 adult steelhead have been counted so far this season. At Willamette Falls Dam, the 2009 count for steelhead was 9627, as of June 5th. This year's steelhead count is only about 79.7% of the 2008 count of 12084 at Willamette Falls Dam for the same date range.

Daily adult sockeye passage numbers at Bonneville Dam ranged between 237 and 1115 last week. The 2009 adult sockeye count at Bonneville Dam of 5398 is about 89.5% of the 2008 count of 6028 and about 1.81 times greater than the 10 year average of 2973.

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

	Grand Coulee		Chief Joseph		Wells		Rocky Reach		Rock Island		Wanapum		Priest Rapids	
Date	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill
05/29/2009	129.9	0.0	138.3	0.0	158.0	9.5	158.0	0.0	167.2	16.5	172.9	44.6	172.6	33.2
05/30/2009	120.7	0.2	121.9	0.0	144.7	9.5	142.0	0.0	154.9	16.0	162.0	29.6	160.6	28.2
05/31/2009	120.8	0.3	115.3	0.0	140.7	8.6	136.2	0.0	150.1	14.6	155.8	25.3	152.8	26.2
06/01/2009	117.6	0.2	120.2	0.0	144.2	9.0	140.2	0.0	152.9	17.2	160.9	24.4	164.8	23.5
06/02/2009	127.2	0.2	130.8	0.0	148.1	9.1	143.6	0.0	155.2	16.5	159.1	29.2	148.6	21.4
06/03/2009	154.3	0.1	152.6	0.0	174.6	10.0	168.7	0.0	181.5	16.4	194.2	59.3	193.1	58.4
06/04/2009	160.5	0.2	159.2	4.1	179.3	10.4	174.8	0.0	186.8	19.1	187.4	65.4	190.5	68.5
06/05/2009	137.6	0.2	138.4	0.0	170.4	10.0	166.5	0.0	178.3	19.1	185.6	58.7	183.4	51.7
06/06/2009	125.9	8.8	127.5	40.2	146.7	10.0	143.0	0.0	155.5	17.1	163.7	39.3	173.2	36.3
06/07/2009	133.3	0.1	131.2	0.0	148.2	9.2	145.2	0.0	159.8	16.2	168.3	28.6	162.8	24.3
06/08/2009	152.2	4.7	150.4	12.7	174.7	10.0	170.0	0.0	177.0	17.7	187.8	57.0	183.8	52.4
06/09/2009	140.4	0.2	143.1	0.0	163.5	10.0	161.8	0.0	172.0	17.1	180.1	52.0	184.2	49.6
06/10/2009	147.3	0.1	146.2	0.0	164.1	10.0	160.2	14.5	170.4	34.1	182.6	44.5	176.6	30.7
06/11/2009	133.6	0.2	135.7	0.0	149.1	9.4	147.8	13.3	157.7	31.1	161.9	26.5	160.2	20.8

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

	Dworshak		Brownlee	Hells Canyon	Lower Granite		Little Goose		Lower Monumental		Ice Harbor	
Date	Flow	Spill	Inflow	Outflow	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill
05/29/2009	4.4	0.0	22.3	24.9	160.9	57.2	149.9	40.6	158.8	42.5	162.5	78.8
05/30/2009	4.4	0.0	24.0	22.0	160.9	64.8	153.2	44.0	159.8	43.1	163.8	80.6
05/31/2009	4.4	0.0	22.9	21.6	169.3	76.7	159.7	50.7	167.8	50.5	169.6	86.3
06/01/2009	4.3	0.0	23.0	20.6	167.6	75.3	156.4	47.7	162.7	54.3	167.2	84.1
06/02/2009	6.6	2.2	23.0	23.6	160.1	63.8	151.0	41.6	158.5	49.1	163.5	80.8
06/03/2009	7.1	2.7	23.8	21.2	148.7	43.3	138.3	28.9	145.5	29.6	149.8	68.9
06/04/2009	7.1	2.8	26.5	25.0	142.5	40.5	132.4	25.8	138.3	24.1	140.7	65.9
06/05/2009	7.2	2.9	28.3	29.4	147.6	40.1	137.4	29.3	143.4	27.1	145.8	66.3
06/06/2009	7.2	2.9	32.3	37.4	158.2	49.7	148.0	40.2	153.6	37.1	157.3	77.1
06/07/2009	7.2	2.9	35.3	40.1	171.2	61.4	158.7	49.7	166.4	49.3	170.6	87.6
06/08/2009	7.0	2.7	36.8	41.5	158.0	48.2	147.7	41.6	154.1	36.9	158.7	77.4
06/09/2009	6.9	2.6	34.0	35.2	138.5	29.5	130.9	30.1	137.1	29.9	143.3	60.9
06/10/2009	7.0	2.7	31.6	31.5	125.6	20.6	117.4	30.0	119.6	20.0	120.2	39.5
06/11/2009	7.0	2.7	---	---	109.5	20.5	102.7	29.0	103.3	19.7	106.8	52.9

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

	McNary		John Day		The Dalles		Bonneville			
Date	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	PH1	PH2
05/29/2009	349.8	174.1	345.1	110.8	349.4	115.3	343.5	149.4	74.8	107.3
05/30/2009	343.4	169.1	343.2	103.2	334.0	110.0	342.6	148.5	75.2	106.7
05/31/2009	340.7	165.3	345.8	94.8	331.4	104.4	345.2	148.8	75.7	108.8
06/01/2009	345.5	170.5	346.0	89.9	330.4	99.8	346.1	149.3	75.1	109.6
06/02/2009	335.0	167.1	340.9	90.0	331.7	100.0	343.8	149.5	74.4	107.8
06/03/2009	336.1	167.7	338.6	90.0	326.9	100.0	344.5	149.6	74.6	108.2
06/04/2009	350.4	174.0	335.3	90.0	325.5	100.0	344.3	149.5	74.8	107.9
06/05/2009	353.3	176.8	344.0	89.9	332.5	100.0	343.7	149.7	75.1	107.0
06/06/2009	348.5	172.3	338.4	89.9	336.5	104.8	343.0	149.3	74.8	106.8
06/07/2009	339.0	162.5	347.4	86.7	340.2	120.7	343.8	149.6	75.3	106.9
06/08/2009	352.9	176.0	353.0	84.9	341.4	135.7	354.4	158.7	75.6	108.3
06/09/2009	354.6	179.1	352.9	82.3	346.4	138.6	360.6	164.2	74.8	109.5
06/10/2009	311.0	135.7	307.2	80.0	306.4	123.0	338.4	144.1	74.4	107.7
06/11/2009	294.6	123.6	294.3	78.3	285.1	113.7	288.0	101.5	73.3	101.1

