



Fish Passage Center

Weekly Report #09 - 27

September 11, 2009

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Summary of Events:

Water Supply: Precipitation throughout the Columbia Basin has varied between 15% and 247% of average at individual sub-basins through September. Precipitation above The Dalles has been 105% of average over September. Over the entire water year, precipitation has generally been near average.

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

Location	Water Year 2009 September 1-7		Water Year 2009 October 1, 2008 to September 7, 2009	
	Observed (inches)	% Average	Observed (inches)	% Average
Columbia Above Coulee	0.45	119	22.21	91
Snake River Above Ice Harbor	0.05	22	19.43	113
Columbia Above The Dalles	0.32	105	22.41	100
Kootenai	0.51	135	21.91	88
Clark Fork	0.13	45	17.87	105
Flathead	0.17	44	20.29	91
Pend Oreille/ Spokane	0.24	69	28.64	95
Central Washington	0.20	192	7.23	82
Snake River Plain	0.03	15	12.73	116
Salmon/Boise/ Payette	0.14	15	19.02	98
Clearwater	0.10	25	32.18	108
SW Washington Cascades/ Cowlitz	1.80	247	62.19	90
Willamette Valley	0.81	163	49.42	85

The summer flow period began on 6-21-09 at Lower Granite Dam and ended on 8-31-09; the flow objective was 52.5 Kcfs. Flows at Lower Granite averaged 48.2 Kcfs over the summer period.

The summer flow period began on 7-1-09 at McNary Dam and ended on 8-31-09; the flow objective was 200 Kcfs. Flows at McNary Dam averaged 141.8 Kcfs over the summer period.

Grand Coulee was at 1277.9 feet on September 10, 2009, refilling 0.7 feet last week. Grand Coulee is expected to target elevation 1283 feet by the end of September. Outflows at Grand Coulee have ranged between 39.3 and 51.3 Kcfs over the last week.

The Libby Reservoir is currently at elevation 2442.9 feet (9-10-09) and has held steady last week. Outflows at Libby are currently 6 Kcfs and will remain at this level through September.

Hungry Horse is currently at an elevation of 3552.3 ft (9-10-09) and has drafted 1.2 feet last week. Outflows at Hungry Horse have been approximately 2.5 Kcfs last week. The BOR plans to draft Hungry Horse to elevation 3550 by the end of September.

Dworshak is currently at an elevation of 1523.2 feet (9-10-09) and has drafted 6.7 feet last week. Outflows at Dworshak are currently 8.0-8.3 Kcfs. Dworshak is expected to draft to elevation 1520 feet by mid-September.

The Brownlee Reservoir was at an elevation of 2053.5 feet on September 10th, 2009 drafting 1.2 feet last week. Outflows at Brownlee Dam have been 9.3 to 14.3 Kcfs over the last week.

Adult Fish Passage:

Daily counts of adult fall Chinook ranged from 5477 to 10122. The 2009 adult fall Chinook count of 205881 was about 91.7% of the 2008 count and about 93.9% of the 10 year average. The fall Chinook jack count of 71667 was about 2.94 times greater than the 2008 count and about 3.91 times greater than the 10 year average. The adult fall Chinook count total at The Dalles Dam of 106659 is about 51.8% of the Bonneville passage to date. The 2009 Lower Granite Dam adult

fall Chinook count of 5641 is about 77.3% of the 2008 count and about 2.39 times greater than the 10 year average count. The 2009 Lower Granite fall Chinook jack count of 9668 is about 6.97 times greater than the 2008 count and about 17.7 times greater than the 10 year average.

Daily steelhead counts at Bonneville Dam for the past week ranged between 3330 and 6755. The Bonneville Dam 2009 steelhead count of 537171 is about 1.76 times greater than the 2008 count and 1.85 times greater than the 10 year average. During this time of year, there are times when there are higher steelhead counts at upstream projects compared to downstream projects. The higher counts of steelhead at upstream sites compared to downstream sites in any particular year is because some steelhead spend the winter between sites, for instance between Ice Harbor and Lower Granite, and then start their migration upstream the following year. The summer steelhead run is delineated according to dates of passage past Bonneville Dam and is made up of two components. A-run steelhead pass Bonneville Dam from the first of June through August 25th and B-run steelhead pass Bonneville from August 26th through October. The 2009 B-run steelhead began on August 26th at Bonneville Dam and was 93185 as of September 10th. The 2009 B-run steelhead count is about 1.18 times greater than the 2008 count of 79120 and is about 1.58 times greater than the 10 year average count of 59081.

In the Snake River, this year's Lower Granite total steelhead count of 66133 is about 1.76 times greater than the 2008 count of 37544 and 2.56 times greater than the 10 year average of 25966. The 2009 wild steelhead count as of September 10th was 19513. At Rock Island Dam, as of September 7th, 9856 adult steelhead had been counted and at Rocky Reach Dam, 7634 adult steelhead had been counted so far this season. At Willamette Falls Dam, the 2009 count for steelhead was 17254, as of August 31st. This year's steelhead count is only about 92.2% of the 2008 count of 18718 at Willamette Falls Dam for the same date range.

The 2009 adult coho count at Bonneville Dam is 88040 adults and 3995 jacks. The Bonneville 2009 adult coho count is about 1.75 times greater than the 2008 count of 50088 and is about 2.08 times greater than the 10 year average count of 42280. The 2009 coho jack count of 3995 is about 1.02 times greater than the 2008 count of 3911 and is about 1.73 times greater than the 10 year average count of 2305 at Bonneville

Dam.

The posting of the daily fish counts have been delayed a few days this week on the Corp of Engineers website due to computer problems. The COE is working on fixing the problems. FPC staff downloaded each project station estimated count files and summarized the data. The data for 9/10 are preliminary data.

Smolt Monitoring:

Subyearling Chinook smolts continue to decline in numbers throughout the system. Unclipped subyearlings predominate at all the sites at this time suggesting that many of the late season outmigrant fish are of wild origin. It should be noted however, that a good portion of hatchery origin fish were unmarked as well.

At Lower Granite Dam subyearling Chinook predominated with coho smolt numbers second in prevalence but at very low numbers. Average daily passage index for subyearling Chinook was at 73 per day this week compared to 90 per day last week. At Little Goose Dam the subyearling Chinook indices decreased this week with the daily average index at 58 per day this week compared to 92 last week. Nearly 90 percent of the subyearling Chinook passing Lower Granite Dam were unclipped in the past two weeks. The proportion of unclipped smolts increased to nearly 95 percent by the end of this week. Almost all PIT-tag detects in the past ten day were of fish released from Big Canyon Creek in the Clearwater River during late June to early July.

