Fish Passage Center

Weekly Report #12 - 24

August 24, 2012

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Summary of Events:

Water Supply: Precipitation throughout the Columbia Basin has varied between 1% and 38% of average at individual sub-basins over August. Precipitation above The Dalles has been 18% of average for August 1-20. Over the 2012 water year, precipitation has ranged between 88% and 120% of average.

Table 1. Summary of August precipitation and cumulative October through August 20, 2012 precipitation with respect to average (1971-2000), at select locations within the Columbia and Snake River Basins.

Location	Water Year 2012 August 1-20, 2012		Water Year 2012 October 1, 2011 to August 20, 2012	
	Observed (inches)	% Average	Observed (inches)	% Average
Columbia Above Coulee	0.29	27	27.38	117
Snake River Above Ice Harbor	0.05	9	15.84	96
Columbia Above The Dalles	0.14	18	23.68	109
Kootenai	0.26	24	28.83	120
Clark Fork	0.09	10	16.87	104
Flathead	0.39	38	24.60	115
Pend Oreille/ Spokane	0.03	4	34.22	116
Central Washington	0.01	3	7.86	92
Snake River Plain	0.05	14	9.28	88
Salmon/Boise/ Payette	0.02	4	17.95	95
Clearwater	0.00	1	31.51	109
SW Washington Cascades/ Cowlitz	0.02	2	69.32	102
Willamette Valley	0.02	3	62.16	108

Grand Coulee Reservoir is at 1280.5 feet (8-23-12) and drafted 2.2 feet over the last week. The end of August draft elevation will be approximately 1279.7 feet at Grand Coulee. Outflows at Grand Coulee have ranged between 139.9 and 156.4 Kcfs over the last week.

The Libby Reservoir is currently at elevation 2453.2 feet (8-23-12) and has drafted 1.3 feet over the last week. Operators plan to draft Libby to approximately 2452.5 feet by the end of August while gradually reducing outflows to 8.0 Kcfs by early September. Outflows at Libby Dam have ranged between 8.7 and 10.5 Kcfs last week.

Hungry Horse is currently at an elevation of 3554.6 feet (8-23-12) and has drafted 0.97 feet over the last week. Outflows at Hungry Horse have been 0.4 and 1.4 Kcfs last week.

Dworshak is currently at an elevation of 1544 feet (8-23-12) and has drafted 7.2 feet over the last week for temperature and flow augmentation. Operators plan to draft Dworshak to 1535 feet by the end of August. Outflows from Dworshak have ranged between 9.5 -11 Kcfs the past week.

The Brownlee Reservoir was at an elevation of 2056.7 feet on August 21st, 2012 filling 1.4 feet last week. Over the last week, outflows at Brownlee have ranged between 8.1 and 10.1 Kcfs.

The Biological Opinion summer flow objective at Lower Granite (June 21st to August 31st) is 52 Kcfs; over the summer period flows at Lower Granite have 44.7 Kcfs and 24.7 Kcfs over the last week.

The Summer Biological Opinion Flow Objective is 200 Kcfs at McNary Dam (began July 1st and will end August 31st). Over the summer period, flows at McNary have averaged 277.9 Kcfs and 199.1 Kcfs over the last week.

Spill: The summer spill program began on June 21 in the Snake River and July 1 at the lower Columbia River projects, at projects where dates were not modified for research purposes.

Snake River flows have continued to decrease over the past week. At Lower Granite Dam spill did not always meet the Court Ordered summer spill level of 18 Kcfs due to low flows and the allowed operation of one turbine unit as a powerhouse minimum flow. At Little Goose Dam a flat spill operation was initiated to maintain compatibility with Lower Granite and Lower Monumental operations. The flat spill level has been 9.3 Kcfs since August 10th. At Lower Monumental Dam the summer spill level of 17 Kcfs was not always met due to low flows and powerhouse minimums. At Ice Harbor Dam the Court Order "test-like" conditions were completed as of July 13th and spill reverted back to the 45 Kcfs during the day and gas cap spill during the night. However, due to low flows, spill is presently occurring as all flow in excess of that needed to operate one turbine unit at this project.

Project	Day/Night Spill
Lower Granite	18 Kcfs/18 Kcfs
Little Goose	30%/30%
Lower Monumental	17 Kcfs/17 Kcfs
Ice Harbor	45 Kcfs/gas cap

Summer spill for fish passage at the Lower Columbia projects began on July 1. Flows declined steadily in the lower Columbia River over the past week. Spill at McNary Dam changed to the summer level of 50% early to accommodate research studies and met the Court Order over the past week. Spill at John Day Dam met the 30% instantaneous spill level. At The Dalles Dam, spill met the 40% daily spill level over the past week. At Bonneville Dam the summer test levels comparing 95 Kcfs for 24 hours versus 85 Kcfs during daytime hours and gas cap spill at night were completed on July 20th. Spill from July 21st to the end of August will be 75 Kcfs during the day and gas cap spill at night. Spill met these levels.

Project	Day/Night Spill
McNary	50%/50%
John Day	30%/30%
The Dalles	40%/40%
Bonneville	75 Kcfs/gas cap

Gas bubble trauma samples were taken this past week at McNary, Rock Island and Bonneville dams. There were no signs of GBT detected in the samples this past week. Sampling for GBT has now ended at the other dams due to low numbers of fish.

Smolt Monitoring: Smolt monitoring activities are ongoing at all seven SMP dams (BON, JDA, MCN, LGR, LGS, LMN, and RIS).

Subyearling Chinook were the dominant species of salmonid at all SMP dams over the past week. When compared to last week, subyearling Chinook passage decreased at all SMP sites this week except at BON. Although subyearling Chinook dominate the collections, some of the SMP sites continue to collect a few spring migrants.