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											
	06/01/09	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
	06/10/09	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
Little Goose Dam											
	06/01/09	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
	06/08/09	Chinook + Steelhead	100	1	1	1.00%	0.00%	1	0	0	0
Lower Monumental Dam											
	06/02/09	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
	06/09/09	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
McNary Dam											
	06/05/09	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
	06/07/09	Chinook + Steelhead	99	0	0	0.00%	0.00%	0	0	0	0
	06/11/09	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
Bonneville Dam											
	06/02/09	Chinook + Steelhead	102	2	2	1.96%	0.00%	2	0	0	0
	06/06/09	Chinook + Steelhead	70	1	1	1.42%	0.00%	1	0	0	0
	06/09/09	Chinook + Steelhead	40	1	1	2.50%	0.00%	1	0	0	0
Rock Island Dam											
	06/02/09	Chinook + Steelhead	100	1	1	1.00%	0.00%	1	0	0	0
	06/04/09	Chinook + Steelhead	50	0	0	0.00%	0.00%	0	0	0	0
	06/09/09	Chinook + Steelhead	35	0	0	0.00%	0.00%	0	0	0	0

Hatchery Releases Last Two Weeks

Hatchery Release Summary

From: 6/12/2009 to 6/25/2009

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
National Marine Fisheries Service	Lyons Ferry Hatchery	CH0	FA	2009	117,362	06-15-09	07-03-09	Big Canyon (Clearwater River)	Clearwater River M F
National Marine Fisheries Service Total					**117,362**				
Nez Perce Tribe	Lookingglass Hatchery	CH0	SP	2010	61,000	06-15-09	07-01-09	Lostine River	Wallowa River
Nez Perce Tribe	Nez Perce Tribal Hatchery	CH0	FA	2009	800,000	06-01-09	06-15-09	Nez Perce Tribal Hatchery	Clearwater River M F
Nez Perce Tribe	Nez Perce Tribal Hatchery	CH0	SP	2010	305,000	06-22-09	06-26-09	Meadow Creek - CLES	S Fk Clearwater River
Nez Perce Tribe Total					**1,166,000**				
U.S. Fish and Wildlife Service	Little White Salmon NFH	CH0	FA	2009	4,500,000	06-18-09	06-18-09	Little White Salmon Hatchery	Little White Salmon River
U.S. Fish and Wildlife Service Total					**4,500,000**				
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	CH0	FA	2009	200,000	06-01-09	06-15-09	Lyons Ferry Hatchery	Snake River
Washington Dept. of Fish and Wildlife	Priest Rapids Hatchery	CH0	FA	2009	6,700,000	06-15-09	06-30-09	Priest Rapids Hatchery	Mid-Columbia River
Washington Dept. of Fish and Wildlife	Ringold Springs Hatchery	CH0	FA	2009	3,450,000	06-08-09	06-25-09	Ringold Springs Hatchery	Mid-Columbia River
Washington Dept. of Fish and Wildlife	Turtle Rock Hatchery	CH0	SU	2009	325,000	06-15-09	06-30-09	Turtle Rock Hatchery	Mid-Columbia River
Washington Dept. of Fish and Wildlife	Turtle Rock Hatchery	CH0	SU	2009	418,000	06-15-09	06-30-09	Turtle Rock Hatchery	Mid-Columbia River
Washington Dept. of Fish and Wildlife Total					**11,093,000**				
Grand Total					**16,876,362**				

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

Hatchery Releases Next Two Weeks

Hatchery Release Summary

From: 5/29/2009 to 06/11/09

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
Nez Perce Tribe	Nez Perce Tribal Hatchery	CH0	FA	2009	200,000	06-10-09	06-10-09	Cedar Flats Acclim.	Selway River
Nez Perce Tribe	Nez Perce Tribal Hatchery	CH0	FA	2009	200,000	06-10-09	06-10-09	Lukes Gulch Acclim.	S Fk Clearwater River
Nez Perce Tribe	Nez Perce Tribal Hatchery	CH0	FA	2009	500,000	05-30-09	05-30-09	Clearwater River	Snake River
Nez Perce Tribe	Nez Perce Tribal Hatchery	CH0	FA	2009	800,000	06-01-09	06-15-09	Nez Perce Tribal Hatchery	Clearwater River M F
Nez Perce Tribe Total					**1,700,000**				
Washington Dept. of Fish and Wildlife	Eastbank Hatchery	CH1	SP	2009	140,000	05-01-09	05-31-09	Lake Wenatchee	Wenatchee River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	CH0	FA	2009	200,000	05-15-09	06-01-09	Couse Creek	Snake River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	CH0	FA	2009	200,000	06-01-09	06-15-09	Lyons Ferry Hatchery	Snake River
Washington Dept. of Fish and Wildlife	Ringold Springs Hatchery	CH0	FA	2009	3,450,000	06-08-09	06-25-09	Ringold Springs Hatchery	Mid-Columbia River
Washington Dept. of Fish and Wildlife	Wells Hatchery	CH0	SU	2009	453,000	05-15-09	05-31-09	Wells Hatchery	Mid-Columbia River
Washington Dept. of Fish and Wildlife	Wells Hatchery	ST	SU	2009	110,000	04-20-09	05-31-09	Methow River	Methow River
Washington Dept. of Fish and Wildlife	Wells Hatchery	ST	SU	2009	110,000	04-20-09	05-31-09	Twisp River	Methow River
Washington Dept. of Fish and Wildlife	Wells Hatchery	ST	SU	2009	110,000	05-01-09	05-31-09	Chewuch River	Methow River
Washington Dept. of Fish and Wildlife	Wells Hatchery	ST	SU	2009	130,000	04-20-09	05-31-09	Okanogan River	Okanogan River
Washington Dept. of Fish and Wildlife Total					**4,903,000**				
Grand Total					**6,603,000**				

