Fish Passage Center

Weekly Report #11 - 26

September 9, 2011

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Summary of Events:

Water Supply: Precipitation throughout the Columbia Basin has varied between 4% and 64% of average at individual sub-basins over August. Precipitation above The Dalles has been 29% of average over August. Over the 2011 water year, precipitation has ranged between 104% and 122% of average.

Table 1. Summary of August 1-29 precipitation and cumulative October through August 29 precipitation with respect to average (1971-2000), at select locations within the Columbia and Snake River Basins.

Location	Water Year 2011 August 1-29, 2011		Water Year 2011 October 1, 2010 to August 29, 2011	
	Observed (inches)	% Average	Observed (inches)	% Average
Columbia Above Coulee	0.48	30	26.35	110
Snake River Above Ice Harbor	0.36	45	20.37	121
Columbia Above The Dalles	0.32	29	25.54	116
Kootenai	0.50	31	25.84	105
Clark Fork	0.26	22	19.02	114
Flathead	0.22	14	25.72	117
Pend Oreille/ Spokane	0.09	8	19.61	104
Central Washington	0.02	6	9.33	107
Snake River Plain	0.35	64	12.79	119
Salmon/Boise/ Payette	0.16	24	20.65	108
Clearwater	0.15	13	35.92	122
SW Washington Cascades/Cowlitz	0.19	13	72.72	106
Willamette Valley	0.04	4	62.28	108

Table 2 displays the June Final and July Final runoff volume forecasts for multiple reservoirs. The July Final forecast at The Dalles between January and July is 142000 Kaf (132% of average).

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

Location	June Final		July Final	
	% Average (1971 -2000)	Probable Runoff Volume (Kaf)	% Average (1971 -2000)	Probable Runoff Volume (Kaf)
The Dalles (Jan-July)	131	141000	132	142000
Grand Coulee (Jan-July)	124	78300	126	79500
Libby Res. Inflow, MT (Apr-Aug)	127	7930 8099*	129	8090
Hungry Horse Res. Inflow, MT (Jan-July)	153	3410	154	3430
Lower Granite Res. Inflow (Apr- July)	156	33700	159	34200
Brownlee Res. Inflow (Apr-July)	177	11200	173	10900
Dworshak Res. Inflow (Apr-July)	143	3770 3813*	149	3940

* Denotes COE Forecast

The flow objective at Lower Granite over the summer period (June 21st to August 31st) was 55 Kcfs; over the entire summer period flows at Lower Granite averaged 81.2 Kcfs.

The summer flow objective period began at McNary Dam on July 1st and ended on August 31st with a flow objective of 200 Kcfs. Over the entire summer flow period, flows at McNary averaged 261.2 Kcfs.

Grand Coulee Reservoir is currently at 1281.2 feet on September 8th, 2011 and refilled 0.8 feet over the last week. Outflows at Grand Coulee have ranged between 58.3 and 100.3 Kcfs.

The Libby Reservoir is currently at elevation 2447.5 feet (9-8-11) and has held steady last week. Outflows at Libby Dam have been reduced to 6.0 Kcfs. Hungry Horse is currently at an elevation of 3554.0 feet (9-8-11) and has drafted 1.2 feet last week. Outflows at Hungry Horse have been 3.5 Kcfs last week. The BOR plans to target elevation 3550 feet by the end of September.

Dworshak is currently at an elevation of 1528.8 feet on September 8th, 2011 and drafted 9.1 feet over the last week. Outflows from Dworshak are currently 10.5 Kcfs. The COE plans to maintain the current outflow at Dworshak until elevation 1520 feet is reached, then reduce outflows from Dworshak to the minimum (approximately 1.5 Kcfs) by September 21st, 2011.

The Brownlee Reservoir was at an elevation of 2053.1 feet on September 9th, 2011, drafting 2.7 feet last week. Over the last week, outflows at Brownlee have ranged between 12.4-23.7 Kcfs.

Smolt Monitoring:

GBT monitoring also ended August 31 with the end of summer spill. Sampling continued at all SMP monitoring sites at dams except Rock Island. Sampling at John Day and Bonneville dams has been altered due to river temperatures exceeding 70 degrees Fahrenheit. The transport sites have transitioned to truck transport with the last barges leaving on August 15. Subyearling Chinook continued to predominate in the collections at all dams over the past week. Subyearling Chinook passage indices were similar to last week with relatively low numbers at the Snake River and at Rock Island dams and the highest numbers at McNary Dam.

Subyearling Chinook juvenile salmon numbers continued to decline over the past week at Lower Granite Dam where the passage index averaged nearly 90 per day over the past week compared 160 per day the previous week. Small numbers of all spring migrants continue to be collected sporadically. Little Goose and Lower Monumental dams also had subyearling Chinook predominating in the indices, followed by small but steady numbers of juvenile coho salmon.

McNary Dam moved to every day sampling with the beginning of collections for transportation on July 20. Subyearling Chinook continue to predominate in passage at the project, with the average passage index at 12,000 per day this week compared to 16,000 last week. McNary has switched to every-other-day trucking beginning on August 17. Small numbers of juvenile shad have been sampled at the site this season. The highest number this year was the sample of 33 shad on September 1.

At John Day Dam sampling was modified due to temperatures exceeding 70 degrees Fahrenheit on September 8. During high temperature periods sampling at John Day consists of condition sampling every third day.

At Bonneville Dam normal sampling resumed on September 1 but had been altered for several days prior to that due to high temperatures. Sampling during high temperature at Bonneville consists of every-other-day condition monitoring. The average index for subyearling Chinook at Bonneville Dam decreased this week to 1,600 per day compared to 2,300 last week on days when the site was sampling.

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 scheduled releases to this zone this week. In addition, there are no new releases of juvenile salmonids scheduled for 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 to this zone this week. In addition, there are no new releases of juvenile salmonids scheduled for 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 to this zone this week. Also, there are no new releases of juvenile salmonids scheduled for this zone over the next two weeks.

Adult Passage:

Fall Chinook counting began at Bonneville Dam on August 1st. Daily counts of fall Chinook

adults at Bonneville Dam have increased, ranging between 7,925 to 18,549 over the last week. The 2011 adult fall Chinook count of 170,537 is about 73% of the 2010 count and 84% of the 10 year average count. The 2011 Bonneville Dam fall Chinook jack count of 24,639 is about 99% of the 2010 count and 114% of the 10 year average. The 2011 McNary Dam adult fall Chinook count of 30,341 is about 67% of the 2010 count and about 92% the 10 year average. The 2011 McNary Dam fall Chinook jack count of 5,002 is about 89% of the 2010 count and about 80% of 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 are considered those that pass Bonneville Dam from the first of June through August 25th and B-run steelhead pass Bonneville from August 26th through October. The 2011 B-run adult steelhead count at Bonneville of 48,271 is about 96% of the 2010 count of 50,258.

The Bonneville Dam 2011 total steelhead count of 310,713 is about 88% of the 2010 count of 354,360 and about 94% of the 10 year average count of 330,629. In the Snake River, this year's Lower Granite steelhead count of 59,616 is about 117% of the 2010 count and 193% of the 10 year average count. The 2011 LGR wild steelhead count as of September 8th was 21,308. The 2011 Rock Island Dam adult steelhead count of 11,286 is about 75% of the 2010 count and 111% of the 10 year average. At Willamette Falls Dam, the 2011 count for steelhead was 27,474, as of September 8th. This year's steelhead count is about 86% of the 2010 count and about 97% of the 10 year average.