High temperature sampling protocols remained in effect at BON this week. During this time, the SMP crew at BON samples every-other-day, for condition fish only. These high temperature sampling protocols began on August 16th and will remain in effect until temperatures decrease to safer levels. Despite the limited sampling efforts this week, subyearling Chinook numbers at BON increased this week, with a daily average passage index of about 5,650 per day, compared to last week's daily average passage index of about 4,800. Sockeye were the only spring migrants collected at BON this week. Pacific lamprey macropthalmia were collected at BON this week. The daily collections for pacific lamprey macropthalmia ranged from 0 to 8 per day. All but three screens have been pulled from the juvenile bypass system at the second powerhouse. These screens are expected to remain out for the remainder of the 2012 SMP season. The three screens that remain are in units 11, 12, and 18. Pulled screens and sampling under the higher temperature protocols at BON will result in bias collection estimates, as not as many fish will be guided into the juvenile bypass system in the second powerhouse.

High temperature sampling protocols remained in effect at JDA this week. During this time, the SMP crew at JDA only samples on Monday and Thursday, for condition fish only (sample data are displayed on Tuesday and Friday)> These high temperature protocols began at JDA on August 13th and will remain in effect until temperatures decrease to safer levels. Sampling under the higher temperature protocols at JDA will result in bias collection estimates, as limited sampling is taking place. Passage of subyearling

Chinook at JDA continued to decrease this week. The daily average passage index for subyearling Chinook at JDA this week was about 4,100 per day, compared to about 6,424 per day last week. No spring migrants were collected at JDA this week. Furthermore, no juvenile lamprey were collected this week. However, this may be due to the limited sampling efforts.

Passage of subyearling Chinook at MCN decreased this week, when compared to last week. The daily average passage index for subyearling Chinook at MCN this week was about 37,500 per day, compared to nearly 50,000 per day last week. Sockeye were the only spring migrants collected at MCN this week. Passage of pacific lamprey macropthalmia also decreased this week. This week's daily average collection for pacific lamprey macropthalmia at MCN was about 36 per day, compared to about 70 per day last week. No pacific lamprey ammocoetes were collected at MCN this week. Every-day trucking from MCN continued this week.

Subyearling Chinook passage at LGR decreased this week, when compared to last week. The daily average passage index for subyearling Chinook at LGR this week was about 470 per day. Last week's daily average passage index for subyearling Chinook was about 880 per day. Some yearling Chinook, coho, sockeye, and steelhead were also collected at LGR this week, but in very small numbers. Dworshak Dam had voluntary spill of up to 3 Kcfs from July 10th through August 17th, which means that sockeye juveniles collected at LGR over this period may be kokanee from Dworshak reservoir. Only three pacific lamprey ammocoetes and one pacific lamprey macropthalmia were sampled at LGR this week.

When compared to last week, passage of subyearling Chinook at LGS and LMN decreased this week. The daily average passage index for subyearling Chinook at LGS this week was about 380 per day, compared to nearly 700 per day last week. This week's daily average passage index for subyearling Chinook at LMN was about 26 per day, compared to about 100 per day last week. Very few spring migrants were collected at LGS and LMN this week. Finally, LGS collected both pacific lamprey ammocoetes and macropthalmia this week but no lamprey juveniles were collected at LMN this week.

Passage of subyearling Chinook at RIS continued to decrease this week. This week's daily average passage index for subyearling Chinook at RIS was about 60 per day, compared to 130 per day last week. Sockeye were the only species of salmonid that was collected at RIS this week, but in very small numbers. Finally, both pacific lamprey ammocoetes and macropthalmia were collected at RIS 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. There were no new releases of juvenile salmonids scheduled for this zone this week. In addition, there are no releases scheduled for 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. No new releases of juvenile salmonids were scheduled to begin in this zone this week. There are also no releases of juvenile salmonids in 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 new releases of juvenile salmonids were scheduled for this zone this week. Furthermore, there are no new releases to this zone scheduled over the next two weeks.

Adult Passage:

Fall Chinook began to pass Bonneville Dam on August 1st. Daily counts of fall Chinook at Bonneville Dam ranged from 751 to 3,152. The adult fall Chinook count of 20,163 is about 77.3% of the 2011 count of 26,066 and about 94.1% of the 10 year average count of 21,414. The 2012 Bonneville Dam fall Chinook jack count of 5,164 is about 93% of the 2011 count of 5,551, while being 1.4 times greater than the 10 year average count of 3,560. The 2012 McNary Dam adult fall Chinook count of 5,421 is about 80.9% of the 2011 count, while being 1.3 times larger than the 10 year average. The 2012 McNary Dam 2012 jack count of 947 is about 61.6% of the 2011 count, while being 1.1 times greater than the 10 year average count.

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 resume 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 2012 A-run adult steelhead count at Bonneville of 151,120 is about 60.3% of the 2011 count of 250,396 and 63.1% of the 10 year average count of 239,498.

The Bonneville Dam 2012 steelhead count of 155,455 is about 61.1% of the 2011 count of 254,256 and about 63.7% of the 10 year average count of 244,054. The 2012 Bonneville wild adult steelhead count of 61,852 is about 62.3% of the 2011 count of 99,322 and about 72.8% of the 10 year average count of 84,941. In the Snake River, this year's Lower Granite steelhead count of 11,491 is about 39.1% of the 2011 count of 29,371 and 58.3% of the 10 year average of 19,720. The 2012 Lower Granite wild adult steelhead count of 5,185 is about 41% of the 2011 count of 12,633 and 76.6% of the 10 year average count of 6,770. At Willamette Falls Dam, the 2012 count for steelhead was 28,902, as of August 18th. This year's steelhead count is about 1.05 times greater than the 2011 count of 27,352 and 1.06 times greater than the 10 year average count of 27,125.

Daily adult sockeye passage numbers at Bonneville Dam ranged between 0 and 5 last week. The 2012 accumulated total adult sockeye count at Bonneville Dam of 515,666, as of 8/23/2012, is about 2.77 times greater than the 2011 count of 185,788 and about 3.94 times greater than the 10 year average count of 130,979. The 2012 McNary Dam adult sockeye count of 364,133 is about 3.2 times greater than the 2011 count of 113,933 and 3.9 times greater than the 10 year average count of 93,284. 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 at Ice Harbor Dam, the 2012 adult sockeye count of 453 is 39.7% of the 2011 count of 1,139, while being 1.16 times greater than the 10 year average count of 390. The Lower Granite Dam 2012 adult sockeye count of 453 is about 30.3% of the 2011 count of 1,497 and about 79% of the 10 year average count of 573.