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

Total Dissolved Gas Saturation Data at Upper Columbia River Sites

	Hungry H. Dnst				Boundary				Grand Coulee				Grand C. Tlwr				Chief Joseph			
	24 h Avg	12 h Avg	High	# hr	24 h Avg	12 h Avg	High	# hr	24 h Avg	12 h Avg	High	# hr	24 h Avg	12 h Avg	High	# hr	24 h Avg	12 h Avg	High	# hr
5/29	99	99	99	24	126	127	128	23	109	109	109	24	106	107	109	23	108	108	108	24
5/30	99	100	100	24	126	127	128	23	110	110	111	24	107	108	110	23	108	109	109	24
5/31	100	100	101	24	126	127	127	24	110	110	110	24	107	108	109	24	109	109	110	24
6/1	99	99	99	24	126	127	128	24	110	110	110	5	106	107	109	24	109	109	110	24
6/2	99	101	102	24	127	127	128	22	110	110	111	13	108	109	111	22	108	109	109	24
6/3	104	107	107	24	126	127	128	22	110	111	111	24	109	110	111	22	109	109	110	24
6/4	106	106	107	24	128	128	129	21	112	112	113	24	110	111	112	21	109	110	110	24
6/5	107	108	108	24	127	128	128	21	113	113	114	24	111	112	113	21	110	111	111	24
6/6	106	107	107	24	126	127	127	23	113	113	114	24	111	112	113	23	110	111	111	24
6/7	105	106	106	24	126	126	127	21	113	114	115	24	111	112	112	21	110	110	110	24
6/8	105	106	106	24	124	125	126	24	114	114	115	24	111	112	113	24	109	109	110	11
6/9	105	105	106	24	122	123	125	20	114	114	115	24	111	112	113	20	110	111	111	24
6/10	105	106	106	24	121	122	122	20	115	115	115	24	111	112	113	20	111	111	111	24
6/11	105	105	106	24	121	121	122	20	115	115	115	24	111	112	113	20	111	111	112	24

Total Dissolved Gas Saturation Data at Mid Columbia River Sites

	Chief J. Dnst				Wells				Wells Dwnstrm				Rocky Reach				Rocky R. Tlwr			
Date	24 h Avg	12 h Avg	High	# hr	24 h Avg	12 h Avg	High	# hr	24 h Avg	12 h Avg	High	# hr	24 h Avg	12 h Avg	High	# hr	24 h Avg	12 h Avg	High	# hr
5/29	107	107	107	24	109	109	110	24	111	112	112	24	110	110	111	24	107	108	108	24
5/30	107	108	108	24	109	109	110	24	111	111	112	24	110	111	111	24	108	108	109	24
5/31	108	108	109	24	109	109	110	24	111	111	112	24	110	111	111	24	108	109	109	24
6/1	108	108	109	24	109	109	110	24	111	111	112	24	110	110	110	24	107	108	108	24
6/2	107	108	109	24	109	109	109	24	111	111	111	24	109	110	110	24	107	108	108	24
6/3	108	108	109	24	109	109	109	24	111	111	112	24	110	110	111	24	108	108	109	24
6/4	109	110	114	24	110	110	111	24	112	112	113	24	110	111	111	24	108	108	109	24
6/5	110	110	110	24	111	111	112	24	113	113	114	24	111	112	113	24	109	109	110	24
6/6	115	120	121	24	110	111	111	24	112	112	113	24	112	112	112	24	109	110	110	24
6/7	110	110	115	24	111	112	113	24	112	113	114	24	110	110	110	24	108	108	109	24
6/8	112	112	118	11	110	111	112	24	112	113	114	24	110	111	112	24	108	108	108	24
6/9	110	110	111	24	110	111	111	24	112	112	113	24	112	112	112	24	108	109	109	24
6/10	110	110	111	24	110	111	111	24	112	112	113	24	111	112	112	24	110	112	112	24
6/11	110	110	111	24	111	111	112	20	112	112	113	20	111	112	112	24	112	113	113	24

Total Dissolved Gas Saturation at Mid Columbia River Sites

	Rock Island				Rock I. Tlwr				Wanapum				Wanapum Tlwr				Priest Rapids			
Date	24 h Avg	12 h Avg	High	# hr	24 h Avg	12 h Avg	High	# hr	24 h Avg	12 h Avg	High	# hr	24 h Avg	12 h Avg	High	# hr	24 h Avg	12 h Avg	High	# hr
5/29	108	110	110	24	111	112	113	23	113	114	117	24	113	114	116	24	113	114	115	24
5/30	109	110	110	24	112	113	114	24	112	113	114	24	113	113	113	24	113	113	114	24
5/31	109	110	110	24	112	113	115	24	112	114	115	24	113	113	113	24	112	112	114	24
6/1	109	109	110	24	112	112	113	24	112	113	114	24	113	113	113	24	112	112	113	24
6/2	108	109	109	24	111	112	114	24	110	111	111	24	112	113	115	24	111	111	112	24
6/3	109	109	110	24	111	111	112	24	111	112	113	24	114	116	118	24	112	113	116	24
6/4	109	110	111	24	112	113	113	24	112	113	114	24	116	118	119	24	117	117	118	24
6/5	110	111	111	24	113	113	114	24	112	114	116	24	114	115	116	24	113	114	116	24
6/6	110	110	110	24	112	113	113	24	110	111	112	24	113	113	114	24	111	111	113	24
6/7	109	109	109	24	111	112	112	24	111	111	113	24	112	112	112	24	111	111	112	24
6/8	109	109	110	24	111	111	112	24	111	112	114	24	113	113	114	24	111	112	113	24
6/9	110	111	112	24	112	113	113	24	112	113	116	24	113	113	114	24	112	113	113	24
6/10	111	112	113	24	115	116	117	24	---	---	---	0	---	---	---	0	---	---	---	0
6/11	111	112	112	24	115	116	116	24	---	---	---	0	---	---	---	0	---	---	---	0