The 2011 adult sockeye count at Bonneville Dam of 185,796 is about 48% of the 2010 count, while being about 150% of the 10 year average. The 2011 adult sockeye count at McNary Dam of 113,944 is about 41% of the 2010 count and 124% of the 10 year average. Two of the major spawning sites for sockeye in the Upper Columbia River zone are Lake Wenatchee and Lake Osoyoos (Okanogan basin). In the Snake River zone at Ice Harbor Dam, the 2011 adult sockeye count of 1,140 is about 88% of the 2010 count of 1,302, and 407% of the 10 year average count of 280. The Lower Granite Dam 2011 adult sockeye count of 1,502 is about 69% of the 2010 count of 2,182 and 352% of the 10 year average of 427.

The 2011 Bonneville Dam adult coho salmon count of 52,064 is about 211% of the 2010 count of 24,714 and 130% of the 10 year average count of 39,951. The 2011 Bonneville Dam coho jack count of 1,481 is about 95% of the 2010 count, while being 73% of the 10 year average count.

Hatchery Releases Last Two Weeks

No releases to report.

Hatchery Releases Next Two Weeks

No releases to report.

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

Total Dissolved Gas Saturation Data at Upper Columbia River Sites

	Hungry H. Dnst				Boundary				Grand Coulee				Grand C. Tlwr				Chief Joseph			
	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
8/26	105.2	105.5	106.0	22	110.5	110.7	111.5	19	109.7	109.9	110.2	21	107.2	107.2	107.6	3	109.2	109.6	109.8	23
8/27	105.5	106.0	106.3	24	110.3	110.7	111.0	23	109.1	109.3	109.6	24	---	---	---	0	109.3	109.7	109.9	24
8/28	105.7	106.2	106.6	23	110.8	111.2	111.8	21	109.5	110.1	110.8	24	---	---	---	0	109.2	109.8	110.2	24
8/29	105.8	106.0	106.3	24	111.1	111.4	111.8	20	109.8	110.2	110.4	24	109.4	109.4	109.9	10	109.4	110.0	110.5	24
8/30	105.9	106.1	106.2	23	110.6	110.9	111.2	22	109.4	109.8	110.1	24	108.9	109.5	110.1	22	109.2	109.7	110.1	24
8/31	105.8	106.0	106.2	24	109.0	109.5	110.1	21	109.1	109.3	109.8	24	108.1	108.9	111.8	21	108.2	108.6	108.8	24
9/1	105.4	105.4	105.6	24	107.8	108.2	108.6	23	108.3	108.5	108.7	24	107.6	108.3	109.9	23	107.0	107.3	107.6	24
9/2	105.5	105.9	106.7	24	107.7	108.2	108.7	23	107.7	107.9	108.4	24	107.4	108.0	109.7	23	106.5	106.8	107.1	24
9/3	104.7	105.0	105.2	23	106.9	107.5	108.4	21	107.3	107.7	107.9	24	106.8	107.6	108.9	21	106.2	106.7	107.0	23
9/4	104.8	105.4	106.0	22	107.8	108.3	109.0	21	107.8	108.1	108.3	24	106.8	107.3	108.0	21	107.0	107.7	108.0	24
9/5	105.0	105.5	105.9	24	108.1	108.4	109.0	21	107.9	108.1	108.4	24	107.4	107.9	109.2	21	107.7	108.1	108.5	24
9/6	104.2	104.5	104.8	23	107.6	108.0	108.4	22	107.1	107.5	107.7	24	108.1	108.8	110.0	22	107.5	107.7	108.0	24
9/7	103.7	104.0	104.4	24	107.6	108.0	108.5	21	106.8	107.2	107.4	24	107.9	108.2	108.8	21	107.8	108.2	108.5	24
9/8	103.4	103.6	103.8	23	107.7	108.1	108.4	20	106.5	106.8	107.0	24	107.8	108.3	108.9	20	107.9	108.4	108.8	24

Total Dissolved Gas Saturation Data at Mid Columbia River Sites

	Chief J. Dnst				Wells				Wells Dwnstrm				Rocky Reach				Rocky R. Tlwr			
	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
8/26	109.3	109.6	109.8	23	109.6	110.1	110.7	22	111.1	111.9	112.7	22	110.0	110.3	110.6	24	106.9	107.4	107.6	24
8/27	109.5	110.1	110.4	24	109.1	109.7	110.3	24	109.3	110.0	110.5	24	109.7	110.2	110.6	24	106.5	106.9	107.4	24
8/28	109.8	110.5	111.9	24	109.4	110.4	111.0	24	109.2	110.3	111.0	24	109.8	110.0	110.4	24	106.2	106.8	107.1	24
8/29	110.2	110.8	112.3	24	109.9	110.6	111.6	22	109.6	110.4	111.3	22	109.0	109.2	109.6	24	106.1	106.5	106.8	24
8/30	109.6	109.9	110.2	24	108.9	109.7	110.2	24	108.9	109.6	110.2	24	108.2	108.3	108.4	24	105.0	105.3	105.4	24
8/31	108.4	109.0	109.6	24	108.4	108.9	110.2	23	108.1	108.7	109.6	23	107.3	107.6	107.9	23	104.3	104.5	104.9	23
9/1	107.5	108.1	108.9	24	106.8	107.2	107.6	24	107.0	107.4	107.7	24	106.0	106.2	106.5	24	103.1	103.4	103.6	24
9/2	107.2	107.8	108.7	24	106.1	106.6	107.0	24	105.7	106.4	107.0	24	105.7	105.8	106.1	24	102.6	103.1	103.8	24
9/3	107.3	108.5	110.5	23	105.9	106.8	107.5	23	105.6	106.4	106.9	23	105.4	105.7	106.3	24	102.2	102.7	103.0	24
9/4	108.2	109.9	111.7	24	106.9	107.9	108.5	24	106.8	107.8	108.5	24	105.7	106.3	106.8	24	102.6	102.9	103.4	24
9/5	108.9	109.7	111.8	24	107.9	108.6	109.1	24	107.6	108.8	109.3	24	106.3	106.7	107.5	24	102.5	102.8	103.3	24
9/6	107.5	108.2	108.7	24	107.3	108.0	108.7	24	107.1	108.0	108.7	24	105.5	105.5	106.1	10	102.1	102.1	102.7	10
9/7	108.1	108.8	109.3	24	107.5	108.3	108.7	24	107.4	108.3	108.9	24	---	---	---	0	---	---	---	0
9/8	108.4	109.0	109.5	24	107.5	108.4	108.8	24	107.6	108.4	108.8	24	---	---	---	0	---	---	---	0