In the lower Columbia River, at McNary Dam, subyearling Chinook the weekly average passage index dropped this week with the passage index averaging 287 for this week compared to 606 daily average index last week. John Day and Bonneville Dam continue to limit sampling due to high temperatures at those projects. Subyearling Chinook weekly average passage indices dropped from nearly 600 per day last week to about 350 per day this week at Bonneville Dam.

John Day Dam smolt monitoring is scheduled to end September 15 and GBT sampling ended August 31, with the completion of spill operations.

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. There were no releases of juvenile salmonids scheduled for this week. Furthermore, no releases of juvenile salmonids are scheduled to begin 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. There were no scheduled releases of juvenile salmonids to this zone this week. There are no 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. No releases of juvenile salmonids were scheduled for this zone over the past week. Furthermore, there are no releases scheduled for this zone over the next two weeks.

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
08/28/2009	74.0	0.1	68.4	0.0	66.6	0.0	68.2	6.8	66.6	0.0	85.1	1.7	80.9	0.7
08/29/2009	56.0	0.1	60.0	0.0	61.8	0.0	59.4	5.0	58.8	0.0	60.4	0.9	59.4	0.6
08/30/2009	51.7	0.1	54.9	0.0	57.6	0.0	59.5	4.9	58.0	0.0	59.6	0.9	56.6	0.9
08/31/2009	78.7	0.1	75.5	0.0	72.5	0.0	70.5	6.5	70.6	0.0	75.3	1.0	67.7	0.9
09/01/2009	60.3	0.1	58.5	0.0	61.1	0.0	58.0	0.0	58.7	0.0	53.4	1.1	50.0	1.5
09/02/2009	53.7	0.1	60.2	0.0	61.9	0.0	64.2	0.0	64.4	0.0	87.1	0.9	88.7	1.7
09/03/2009	56.0	0.1	57.0	0.0	55.9	0.0	51.2	0.0	50.4	0.0	44.7	1.5	42.3	0.5
09/04/2009	58.6	0.1	54.3	0.0	57.1	0.0	58.8	0.0	58.6	0.0	58.9	1.8	52.0	0.6
09/05/2009	49.6	0.1	50.2	0.0	48.1	0.0	46.4	0.0	47.0	0.0	44.1	1.9	40.7	0.7
09/06/2009	44.2	0.1	43.8	0.0	48.1	0.0	50.0	0.0	51.1	0.0	57.7	2.1	53.0	1.1
09/07/2009	49.2	0.1	54.2	0.0	53.7	0.0	47.9	0.0	46.8	0.0	51.6	1.9	49.5	1.1
09/08/2009	51.3	0.1	50.7	0.0	55.6	0.0	61.1	0.0	61.8	0.0	76.1	1.9	74.9	1.0
09/09/2009	48.8	0.2	47.4	0.0	47.4	0.0	46.1	0.0	47.7	0.0	61.0	2.0	61.9	0.8
09/10/2009	39.3	0.1	39.9	0.0	49.9	0.0	51.4	0.0	49.9	0.0	64.5	2.0	52.9	0.9

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

Date	Dworshak		Brownlee Canyon		Hells Granite		Lower Granite		Little Goose		Lower Monumental		Ice Harbor	
	Flow	Spill	Inflow	Outflow	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill
08/28/2009	8.1	0.0	10.5	10.6	31.2	18.5	31.0	9.7	29.6	17.5	31.6	24.6		
08/29/2009	7.6	0.0	9.3	9.9	25.8	13.0	26.2	8.4	25.8	13.8	26.9	20.0		
08/30/2009	7.5	0.0	10.2	9.0	26.3	13.6	25.6	7.9	25.3	13.3	25.2	18.5		
08/31/2009	7.4	0.0	10.5	10.5	23.8	10.9	23.0	7.7	23.0	10.9	25.5	18.7		
09/01/2009	8.1	0.0	10.8	9.1	28.2	0.3	27.1	0.0	27.2	0.0	27.5	0.0		
09/02/2009	8.1	0.0	11.5	12.6	25.5	0.0	23.9	0.2	24.3	0.0	24.9	0.0		
09/03/2009	8.2	0.0	9.9	12.1	29.5	0.0	27.8	0.0	28.1	0.0	25.8	0.0		
09/04/2009	8.2	0.0	10.8	9.8	28.2	0.0	26.7	0.0	27.6	0.0	27.8	0.0		
09/05/2009	8.2	0.0	10.3	9.8	25.3	0.0	18.6	0.0	18.3	0.0	17.8	0.0		
09/06/2009	8.2	0.0	10.4	9.6	24.6	0.0	24.8	0.0	24.9	0.0	24.6	0.0		
09/07/2009	8.2	0.0	10.7	8.9	25.3	0.0	24.9	0.0	25.8	0.0	26.0	0.0		
09/08/2009	8.2	0.0	10.2	13.6	25.2	0.0	24.1	0.0	23.9	0.0	23.5	0.0		
09/09/2009	8.3	0.0	9.8	13.4	27.2	0.0	24.9	0.0	24.8	0.0	15.2	0.0		
09/10/2009	8.0	0.0	---	---	28.9	0.0	27.0	0.0	22.1	0.0	22.0	0.0		

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
08/28/2009	120.9	60.5	107.6	32.2	105.5	42.1	118.0	75.3	0.0	30.6
08/29/2009	111.2	55.5	112.6	33.6	107.6	43.2	117.9	75.2	0.0	30.6
08/30/2009	109.7	54.5	113.4	33.8	110.4	44.2	118.0	75.3	0.0	30.6
08/31/2009	112.7	56.6	104.8	31.5	105.5	41.9	118.1	74.8	0.0	31.0
09/01/2009	83.7	0.0	77.3	0.9	82.3	0.0	93.0	1.7	15.4	67.0
09/02/2009	88.8	0.0	84.4	0.8	88.5	0.0	92.9	1.5	15.0	69.0
09/03/2009	92.0	0.0	85.4	0.9	83.4	0.0	90.1	1.5	14.3	67.0
09/04/2009	79.1	0.0	78.1	0.8	77.1	0.0	85.6	1.4	16.2	60.6
09/05/2009	68.9	0.0	64.8	0.8	73.1	0.0	81.9	1.5	15.8	57.2
09/06/2009	67.5	0.0	65.8	0.9	67.7	0.0	77.8	1.5	15.3	53.6
09/07/2009	89.2	0.0	78.6	0.9	78.0	0.0	73.1	1.5	15.5	48.7
09/08/2009	71.0	0.0	68.2	0.9	70.2	0.0	71.1	1.5	2.3	60.0
09/09/2009	79.5	0.0	67.7	0.9	66.0	0.0	71.8	1.6	8.0	54.8
09/10/2009	74.4	0.0	82.1	0.8	85.5	0.0	93.1	1.6	10.0	73.8