The 2012 adult coho Bonneville Dam count of 1,066 adults is about 19.8% of the 2011 count of 5,386 and about 56.2% of the 10 year average count of 1,895. The 2012 Bonneville Dam coho jack count of 203 is about 48.1% of the 2011 count of 422 and about 90.6% of the 10 year average count of 224. As of August 23rd at Bonneville Dam, the adult shad count was 2,432,238. This year's shad count is about 2.56 times greater than the 2011 count of 947,973, while being 82.8% of the 10 year average count of 2,936,766.

Hatchery Releases Last Two Weeks

No releases to report.

Hatchery Releases Next Two Weeks

No releases to report.

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
08/10/2012	168.3	0.1	170.0	0.0	180.3	11.5	180.6	4.7	185.6	33.0	196.7	71.8	199.9	97.5
08/11/2012	172.8	0.1	165.0	0.0	164.9	10.0	161.6	0.0	163.9	32.8	171.1	34.6	169.1	57.1
08/12/2012	154.3	0.1	160.8	0.0	168.8	10.0	170.5	0.0	174.9	31.5	186.6	47.8	186.9	65.1
08/13/2012	158.8	0.1	161.6	0.0	166.6	10.0	163.2	0.0	164.0	31.7	173.1	32.0	170.5	48.2
08/14/2012	152.5	0.1	151.1	0.0	156.4	10.0	158.3	0.0	161.6	32.2	172.5	37.7	169.1	48.6
08/15/2012	151.0	0.1	144.2	0.0	143.1	10.0	141.1	0.0	144.8	30.1	156.7	23.5	156.4	28.1
08/16/2012	153.5	0.1	155.9	0.0	157.9	13.4	157.7	0.7	157.4	29.2	160.8	40.9	154.6	42.6
08/17/2012	156.4	0.1	150.3	0.0	153.9	10.0	155.2	0.0	157.4	28.6	167.2	33.9	167.5	36.7
08/18/2012	149.2	0.1	149.9	0.0	152.5	13.8	150.0	0.0	149.7	26.8	157.9	35.8	158.2	49.7
08/19/2012	155.3	0.1	157.9	0.0	165.0	15.3	166.1	12.3	168.5	0.5	179.7	50.0	183.3	56.0
08/20/2012	139.9	0.1	148.0	0.0	146.0	25.3	147.9	2.5	152.2	0.0	158.2	32.4	160.1	45.1
08/21/2012	155.4	0.1	151.0	0.0	152.3	39.8	152.0	13.5	152.1	0.0	163.2	30.7	163.9	56.8
08/22/2012	149.2	0.1	145.4	0.0	149.9	37.8	150.7	8.8	154.1	0.0	164.2	17.3	159.6	50.9
08/23/2012	148.1	0.1	145.6	0.0	148.8	24.4	148.9	8.7	151.1	0.0	159.9	21.5	159.6	43.1

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
08/10/2012	12.6	3.2	8.6	8.9	28.7	15.8	30.6	10.4	30.6	16.8	32.2	22.1
08/11/2012	12.6	3.2	7.6	8.8	29.4	16.5	30.2	9.3	29.6	17.0	30.9	20.7
08/12/2012	12.6	3.2	8.7	8.9	27.8	14.9	28.1	9.3	28.3	16.0	29.9	19.7
08/13/2012	11.2	1.7	9.5	8.9	25.4	16.3	27.3	9.3	25.1	12.6	26.7	16.7
08/14/2012	11.2	1.7	10.3	9.0	25.7	16.3	26.9	9.3	26.3	13.8	28.0	17.8
08/15/2012	11.2	1.8	9.2	8.9	25.8	16.5	27.9	9.3	26.5	13.9	28.7	18.5
08/16/2012	11.2	1.7	9.9	8.9	24.9	15.7	26.7	9.3	25.3	12.3	28.4	18.0
08/17/2012	11.0	1.6	10.1	8.9	26.4	13.6	28.8	9.3	26.9	13.9	26.2	15.3
08/18/2012	9.5	0.0	9.7	9.4	25.3	12.2	25.4	9.3	26.2	13.4	27.7	17.3
08/19/2012	9.5	0.0	10.9	8.9	23.2	10.4	25.1	9.3	23.8	11.5	25.1	14.5
08/20/2012	9.5	0.0	10.3	10.3	23.0	10.4	24.6	9.3	24.3	12.1	24.6	14.1
08/21/2012	9.6	0.0	10.5	9.2	26.5	13.9	27.6	9.3	27.0	14.7	28.1	17.8
08/22/2012	9.6	0.0	10.5	9.2	24.3	11.6	26.1	9.3	25.3	12.6	28.0	17.7
08/23/2012	9.6	0.0	---	---	24.2	11.4	25.5	9.3	25.3	12.4	25.6	15.3

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
08/10/2012	213.2	106.7	199.3	59.8	183.9	73.3	199.6	89.1	55.5	42.6
08/11/2012	218.5	109.4	209.6	62.5	195.7	78.4	194.1	90.0	45.8	46.0
08/12/2012	219.6	110.1	219.5	65.4	210.4	83.7	225.9	89.2	74.8	49.5
08/13/2012	212.5	106.6	213.6	59.1	201.4	80.4	229.0	88.4	81.7	46.5
08/14/2012	207.3	103.8	189.5	56.6	171.5	68.4	188.2	88.1	46.6	41.2
08/15/2012	201.4	101.0	188.4	56.6	175.8	70.4	189.5	87.4	47.7	42.0
08/16/2012	177.9	89.2	179.0	53.8	168.6	67.2	188.2	89.9	37.8	48.1
08/17/2012	208.2	104.3	196.4	59.0	183.0	73.0	181.0	89.3	17.6	61.7
08/18/2012	200.9	100.4	191.5	57.5	178.0	71.2	194.8	89.7	27.1	65.5
08/19/2012	193.0	96.7	176.0	53.0	160.7	64.4	176.1	90.2	10.4	63.0
08/20/2012	203.0	101.8	197.6	59.3	183.4	73.6	193.4	89.3	26.0	65.6
08/21/2012	190.6	95.6	174.4	52.4	163.6	65.4	182.6	89.6	15.0	65.6
08/22/2012	202.5	101.5	200.5	60.0	187.3	74.8	197.6	89.6	29.9	65.7
08/23/2012	195.7	98.3	179.7	53.9	162.5	65.1	182.5	90.8	21.0	58.3