Total Dissolved Gas Saturation at Mid Columbia River Sites

	Rock Island				Rock I. Tlwr				Wanapum				Wanapum Tlwr				Priest Rapids			
	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
8/26	109.2	110.0	116.5	24	109.3	110.0	116.7	24	112.0	112.9	113.6	24	112.7	113.0	113.6	24	111.6	112.1	112.6	24
8/27	109.2	109.3	109.4	24	109.2	109.3	109.4	24	110.6	111.3	112.2	24	110.2	110.7	111.8	24	110.9	111.3	112.1	24
8/28	109.4	109.7	109.9	24	109.4	109.7	109.9	24	109.9	111.1	112.5	24	109.3	109.6	109.8	24	109.4	109.7	110.0	24
8/29	109.1	109.7	109.9	24	109.2	109.7	109.9	24	107.7	108.1	109.0	24	108.6	108.8	109.2	24	108.0	108.3	108.7	24
8/30	106.9	107.5	107.8	24	107.2	107.8	108.1	24	105.8	106.2	106.6	24	106.3	106.7	107.1	24	105.7	106.1	106.5	24
8/31	106.3	106.6	107.0	23	107.7	109.0	111.9	23	104.7	105.0	105.7	24	105.8	106.2	106.5	24	103.5	103.7	104.1	24
9/1	105.4	106.1	106.4	24	106.3	107.6	112.2	24	103.6	104.3	104.9	24	104.5	104.9	106.0	24	103.2	104.0	104.9	24
9/2	105.0	105.4	105.9	24	104.0	105.4	106.3	24	103.2	104.1	104.9	24	103.8	104.1	104.5	24	103.0	103.5	104.3	21
9/3	105.0	105.3	105.7	24	105.3	105.6	105.9	24	100.9	104.3	105.5	24	104.5	105.4	105.7	24	101.6	101.7	103.7	13
9/4	105.3	105.6	105.7	24	105.7	105.9	106.1	24	102.2	106.3	107.3	24	106.0	106.4	106.6	24	---	---	---	0
9/5	105.4	105.6	105.9	24	105.6	105.8	105.9	24	104.2	106.0	107.9	24	106.2	106.4	106.6	24	---	---	---	0
9/6	104.9	104.9	105.1	10	105.0	105.0	105.2	10	103.2	105.3	106.2	24	104.9	105.1	105.3	24	105.3	105.6	106.5	16
9/7	---	---	---	0	---	---	---	0	105.3	106.4	107.9	24	105.5	106.0	106.5	24	104.8	105.3	105.6	24
9/8	---	---	---	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