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>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>		
	Avg	Avg	High		Avg	Avg	High		Avg	Avg	High		Avg	Avg	High		Avg	Avg	High	
8/28	103.4	103.8	103.9	24	104.6	105.1	105.5	23	103.8	104.3	105.1	24	103.7	104.9	106.9	23	103.7	103.9	105.1	15
8/29	104.0	104.3	104.5	24	104.3	104.6	105.0	21	103.9	104.2	104.5	24	103.4	104.5	107.2	21	104.6	105.0	105.3	24
8/30	104.2	104.6	104.9	24	105.3	106.3	107.0	23	104.1	104.3	104.6	24	104.1	105.1	107.9	23	105.2	105.9	106.4	24
8/31	104.1	104.5	105.0	24	106.0	106.8	107.2	22	103.9	104.1	104.4	24	104.7	105.5	107.3	22	106.0	106.2	106.4	24
9/1	103.9	104.2	104.6	24	105.8	106.2	106.7	23	103.9	104.0	104.1	24	103.9	105.1	107.9	23	105.8	106.1	106.5	24
9/2	103.3	103.6	104.0	24	105.3	105.9	106.5	23	103.5	103.8	104.1	24	103.5	104.7	106.7	23	105.9	106.7	107.5	24
9/3	103.7	104.1	104.6	24	104.6	104.9	105.2	22	103.1	103.6	103.9	24	103.1	103.8	106.1	22	105.7	106.1	106.6	24
9/4	103.6	103.9	104.4	24	104.0	104.5	105.1	23	103.1	103.4	103.7	24	102.7	103.6	105.6	23	105.0	105.4	105.8	24
9/5	103.8	104.4	104.9	24	104.4	104.9	105.3	23	103.2	103.4	103.7	24	103.3	104.4	106.4	23	104.5	104.8	105.2	24
9/6	103.1	103.3	103.8	24	103.7	104.2	104.4	23	103.2	103.6	104.0	24	102.9	104.2	106.1	23	103.7	104.0	104.4	24
9/7	103.3	103.6	104.0	24	102.0	103.9	104.4	22	102.5	102.7	102.9	24	102.0	102.5	103.7	22	103.0	103.2	103.3	24
9/8	102.8	103.4	104.0	24	104.7	105.8	106.5	22	102.0	102.3	102.6	24	101.6	102.2	103.5	22	102.9	103.3	103.7	24
9/9	102.6	103.0	103.4	24	104.7	105.1	105.4	24	102.1	102.3	102.5	24	99.9	100.5	102.2	24	102.8	103.2	103.5	24
9/10	101.9	102.3	102.7	24	104.4	105.1	105.9	23	101.2	101.4	101.9	24	98.9	99.7	100.7	23	102.4	102.8	103.2	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>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>		
	Avg	Avg	High		Avg	Avg	High		Avg	Avg	High		Avg	Avg	High		Avg	Avg	High	
8/28	103.9	104.2	107.4	15	106.3	107.4	107.9	24	107.0	108.2	108.8	24	106.6	107.3	108.5	24	107.8	108.4	109.1	24
8/29	103.7	105.1	106.0	24	105.6	106.2	106.9	24	106.7	107.3	108.2	24	106.5	107.1	107.7	24	107.3	107.8	108.2	24
8/30	105.3	106.2	106.7	24	106.6	107.7	108.5	24	107.0	108.4	109.2	24	106.3	107.1	107.9	24	107.3	107.8	108.2	24
8/31	106.2	106.6	107.1	24	105.4	107.2	107.8	24	107.5	108.5	109.1	24	107.2	107.9	108.4	24	108.3	109.4	110.7	24
9/1	106.3	107.1	108.2	24	106.5	107.2	108.1	24	107.6	108.7	109.6	24	107.3	108.0	108.4	24	106.3	106.7	107.7	24
9/2	105.9	106.8	107.2	24	105.6	106.7	107.3	24	107.2	108.2	108.8	24	106.8	107.4	107.7	24	105.0	105.3	105.8	24
9/3	106.2	106.7	107.6	24	104.9	105.3	106.3	24	106.3	106.8	107.3	24	106.6	106.6	106.9	8	104.3	104.3	104.5	8
9/4	104.6	105.6	107.0	24	105.1	106.5	107.3	23	105.8	106.8	107.4	23	---	---	---	0	---	---	---	0
9/5	103.2	104.2	105.3	24	104.0	104.3	105.2	24	105.8	106.5	106.9	24	---	---	---	0	---	---	---	0
9/6	103.9	104.6	105.6	24	103.5	103.9	104.1	24	105.2	105.5	106.1	24	---	---	---	0	---	---	---	0
9/7	102.6	103.4	104.7	24	101.6	102.0	102.3	24	103.7	104.5	105.4	24	---	---	---	0	---	---	---	0
9/8	102.8	104.1	105.8	24	101.2	102.2	102.8	24	102.3	103.1	103.4	24	---	---	---	0	---	---	---	0
9/9	103.7	104.4	105.0	24	101.1	102.2	102.8	24	102.4	103.3	103.7	24	---	---	---	0	---	---	---	0
9/10	103.9	104.7	105.9	24	101.5	102.5	103.2	24	102.7	103.5	104.1	24	---	---	---	0	---	---	---	0