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
8/10	106.4	106.8	107.1	24	115.9	116.4	117.2	22	116.7	116.9	117.1	24	113.2	113.8	115.0	22	114.4	114.8	115.1	24
8/11	106.2	106.5	106.9	24	115.9	116.1	116.3	23	116.4	116.6	116.8	24	112.9	113.6	114.6	23	114.0	114.2	114.5	24
8/12	106.3	106.7	107.0	24	115.8	116.1	116.6	19	116.4	116.7	117.0	24	111.0	112.9	114.3	19	114.2	114.6	114.9	24
8/13	106.5	106.9	107.1	24	115.9	116.5	116.9	22	116.3	116.5	116.9	24	111.8	112.9	114.2	22	114.2	114.4	114.6	24
8/14	106.9	107.2	107.5	24	116.1	116.4	116.9	22	116.4	116.9	117.8	24	111.9	112.6	114.1	22	114.1	114.2	114.4	24
8/15	105.4	106.4	107.3	24	115.3	115.5	115.9	23	115.5	115.7	116.3	24	111.0	112.1	113.3	23	112.8	113.0	113.3	24
8/16	105.2	105.8	106.1	23	114.9	115.1	115.4	22	114.4	114.7	115.1	24	111.4	113.0	113.8	22	113.0	113.4	113.5	24
8/17	105.6	106.0	106.3	24	114.2	114.6	114.9	20	114.3	114.7	115.0	24	111.8	112.5	113.5	20	113.3	113.5	113.8	24
8/18	105.5	105.9	106.5	24	114.8	115.1	115.6	24	114.2	114.8	115.1	24	111.5	112.8	114.0	24	113.3	113.6	113.9	24
8/19	105.6	106.0	106.3	24	115.0	115.4	115.7	23	114.2	114.5	114.8	24	112.0	112.9	113.8	23	113.0	113.1	113.4	24
8/20	105.8	106.2	106.6	24	114.4	114.8	115.1	21	113.5	113.8	114.2	24	110.9	111.7	112.8	21	112.8	113.0	113.5	24
8/21	105.9	106.3	106.8	24	114.2	114.4	114.8	19	113.2	113.5	114.0	24	111.9	112.4	113.3	19	112.4	112.6	112.8	24
8/22	105.7	105.8	106.0	24	113.7	114.0	114.4	22	113.0	113.3	113.7	24	111.1	111.8	112.6	22	111.7	111.9	112.3	24
8/23	105.6	106.1	106.5	24	113.9	114.0	114.1	20	112.9	113.3	113.7	24	110.7	111.7	112.6	20	111.2	111.4	111.7	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
8/10	113.7	114.2	115.0	24	114.0	114.3	114.7	24	114.9	115.4	115.8	24	112.8	113.4	114.1	24	110.5	111.3	113.1	24
8/11	113.3	113.6	114.6	24	114.2	114.7	115.2	24	114.6	115.3	115.8	24	113.8	114.0	114.2	24	108.9	109.6	110.3	24
8/12	113.7	114.3	115.1	24	114.2	114.6	115.1	24	114.7	115.3	116.0	24	113.4	113.9	114.1	24	109.0	109.5	109.8	24
8/13	113.6	113.9	114.4	24	114.3	114.7	115.1	24	114.7	115.4	115.9	24	113.6	113.9	114.2	24	109.0	109.5	109.9	24
8/14	113.8	114.2	114.8	24	114.2	114.7	115.1	24	114.7	115.3	115.7	24	113.3	113.6	113.9	24	108.9	109.5	109.9	24
8/15	112.5	113.0	113.9	24	112.7	113.0	113.4	24	113.0	113.4	113.8	24	112.5	112.8	113.0	24	109.1	110.9	111.6	24
8/16	112.2	112.5	113.3	24	112.9	113.5	114.1	24	113.8	114.7	115.1	24	112.2	112.6	113.0	24	111.2	111.7	112.0	24
8/17	112.5	112.8	113.3	24	113.2	113.7	114.2	24	113.9	114.6	115.1	24	112.5	113.1	113.3	24	111.3	111.8	112.2	24
8/18	113.0	113.4	113.7	24	113.8	114.4	115.0	24	114.5	115.4	116.1	24	113.5	113.8	114.1	24	112.2	112.8	113.2	24
8/19	112.3	112.6	113.3	24	113.5	113.8	114.3	24	114.9	115.4	116.5	24	113.2	113.5	113.9	24	113.8	115.0	115.4	24
8/20	111.9	112.1	112.3	24	112.8	113.0	113.6	24	116.3	119.6	121.7	24	113.3	113.4	113.6	24	112.7	113.3	115.0	24
8/21	111.5	111.8	112.0	24	112.5	112.9	113.5	24	119.8	121.6	122.4	24	113.4	113.7	114.5	24	113.9	115.3	117.3	24
8/22	110.7	110.9	111.1	24	111.4	111.7	112.0	24	118.8	121.2	121.6	24	116.1	116.7	117.1	24	115.6	116.5	117.5	24
8/23	110.2	110.5	110.8	24	110.9	111.5	112.5	24	116.6	120.7	123.7	24	116.8	117.6	117.8	24	116.3	117.0	118.2	24