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

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

	Priest R. Dnst				Pasco				Dworshak				Clrwtr-Peck				Anatone			
	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
5/29	115	116	116	24	113	114	114	24	101	102	102	24	104	105	105	24	107	108	108	24
5/30	115	115	116	24	113	114	115	24	101	102	103	15	104	104	106	15	108	108	109	24
5/31	114	114	115	24	112	113	114	24	102	102	102	20	104	105	106	20	108	109	109	24
6/1	114	114	114	24	111	112	112	24	101	102	102	24	104	105	105	24	108	109	109	24
6/2	113	113	113	24	110	110	111	24	107	109	110	24	104	105	105	24	108	108	109	24
6/3	116	118	118	24	110	111	112	24	107	108	108	23	104	105	106	24	107	108	108	24
6/4	119	120	120	24	113	114	115	24	108	108	108	24	104	104	105	16	107	108	108	24
6/5	117	117	118	24	114	115	116	24	109	109	110	24	104	106	110	24	107	108	109	24
6/6	113	115	116	24	112	112	113	24	108	109	109	24	103	103	104	24	107	107	108	24
6/7	113	113	115	24	109	110	110	24	108	109	109	23	104	104	105	24	108	108	108	24
6/8	115	116	116	24	110	111	111	24	107	108	108	24	103	103	104	24	108	108	109	24
6/9	116	116	117	24	112	113	113	24	107	107	108	24	103	104	105	24	107	108	108	24
6/10	---	---	---	0	112	113	113	24	107	108	108	24	103	104	104	24	106	107	107	24
6/11	---	---	---	0	112	112	113	24	107	108	108	24	103	104	105	24	106	106	107	24

Total Dissolved Gas Saturation Data at Snake River Sites

	Clrwtr-Lewiston				Lower Granite				L. Granite Tlwr				Little Goose				L. Goose Tlwr			
	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
5/29	103	104	104	24	107	107	107	24	122	123	124	24	126	135	139	24	117	117	118	24
5/30	103	104	105	15	107	107	108	24	124	125	125	24	117	118	118	24	118	119	120	24
5/31	104	104	105	20	107	108	108	24	127	127	127	24	119	119	120	24	119	120	120	24
6/1	103	104	104	24	107	107	108	24	127	127	127	24	121	122	122	24	119	119	120	24
6/2	103	104	105	24	107	107	107	24	123	125	126	24	120	121	121	24	118	118	119	24
6/3	103	104	105	24	107	107	108	24	118	119	121	24	121	121	122	24	117	117	117	24
6/4	103	103	104	24	107	108	108	24	118	118	118	24	119	120	121	24	116	116	117	24
6/5	104	105	105	24	107	108	108	24	118	118	119	24	116	116	116	24	115	116	116	24
6/6	102	103	103	24	107	107	108	24	120	122	122	24	113	114	116	24	117	118	120	24
6/7	102	103	104	24	105	105	106	24	123	124	124	24	111	112	113	24	119	119	119	24
6/8	102	103	104	24	106	107	107	24	119	120	121	24	115	116	117	24	117	118	119	24
6/9	103	104	104	24	107	107	107	24	114	117	118	24	116	116	116	23	115	116	116	24
6/10	103	104	104	24	107	107	107	24	111	111	111	24	114	115	115	24	115	115	116	24
6/11	102	104	105	24	106	107	107	24	110	111	111	24	112	113	113	24	114	114	115	24

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

	Lower Mon.				L. Mon. Tlwr				Ice Harbor				Ice Harbor Tlwr				McNary-Oregon			
	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
5/29	118	118	119	24	119	119	120	24	118	118	118	24	120	121	121	24	---	---	---	0
5/30	119	119	119	24	120	121	122	24	118	118	119	24	121	122	123	24	---	---	---	0
5/31	119	120	120	24	121	122	122	24	118	118	118	24	121	122	123	24	---	---	---	0
6/1	121	121	122	24	121	121	123	24	119	119	119	24	122	122	123	24	---	---	---	0
6/2	119	120	120	24	120	120	121	24	118	118	119	24	121	122	123	24	---	---	---	0
6/3	119	119	120	24	121	122	122	24	118	118	119	24	120	120	121	24	---	---	---	0
6/4	119	120	120	24	121	121	122	24	119	119	120	24	119	119	120	24	---	---	---	0
6/5	118	118	119	24	121	121	123	24	118	119	119	24	120	121	122	24	---	---	---	0
6/6	115	116	117	24	119	120	121	24	116	117	118	24	122	122	123	24	---	---	---	0
6/7	116	118	119	24	120	120	123	24	115	115	116	24	122	123	123	24	---	---	---	0
6/8	118	118	119	24	121	122	122	24	117	118	118	24	120	121	122	24	---	---	---	0
6/9	118	118	118	24	118	119	120	24	118	118	118	24	119	120	120	24	---	---	---	0
6/10	117	117	118	24	118	118	119	24	117	117	118	24	117	117	119	24	---	---	---	0
6/11	116	116	116	24	117	117	118	24	116	116	116	24	117	118	118	24	---	---	---	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 River Sites

	McNary-Wash				McNary Tlwr				John Day				John Day Tlwr				The Dalles			
	24 h	12 h		#	24 h	12 h		#	24h	12h		#	24h	12h		#	24h	12h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	AVG	High	hr
5/29	113	114	115	24	120	120	120	24	115	115	116	24	118	118	118	24	115	115	116	24
5/30	114	115	116	24	119	119	120	24	117	118	118	24	117	118	118	24	115	116	117	24
5/31	115	115	117	24	119	120	120	24	118	118	119	24	116	117	117	24	116	117	117	24
6/1	115	115	116	24	120	120	121	24	118	118	118	24	117	117	117	24	116	117	117	24
6/2	113	114	115	24	119	119	120	24	117	117	118	24	117	117	117	24	116	116	116	24
6/3	112	113	113	24	119	119	120	24	117	117	117	24	116	117	117	24	116	116	117	24
6/4	112	113	114	24	119	119	120	24	116	116	117	24	118	119	120	24	115	115	116	24
6/5	113	114	114	24	119	120	120	24	115	116	116	24	120	120	120	24	115	115	115	23
6/6	113	114	114	24	119	119	120	24	113	114	115	24	120	120	120	24	111	112	112	24
6/7	111	111	112	24	119	119	120	24	110	110	111	24	120	120	120	24	111	112	112	24
6/8	111	112	112	24	120	120	120	24	109	109	110	24	120	120	121	24	111	112	113	24
6/9	111	112	113	24	120	120	120	24	111	112	112	24	120	120	120	24	112	113	114	24
6/10	112	113	114	24	118	118	119	24	113	114	114	24	119	120	120	24	112	113	114	24
6/11	113	114	114	24	118	118	118	24	114	114	115	24	119	120	120	24	113	114	114	24