	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
8/26	113.6	113.9	114.2	24	110.2	110.7	111.3	24	109.5	109.9	110.3	24	107.7	108.8	109.6	24	102.2	103.5	105.1	24
8/27	112.4	113.5	114.6	24	109.7	110.5	111.0	24	108.9	109.3	110.0	24	107.5	108.2	108.9	24	102.1	103.5	105.1	24
8/28	109.5	109.8	110.2	24	109.2	109.8	110.0	24	108.5	108.9	109.4	24	107.1	108.1	108.9	24	101.8	103.2	105.2	24
8/29	108.6	109.2	110.2	24	106.7	107.4	107.8	24	108.5	108.8	109.2	24	107.0	107.8	108.6	24	102.1	103.5	105.1	24
8/30	106.3	106.9	109.0	24	105.6	106.4	107.2	24	108.9	109.3	109.8	24	107.0	107.8	108.7	24	101.7	102.8	104.3	24
8/31	105.0	105.7	106.5	24	104.0	104.7	105.4	24	108.6	109.0	109.4	24	106.8	107.5	108.4	24	101.4	102.5	103.8	24
9/1	105.2	106.2	107.9	24	102.6	104.0	104.7	24	109.4	109.9	110.3	24	107.0	108.1	109.1	24	101.4	103.0	104.6	24
9/2	103.8	104.1	104.4	24	103.5	103.6	104.1	24	108.7	109.2	109.6	24	106.6	107.1	107.6	24	101.7	103.3	105.1	24
9/3	103.9	104.4	105.0	24	102.8	103.4	103.8	24	109.0	109.4	110.0	24	106.8	107.4	107.7	24	101.9	103.8	105.7	24
9/4	104.9	105.3	105.8	24	103.2	104.1	104.5	24	103.0	104.5	108.8	24	105.3	107.0	107.9	24	102.4	104.3	106.5	24
9/5	106.0	106.5	106.9	24	103.6	104.2	104.7	24	101.3	101.8	102.1	24	101.9	102.9	103.8	24	102.3	104.1	106.5	24
9/6	105.1	105.6	105.9	24	103.3	104.2	104.8	24	100.8	101.1	101.4	24	101.5	102.4	103.3	24	101.8	103.4	105.3	24
9/7	105.1	105.6	105.8	24	103.4	104.1	104.4	24	100.8	101.0	101.4	24	101.4	102.4	103.3	23	102.3	104.0	106.3	24
9/8	---	---	---	0	103.5	104.2	104.6	24	100.9	101.1	101.4	24	101.4	102.3	103.2	23	102.0	103.0	104.3	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
8/26	104.8	106.7	108.0	24	102.0	102.3	102.6	24	116.3	116.6	117.3	24	111.9	112.0	112.1	24	112.2	112.7	113.5	24
8/27	104.7	106.5	107.9	24	101.8	102.1	102.6	24	116.4	116.6	117.4	24	111.3	111.4	111.6	24	112.0	112.4	113.2	24
8/28	104.6	106.3	107.8	24	102.1	102.6	103.4	24	116.4	116.6	116.9	24	111.9	112.4	113.8	24	112.2	112.7	113.1	24
8/29	104.6	106.2	107.6	24	102.5	102.8	103.3	24	116.4	116.6	117.1	24	113.1	113.3	113.6	24	112.4	112.6	113.0	24
8/30	104.0	105.4	106.6	24	102.7	102.9	103.2	24	116.2	116.4	116.9	24	112.7	113.0	113.5	24	112.2	112.6	113.0	24
8/31	103.9	105.4	106.6	24	103.0	103.1	103.4	24	116.5	117.0	117.5	24	110.3	110.9	112.4	24	110.9	111.3	111.6	24
9/1	103.8	105.6	106.7	24	102.0	102.2	102.5	24	102.3	103.0	110.3	24	107.8	108.0	108.4	24	107.6	109.0	109.8	24
9/2	103.9	105.5	106.9	24	100.9	101.2	101.7	24	100.8	101.0	101.5	24	106.4	106.8	107.2	24	104.1	104.6	104.8	24
9/3	103.8	105.9	107.4	24	100.4	100.6	100.8	24	100.2	100.6	100.9	24	105.5	105.8	105.9	24	103.5	104.3	104.7	24
9/4	104.2	106.1	107.6	24	100.9	101.2	101.4	24	101.0	101.5	102.0	24	106.1	106.4	107.1	24	104.5	105.2	105.8	24
9/5	102.3	104.0	105.2	24	101.2	101.5	101.7	24	101.1	101.3	101.7	24	105.6	105.7	105.9	24	104.5	105.1	105.8	24
9/6	101.8	103.6	104.9	24	100.9	101.2	101.8	24	100.7	101.0	101.1	24	104.6	104.8	105.2	24	103.4	103.8	104.1	24
9/7	102.2	103.8	105.1	22	101.6	101.8	102.2	24	101.2	101.6	102.0	24	103.7	103.9	104.4	24	101.3	101.8	102.2	24
9/8	102.0	103.5	104.8	24	102.4	102.9	103.8	24	101.4	101.7	102.1	24	102.9	103.2	103.4	24	100.6	101.7	104.4	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
8/26	110.9	111.3	111.9	24	116.7	116.8	117.2	24	112.3	112.6	113.2	24	112.6	113.8	114.7	24	---	---	---	0
8/27	111.6	111.9	112.1	24	116.7	116.9	117.3	24	113.1	113.6	114.1	24	113.4	113.7	114.1	24	---	---	---	0
8/28	112.0	112.3	112.7	24	116.7	116.9	117.1	24	114.0	114.4	114.7	24	113.3	113.6	114.0	24	---	---	---	0
8/29	111.6	111.8	111.9	24	116.6	116.8	117.1	24	114.0	114.2	114.4	24	113.3	113.6	113.9	24	---	---	---	0
8/30	111.1	111.4	111.9	24	116.5	116.8	117.0	24	113.6	114.0	114.2	24	113.7	114.4	115.1	24	---	---	---	0
8/31	109.3	110.0	110.5	24	116.0	116.3	116.6	24	110.9	111.8	113.0	24	113.8	114.1	114.3	24	---	---	---	0
9/1	107.2	107.6	108.0	24	107.3	108.0	113.5	24	108.2	108.5	109.4	24	108.7	109.4	113.0	24	---	---	---	0
9/2	107.1	107.5	108.0	24	105.9	106.2	106.9	24	107.6	107.9	108.3	24	107.5	108.0	108.6	24	---	---	---	0
9/3	106.0	106.2	106.3	24	105.5	106.2	107.1	24	107.5	107.8	108.0	24	107.2	107.8	108.2	24	---	---	---	0
9/4	106.0	106.3	106.5	24	129.2	141.8	143.1	24	107.9	108.1	108.3	24	107.6	108.2	108.6	24	---	---	---	0
9/5	107.2	107.3	107.4	24	139.8	140.4	141.0	24	108.1	108.3	108.6	24	107.9	108.4	108.8	24	---	---	---	0
9/6	106.3	106.6	106.9	24	123.1	138.1	138.6	24	106.2	106.8	107.5	24	129.5	144.9	146.1	24	---	---	---	0
9/7	105.0	105.2	105.4	24	105.2	105.9	108.2	24	104.6	104.8	105.2	24	105.3	105.8	106.5	24	---	---	---	0
9/8	104.7	105.0	105.1	24	104.9	105.7	106.6	24	104.4	104.5	104.7	24	104.8	105.1	105.5	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
8/26	110.8	111.3	112.4	24	117.4	118.2	119.3	24	107.3	107.5	108.1	23	113.7	114.1	115.0	23	109.2	109.3	109.7	23
8/27	112.2	112.6	113.0	24	117.0	117.3	117.6	24	107.1	107.3	107.6	24	113.8	114.5	115.2	24	109.0	109.3	109.7	24
8/28	111.8	112.4	113.6	24	116.9	117.4	117.7	24	107.3	108.0	108.5	24	114.1	114.6	115.2	24	108.7	109.0	109.2	24
8/29	110.1	110.3	110.7	24	115.9	116.6	117.0	24	107.6	107.8	108.1	24	114.0	114.2	114.5	24	107.3	108.2	108.5	24
8/30	109.2	109.6	109.9	24	115.9	116.4	116.7	24	106.5	106.8	107.3	24	113.7	114.1	114.6	24	105.2	105.4	105.6	24
8/31	105.4	106.4	107.8	24	115.7	116.0	116.3	24	104.6	105.0	105.6	24	114.1	115.1	115.1	24	104.1	104.2	104.4	24
9/1	103.0	103.3	103.7	24	104.1	105.3	114.6	24	103.0	103.4	103.6	24	103.6	104.0	106.2	24	104.4	105.2	105.8	24
9/2	103.1	103.3	104.0	24	102.7	102.8	102.9	24	102.8	103.2	104.0	24	103.5	104.0	104.7	24	102.9	103.6	105.3	24
9/3	102.7	103.0	103.7	24	102.4	102.8	103.1	24	103.0	104.0	104.6	24	103.4	103.9	104.7	24	102.1	102.7	103.0	24
9/4	102.9	103.2	103.6	24	102.9	103.4	103.7	24	103.3	104.1	105.1	24	104.2	104.6	105.8	24	102.6	103.1	103.5	24
9/5	103.8	104.3	105.0	24	103.3	103.8	104.1	24	101.9	102.3	103.6	24	103.6	104.4	105.0	24	103.0	103.4	104.0	24
9/6	103.8	104.4	105.0	24	104.7	106.4	126.1	24	101.1	101.5	101.9	24	102.4	102.6	102.9	24	101.7	102.0	102.5	24
9/7	104.6	105.3	105.6	24	104.9	106.2	118.1	24	102.5	103.6	107.0	24	102.7	103.1	103.4	24	101.5	102.0	102.4	24
9/8	103.7	104.0	104.3	24	103.3	103.4	103.6	24	105.1	105.8	106.9	24	103.9	104.3	104.8	24	102.1	102.6	102.9	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
8/26	115.5	116.4	117.1	23	110.6	110.7	110.8	23	116.4	117.5	118.4	23	112.7	114.7	116.9	23	---	---	---	0
8/27	115.3	115.9	116.3	24	110.3	110.6	110.9	24	116.6	117.6	118.8	24	113.2	115.3	117.1	24	---	---	---	0
8/28	115.0	115.5	116.1	24	109.1	109.4	109.6	24	115.6	116.6	117.9	24	112.5	113.7	114.6	24	---	---	---	0
8/29	113.8	114.3	114.7	24	106.5	107.0	107.7	24	115.4	116.7	117.8	24	111.1	112.7	114.5	24	---	---	---	0
8/30	112.7	113.0	113.4	24	104.5	104.8	105.5	24	114.9	116.5	117.6	24	110.5	111.8	112.7	24	---	---	---	0
8/31	112.1	112.3	112.7	24	103.3	103.5	103.8	24	114.4	116.1	117.9	24	109.9	112.0	113.9	24	---	---	---	0
9/1	105.7	106.6	112.1	24	103.7	104.5	104.9	24	107.4	109.3	117.1	24	108.6	110.1	111.5	24	---	---	---	0
9/2	104.7	105.4	106.1	24	104.6	105.0	105.4	24	105.8	106.5	106.9	24	104.5	105.6	106.3	24	---	---	---	0
9/3	103.2	103.8	104.2	24	104.6	105.3	105.6	24	105.8	106.2	106.9	24	104.6	104.8	105.2	24	---	---	---	0
9/4	104.2	104.5	104.6	24	102.3	102.7	102.8	24	104.1	104.1	105.0	11	103.4	104.2	104.5	24	---	---	---	0
9/5	104.2	104.5	104.9	24	103.2	103.5	103.8	24	105.2	105.8	106.9	20	104.3	105.2	105.7	24	---	---	---	0
9/6	103.0	103.3	103.7	24	102.6	103.0	103.3	24	104.4	105.0	105.9	24	104.7	105.5	106.0	24	---	---	---	0
9/7	102.6	103.1	103.6	24	102.5	102.7	103.0	24	104.1	104.5	105.0	24	104.6	105.3	105.8	24	---	---	---	0
9/8	103.0	103.4	103.7	24	102.3	102.6	102.9	24	104.0	104.4	104.7	24	103.8	104.6	105.1	24	---	---	---	0