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>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>		
	Avg	Avg	High		Avg	Avg	High		Avg	Avg	High		Avg	Avg	High		Avg	Avg	High	
8/28	107.3	107.6	108.1	24	107.3	107.6	107.8	24	107.2	108.7	109.9	24	107.2	107.9	108.6	24	106.1	106.7	107.1	24
8/29	107.2	107.7	108.4	24	107.0	107.5	108.1	24	105.2	106.2	106.8	24	105.3	105.5	105.9	24	106.1	106.7	107.3	24
8/30	107.3	108.0	108.7	24	107.5	107.9	108.1	24	104.1	107.0	108.5	24	105.9	106.7	107.0	24	105.8	106.2	106.9	24
8/31	107.9	108.1	108.4	24	107.6	107.9	108.1	24	---	---	---	0	---	---	---	0	---	---	---	0
9/1	108.1	108.4	108.5	24	107.9	108.3	108.7	24	---	---	---	0	---	---	---	0	---	---	---	0
9/2	106.7	106.9	107.0	24	106.6	106.7	107.0	24	---	---	---	0	---	---	---	0	---	---	---	0
9/3	106.6	106.6	106.9	8	106.4	106.4	106.8	8	---	---	---	0	---	---	---	0	---	---	---	0
9/4	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
9/5	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
9/6	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
9/7	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
9/8	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
9/9	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
9/10	---	---	---	0	---	---	---	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 Lower Columbia and Snake River Sites

Date	<u>Priest R. Dnst</u>			#	<u>Pasco</u>			#	<u>Dworshak</u>			#	<u>Clrwtr-Peck</u>			#	<u>Anatone</u>			#
	<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>		
	Avg	Avg	High		Avg	Avg	High		Avg	Avg	High		Avg	Avg	High		Avg	Avg	High	
8/28	106.1	106.7	107.0	24	103.9	104.6	105.3	24	100.5	101.2	101.6	24	102.3	103.7	105.1	24	102.1	103.4	104.9	24
8/29	105.9	106.7	107.0	24	102.9	103.7	104.1	24	101.2	101.6	101.9	24	102.1	103.4	104.9	24	101.2	102.2	103.2	24
8/30	106.4	106.8	107.3	24	104.1	104.8	105.3	24	101.8	102.2	102.7	24	102.6	104.0	105.4	24	101.7	103.1	104.5	24
8/31	---	---	---	0	104.9	105.5	106.1	24	101.6	101.9	102.1	24	102.7	104.1	105.2	24	101.7	103.1	104.5	24
9/1	---	---	---	0	104.2	104.8	105.2	24	101.2	101.6	102.4	24	102.5	103.8	105.0	24	101.5	102.8	104.3	24
9/2	---	---	---	0	104.2	105.1	105.7	24	101.4	101.8	102.2	24	102.1	103.4	104.6	24	101.4	102.8	104.2	24
9/3	---	---	---	0	103.1	103.6	105.0	24	101.3	101.6	101.8	24	101.9	102.8	103.9	24	101.0	101.8	102.7	24
9/4	---	---	---	0	102.5	103.2	103.4	24	101.3	102.2	103.0	24	101.9	103.0	104.2	21	101.4	102.7	104.0	24
9/5	---	---	---	0	102.4	102.8	103.1	24	103.8	104.1	104.3	24	102.0	103.0	104.0	24	101.2	102.1	103.2	24
9/6	---	---	---	0	101.3	101.8	102.3	24	103.8	103.9	104.0	24	101.2	101.9	103.1	24	100.1	101.1	102.3	24
9/7	---	---	---	0	100.3	100.8	101.2	24	104.1	104.5	104.7	24	101.1	102.0	102.9	22	100.5	101.6	102.9	24
9/8	---	---	---	0	101.5	102.7	103.5	24	102.9	105.1	106.2	24	101.0	102.2	103.3	23	100.9	102.3	103.5	24
9/9	---	---	---	0	102.4	102.8	103.4	24	100.1	100.4	100.7	24	101.1	102.1	103.1	22	100.9	101.8	102.7	24
9/10	---	---	---	0	101.6	102.1	102.3	24	99.6	99.9	100.2	24	100.5	101.6	102.8	24	100.9	102.0	103.2	24

Total Dissolved Gas Saturation Data at Snake River Sites

Date	<u>Clrwtr-Lewiston</u>			#	<u>Lower Granite</u>			#	<u>L. Granite Tlwr</u>			#	<u>Little Goose</u>			#	<u>L. Goose Tlwr</u>			#
	<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>		
	Avg	Avg	High		Avg	Avg	High		Avg	Avg	High		Avg	Avg	High		Avg	Avg	High	
8/28	102.8	104.8	106.6	24	101.2	101.6	102.2	24	111.7	112.0	112.4	24	107.2	107.5	107.8	24	111.6	112.1	112.5	24
8/29	102.4	103.7	104.7	22	100.4	100.7	101.0	24	109.5	109.9	110.6	24	108.0	108.2	108.5	24	111.1	111.5	111.8	24
8/30	103.1	104.9	106.4	24	101.2	101.6	102.1	24	110.4	110.8	111.4	24	108.0	108.5	108.8	24	111.3	111.8	112.1	24
8/31	103.0	104.7	106.1	24	102.5	102.9	103.4	24	109.9	110.2	110.7	24	107.7	108.0	108.3	24	110.0	111.1	111.7	24
9/1	102.7	104.4	106.0	23	102.8	103.4	104.6	24	103.3	104.2	109.2	24	107.9	108.1	108.2	24	108.2	109.3	110.0	24
9/2	102.4	104.2	105.8	24	102.1	102.9	104.7	24	101.2	101.6	102.0	24	107.4	107.8	108.3	24	108.3	109.4	111.1	24
9/3	102.0	103.0	104.1	22	100.9	102.0	104.6	24	99.9	100.4	100.7	24	107.0	107.5	108.3	24	106.2	106.9	108.7	24
9/4	102.1	103.9	105.3	23	100.7	101.5	103.9	24	99.8	100.9	101.4	24	108.0	109.0	110.7	24	106.3	107.3	107.6	24
9/5	102.1	103.5	104.7	23	102.0	102.4	102.8	24	100.0	100.8	101.5	24	108.3	109.3	112.3	24	106.9	107.4	108.2	24
9/6	101.3	102.7	104.3	24	100.7	101.1	101.6	24	98.9	99.6	100.0	24	105.8	106.1	106.3	24	104.8	105.3	105.5	24
9/7	101.6	102.9	104.0	23	100.0	100.2	100.7	24	98.6	98.8	99.1	24	104.2	104.4	104.7	24	102.6	102.9	103.2	24
9/8	101.7	103.5	105.0	24	99.3	99.5	99.9	24	98.5	98.9	99.0	24	104.0	104.5	105.0	24	102.1	102.8	103.2	24
9/9	101.4	102.6	103.7	23	99.7	100.1	100.6	24	99.3	99.7	100.3	24	103.5	103.9	104.4	24	101.7	102.2	102.5	24
9/10	101.7	103.4	104.8	23	98.8	99.1	99.3	24	98.7	99.0	99.3	24	101.7	102.6	103.8	24	99.6	99.9	100.3	24