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
8/10	112.7	112.9	113.1	24	116.8	117.3	117.8	24	114.2	114.8	116.0	24	116.2	117.0	118.6	24	113.1	114.7	115.8	24
8/11	112.3	113.2	113.7	24	116.6	117.9	118.3	24	114.8	116.2	116.9	24	114.7	115.1	116.3	24	113.5	114.0	114.7	24
8/12	112.4	113.1	113.5	24	116.4	117.6	117.9	24	115.1	115.9	117.2	24	114.9	115.1	115.3	24	114.2	114.9	115.5	24
8/13	112.4	113.1	113.5	24	116.6	117.6	117.9	24	114.9	115.5	116.7	24	115.0	115.1	115.4	17	113.3	114.0	115.1	24
8/14	112.0	112.5	112.8	24	116.0	116.9	117.4	24	113.6	114.5	114.9	24	114.5	114.6	114.8	15	111.6	112.2	113.0	24
8/15	111.2	112.1	112.5	24	113.0	115.0	116.8	24	113.0	113.3	113.6	24	113.7	113.9	114.7	24	111.4	111.9	112.3	23
8/16	111.3	111.8	112.0	24	114.8	115.8	116.0	24	113.2	114.3	115.3	24	114.3	115.2	119.7	24	112.7	113.6	115.2	24
8/17	111.3	111.8	112.4	24	114.9	115.8	116.1	24	114.2	114.7	115.0	24	114.3	114.8	115.0	24	114.5	115.7	116.3	24
8/18	112.1	113.0	113.5	24	114.8	116.2	116.9	24	115.0	115.5	116.0	24	115.1	115.8	117.0	24	114.2	114.5	115.1	24
8/19	112.4	112.9	113.2	24	112.5	113.0	115.4	24	115.1	115.5	116.3	24	114.8	115.4	117.0	24	114.7	115.5	117.3	24
8/20	112.4	112.9	113.2	24	112.3	112.7	112.8	24	113.7	113.9	114.5	24	114.0	114.2	114.6	24	113.0	113.4	113.9	24
8/21	112.0	112.6	113.2	24	111.9	112.5	113.0	24	112.5	112.9	113.4	24	112.9	113.3	113.8	24	112.4	112.8	113.0	24
8/22	113.8	115.2	116.3	24	113.7	115.0	116.0	24	---	---	---	0	---	---	---	0	---	---	---	0
8/23	114.5	115.3	116.2	24	114.5	115.2	116.0	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
8/10	117.8	118.9	119.4	24	109.7	111.2	112.5	24	108.0	108.3	108.7	24	107.7	108.9	109.7	24	101.6	103.0	104.4	24
8/11	116.1	117.5	118.9	24	111.2	112.0	112.5	24	107.6	107.9	108.1	24	107.4	108.5	109.3	24	101.6	103.2	104.6	24
8/12	117.5	118.4	119.4	24	110.2	111.4	111.9	24	107.7	108.1	108.3	24	107.5	108.6	109.5	24	102.0	103.5	105.1	24
8/13	115.5	116.4	118.3	24	110.2	110.8	111.6	24	104.1	104.7	107.4	24	104.9	106.0	106.6	24	102.0	103.5	105.0	24
8/14	115.0	116.2	118.2	24	108.7	109.8	110.7	24	104.0	104.4	104.7	24	104.5	105.8	106.8	24	102.0	103.5	105.0	24
8/15	113.5	114.6	116.2	24	107.4	108.1	110.0	24	104.0	104.3	104.6	24	104.3	105.3	106.3	24	101.7	103.0	104.3	24
8/16	114.7	116.0	117.8	24	105.5	106.4	107.3	24	103.6	103.8	104.1	24	103.9	104.9	105.9	24	101.6	103.1	104.5	24
8/17	115.7	116.5	117.4	24	106.6	108.0	108.8	24	103.2	103.5	103.7	24	103.4	104.4	105.4	24	101.7	103.2	104.6	24
8/18	116.3	116.9	117.8	24	106.4	107.3	108.1	24	101.4	101.8	102.6	24	101.3	102.0	102.6	22	101.8	103.2	104.6	24
8/19	116.7	117.1	117.4	24	104.6	105.4	106.4	24	101.4	101.7	102.1	24	99.9	100.8	101.6	24	101.4	102.7	104.1	24
8/20	115.2	116.1	116.7	24	103.8	104.1	104.4	24	101.2	101.5	101.8	24	98.9	99.9	100.8	23	101.3	102.7	104.3	24
8/21	115.0	115.2	115.5	24	101.0	101.7	101.9	24	101.3	101.6	101.9	24	98.3	98.7	99.7	21	101.1	102.2	103.5	24
8/22	---	---	---	0	100.9	101.1	101.3	24	101.1	101.4	101.7	24	98.2	98.5	99.2	16	100.7	101.9	103.3	24
8/23	---	---	---	0	103.0	108.0	110.6	23	101.3	101.8	102.7	24	98.2	98.2	99.3	12	100.8	102.0	103.4	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
8/10	105.1	107.2	108.8	24	102.7	103.1	103.2	24	115.0	115.3	115.9	24	111.3	111.8	112.0	24	109.1	109.4	109.8	24
8/11	104.9	107.0	108.5	24	103.1	103.4	103.7	24	114.5	114.9	116.0	24	111.4	111.6	112.1	24	108.5	109.0	109.5	24
8/12	105.0	107.2	108.8	24	103.2	103.4	103.7	24	114.5	115.2	115.6	24	111.1	111.6	111.9	24	107.0	107.5	108.1	24
8/13	104.6	106.4	107.8	24	103.0	103.2	103.5	24	116.7	118.0	118.6	24	111.3	111.4	111.7	24	108.3	110.0	111.6	24
8/14	103.9	106.0	107.5	24	103.4	103.7	103.9	24	116.6	118.0	118.6	24	111.2	111.5	111.8	24	107.7	108.2	108.5	24
8/15	103.8	105.6	107.0	24	103.1	103.4	103.5	24	116.3	118.1	119.2	24	111.2	111.5	112.1	24	107.9	108.3	108.7	24
8/16	103.7	105.6	107.1	24	102.8	103.0	103.2	24	116.2	118.0	118.9	24	111.2	111.5	111.9	24	107.4	107.8	108.1	24
8/17	103.5	105.5	107.0	24	102.6	102.8	103.0	24	114.7	115.3	116.1	24	111.3	111.5	111.9	24	107.5	108.0	108.4	24
8/18	103.3	105.1	106.5	24	103.1	103.5	104.4	24	114.5	115.8	116.4	24	112.5	112.8	112.9	24	107.2	107.8	108.3	24
8/19	103.0	104.9	106.3	24	103.2	103.4	103.8	24	112.6	112.9	113.2	24	113.0	113.3	113.6	24	107.2	107.9	108.4	24
8/20	102.9	104.7	106.1	24	102.5	102.6	102.9	24	112.7	113.2	113.8	24	113.1	113.3	113.4	24	108.1	109.1	109.6	24
8/21	102.8	104.4	105.7	24	102.3	102.5	102.7	24	114.8	115.9	116.3	24	113.1	113.3	113.5	24	109.5	110.1	111.1	24
8/22	102.6	104.3	105.7	23	101.7	101.8	102.0	24	112.9	113.6	114.3	24	113.2	113.7	114.0	24	108.4	108.6	109.0	24
8/23	102.3	104.1	105.5	24	101.8	102.1	102.4	24	113.0	113.5	114.2	24	112.0	112.6	113.6	24	108.0	108.6	109.4	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