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
08/26/2011	138.3	0.1	144.6	0.0	141.5	9.7	136.5	0.0	136.9	0.0	137.9	15.1	131.4	24.0
08/27/2011	122.2	0.1	118.6	0.0	123.9	0.0	126.8	0.0	132.8	0.0	149.3	2.8	146.5	14.5
08/28/2011	116.7	0.1	113.7	0.0	112.6	0.0	113.7	0.0	116.1	0.0	117.9	1.7	115.4	1.1
08/29/2011	106.7	0.1	108.8	0.0	108.2	0.0	112.9	0.0	116.4	0.0	132.8	2.1	130.5	8.6
08/30/2011	118.9	0.1	111.6	0.0	111.7	0.0	112.1	0.0	113.2	0.0	111.5	1.7	109.7	1.4
08/31/2011	109.9	0.1	124.0	0.0	121.9	0.1	123.1	0.0	124.8	8.8	126.1	8.8	112.7	8.1
09/01/2011	82.3	0.1	80.5	0.0	89.6	0.5	100.0	0.6	104.6	2.8	135.6	3.3	134.2	9.3
09/02/2011	83.7	0.1	79.6	0.0	75.6	0.0	81.8	0.0	82.3	0.0	85.5	1.4	81.7	0.8
09/03/2011	70.8	0.1	73.2	0.0	69.7	0.0	69.3	0.0	73.0	0.0	67.2	1.8	63.2	0.8
09/04/2011	65.6	0.1	65.7	0.0	64.9	0.0	65.6	0.0	67.6	0.0	67.9	2.0	64.9	0.9
09/05/2011	58.3	0.1	61.0	0.0	59.4	0.0	58.1	0.0	61.8	0.0	71.9	2.0	68.7	1.2
09/06/2011	100.3	0.1	94.5	0.0	95.8	0.0	94.5	0.0	94.7	0.0	97.3	1.8	94.5	0.9
09/07/2011	97.4	0.1	96.3	0.0	97.1	0.0	98.6	0.0	100.0	0.0	106.2	1.9	99.2	1.2
09/08/2011	78.8	0.1	74.0	0.0	82.3	0.0	86.7	0.0	88.0	0.0	107.4	1.7	108.0	1.1

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
08/26/2011	13.7	3.7	14.3	16.2	37.6	18.7	36.7	10.9	35.0	17.0	33.9	24.0
08/27/2011	13.5	3.3	13.9	11.8	36.1	18.6	37.5	11.2	36.3	17.0	38.2	28.6
08/28/2011	13.2	3.0	14.2	15.0	32.6	18.5	32.7	9.8	31.4	17.0	32.7	22.5
08/29/2011	13.2	3.0	15.1	16.7	35.1	18.5	36.0	10.9	34.3	17.0	33.6	23.3
08/30/2011	13.4	3.1	14.2	16.0	36.9	18.5	38.0	11.3	37.4	17.0	38.8	28.6
08/31/2011	13.5	3.2	14.2	16.0	37.4	18.5	37.9	11.3	38.7	17.0	38.8	28.5
09/01/2011	13.8	3.5	14.0	12.7	36.9	0.0	31.4	3.1	29.5	0.1	29.2	0.2
09/02/2011	13.8	3.4	14.0	12.9	35.0	0.0	28.2	0.0	28.0	0.0	25.3	0.0
09/03/2011	14.0	3.5	13.7	13.6	36.4	0.1	29.5	0.0	28.0	0.0	27.4	0.0
09/04/2011	12.5	2.0	14.2	13.8	36.9	0.0	32.9	0.0	34.6	0.0	33.6	0.0
09/05/2011	10.4	0.0	14.5	14.4	33.1	0.0	33.1	0.0	35.9	0.0	38.8	0.0
09/06/2011	10.5	0.0	15.7	18.4	34.2	0.0	35.7	0.0	37.1	0.0	36.8	0.0
09/07/2011	10.5	0.0	15.1	19.7	36.8	0.0	28.9	0.0	28.4	0.0	27.4	0.0
09/08/2011	10.5	0.0	---	---	40.8	0.0	39.7	0.0	39.4	0.0	38.4	0.0

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
08/26/2011	200.7	100.5	179.9	53.8	167.1	66.8	182.9	94.3	8.5	67.6
08/27/2011	185.0	92.6	176.1	53.1	169.4	68.1	174.8	94.3	1.1	67.0
08/28/2011	167.3	84.0	157.7	47.2	148.4	59.4	176.1	94.1	0.7	68.9
08/29/2011	164.5	82.7	151.8	45.7	146.4	58.5	160.1	94.3	0.0	53.5
08/30/2011	166.5	83.9	150.2	45.0	140.4	56.2	163.7	94.8	0.0	56.4
08/31/2011	181.8	91.4	175.9	52.7	165.0	66.1	168.9	96.3	0.0	60.2
09/01/2011	139.0	2.2	139.7	0.9	143.8	0.0	156.1	4.7	52.9	89.6
09/02/2011	132.1	0.0	122.1	0.9	123.2	0.0	116.8	1.3	24.6	83.5
09/03/2011	104.2	0.0	100.0	0.9	101.6	0.0	113.4	1.4	24.3	80.3
09/04/2011	101.4	0.0	96.7	0.8	97.7	0.0	102.4	1.3	21.9	71.8
09/05/2011	118.3	0.0	115.0	0.9	116.3	0.0	121.6	1.3	51.8	61.1
09/06/2011	113.5	3.8	116.1	0.9	117.9	0.0	128.7	1.4	61.3	58.6
09/07/2011	128.7	0.0	124.0	0.8	124.3	0.0	131.2	1.4	64.2	58.2
09/08/2011	129.9	0.1	120.4	0.8	123.5	0.0	129.4	1.5	61.3	59.2

Two-Week Summary of Passage Indices

COMBINED YEARLING CHINOOK

		WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date		(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
08/26/2011		---	---	---	---	0	0	0	0	0	0	0
08/27/2011	*	---	---	---	---	0	3	2	0	0	---	---
08/28/2011	*	---	---	---	---	0	0	4	0	0	---	0
08/29/2011	*	---	---	---	---	0	0	5	0	0	---	---
08/30/2011	*	---	---	---	---	0	1	2	0	0	0	0
08/31/2011	*	---	---	---	---	0	0	0	0	0	---	---
09/01/2011	*	---	---	---	---	0	0	0	---	0	---	0
09/02/2011	*	---	---	---	---	2	0	1	---	0	0	0
09/03/2011	*	---	---	---	---	0	0	0	---	0	---	13
09/04/2011	*	---	---	---	---	2	1	3	---	0	---	0
09/05/2011	*	---	---	---	---	0	0	0	---	0	---	0
09/06/2011	*	---	---	---	---	0	0	0	---	0	0	0
09/07/2011	*	---	---	---	---	0	1	0	---	0	---	0
09/08/2011		---	---	---	---	0	1	2	---	0	0	0
09/09/2011		---	---	---	---	---	---	---	---	---	---	---
Total:		**0**	**0**	**0**	**0**	**4**	**7**	**19**	**0**	**0**	**0**	**13**
# Days:		**0**	**0**	**0**	**0**	**14**	**14**	**14**	**6**	**14**	**5**	**11**
Average:		**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**1**
YTD		**31,090**	**30,210**	**12,492**	**18,836**	**3,831,088**	**2,528,600**	**1,236,918**	**26,463**	**1,979,496**	**2,936,420**	**1,322,317**