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

Date	<u>Lower Mon.</u>			#	<u>L. Mon. Tlwr</u>			#	<u>Ice Harbor</u>			#	<u>Ice Harbor Tlwr</u>			#	<u>McNary-Oregon</u>			#
	<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>		
	Avg	Avg	High		Avg	Avg	High		Avg	Avg	High		Avg	Avg	High		Avg	Avg	High	
8/28	109.5	109.8	110.4	24	115.4	115.7	115.9	24	111.5	111.8	112.1	24	112.6	113.3	113.7	24	---	---	---	0
8/29	108.2	108.4	108.8	24	114.0	114.7	115.6	24	110.9	111.2	111.6	24	111.8	112.8	113.0	24	---	---	---	0
8/30	109.3	110.1	110.5	24	114.1	114.8	115.3	24	110.9	111.1	111.4	24	110.9	111.6	112.2	24	---	---	---	0
8/31	109.6	109.7	110.0	24	113.2	113.8	114.6	24	111.0	111.3	111.7	24	110.6	111.4	111.9	24	---	---	---	0
9/1	109.1	109.5	109.7	24	108.8	109.5	111.2	24	110.8	111.0	111.2	24	110.5	111.2	111.5	24	---	---	---	0
9/2	108.3	108.9	109.3	24	107.8	108.4	108.8	24	110.3	110.5	110.7	24	109.8	110.3	110.8	24	---	---	---	0
9/3	108.5	109.2	110.1	24	107.6	107.9	109.0	24	110.1	110.4	111.0	24	109.3	109.6	110.2	24	---	---	---	0
9/4	108.4	108.7	109.5	24	107.6	108.4	111.1	24	110.0	110.4	110.7	24	109.4	110.0	110.7	24	---	---	---	0
9/5	108.1	108.4	109.2	24	107.0	107.7	108.8	24	110.4	110.8	111.1	24	109.3	109.8	110.6	24	---	---	---	0
9/6	106.1	106.6	107.5	24	104.7	105.0	105.2	24	107.6	108.3	109.2	24	107.1	107.9	108.3	24	---	---	---	0
9/7	104.6	105.0	105.5	24	103.8	104.0	104.3	24	104.6	105.0	105.5	24	104.7	105.1	105.7	24	---	---	---	0
9/8	103.8	104.2	104.7	24	103.3	103.7	104.1	24	103.4	103.5	103.6	24	104.0	104.3	104.8	24	---	---	---	0
9/9	102.7	103.1	103.7	24	103.2	103.6	103.9	24	102.8	103.1	103.5	24	103.6	104.0	104.8	24	---	---	---	0
9/10	102.1	102.5	102.7	24	102.4	102.9	103.2	24	101.9	102.0	102.3	24	103.0	103.3	103.7	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

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>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>AVG</u>	<u>High</u>	<u>hr</u>				
8/28	104.1	104.5	105.1	24	115.8	116.6	116.9	24	102.1	102.3	102.4	24	113.6	113.8	114.1	24	106.7	107.1	107.4	24
8/29	103.5	103.8	104.2	24	116.1	116.4	116.5	24	101.9	102.1	102.3	24	113.6	114.3	114.5	24	104.6	104.9	105.5	24
8/30	104.7	105.3	105.5	24	115.8	116.2	116.4	24	102.4	102.9	103.3	24	113.0	114.3	114.8	24	105.0	105.8	106.1	24
8/31	104.9	105.3	105.8	24	114.9	115.3	115.6	24	103.4	103.8	104.1	24	114.3	114.8	115.1	24	106.5	107.0	107.2	24
9/1	104.3	104.7	105.1	24	105.7	107.1	114.2	24	103.3	103.5	103.7	24	105.2	106.4	112.0	24	105.9	106.2	106.6	24
9/2	104.1	104.4	105.4	24	103.8	104.6	104.8	24	103.3	103.8	104.0	24	103.7	104.2	104.8	24	104.6	105.0	105.3	24
9/3	104.1	104.6	105.4	24	103.6	103.8	104.2	24	102.6	103.0	103.6	24	103.2	103.3	103.6	24	101.6	101.9	102.7	24
9/4	104.0	104.4	105.3	24	103.9	104.5	105.0	24	103.0	103.7	104.4	24	103.7	104.4	104.6	24	101.4	101.7	102.1	24
9/5	104.2	104.6	105.0	24	103.5	104.0	104.5	24	103.4	103.7	104.0	24	104.1	104.3	104.5	24	101.9	102.1	102.3	24
9/6	102.5	102.9	103.4	24	102.2	102.6	102.8	24	102.1	102.3	102.5	24	103.6	103.9	104.1	24	101.2	101.5	101.5	24
9/7	101.2	101.3	101.5	24	101.2	101.5	101.7	24	101.3	101.5	101.6	24	102.8	103.0	103.2	24	100.5	100.7	100.8	24
9/8	100.7	100.9	101.3	24	100.9	101.5	102.1	24	101.2	101.4	101.6	24	103.4	103.9	104.0	24	100.7	101.0	101.2	24
9/9	100.9	101.1	101.8	24	101.0	101.3	101.4	24	101.2	101.4	101.6	24	104.2	104.5	104.6	24	100.8	101.1	101.5	24
9/10	100.1	100.4	100.5	24	100.8	101.1	101.4	24	100.8	101.2	101.8	24	104.5	104.7	104.9	24	100.6	100.7	100.9	24