Total Dissolved Gas Saturation Data at Lower Columbia River Sites

	The Dalles Dnst				Bonneville				Warrendale				Camas\Washougal				Cascade Island			
	24 h	12 h		#	24 h	12 h		#	24h	12h		#	24h	12h		#	24h	12h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
5/29	118	119	120	24	119	119	120	24	---	---	---	0	120	121	121	24	124	124	124	24
5/30	118	118	119	24	117	118	119	24	---	---	---	0	119	120	121	24	124	124	124	24
5/31	118	119	119	24	116	116	117	24	---	---	---	0	118	119	120	24	124	124	124	24
6/1	118	118	119	24	116	116	117	24	---	---	---	0	117	118	119	24	124	124	124	24
6/2	118	118	118	24	116	117	117	24	---	---	---	0	117	118	118	24	124	124	124	24
6/3	118	118	118	24	117	117	118	24	---	---	---	0	118	119	119	24	124	124	124	24
6/4	117	118	118	24	117	117	118	24	---	---	---	0	118	119	119	24	124	124	124	24
6/5	117	117	118	23	114	115	116	24	---	---	---	0	117	117	117	24	124	124	124	24
6/6	115	115	116	24	110	111	112	24	---	---	---	0	114	114	115	24	123	123	124	24
6/7	116	116	117	24	110	111	112	24	---	---	---	0	113	114	114	24	123	124	124	24
6/8	117	118	119	24	113	114	115	24	---	---	---	0	115	116	117	24	124	124	124	24
6/9	118	118	119	24	116	117	117	24	---	---	---	0	118	118	119	24	124	124	124	24
6/10	118	118	118	24	115	115	116	24	---	---	---	0	117	117	117	24	123	124	124	24
6/11	118	118	119	24	113	113	114	24	---	---	---	0	115	115	116	24	119	120	120	24

Two-Week Summary of Passage Indices

Source: Fish Passage Center Updated: 6/12/2009 8:53

Two-Week Summary of Passage Indices

* One or more of the sites on this date had an incomplete or biased sample.
See Sampling Comments: http://www.fpc.org/currentDaily/smpcomments.htm
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

				COMBINED YEARLING CHINOOK								
		WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date		(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
05/29/2009		---	3	---	---	7,294	7,017	8,298	159	17,768	13,943	42,290
05/30/2009	*	---	12	---	---	2,211	4,087	4,006	142	---	16,452	31,834
05/31/2009		---	22	---	---	3,495	3,809	2,959	113	21,599	18,702	26,507
06/01/2009	*	---	4	---	---	732	4,356	2,639	33	---	10,629	19,870
06/02/2009	*	---	4	---	---	1,803	2,031	1,074	15	20,725	11,432	13,714
06/03/2009	*	---	5	---	---	2,510	1,421	1,032	23	---	7,779	6,918
06/04/2009	*	---	19	---	---	1,401	1,529	1,537	20	4,652	7,716	7,911
06/05/2009	*	---	21	---	---	1,057	1,001	669	30	---	9,467	6,898
06/06/2009	*	---	---	---	---	1,848	1,162	750	11	5,692	8,822	3,720
06/07/2009	*	---	---	---	---	1,741	2,292	145	11	---	11,983	3,210
06/08/2009		---	2	---	---	1,145	581	676	9	4,423	8,045	2,712
06/09/2009	*	---	11	---	---	2,241	682	746	2	---	3,661	3,757
06/10/2009		---	14	---	---	982	394	286	8	4,182	3,446	2,586
06/11/2009	*	---	---	---	---	1,203	340	293	0	---	2,493	1,532
06/12/2009		---	---	---	---	---	---	---	---	---	---	---
Total:		**0**	**117**	**0**	**0**	**29,663**	**30,702**	**25,110**	**576**	**79,041**	**134,570**	**173,459**
# Days:		**0**	**11**	**0**	**0**	**14**	**14**	**14**	**14**	**7**	**14**	**14**
Average:		**0**	**11**	**0**	**0**	**2,119**	**2,193**	**1,794**	**41**	**11,292**	**9,612**	**12,390**
YTD		**37,667**	**44,510**	**20,207**	**29,713**	**3,076,669**	**2,429,113**	**447,076**	**9,170**	**2,227,342**	**1,008,706**	**1,701,057**