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)
08/26/2011		---	---	---	---	181	280	120	37	33,238	14,286	3,196
08/27/2011	*	---	---	---	---	171	264	68	52	25,288	---	---
08/28/2011	*	---	---	---	---	153	171	76	38	15,136	---	1,968
08/29/2011	*	---	---	---	---	160	196	125	24	7,795	---	---
08/30/2011	*	---	---	---	---	180	203	59	10	8,558	1,329	1,652
08/31/2011	*	---	---	---	---	168	114	67	28	7,579	---	---
09/01/2011	*	---	---	---	---	106	86	123	---	14,537	---	2,399
09/02/2011	*	---	---	---	---	76	37	25	---	25,725	660	3,592
09/03/2011	*	---	---	---	---	73	26	20	---	19,750	---	1,651
09/04/2011	*	---	---	---	---	74	40	20	---	14,000	---	1,782
09/05/2011	*	---	---	---	---	71	48	151	---	2,950	---	1,089
09/06/2011	*	---	---	---	---	59	104	182	---	5,800	396	1,109
09/07/2011	*	---	---	---	---	96	216	298	---	9,623	---	857
09/08/2011		---	---	---	---	161	170	345	---	8,740	1,217	1,054
09/09/2011		---	---	---	---	---	---	---	---	---	---	---
Total:		**0**	**0**	**0**	**0**	**1,729**	**1,955**	**1,679**	**189**	**198,719**	**17,888**	**20,349**
# Days:		**0**	**0**	**0**	**0**	**14**	**14**	**14**	**6**	**14**	**5**	**11**
Average:		**0**	**0**	**0**	**0**	**124**	**140**	**120**	**32**	**14,194**	**3,578**	**1,850**
YTD		**9**	**38**	**12**	**163**	**1,158,157**	**1,360,213**	**370,355**	**31,133**	**5,769,560**	**3,291,400**	**5,198,678**

Two-Week Summary of Passage Indices

				COMBINED COHO								
		WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date		(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
08/26/2011		---	---	---	---	6	13	13	0	0	0	0
08/27/2011	*	---	---	---	---	10	6	0	0	0	---	---
08/28/2011	*	---	---	---	---	6	4	2	0	0	---	0
08/29/2011	*	---	---	---	---	5	9	9	0	0	---	---
08/30/2011	*	---	---	---	---	4	14	6	0	0	0	0
08/31/2011	*	---	---	---	---	4	6	0	0	0	---	---
09/01/2011	*	---	---	---	---	2	6	1	---	0	---	0
09/02/2011	*	---	---	---	---	0	4	2	---	0	0	0
09/03/2011	*	---	---	---	---	1	5	0	---	0	---	0
09/04/2011	*	---	---	---	---	3	4	1	---	0	---	0
09/05/2011	*	---	---	---	---	1	6	3	---	0	---	0
09/06/2011	*	---	---	---	---	1	5	4	---	0	0	0
09/07/2011	*	---	---	---	---	1	5	1	---	0	---	0
09/08/2011		---	---	---	---	2	5	0	---	20	0	0
09/09/2011		---	---	---	---	---	---	---	---	---	---	---
Total:		**0**	**0**	**0**	**0**	**46**	**92**	**42**	**0**	**20**	**0**	**0**
# Days:		**0**	**0**	**0**	**0**	**14**	**14**	**14**	**6**	**14**	**5**	**11**
Average:		**0**	**0**	**0**	**0**	**3**	**7**	**3**	**0**	**1**	**0**	**0**
YTD		**0**	**0**	**0**	**218**	**83,864**	**81,802**	**19,950**	**46,400**	**188,209**	**477,004**	**439,931**

				COMBINED STEELHEAD								
		WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date		(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
08/26/2011		---	---	---	---	0	0	0	0	0	0	0
08/27/2011	*	---	---	---	---	0	3	0	0	0	---	---
08/28/2011	*	---	---	---	---	0	0	0	2	0	---	0
08/29/2011	*	---	---	---	---	0	7	0	0	0	---	---
08/30/2011	*	---	---	---	---	0	0	0	0	0	0	0
08/31/2011	*	---	---	---	---	0	0	0	0	0	---	---
09/01/2011	*	---	---	---	---	0	0	0	---	0	---	0
09/02/2011	*	---	---	---	---	0	0	0	---	0	0	0
09/03/2011	*	---	---	---	---	0	1	0	---	0	---	0
09/04/2011	*	---	---	---	---	0	0	0	---	0	---	0
09/05/2011	*	---	---	---	---	2	1	0	---	0	---	0
09/06/2011	*	---	---	---	---	1	1	0	---	0	0	0
09/07/2011	*	---	---	---	---	0	1	1	---	0	---	0
09/08/2011		---	---	---	---	0	3	1	---	0	0	0
09/09/2011		---	---	---	---	---	---	---	---	---	---	---
Total:		**0**	**0**	**0**	**0**	**3**	**17**	**2**	**2**	**0**	**0**	**0**
# Days:		**0**	**0**	**0**	**0**	**14**	**14**	**14**	**6**	**14**	**5**	**11**
Average:		**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**
YTD		**1,080**	**13,882**	**4,071**	**2,934**	**4,118,587**	**2,033,103**	**838,179**	**28,473**	**608,082**	**2,620,215**	**246,497**

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)
08/26/2011		---	---	---	---	0	0	0	6	41	86	33
08/27/2011	*	---	---	---	---	0	0	0	1	0	---	---
08/28/2011	*	---	---	---	---	0	0	0	1	82	---	0
08/29/2011	*	---	---	---	---	0	0	0	3	41	---	---
08/30/2011	*	---	---	---	---	0	0	0	1	0	0	37
08/31/2011	*	---	---	---	---	0	1	0	1	0	---	---
09/01/2011	*	---	---	---	---	0	0	0	---	0	---	35
09/02/2011	*	---	---	---	---	1	3	0	---	0	11	8
09/03/2011	*	---	---	---	---	0	0	0	---	50	---	13
09/04/2011	*	---	---	---	---	0	0	0	---	50	---	0
09/05/2011	*	---	---	---	---	2	0	0	---	0	---	14
09/06/2011	*	---	---	---	---	2	2	0	---	0	0	0
09/07/2011	*	---	---	---	---	1	0	0	---	41	---	0
09/08/2011		---	---	---	---	2	2	0	---	20	14	10
09/09/2011		---	---	---	---	---	---	---	---	---	---	---
Total:		**0**	**0**	**0**	**0**	**8**	**8**	**0**	**13**	**325**	**111**	**150**
# Days:		**0**	**0**	**0**	**0**	**14**	**14**	**14**	**6**	**14**	**5**	**11**
Average:		**0**	**0**	**0**	**0**	**1**	**1**	**0**	**2**	**23**	**22**	**14**
YTD		**0**	**0**	**1**	**0**	**119,355**	**44,448**	**31,325**	**18,763**	**325,841**	**364,035**	**114,157**