Total Dissolved Gas Saturation Data at Lower Columbia River Sites

Date	<u>The Dalles Dnst</u>			<u>Bonneville</u>			<u>Warrendale</u>			<u>CamasWashougal</u>			<u>Cascade Island</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>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>				
8/28	113.5	113.9	114.2	24	106.3	106.8	107.2	24	---	---	---	0	114.1	114.7	115.6	24	112.9	113.1	113.2	24
8/29	112.6	112.8	113.0	24	105.6	106.0	106.4	24	---	---	---	0	113.1	113.7	113.9	24	112.9	113.0	113.0	24
8/30	112.9	113.3	113.7	24	105.6	106.0	106.1	24	---	---	---	0	114.1	114.7	115.2	24	113.3	113.6	113.8	24
8/31	113.6	114.0	114.3	24	105.4	105.6	106.0	24	---	---	---	0	113.4	114.0	115.2	24	113.7	113.9	114.3	24
9/1	108.7	110.8	113.1	24	103.4	104.0	104.5	24	---	---	---	0	111.9	112.3	113.2	24	109.2	110.9	112.7	24
9/2	105.9	106.3	106.6	24	102.9	103.9	104.1	24	---	---	---	0	107.0	108.4	110.2	24	110.1	111.0	112.5	24
9/3	103.2	103.7	104.6	24	102.8	103.0	103.6	24	---	---	---	0	104.4	104.7	105.0	24	109.1	109.8	110.9	24
9/4	102.9	103.2	103.3	24	103.3	103.6	103.8	24	---	---	---	0	104.2	104.8	105.0	24	109.3	109.9	111.4	24
9/5	103.3	103.7	103.8	24	102.4	102.9	103.2	24	---	---	---	0	103.9	104.2	104.5	24	110.0	112.0	113.0	24
9/6	102.6	102.8	103.2	24	101.2	101.6	101.7	24	---	---	---	0	102.4	102.7	103.2	24	107.8	108.3	109.0	24
9/7	102.0	102.2	102.5	24	99.9	100.0	100.3	24	---	---	---	0	101.4	102.1	102.6	24	108.5	108.8	109.4	24
9/8	102.5	103.1	103.7	24	100.0	100.4	100.7	24	---	---	---	0	102.2	103.0	103.3	24	110.2	110.7	114.1	24
9/9	102.7	103.0	103.3	24	100.2	100.4	100.7	24	---	---	---	0	101.9	102.5	102.8	24	111.8	113.4	114.8	24
9/10	102.1	102.4	102.9	24	100.6	101.0	101.2	24	---	---	---	0	102.2	102.9	103.5	24	109.4	110.0	110.7	24

Two-Week Summary of Passage Indices

COMBINED YEARLING CHINOOK											
Date	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (INDEX)	LGS (INDEX)	LMN (INDEX)	RIS (INDEX)	MCN (INDEX)	JDA (INDEX)	BO2 (INDEX)
08/28/2009	*	---	---	---	---	0	0	0	0	0	0
08/29/2009	*	---	---	---	---	0	0	0	0	0	---
08/30/2009	*	---	---	---	---	0	0	0	0	0	0
08/31/2009	*	---	---	---	---	0	0	0	0	0	---
09/01/2009	*	---	---	---	---	0	0	0	---	0	0
09/02/2009	*	---	---	---	---	0	0	0	---	0	---
09/03/2009	*	---	---	---	---	0	0	0	---	0	---
09/04/2009	*	---	---	---	---	0	0	0	---	0	---
09/05/2009	*	---	---	---	---	0	0	2	---	0	---
09/06/2009	*	---	---	---	---	0	0	0	---	0	---
09/07/2009	*	---	---	---	---	0	0	0	---	0	---
09/08/2009	*	---	---	---	---	0	0	0	---	0	0
09/09/2009	*	---	---	---	---	1	0	0	---	0	---
09/10/2009	*	---	---	---	---	---	0	---	---	0	---
09/11/2009	*	---	---	---	---	---	---	---	---	---	---
Total:		0	0	0	0	1	0	2	0	0	0
# Days:		0	0	0	0	13	14	13	4	14	4
Average:		0	0	0	0	0	0	0	0	0	0
YTD		37,667	44,693	20,207	29,713	3,081,414	2,432,949	449,039	9,225	2,251,664	1,032,260

COMBINED SUBYEARLING CHINOOK											
Date	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (INDEX)	LGS (INDEX)	LMN (INDEX)	RIS (INDEX)	MCN (INDEX)	JDA (INDEX)	BO2 (INDEX)
08/28/2009	*	---	---	---	---	77	63	147	20	1,412	901
08/29/2009	*	---	---	---	---	141	69	48	10	826	---
08/30/2009	*	---	---	---	---	94	197	33	11	793	---
08/31/2009	*	---	---	---	---	67	70	13	4	187	---
09/01/2009	*	---	---	---	---	55	81	21	---	252	260
09/02/2009	*	---	---	---	---	80	80	15	---	225	---
09/03/2009	*	---	---	---	---	118	82	16	---	550	---
09/04/2009	*	---	---	---	---	98	111	13	---	360	254
09/05/2009	*	---	---	---	---	82	59	11	---	310	---
09/06/2009	*	---	---	---	---	64	70	10	---	190	---
09/07/2009	*	---	---	---	---	70	53	10	---	145	---
09/08/2009	*	---	---	---	---	73	52	2	---	305	81
09/09/2009	*	---	---	---	---	51	31	5	---	510	---
09/10/2009	*	---	---	---	---	---	31	---	---	190	---
09/11/2009	*	---	---	---	---	---	---	---	---	---	---
Total:		0	0	0	0	1,070	1,049	344	45	6,255	1,496
# Days:		0	0	0	0	13	14	13	4	14	4
Average:		0	0	0	0	82	75	26	11	447	374
YTD		0	18	15	545	996,367	1,180,884	433,357	8,189	3,653,710	1,507,084

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)	
08/28/2009	*	---	---	---	---	7	20	25	0	0	0	
08/29/2009	*	---	---	---	---	7	13	8	0	0	---	
08/30/2009	*	---	---	---	---	12	12	2	0	10	---	
08/31/2009	*	---	---	---	---	6	23	4	0	0	---	
09/01/2009	*	---	---	---	---	5	6	3	---	0	0	
09/02/2009	*	---	---	---	---	1	10	0	---	0	---	
09/03/2009	*	---	---	---	---	6	2	1	---	0	---	
09/04/2009	*	---	---	---	---	3	5	1	---	0	---	
09/05/2009	*	---	---	---	---	5	9	1	---	0	---	
09/06/2009	*	---	---	---	---	2	1	0	---	0	---	
09/07/2009	*	---	---	---	---	7	4	0	---	0	---	
09/08/2009	*	---	---	---	---	12	3	0	---	0	0	
09/09/2009	*	---	---	---	---	9	4	0	---	0	---	
09/10/2009	*	---	---	---	---	---	2	---	---	5	---	
09/11/2009	*	---	---	---	---	---	---	---	---	---	---	
<hr/>												
Total:		0	0	0	0	82	114	45	0	15	0	5
# Days:		0	0	0	0	13	14	13	4	14	4	11
Average:		0	0	0	0	6	8	3	0	1	0	0
YTD		0	0	0	332	92,323	81,254	18,991	37,588	127,125	240,419	503,270