8/10	109.6	109.9	110.4	24	116.0	116.4	116.8	24	112.5	112.6	112.8	24	113.7	114.2	114.6	24	---	---	---	0
8/11	108.3	108.6	109.1	24	116.2	116.4	116.7	24	111.5	111.7	112.2	24	113.4	114.0	114.5	24	---	---	---	0
8/12	108.1	108.2	108.4	24	115.3	116.0	116.5	24	111.1	111.3	111.3	24	113.4	113.9	114.5	24	---	---	---	0
8/13	107.9	108.1	108.4	24	113.0	113.8	114.8	24	111.2	111.5	111.7	24	111.5	112.1	112.9	24	---	---	---	0
8/14	108.1	108.6	109.3	24	113.8	115.0	116.4	24	112.2	112.6	113.0	24	111.5	112.3	113.1	24	---	---	---	0
8/15	108.0	108.1	108.3	24	113.9	115.1	116.2	24	112.5	112.7	113.0	24	111.7	112.3	113.0	24	---	---	---	0
8/16	107.4	107.5	107.7	24	113.2	114.0	115.5	24	112.6	112.8	113.1	24	111.1	111.9	112.7	24	---	---	---	0
8/17	107.0	107.1	107.3	24	113.7	114.6	116.2	24	112.3	112.5	112.8	24	111.1	111.8	112.6	24	---	---	---	0
8/18	106.8	107.1	107.5	24	114.1	115.3	116.0	24	111.5	111.7	112.0	24	112.6	113.4	113.6	24	---	---	---	0
8/19	107.6	107.9	108.1	24	112.9	113.2	113.5	24	110.7	110.9	111.2	24	111.6	112.3	113.4	24	---	---	---	0
8/20	107.6	107.7	107.8	24	113.1	113.5	114.0	24	110.3	110.5	110.6	24	111.5	112.3	113.3	24	---	---	---	0
8/21	107.9	108.1	108.4	24	114.7	116.0	116.9	24	110.4	110.5	110.7	24	111.7	112.9	114.3	24	---	---	---	0
8/22	107.5	107.8	108.1	24	113.3	113.6	115.1	24	110.2	110.4	110.7	24	111.0	112.0	115.0	24	---	---	---	0
8/23	107.4	107.6	107.8	24	113.4	113.9	114.3	24	110.5	110.6	110.8	24	110.7	111.2	111.9	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
8/10	110.2	110.8	111.5	24	117.1	118.3	119.1	24	108.7	109.0	109.4	24	114.2	114.8	115.3	24	109.3	109.9	110.3	24
8/11	111.9	112.1	112.4	24	117.4	118.1	118.8	24	107.8	108.2	108.5	24	114.2	114.8	115.4	24	108.8	109.6	110.2	24
8/12	111.2	112.0	112.6	24	117.2	118.1	118.7	24	107.8	108.1	108.5	24	114.4	115.0	115.4	24	110.1	110.4	110.6	24
8/13	113.0	113.2	113.3	24	117.6	118.6	119.4	24	108.0	108.5	108.8	24	114.2	114.8	115.9	24	109.6	110.0	110.6	24
8/14	112.8	113.1	113.2	24	117.6	118.5	119.3	24	109.5	110.5	111.0	24	114.0	114.6	115.2	24	108.4	108.8	109.2	24
8/15	113.1	113.6	114.2	24	117.2	117.9	118.9	24	110.4	110.9	111.2	24	114.8	115.2	115.6	24	109.1	109.8	111.0	24
8/16	110.2	110.5	111.0	24	115.8	116.2	116.4	24	110.3	110.6	110.9	24	115.0	115.6	115.9	24	111.3	111.4	111.7	24
8/17	110.3	110.5	110.8	24	116.8	117.1	117.5	20	110.8	111.3	111.9	24	113.8	114.6	115.2	24	111.9	112.1	112.4	24
8/18	109.7	109.9	110.4	24	116.9	117.1	117.7	14	110.9	111.2	111.7	24	115.1	115.6	116.0	24	111.3	111.8	112.5	24
8/19	109.9	110.4	110.6	24	115.9	117.4	118.2	24	110.6	110.9	111.2	24	114.2	114.7	115.4	24	109.4	110.1	110.8	24
8/20	111.3	111.6	111.8	24	116.5	116.9	117.1	24	109.3	109.5	110.1	24	114.1	114.6	115.3	24	108.4	108.8	109.3	24
8/21	110.8	111.2	111.3	24	116.3	116.7	117.3	24	108.3	108.6	108.9	24	114.2	114.6	114.9	24	108.0	108.9	109.6	24
8/22	108.7	109.0	109.2	24	116.1	117.0	117.3	23	106.4	106.7	107.2	24	114.3	114.9	115.6	24	106.6	107.1	107.8	24
8/23	108.5	109.2	109.3	24	115.7	116.2	116.6	24	104.8	105.1	105.7	24	113.5	113.9	114.3	24	105.9	106.8	107.7	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
8/10	115.3	116.2	116.8	24	108.3	108.5	108.7	24	112.3	113.3	114.7	24	110.8	112.5	114.2	24	117.1	118.6	120.2	24
8/11	114.9	115.4	115.7	24	108.8	109.6	110.6	24	115.0	116.8	117.7	24	111.9	114.2	115.8	24	117.2	118.7	120.4	24
8/12	116.2	117.1	117.8	24	112.0	112.5	113.0	24	114.4	115.1	116.2	24	113.1	114.9	116.5	24	117.6	119.1	120.6	24
8/13	115.9	116.6	117.4	24	112.5	112.8	113.1	24	114.3	115.0	115.8	24	112.9	114.5	115.9	24	117.6	118.9	120.6	24
8/14	115.0	115.6	116.1	24	110.3	111.0	111.7	24	113.7	114.4	115.3	24	112.4	113.8	115.1	24	117.2	118.4	120.2	24
8/15	115.2	116.4	116.9	24	109.7	110.0	110.2	24	114.5	115.9	117.3	24	112.7	114.7	116.6	24	117.0	118.2	120.1	24
8/16	116.5	117.2	117.9	24	110.7	111.0	111.6	24	114.1	114.8	115.3	24	111.2	112.2	112.8	24	117.3	118.8	120.1	24
8/17	116.6	117.6	118.2	24	113.5	114.2	114.6	24	117.2	118.0	118.6	24	114.0	116.7	118.7	24	117.4	118.7	119.9	22
8/18	116.4	116.7	116.9	24	113.7	114.3	114.7	24	116.0	116.7	117.8	24	113.2	114.2	115.9	24	117.4	118.7	120.0	24
8/19	114.8	115.4	115.9	24	110.0	111.3	112.1	24	115.7	116.6	117.5	24	112.4	113.7	115.0	24	117.0	118.4	119.4	24
8/20	114.4	115.3	115.6	24	107.3	107.6	107.8	24	114.0	115.5	116.7	24	112.0	113.2	114.6	24	116.9	118.4	119.9	24
8/21	113.9	114.3	114.5	24	107.1	107.3	107.5	24	113.9	114.7	115.8	24	110.2	111.5	112.7	24	116.7	118.3	119.8	24
8/22	113.0	113.7	114.7	24	106.2	106.4	106.6	24	113.6	115.5	116.8	24	110.3	112.0	113.6	24	116.9	118.3	119.8	24
8/23	112.4	112.9	113.2	24	105.5	105.8	106.1	24	112.7	114.3	116.0	24	109.4	110.7	112.2	24	116.6	117.7	120.3	22