				COMBINED LAMPREY JUVENILES								
		WTB	IMN	GRN	LEW	LGR†	LGS	LMN	RIS	MCN	JDA	BO2
Date		(Coll)	(Coll)	(Coll)	(Coll)	(Coll)	(Coll)	(Coll)	(Coll)	(Coll)	(Coll)	(Coll)
08/26/2011		---	---	---	---	1	0	1	0	40	133	20
08/27/2011	*	---	---	---	---	0	1	0	1	40	---	---
08/28/2011	*	---	---	---	---	0	1	0	0	40	---	0
08/29/2011	*	---	---	---	---	0	2	0	0	40	---	---
08/30/2011	*	---	---	---	---	0	0	0	0	10	0	7
08/31/2011	*	---	---	---	---	1	1	0	0	60	---	---
09/01/2011	*	---	---	---	---	0	1	1	---	20	---	8
09/02/2011	*	---	---	---	---	4	0	0	---	104	4	0
09/03/2011	*	---	---	---	---	3	0	0	---	50	---	0
09/04/2011	*	---	---	---	---	1	0	0	---	50	---	0
09/05/2011	*	---	---	---	---	1	1	0	---	0	---	0
09/06/2011	*	---	---	---	---	0	1	0	---	20	3	5
09/07/2011	*	---	---	---	---	0	0	0	---	20	---	0
09/08/2011		---	---	---	---	2	0	0	---	0	0	0
09/09/2011		---	---	---	---	---	---	---	---	---	---	---
Total:		**0**	**0**	**0**	**0**	**13**	**8**	**2**	**1**	**494**	**140**	**40**
# Days:		**0**	**0**	**0**	**0**	**14**	**14**	**14**	**6**	**14**	**5**	**11**
Average:		**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**35**	**28**	**4**
YTD		**0**	**0**	**0**	**0**	**10,561**	**17,629**	**748**	**327**	**164,356**	**494,478**	**26,082**

Two-Week Summary of Passage Indices

* 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, sockeye, and lamprey juveniles. Two classes of fish counts are shown in these tables:
Two classes of fish counts are shown in these tables:
Collection counts (Coll), which account for sample rates but are not adjusted for flow;
Passage indices (INDEX), which are collection counts divided by the proportion of water passing through the sampled powerhouse.
Passage indices are not population estimates, but are used to adjust collection counts for daily fluctuations in the site's or project's operations.
The classes of counts presented in the report are defined below for each site. Most samples occur over a 24-hr period that spans two calendar days. In this report, the date shown corresponds with the sample end date.
Combined lamprey juvenile collection counts are provided for all sites. Combined lamprey juveniles is a combination of pacific lamprey ammocoetes, brook lamprey ammocoetes, unknown lamprey ammocoetes, and pacific lamprey macropthalmia.
† Caution should be used with interpreting lamprey juvenile collection counts at LGR because of the possibility that lamprey may escape the sample tank before being sampled

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: 9/9/11 10:32 AM

08/26/11 TO 09/09/11

		Species					
Site	Data	**CH0**	**CH1**	CO	ST	SO	**Grand Total**
LGR	Sum of NumberCollected	1,163	4	27	3	8	1,205
	Sum of NumberBarged	0	0	0	0	0	0
	Sum of NumberBypassed	102	0	0	2	0	104
	Sum of Numbertrucked	1,022	4	27	1	8	1,062
	Sum of SampleMorts	38	0	0	0	0	38
	Sum of FacilityMorts	1	0	0	0	0	1
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	39	0	0	0	0	39
LGS	Sum of NumberCollected	1,556	6	74	14	8	1,658
	Sum of NumberBarged	0	0	0	0	0	0
	Sum of NumberBypassed	0	0	0	0	0	0
	Sum of Numbertrucked	1,497	5	74	13	8	1,597
	Sum of SampleMorts	38	0	0	1	0	39
	Sum of FacilityMorts	21	1	0	0	0	22
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	59	1	0	1	0	61
LMN	Sum of NumberCollected	1,383	12	27	2		1,424
	Sum of NumberBarged	0	0	0	0		0
	Sum of NumberBypassed	9	0	0	2		11
	Sum of Numbertrucked	1,339	12	27	0		1,378
	Sum of SampleMorts	35	0	0	0		35
	Sum of FacilityMorts	0	0	0	0		0
	Sum of ResearchMorts	0	0	0	0		0
	Sum of TotalProjectMorts	35	0	0	0		35
MCN	Sum of NumberCollected	141,986		20		240	142,246
	Sum of NumberBarged	0		0		0	0
	Sum of NumberBypassed	0		0		0	0
	Sum of Numbertrucked	141,168		20		240	141,428
	Sum of SampleMorts	27		0		0	27
	Sum of FacilityMorts	791		0		0	791
	Sum of ResearchMorts	0		0		0	0
	Sum of TotalProjectMorts	818		0		0	818
Total Sum of NumberCollected		146,088	22	148	19	256	146,533
Total Sum of NumberBarged		0	0	0	0	0	0
Total Sum of NumberBypassed		111	0	0	4	0	115
Total Sum of Numbertrucked		145,026	21	148	14	256	145,465
Total Sum of SampleMorts		138	0	0	1	0	139
Total Sum of FacilityMorts		813	1	0	0	0	814
Total Sum of ResearchMorts		0	0	0	0	0	0
Total Sum of TotalProjectMorts		951	1	0	1	0	953

YTD Transportation Summary

Source: Fish Passage Center Updated: 9/9/11 10:32 AM

TO: 09/09/11

		Species					
Site	Data	**CH0**	**CH1**	CO	SO	ST	**Grand Total**
LGR	Sum of NumberCollected	728,263	2,716,910	54,632	78,057	2,713,304	6,291,166
	Sum of NumberBarged	641,690	1,705,111	40,040	35,412	1,437,012	3,859,265
	Sum of NumberBypassed	81,991	1,009,672	14,509	42,055	1,275,913	2,424,140
	Sum of NumberTrucked	2,179	4	60	13	3	2,259
	Sum of SampleMorts	323	101	2	73	41	540
	Sum of FacilityMorts	2,050	1,781	21	504	272	4,628
	Sum of ResearchMorts	30	241	0	0	58	329
	Sum of TotalProjectMorts	2,403	2,123	23	577	371	5,497
LGS	Sum of NumberCollected	733,679	1,449,330	41,524	24,292	1,132,415	3,381,240
	Sum of NumberBarged	725,531	1,344,369	40,943	18,896	893,351	3,023,090
	Sum of NumberBypassed	93	103,168	401	5,227	238,633	347,522
	Sum of NumberTrucked	4,327	5	177	22	17	4,548
	Sum of SampleMorts	397	52	1	14	11	475
	Sum of FacilityMorts	3,331	1,736	2	133	403	5,605
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	3,728	1,788	3	147	414	6,080
LMN	Sum of NumberCollected	249,664	854,190	13,226	21,051	565,779	1,703,910
	Sum of NumberBarged	236,788	636,755	12,003	18,832	459,659	1,364,037
	Sum of NumberBypassed	8,578	215,901	1,254	1,964	103,441	331,138
	Sum of NumberTrucked	2,799	29	52	2	0	2,882
	Sum of SampleMorts	121	3	6	0	5	135
	Sum of FacilityMorts	1,378	1,499	13	253	872	4,015
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	1,499	1,502	19	253	877	4,150
MCN	Sum of NumberCollected	2,430,343	952,682	71,810	136,704	295,989	3,887,528
	Sum of NumberBarged	1,060,689	24	260	2,793	108	1,063,874
	Sum of NumberBypassed	975,593	949,771	71,277	132,464	295,663	2,424,768
	Sum of NumberTrucked	351,636	9	95	1,032	0	352,772
	Sum of SampleMorts	819	187	8	41	13	1,068
	Sum of FacilityMorts	41,606	2,691	170	374	205	45,046
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	42,425	2,878	178	415	218	46,114
Total Sum of NumberCollected		4,141,949	5,973,112	181,192	260,104	4,707,487	15,263,844
Total Sum of NumberBarged		2,664,698	3,686,259	93,246	75,933	2,790,130	9,310,266
Total Sum of NumberBypassed		1,066,255	2,278,512	87,441	181,710	1,913,650	5,527,568
Total Sum of NumberTrucked		360,941	47	384	1,069	20	362,461
Total Sum of SampleMorts		1,660	343	17	128	70	2,218
Total Sum of FacilityMorts		48,365	7,707	206	1,264	1,752	59,294
Total Sum of ResearchMorts		30	241	0	0	58	329
Total Sum of TotalProjectMorts		50,055	8,291	223	1,392	1,880	61,841