				COMBINED SUBYEARLING CHINOOK								
		WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date		(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
05/29/2009		---	0	---	---	49,082	34,777	5,195	13	2,540	644	2,324
05/30/2009	*	---	0	---	---	51,007	25,777	8,564	6	---	806	3,625
05/31/2009		---	1	---	---	41,592	44,977	8,944	16	3,272	1,924	4,718
06/01/2009	*	---	0	---	---	37,708	65,655	14,328	88	---	1,698	4,166
06/02/2009	*	---	0	---	---	50,793	82,923	21,901	55	5,886	1,703	4,730
06/03/2009	*	---	1	---	---	26,664	31,300	25,548	69	---	1,975	4,330
06/04/2009	*	---	0	---	---	19,475	78,872	24,770	107	8,589	2,894	5,704
06/05/2009	*	---	0	---	---	29,937	54,730	21,222	110	---	5,115	6,331
06/06/2009	*	---	---	---	---	19,375	19,984	23,059	47	21,322	4,653	6,096
06/07/2009	*	---	---	---	---	32,027	59,021	20,074	73	---	8,250	6,780
06/08/2009		---	0	---	---	26,567	46,763	21,911	36	24,358	10,564	4,825
06/09/2009	*	---	0	---	---	39,503	43,190	26,141	31	---	16,184	9,619
06/10/2009		---	0	---	---	22,346	29,994	15,085	11	24,054	15,036	11,538
06/11/2009	*	---	---	---	---	17,498	30,590	7,254	10	---	15,079	13,462
06/12/2009		---	---	---	---	---	---	---	---	---	---	---
Total:		**0**	**2**	**0**	**0**	**463,574**	**648,553**	**243,996**	**672**	**90,021**	**86,525**	**88,248**
# Days:		**0**	**11**	**0**	**0**	**14**	**14**	**14**	**14**	**7**	**14**	**14**
Average:		**0**	**0**	**0**	**0**	**33,112**	**46,325**	**17,428**	**48**	**12,860**	**6,180**	**6,303**
YTD		**0**	**15**	**15**	**545**	**559,057**	**759,434**	**250,555**	**1,033**	**98,453**	**89,550**	**2,073,386**

Two-Week Summary of Passage Indices

COMBINED COHO

Date		WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (INDEX)	LGS (INDEX)	LMN (INDEX)	RIS (INDEX)	MCN (INDEX)	JDA (INDEX)	BO2 (INDEX)
05/29/2009		---	0	---	---	3,191	1,618	337	1,981	5,182	4,160	12,393
05/30/2009	*	---	0	---	---	632	928	414	1,832	---	4,195	15,444
05/31/2009		---	0	---	---	699	1,546	482	2,456	7,374	5,323	8,614
06/01/2009	*	---	0	---	---	915	1,035	226	1,985	---	4,127	7,897
06/02/2009	*	---	0	---	---	1,081	573	150	1,633	8,357	3,931	4,804
06/03/2009	*	---	0	---	---	1,098	135	129	1,480	---	3,161	2,292
06/04/2009	*	---	0	---	---	140	627	369	1,812	1,482	2,894	3,385
06/05/2009	*	---	0	---	---	352	497	0	1,438	---	6,193	4,158
06/06/2009	*	---	---	---	---	685	515	62	1,293	2,436	10,902	1,969
06/07/2009	*	---	---	---	---	606	501	145	1,416	---	10,769	1,851
06/08/2009		---	0	---	---	763	144	406	420	2,619	14,447	1,167
06/09/2009	*	---	0	---	---	420	136	391	263	---	5,820	2,235
06/10/2009		---	0	---	---	246	723	215	327	2,268	7,251	1,649
06/11/2009	*	---	---	---	---	301	67	110	298	---	5,278	1,856
06/12/2009		---	---	---	---	---	---	---	---	---	---	---
Total:		**0**	**0**	**0**	**0**	**11,129**	**9,045**	**3,436**	**18,634**	**29,718**	**88,451**	**69,714**
# Days:		**0**	**11**	**0**	**0**	**14**	**14**	**14**	**14**	**7**	**14**	**14**
Average:		**0**	**0**	**0**	**0**	**795**	**646**	**245**	**1,331**	**4,245**	**6,318**	**4,980**
YTD		**0**	**0**	**0**	**332**	**79,135**	**71,222**	**14,891**	**35,193**	**114,010**	**208,646**	**479,112**

COMBINED STEELHEAD

Date		WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (INDEX)	LGS (INDEX)	LMN (INDEX)	RIS (INDEX)	MCN (INDEX)	JDA (INDEX)	BO2 (INDEX)
05/29/2009		---	115	---	---	26,441	20,760	9,782	286	5,729	9,949	8,985
05/30/2009	*	---	150	---	---	23,688	16,244	7,667	202	---	4,580	7,249
05/31/2009		---	83	---	---	22,893	19,536	7,156	243	4,384	4,295	6,808
06/01/2009	*	---	45	---	---	23,064	19,573	9,728	207	---	3,157	3,703
06/02/2009	*	---	63	---	---	21,252	17,330	7,596	222	4,800	2,906	2,890
06/03/2009	*	---	65	---	---	22,116	4,204	8,194	162	---	2,797	1,115
06/04/2009	*	---	62	---	---	15,972	18,051	8,482	188	1,287	1,808	1,203
06/05/2009	*	---	89	---	---	20,569	13,302	5,169	120	---	2,899	1,291
06/06/2009	*	---	---	---	---	28,549	14,928	5,187	84	2,665	4,155	1,157
06/07/2009	*	---	---	---	---	31,421	20,418	4,203	64	---	7,328	802
06/08/2009		---	5	---	---	38,094	9,307	5,748	61	1,365	10,550	442
06/09/2009	*	---	13	---	---	16,319	14,834	8,702	52	---	9,270	1,166
06/10/2009		---	19	---	---	6,200	17,345	6,557	52	1,239	3,329	1,078
06/11/2009	*	---	---	---	---	6,614	7,486	3,919	49	---	2,447	619
06/12/2009		---	---	---	---	---	---	---	---	---	---	---
Total:		**0**	**709**	**0**	**0**	**303,192**	**213,318**	**98,090**	**1,992**	**21,469**	**69,470**	**38,508**
# Days:		**0**	**11**	**0**	**0**	**14**	**14**	**14**	**14**	**7**	**14**	**14**
Average:		**0**	**64**	**0**	**0**	**21,657**	**15,237**	**7,006**	**142**	**3,067**	**4,962**	**2,751**
YTD		**1,833**	**23,917**	**9,611**	**8,297**	**4,466,891**	**3,533,185**	**715,008**	**17,302**	**796,112**	**926,294**	**667,129**