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)	
08/28/2009	*	---	---	---	---	0	0	0	0	0	0	
08/29/2009	*	---	---	---	---	0	0	0	0	0	---	
08/30/2009	*	---	---	---	---	0	0	0	0	0	---	
08/31/2009	*	---	---	---	---	0	0	0	0	0	---	
09/01/2009	*	---	---	---	---	0	1	0	---	0	0	
09/02/2009	*	---	---	---	---	0	0	0	---	0	---	
09/03/2009	*	---	---	---	---	0	0	0	---	0	---	
09/04/2009	*	---	---	---	---	0	0	0	---	0	---	
09/05/2009	*	---	---	---	---	0	0	0	---	0	---	
09/06/2009	*	---	---	---	---	0	0	0	---	0	---	
09/07/2009	*	---	---	---	---	0	0	0	---	0	---	
09/08/2009	*	---	---	---	---	1	1	0	---	0	0	
09/09/2009	*	---	---	---	---	0	0	0	---	0	---	
09/10/2009	*	---	---	---	---	---	0	---	---	0	---	
09/11/2009	*	---	---	---	---	---	---	---	---	---	---	
<hr/>												
Total:		0	0	0	0	1	2	0	0	0	0	0
# Days:		0	0	0	0	13	14	13	4	14	4	11
Average:		0	0	0	0	0	0	0	0	0	0	0
YTD		1,833	24,360	9,611	8,297	4,510,914	3,563,512	727,833	17,612	803,737	940,639	677,051

Two-Week Summary of Passage Indices

Date	COMBINED SOCKEYE										
	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (INDEX)	LGS (INDEX)	LMN (INDEX)	RIS (INDEX)	MCN (INDEX)	JDA (INDEX)	BO2 (INDEX)
08/28/2009 *	---	---	---	---	0	0	0	0	0	0	14
08/29/2009 *	---	---	---	---	0	0	0	2	0	---	0
08/30/2009 *	---	---	---	---	0	0	0	1	0	---	0
08/31/2009 *	---	---	---	---	0	0	0	1	0	---	0
09/01/2009 *	---	---	---	---	0	0	0	---	0	5	0
09/02/2009 *	---	---	---	---	0	0	0	---	0	---	---
09/03/2009 *	---	---	---	---	0	0	0	---	0	---	5
09/04/2009 *	---	---	---	---	0	1	0	---	0	0	---
09/05/2009 *	---	---	---	---	0	0	0	---	0	---	0
09/06/2009 *	---	---	---	---	0	0	0	---	0	---	---
09/07/2009 *	---	---	---	---	0	0	0	---	0	---	0
09/08/2009 *	---	---	---	---	0	0	0	---	0	0	5
09/09/2009 *	---	---	---	---	0	0	0	---	0	---	0
09/10/2009 *	---	---	---	---	---	0	---	---	0	---	0
09/11/2009	---	---	---	---	---	---	---	---	---	---	---
Total:	0	0	0	0	0	1	0	4	0	5	24
# Days:	0	0	0	0	13	14	13	4	14	4	11
Average:	0	0	0	0	0	0	0	1	0	1	2
YTD	170	0	0	177	46,503	46,362	21,692	4,926	190,847	111,959	74,969

* 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:

9/11/09 10:29 AM

		08/28/09	TO	09/11/09			
		Species					
Site	Data	CH0	CH1	CO	ST	SO	Grand Total
LGR	Sum of NumberCollected	841		1	63	1	906
	Sum of NumberBarged	0		0	0	0	0
	Sum of NumberBypassed	238		0	0	0	238
	Sum of Numbertrucked	617		1	69	1	688
	Sum of SampleMorts	10		0	0	0	10
	Sum of FacilityMorts	1		0	0	0	1
	Sum of ResearchMorts	0		0	0	0	0
	Sum of TotalProjectMorts	11		0	0	0	11
LGS	Sum of NumberCollected	899			90	2	992
	Sum of NumberBarged	0			0	0	0
	Sum of NumberBypassed	0			0	0	0
	Sum of Numbertrucked	879			96	2	978
	Sum of SampleMorts	15			0	0	15
	Sum of FacilityMorts	4			2	0	6
	Sum of ResearchMorts	0			0	0	0
	Sum of TotalProjectMorts	19			2	0	21
LMN	Sum of NumberCollected	195		2	21		218
	Sum of NumberBarged	0		0	0		0
	Sum of NumberBypassed	0		0	0		0
	Sum of Numbertrucked	171		2	22		195
	Sum of SampleMorts	27		0	0		27
	Sum of FacilityMorts	0		0	0		0
	Sum of ResearchMorts	0		0	0		0
	Sum of TotalProjectMorts	27		0	0		27
MCN	Sum of NumberCollected	4,472			10		4,482
	Sum of NumberBarged	0			0		0
	Sum of NumberBypassed	0			0		0
	Sum of Numbertrucked	4,425			5		4,430
	Sum of SampleMorts	7			0		7
	Sum of FacilityMorts	54			0		54
	Sum of ResearchMorts	0			0		0
	Sum of TotalProjectMorts	61			0		61
Total Sum of NumberCollected		6,407		3	184	3	6,598
Total Sum of NumberBarged		0		0	0	0	0
Total Sum of NumberBypassed		238		0	0	0	238
Total Sum of Numbertrucked		6,092		3	192	3	6,291
Total Sum of SampleMorts		59		0	0	0	59
Total Sum of FacilityMorts		59		0	2	0	61
Total Sum of ResearchMorts		0		0	0	0	0
Total Sum of TotalProjectMorts		118		0	2	0	120

YTD Transportation Summary

Source: Fish Passage Center

Updated:

9/11/09 10:29 AM

TO: 09/11/09

Site	Data	Species					Grand Total
		CH0	CH1	CO	SO	ST	
LGR	Sum of NumberCollected	702,042	2,352,638	65,893	33,452	3,430,197	6,584,222
	Sum of NumberBarged	680,280	1,500,926	63,607	26,169	1,841,961	4,112,943
	Sum of NumberBypassed	16,096	847,954	1,951	7,068	1,587,773	2,460,842
	Sum of NumberTrucked	1,324	1	193	1	2	1,521
	Sum of SampleMorts	265	118	10	22	33	448
	Sum of FacilityMorts	4,058	2,734	132	192	409	7,525
	Sum of ResearchMorts	19	1,035	0	0	19	1,073
	Sum of TotalProjectMorts	4,342	3,887	142	214	461	9,046
LGS	Sum of NumberCollected	851,063	1,720,161	59,450	33,652	2,517,671	5,181,997
	Sum of NumberBarged	833,736	966,563	56,372	27,768	1,057,254	2,941,693
	Sum of NumberBypassed	9,300	751,923	2,825	5,826	1,460,071	2,229,945
	Sum of NumberTrucked	1,491	0	211	1	2	1,705
	Sum of SampleMorts	440	49	35	10	21	555
	Sum of FacilityMorts	6,056	1,622	5	47	323	8,053
	Sum of ResearchMorts	12	4	0	0	0	16
	Sum of TotalProjectMorts	6,508	1,675	40	57	344	8,624
LMN	Sum of NumberCollected	325,433	321,114	13,999	16,048	518,662	1,195,256
	Sum of NumberBarged	318,442	312,082	13,950	15,870	506,287	1,166,631
	Sum of NumberBypassed	5,826	8,790	9	114	12,089	26,828
	Sum of NumberTrucked	353	3	29	0	2	387
	Sum of SampleMorts	127	15	2	3	9	156
	Sum of FacilityMorts	583	237	8	7	258	1,093
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	710	252	10	10	267	1,249
MCN	Sum of NumberCollected	1,833,121	1,303,737	69,886	106,365	467,741	3,780,850
	Sum of NumberBarged	414,822	196	448	425	74	415,965
	Sum of NumberBypassed	1,353,698	1,301,926	69,356	105,852	467,487	3,298,319
	Sum of NumberTrucked	28,855	0	10	24	4	28,893
	Sum of SampleMorts	805	149	1	2	14	971
	Sum of FacilityMorts	34,232	1,441	65	60	158	35,956
	Sum of ResearchMorts	518	25	0	1	3	547
	Sum of TotalProjectMorts	35,555	1,615	66	63	175	37,474
Total Sum of NumberCollected		3,711,659	5,697,650	209,228	189,517	6,934,271	16,742,325
Total Sum of NumberBarged		2,247,280	2,779,767	134,377	70,232	3,405,576	8,637,232
Total Sum of NumberBypassed		1,384,920	2,910,593	74,141	118,860	3,527,420	8,015,934
Total Sum of NumberTrucked		32,023	4	443	26	10	32,506
Total Sum of SampleMorts		1,637	331	48	37	77	2,130
Total Sum of FacilityMorts		44,929	6,034	210	306	1,148	52,627
Total Sum of ResearchMorts		549	1,064	0	1	22	1,636
Total Sum of TotalProjectMorts		47,115	7,429	258	344	1,247	56,393

Cumulative Adult Passage at Mainstem Dams Through: 09/10

DAM	EndDate	Spring Chinook						Summer Chinook						Fall Chinook					
		2009		2008		10-Yr Avg.		2009		2008		10-Yr Avg.		2009		2008		10-Yr Avg.	
		Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack
BON	09/10	114525	66631	125543	17554	160243	11507	81936	37416	78271	11621	76947	10024	205881	71667	224539	24306	219139	18338
TDA	09/10	93908	53646	95438	15801	113852	9048	79916	27878	65073	12206	66821	7950	106659	48740	94983	19816	95070	11244
JDA	09/10	76806	49733	81772	14925	95147	7579	65989	33147	63649	13680	61980	8146	69933	34504	65539	16337	59395	8394
MCN	09/10	70413	43328	68080	12133	86998	7409	57137	21182	54735	11239	59015	7256	49048	27585	37596	7350	36730	5012
IHR	09/10	55435	28223	53142	7757	59050	4663	23856	9400	23693	4964	13243	2568	13318	17954	12277	1490	5136	1158
LMN	09/10	66931	20009	54512	6885	57079	4270	23353	11733	27343	2890	13719	1912	11741	14781	10375	2613	4152	907
LGS	09/10	52642	24331	50396	7805	54016	4453	20340	11207	21748	4811	11241	2521	10273	8764	8421	1198	3006	531
LGR	09/10	49667	31064	50146	10946	54673	5280	14482	16367	22612	5072	11171	2757	5641	9668	7300	1387	2362	544
PRD	09/06	13469	2910	12178	620	18164	621	49417	2117	39174	3442	53065	2394	8708	1169	4535	7247	8745	1486
RIS	09/07	12634	6003	12490	1119	14914	1069	44295	7727	38171	3096	50031	5515	3914	1585	1783	1212	3433	852
RRH	09/07	6090	1086	4065	371	5734	430	34961	5231	29675	2127	37679	3897	2597	921	1838	1185	2634	842
WEL	09/09	6307	1867	2708	426	4250	321	25724	3800	21060	1375	27632	2013	1356	878	1164	514	1353	451
WFA	08/31	25067	2670	14151	521	-	-	-	-	-	-	-	-	254	86	14	43	-	-

DAM	Coho						Sockeye			Steelhead			
	2009		2008		10-Yr Avg.		2009	2008	10-Yr Avg.	2009	2008	10-Yr Avg.	Wild 2009
	Adult	Jack	Adult	Jack	Adult	Jack							
BON	88040	3995	50088	3911	42280	2305	177823	213602	78590	537171	302470	290409	155665
TDA	16888	3942	14455	1983	6716	765	155591	177984	66379	317073	182545	153307	91454
JDA	9323	2204	12372	1883	4080	655	157400	193409	72413	297431	158352	112536	88803
MCN	4458	1094	3158	300	1125	131	121674	146920	58760	177529	95771	76096	50173
IHR	262	60	242	4	61	0	867	539	90	121462	62083	42655	30096
LMN	138	13	250	27	32	4	1163	721	103	104171	60479	37122	29012
LGS	84	31	60	12	9	1	1065	593	96	76231	40224	26058	20067
LGR	4	3	11	12	0	0	1217	892	126	66133	37544	25966	19513
PRD	638	60	93	19	51	5	153466	196835	74875	21279	10437	8811	0
RIS	225	175	1	18	8	0	162825	193729	71007	20845	9856	7586	7080
RRH	11	25	1	9	1	0	133091	161324	52421	14539	7634	5432	5087
WEL	0	0	0	0	0	0	134914	165319	52883	11021	4685	3749	3942
WFA	68	44	34	44	-	-	-	-	-	17254	18718	-	-

PRD does not post 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: 09/11/09

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

Year	Chinook Adult	Chinook Jack	Steelhead	Wild Steelhead
2009	19	-1	321	109
2008	42	0	561	270