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											
Little Goose Dam											
	08/13/12	Chinook + Steelhead	8	0	0	0.00%	0.00%	0	0	0	0
Lower Monumental Dam											
McNary Dam											
	08/12/12	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
	08/16/12	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
	08/20/12	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
	08/23/12	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
Bonneville Dam											
	08/11/12	Chinook + Steelhead	44	0	0	0.00%	0.00%	0	0	0	0
	08/19/12	Chinook + Steelhead	44	0	0	0.00%	0.00%	0	0	0	0
	08/21/12	Chinook + Steelhead	54	0	0	0.00%	0.00%	0	0	0	0
Rock Island Dam											
	08/14/12	Chinook + Steelhead	62	0	0	0.00%	0.00%	0	0	0	0

Two-Week Summary of Passage Indices

Source: Fish Passage Center Updated: 8/24/2012 8:42

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)
08/10/2012	*	---	---	---	---	0	0	0	0	---	0	0
08/11/2012	*	---	---	---	---	5	0	0	0	0	0	0
08/12/2012	*	---	---	---	---	9	0	0	0	---	0	17
08/13/2012	*	---	---	---	---	0	0	0	0	0	---	0
08/14/2012	*	---	---	---	---	6	5	0	0	---	0	0
08/15/2012	*	---	---	---	---	0	0	0	0	0	---	---
08/16/2012	*	---	---	---	---	0	2	0	0	---	---	0
08/17/2012	*	---	---	---	---	0	0	0	0	0	0	---
08/18/2012	*	---	---	---	---	2	1	0	0	0	---	0
08/19/2012	*	---	---	---	---	0	0	0	0	0	---	---
08/20/2012	*	---	---	---	---	2	0	0	0	0	---	0
08/21/2012	*	---	---	---	---	0	0	0	0	0	0	---
08/22/2012	*	---	---	---	---	0	0	0	0	0	---	0
08/23/2012	*	---	---	---	---	---	0	---	0	0	---	---
08/24/2012	*	---	---	---	---	---	---	---	---	---	0	---
Total:		**0**	**0**	**0**	**0**	**24**	**8**	**0**	**0**	**0**	**0**	**17**
# Days:		**0**	**0**	**0**	**0**	**13**	**14**	**13**	**14**	**10**	**7**	**9**
Average:		**0**	**0**	**0**	**0**	**2**	**1**	**0**	**0**	**0**	**0**	**2**
YTD		**58,098**	**10,919**	**26,417**	**13,494**	**4,042,662**	**2,266,006**	**754,588**	**25,797**	**2,179,373**	**4,290,562**	**2,538,937**

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)
08/10/2012	*	---	---	---	---	1,233	1,268	209	200	---	4,030	1,118
08/11/2012	*	---	---	---	---	922	1,232	210	154	44,972	6,087	1,445
08/12/2012	*	---	---	---	---	787	548	104	120	---	13,958	3,596
08/13/2012	*	---	---	---	---	903	648	34	151	23,169	---	6,956
08/14/2012	*	---	---	---	---	818	498	38	110	---	1,619	10,083
08/15/2012	*	---	---	---	---	634	298	26	106	80,897	---	---
08/16/2012	*	---	---	---	---	871	246	50	69	---	---	5,560
08/17/2012	*	---	---	---	---	515	279	22	23	44,919	3,678	---
08/18/2012	*	---	---	---	---	452	443	25	80	39,987	---	4,404
08/19/2012	*	---	---	---	---	388	363	38	49	28,613	---	---
08/20/2012	*	---	---	---	---	346	343	20	39	27,097	---	7,634
08/21/2012	*	---	---	---	---	276	169	30	70	32,420	4,589	---
08/22/2012	*	---	---	---	---	430	411	18	75	44,707	---	4,974
08/23/2012	*	---	---	---	---	---	657	---	89	44,467	---	---
08/24/2012	*	---	---	---	---	---	---	---	---	---	7,280	---
Total:		**0**	**0**	**0**	**0**	**8,575**	**7,403**	**824**	**1,335**	**411,248**	**41,241**	**45,770**
# Days:		**0**	**0**	**0**	**0**	**13**	**14**	**13**	**14**	**10**	**7**	**9**
Average:		**0**	**0**	**0**	**0**	**660**	**529**	**63**	**95**	**41,125**	**5,892**	**5,086**
YTD		**0**	**4**	**67**	**327**	**1,060,971**	**1,048,476**	**375,665**	**28,381**	**3,135,900**	**3,852,810**	**5,527,054**