Two-Week Summary of Passage Indices

				COMBINED SOCKEYE								
		WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date		(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
05/29/2009		---	0	---	---	608	809	742	153	10,165	2,121	2,788
05/30/2009	*	---	0	---	---	632	396	760	165	---	3,999	4,413
05/31/2009		---	0	---	---	350	706	619	339	10,124	2,908	3,618
06/01/2009	*	---	0	---	---	915	591	528	210	---	3,483	2,802
06/02/2009	*	---	0	---	---	360	573	300	284	14,100	2,235	1,766
06/03/2009	*	---	0	---	---	157	270	323	157	---	1,885	677
06/04/2009	*	---	0	---	---	280	501	369	105	2,072	2,020	1,104
06/05/2009	*	---	0	---	---	423	249	304	59	---	2,509	1,890
06/06/2009	*	---	---	---	---	411	129	62	51	2,842	6,024	844
06/07/2009	*	---	---	---	---	76	430	362	47	---	3,889	1,472
06/08/2009		---	0	---	---	0	75	68	44	1,066	2,428	851
06/09/2009	*	---	0	---	---	140	137	196	38	---	2,107	259
06/10/2009		---	0	---	---	0	0	0	22	1,239	1,249	545
06/11/2009	*	---	---	---	---	120	135	0	37	---	1,278	530
06/12/2009		---	---	---	---	---	---	---	---	---	---	---
Total:		**0**	**0**	**0**	**0**	**4,472**	**5,001**	**4,633**	**1,711**	**41,608**	**38,135**	**23,559**
# Days:		**0**	**11**	**0**	**0**	**14**	**14**	**14**	**14**	**7**	**14**	**14**
Average:		**0**	**0**	**0**	**0**	**319**	**357**	**331**	**122**	**5,944**	**2,724**	**1,683**
YTD		**170**	**0**	**0**	**177**	**45,976**	**45,865**	**21,412**	**4,383**	**186,506**	**108,538**	**72,411**

* 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.

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)}

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.

Two Week Transportation Summary

Source: Fish Passage Center Updated: 6/12/09 8:58 AM

05/29/09 TO 06/12/09

		Species					
Site	Data	**CH0**	**CH1**	CO	ST	SO	**Grand Total**
LGR	Sum of NumberCollected	303,000	19,601	7,200	198,749	2,850	531,400
	Sum of NumberBarged	301,683	19,239	7,195	194,595	2,832	525,544
	Sum of NumberBypassed	0	244	0	4,085	0	4,329
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of SampleMorts	59	3	1	2	1	66
	Sum of FacilityMorts	1,258	28	4	61	17	1,368
	Sum of ResearchMorts	0	87	0	6	0	93
	Sum of TotalProjectMorts	1,317	118	5	69	18	1,527
LGS	Sum of NumberCollected	475,525	22,280	6,622	156,615	3,643	664,685
	Sum of NumberBarged	469,848	21,681	6,622	156,508	3,633	658,292
	Sum of NumberBypassed	830	0	0	0	0	830
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of SampleMorts	42	7	0	0	1	50
	Sum of FacilityMorts	4,825	592	0	107	9	5,533
	Sum of ResearchMorts	3	0	0	0	0	3
	Sum of TotalProjectMorts	4,870	599	0	107	10	5,586
LMN	Sum of NumberCollected	185,190	18,519	2,570	73,697	3,400	283,376
	Sum of NumberBarged	184,385	18,474	2,568	72,129	3,350	280,906
	Sum of NumberBypassed	590	19	0	1,502	0	2,111
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of SampleMorts	6	3	0	0	0	9
	Sum of FacilityMorts	236	23	2	64	0	325
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	242	26	2	64	0	334
MCN	Sum of NumberCollected	45,477	39,581	14,911	10,734	20,811	131,514
	Sum of NumberBarged	0	0	0	0	0	0
	Sum of NumberBypassed	45,334	39,456	14,900	10,723	20,803	131,216
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of SampleMorts	12	19	0	2	1	34
	Sum of FacilityMorts	131	104	11	9	7	262
	Sum of ResearchMorts	0	2	0	0	0	2
	Sum of TotalProjectMorts	143	125	11	11	8	298
Total Sum of NumberCollected		1,009,192	99,981	31,303	439,795	30,704	1,610,975
Total Sum of NumberBarged		955,916	59,394	16,385	423,232	9,815	1,464,742
Total Sum of NumberBypassed		46,754	39,719	14,900	16,310	20,803	138,486
Total Sum of Numbertrucked		0	0	0	0	0	0
Total Sum of SampleMorts		119	32	1	4	3	159
Total Sum of FacilityMorts		6,450	747	17	241	33	7,488
Total Sum of ResearchMorts		3	89	0	6	0	98
Total Sum of TotalProjectMorts		6,572	868	18	251	36	7,745