Cumulative Adult Passage at Mainstem Dams Through: 09/08

		Spring Chinook						Summer Chinook						Fall Chinook					
		2011		2010		10-Yr Avg.		2011		2010		10-Yr Avg.		2011		2010		10-Yr Avg.	
DAM	EndDate	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack
BON	**09/08**	**167097**	**50945**	**244384**	**12612**	**174444**	**16431**	**108279**	**51451**	**97604**	**15603**	**89217**	**13568**	**170537**	**24639**	**232582**	**24930**	**203960**	**21675**
TDA	**09/07**	**124164**	**40146**	**189839**	**11546**	**130174**	**13470**	**81127**	**39844**	**81292**	**12528**	**78252**	**10628**	**71508**	**14276**	**95672**	**13217**	**79339**	**12149**
JDA	**09/08**	**103401**	**39823**	**179446**	**11794**	**110572**	**12004**	**74073**	**34571**	**70955**	**12475**	**71151**	**11642**	**50610**	**10723**	**70435**	**11424**	**53005**	**10294**
MCN	**09/08**	**101245**	**31750**	**153500**	**9185**	**102003**	**11175**	**74621**	**28165**	**66526**	**8063**	**67398**	**9237**	**30341**	**5002**	**45003**	**5616**	**32968**	**6273**
IHR	**09/08**	**69306**	**18161**	**101188**	**6047**	**70295**	**6879**	**26758**	**12378**	**29583**	**3503**	**17776**	**3412**	**8204**	**2105**	**15483**	**2640**	**6461**	**2442**
LMN	**09/08**	**69832**	**18094**	**97334**	**5898**	**69566**	**5561**	**31176**	**13730**	**35097**	**4362**	**18759**	**3055**	**5535**	**1568**	**11062**	**2607**	**5081**	**2102**
LGS	**09/08**	**67321**	**23492**	**92985**	**5461**	**64800**	**6145**	**42211**	**18214**	**32410**	**3968**	**15770**	**3504**	**5321**	**1151**	**8465**	**1537**	**3910**	**1184**
LGR	**09/08**	**59342**	**22063**	**94203**	**6409**	**65342**	**7745**	**36764**	**16425**	**28778**	**5294**	**14778**	**4385**	**4062**	**943**	**6483**	**1813**	**2700**	**1249**
PRD	**09/07**	**15246**	**6030**	**30539**	**932**	**20141**	**818**	**50865**	**4223**	**49265**	**1217**	**58614**	**2426**	**6327**	**1676**	**4832**	**1103**	**7664**	**1691**
RIS	**09/07**	**13089**	**8394**	**29684**	**1513**	**17327**	**1572**	**44432**	**14299**	**47220**	**4018**	**55301**	**5331**	**3308**	**2189**	**2332**	**1083**	**3315**	**976**
RRH	**09/07**	**6989**	**3491**	**8660**	**523**	**6536**	**525**	**38861**	**8131**	**34173**	**1724**	**42074**	**4056**	**3148**	**1439**	**1938**	**549**	**2511**	**676**
WEL	**09/07**	**4153**	**3969**	**7596**	**661**	**5414**	**510**	**29491**	**8443**	**27052**	**1898**	**31529**	**2157**	**925**	**536**	**967**	**452**	**1222**	**434**
WFA	**09/07**	**43748**	**1399**	**65293**	**1758**	**51657**	**1104**	**-**	**-**	**-**	**-**	**-**	**-**	**203**	**52**	**229**	**15**	**260**	**15**

	Coho						Sockeye			Steelhead			
	2011		2010		10-Yr Avg.				10-Yr			10-Yr	Wild 2011
DAM	Adult	Jack	Adult	Jack	Adult	Jack	2011	2010	Avg.	2011	2010	Avg.	
BON	**52064**	**1481**	**24714**	**1562**	**39951**	**2034**	**185796**	**386521**	**123898**	**310713**	**354360**	**330629**	**113987**
TDA	**13569**	**1519**	**5956**	**559**	**5322**	**768**	**138286**	**325130**	**105743**	**208370**	**218198**	**163592**	**80832**
JDA	**7132**	**780**	**3220**	**413**	**3715**	**695**	**143135**	**324122**	**110250**	**143400**	**158678**	**130734**	**57173**
MCN	**2395**	**520**	**1206**	**153**	**984**	**174**	**113944**	**278806**	**91599**	**129888**	**125068**	**88831**	**47403**
IHR	**114**	**43**	**86**	**2**	**53**	**3**	**1140**	**1302**	**280**	**82552**	**78303**	**51101**	**23063**
LMN	**34**	**12**	**6**	**0**	**18**	**0**	**1394**	**1654**	**349**	**71664**	**68183**	**44667**	**21951**
LGS	**14**	**9**	**20**	**2**	**7**	**0**	**1435**	**1655**	**335**	**59738**	**47060**	**31130**	**20268**
LGR	**5**	**1**	**0**	**0**	**0**	**0**	**1502**	**2182**	**427**	**59616**	**50682**	**30853**	**21308**
PRD	**312**	**89**	**4**	**0**	**143**	**13**	**145070**	**357058**	**115344**	**13548**	**18937**	**12240**	**0**
RIS	**108**	**17**	**0**	**1**	**26**	**14**	**146102**	**338295**	**111636**	**11286**	**14962**	**10190**	**5660**
RRH	**12**	**1**	**1**	**0**	**1**	**0**	**132095**	**295616**	**88142**	**7905**	**11072**	**7331**	**3805**
WEL	**2**	**0**	**2**	**0**	**0**	**0**	**111505**	**291738**	**88330**	**5038**	**6845**	**4767**	**2220**
WFA	**100**	**193**	**704**	**160**	**130**	**37**	**-**	**-**	**-**	**27474**	**31963**	**28397**	**-**

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: 09/09/11

BON counts from January 1, 2011 to March 14, 2011 (historical counts begin March 15):

Year	Chinook Adult	Chinook Jack	Steelhead	Wild Steelhead
2011	49	1	1,419	600
2010	39	0	2,318	657