YTD Transportation Summary

Source: Fish Passage Center Updated: 6/12/09 8:58 AM

TO: 06/12/09

		Species					
Site	Data	**CH0**	**CH1**	CO	SO	ST	**Grand Total**
LGR	Sum of NumberCollected	369,182	2,348,862	56,258	33,076	3,395,275	6,202,653
	Sum of NumberBarged	351,279	1,497,158	54,192	25,805	1,807,474	3,735,908
	Sum of NumberBypassed	15,038	847,954	1,951	7,068	1,587,387	2,459,398
	Sum of NumberTrucked	0	0	0	0	0	0
	Sum of SampleMorts	89	117	2	21	29	258
	Sum of FacilityMorts	2,776	2,728	113	182	366	6,165
	Sum of ResearchMorts	0	1,035	0	0	19	1,054
	Sum of TotalProjectMorts	2,865	3,880	115	203	414	7,477
LGS	Sum of NumberCollected	556,880	1,717,480	52,448	33,302	2,496,490	4,856,600
	Sum of NumberBarged	541,937	900,523	45,621	25,429	972,323	2,485,833
	Sum of NumberBypassed	5,275	751,922	2,825	5,826	1,460,070	2,225,918
	Sum of NumberTrucked	0	0	0	0	0	0
	Sum of SampleMorts	44	49	0	4	11	108
	Sum of FacilityMorts	4,844	1,612	2	43	290	6,791
	Sum of ResearchMorts	3	4	0	0	0	7
	Sum of TotalProjectMorts	4,891	1,665	2	47	301	6,906
LMN	Sum of NumberCollected	190,070	319,654	11,028	15,839	508,604	1,045,195
	Sum of NumberBarged	189,157	310,636	11,013	15,663	497,435	1,023,904
	Sum of NumberBypassed	590	8,781	9	114	10,911	20,405
	Sum of NumberTrucked	0	0	0	0	0	0
	Sum of SampleMorts	6	14	0	2	4	26
	Sum of FacilityMorts	244	236	5	6	238	729
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	250	250	5	8	242	755
MCN	Sum of NumberCollected	50,154	1,290,369	62,634	104,012	463,436	1,970,605
	Sum of NumberBarged	0	0	0	0	0	0
	Sum of NumberBypassed	50,005	1,288,842	62,584	103,956	463,273	1,968,660
	Sum of NumberTrucked	0	0	0	0	0	0
	Sum of SampleMorts	13	129	1	2	13	158
	Sum of FacilityMorts	135	1,375	49	53	147	1,759
	Sum of ResearchMorts	1	23	0	1	3	28
	Sum of TotalProjectMorts	149	1,527	50	56	163	1,945
Total Sum of NumberCollected		1,166,286	5,676,365	182,368	186,229	6,863,805	14,075,053
Total Sum of NumberBarged		1,082,373	2,708,317	110,826	66,897	3,277,232	7,245,645
Total Sum of NumberBypassed		70,908	2,897,499	67,369	116,964	3,521,641	6,674,381
Total Sum of NumberTrucked		0	0	0	0	0	0
Total Sum of SampleMorts		152	309	3	29	57	550
Total Sum of FacilityMorts		7,999	5,951	169	284	1,041	15,444
Total Sum of ResearchMorts		4	1,062	0	1	22	1,089
Total Sum of TotalProjectMorts		8,155	7,322	172	314	1,120	17,083

Cumulative Adult Passage at Mainstem Dams Through: 06/11

		Spring Chinook						Summer Chinook						Fall Chinook					
		2009		2008		10-Yr Avg.		2009		2008		10-Yr Avg.		2009		2008		10-Yr Avg.	
DAM	EndDate	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack
BON	**06/11**	**114525**	**66631**	**125543**	**17554**	**160243**	**11507**	**23750**	**10615**	**18109**	**3170**	**15898**	**1786**	**0**	**0**	**0**	**0**	**0**	**0**
TDA	**06/11**	**93908**	**53646**	**95438**	**15801**	**113852**	**9048**	**15716**	**5376**	**9798**	**2131**	**9504**	**1060**	**0**	**0**	**0**	**0**	**0**	**0**
JDA	**06/11**	**76806**	**49733**	**81772**	**14925**	**95147**	**7579**	**9129**	**3832**	**7090**	**1419**	**6012**	**589**	**0**	**0**	**0**	**0**	**0**	**0**
MCN	**06/11**	**70413**	**43328**	**68080**	**12133**	**86998**	**7409**	**3430**	**1429**	**3581**	**855**	**2778**	**338**	**0**	**0**	**0**	**0**	**0**	**0**
IHR	**06/11**	**55435**	**28223**	**53142**	**7757**	**59017**	**4657**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
LMN	**06/11**	**64000**	**19220**	**52225**	**6622**	**55638**	**4118**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
LGS	**06/11**	**46802**	**22403**	**46437**	**7169**	**51519**	**4131**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
LGR	**06/11**	**42829**	**27876**	**44226**	**9592**	**50817**	**4696**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
PRD	**06/09**	**11875**	**2787**	**11379**	**578**	**17445**	**591**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
RIS	**06/09**	**10120**	**5229**	**10454**	**916**	**13677**	**932**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
RRH	**06/09**	**4729**	**861**	**3569**	**314**	**5175**	**368**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
WEL	**06/10**	**2473**	**1399**	**2108**	**352**	**2905**	**218**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
WFA	**06/05**	**18799**	**1668**	**6490**	**94**	-	-	**0**	**0**	**0**	**0**	-	-	**0**	**0**	**0**	**0**	-	-

	Coho						Sockeye			Steelhead			
	2009		2008		10-Yr Avg.				10-Yr			10-Yr	Wild
DAM	Adult	Jack	Adult	Jack	Adult	Jack	2009	2008	Avg.	2009	2008	Avg.	2009
BON	**0**	**0**	**0**	**0**	**0**	**0**	**5398**	**6028**	**2973**	**6750**	**5490**	**6150**	**1402**
TDA	**0**	**0**	**0**	**0**	**0**	**0**	**3398**	**2180**	**1537**	**1874**	**1767**	**1846**	**555**
JDA	**0**	**0**	**0**	**0**	**0**	**0**	**2213**	**904**	**1009**	**3754**	**3806**	**3474**	**1778**
MCN	**0**	**0**	**0**	**0**	**0**	**0**	**532**	**158**	**393**	**2671**	**2587**	**2142**	**1122**
IHR	**0**	**0**	**0**	**0**	**0**	**0**	**9**	**0**	**0**	**3194**	**3214**	**2122**	**1071**
LMN	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**4857**	**4055**	**2232**	**2266**
LGS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5432**	**2627**	**2273**	**2197**
LGR	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**10808**	**7795**	**7790**	**3389**
PRD	**0**	**0**	**0**	**0**	**0**	**0**	**32**	**0**	**30**	**60**	**164**	**28**	**0**
RIS	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**2**	**2**	**108**	**312**	**69**	**55**
RRH	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**1**	**435**	**556**	**181**	**214**
WEL	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**1**	**0**	**80**	**186**	**43**	**56**
WFA	**0**	**0**	**0**	**0**	-	-	**0**	**0**	-	**9627**	**12084**	-	-

BON and LGR have switched to video counts so the data is delayed.
*PRD is not posting wild steelhead numbers.
These numbers were collected from USACE, Grant PUD, Douglas PUD, Chelan PUD, ODFW and DART.
Wild steelhead numbers are included in the total. Wild Steelhead are defined as unclipped fish.
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: 05/21/09

BON counts from January 1, 2009 to March 14, 2009 (our traditional counts begin March 15):

Year	Chinook Adult	Chinook Jack	Steelhead	Wild Steelhead
2009	19	-1	321	109
2008	42	0	568	273