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)
08/10/2012	*	---	---	---	---	0	0	0	0	---	0	0
08/11/2012	*	---	---	---	---	0	0	0	0	0	0	0
08/12/2012	*	---	---	---	---	0	3	0	0	---	0	35
08/13/2012	*	---	---	---	---	0	3	0	0	0	---	0
08/14/2012	*	---	---	---	---	0	0	0	0	---	0	0
08/15/2012	*	---	---	---	---	6	0	0	2	0	---	---
08/16/2012	*	---	---	---	---	0	2	0	2	---	---	0
08/17/2012	*	---	---	---	---	3	0	0	0	0	0	---
08/18/2012	*	---	---	---	---	0	1	0	1	0	---	0
08/19/2012	*	---	---	---	---	2	2	0	0	0	---	---
08/20/2012	*	---	---	---	---	2	0	2	0	0	---	0
08/21/2012	*	---	---	---	---	2	3	0	0	0	0	---
08/22/2012	*	---	---	---	---	0	0	0	0	0	---	0
08/23/2012	*	---	---	---	---	---	0	---	0	0	---	---
08/24/2012	*	---	---	---	---	---	---	---	---	---	0	---
Total:		**0**	**0**	**0**	**0**	**15**	**14**	**2**	**5**	**0**	**0**	**35**
# Days:		**0**	**0**	**0**	**0**	**13**	**14**	**13**	**14**	**10**	**7**	**9**
Average:		**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**4**
YTD		**0**	**0**	**0**	**80**	**69,799**	**78,637**	**19,963**	**49,618**	**145,764**	**287,512**	**689,839**

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)
08/10/2012	*	---	---	---	---	0	0	0	2	---	0	0
08/11/2012	*	---	---	---	---	0	12	0	0	0	0	0
08/12/2012	*	---	---	---	---	0	3	0	0	---	0	0
08/13/2012	*	---	---	---	---	0	6	0	0	0	---	0
08/14/2012	*	---	---	---	---	0	6	0	0	---	0	0
08/15/2012	*	---	---	---	---	0	5	0	0	0	---	---
08/16/2012	*	---	---	---	---	6	3	0	0	---	---	0
08/17/2012	*	---	---	---	---	8	3	0	0	0	0	---
08/18/2012	*	---	---	---	---	4	7	0	1	0	---	0
08/19/2012	*	---	---	---	---	0	5	0	0	0	---	---
08/20/2012	*	---	---	---	---	2	5	0	0	0	---	0
08/21/2012	*	---	---	---	---	4	3	0	0	0	0	---
08/22/2012	*	---	---	---	---	2	0	2	0	0	---	0
08/23/2012	*	---	---	---	---	---	5	---	0	0	---	---
08/24/2012	*	---	---	---	---	---	---	---	---	---	0	---
Total:		**0**	**0**	**0**	**0**	**26**	**63**	**2**	**3**	**0**	**0**	**0**
# Days:		**0**	**0**	**0**	**0**	**13**	**14**	**13**	**14**	**10**	**7**	**9**
Average:		**0**	**0**	**0**	**0**	**2**	**5**	**0**	**0**	**0**	**0**	**0**
YTD		**2,722**	**21,612**	**2,065**	**2,311**	**3,538,988**	**1,490,287**	**611,057**	**17,323**	**543,078**	**2,834,971**	**296,204**

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)
08/10/2012	*	---	---	---	---	4	3	0	5	---	49	0
08/11/2012	*	---	---	---	---	0	0	0	0	41	0	51
08/12/2012	*	---	---	---	---	5	3	0	6	---	0	35
08/13/2012	*	---	---	---	---	4	0	0	0	103	---	18
08/14/2012	*	---	---	---	---	0	3	0	0	---	11	18
08/15/2012	*	---	---	---	---	17	3	0	5	206	---	---
08/16/2012	*	---	---	---	---	0	3	0	3	---	---	18
08/17/2012	*	---	---	---	---	3	3	0	1	0	0	---
08/18/2012	*	---	---	---	---	0	0	0	3	0	---	0
08/19/2012	*	---	---	---	---	6	6	0	0	0	---	---
08/20/2012	*	---	---	---	---	0	3	0	2	103	---	0
08/21/2012	*	---	---	---	---	2	2	0	6	0	0	---
08/22/2012	*	---	---	---	---	2	2	0	2	0	---	0
08/23/2012	*	---	---	---	---	---	3	---	5	103	---	---
08/24/2012	*	---	---	---	---	---	---	---	---	---	0	---
Total:		**0**	**0**	**0**	**0**	**43**	**34**	**0**	**38**	**556**	**60**	**140**
# Days:		**0**	**0**	**0**	**0**	**13**	**14**	**13**	**14**	**10**	**7**	**9**
Average:		**0**	**0**	**0**	**0**	**3**	**2**	**0**	**3**	**56**	**9**	**16**
YTD		**5**	**0**	**0**	**475**	**43,334**	**37,171**	**18,243**	**46,833**	**1,135,767**	**850,679**	**778,681**

				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)
08/10/2012	*	---	---	---	---	0	2	0	1	---	259	4
08/11/2012	*	---	---	---	---	0	4	0	0	160	170	16
08/12/2012	*	---	---	---	---	0	6	0	1	---	233	0
08/13/2012	*	---	---	---	---	2	4	0	0	50	---	0
08/14/2012	*	---	---	---	---	0	0	0	0	---	8	20
08/15/2012	*	---	---	---	---	0	2	0	0	0	---	---
08/16/2012	*	---	---	---	---	0	7	0	0	---	---	4
08/17/2012	*	---	---	---	---	2	3	0	0	50	0	---
08/18/2012	*	---	---	---	---	0	1	0	0	50	---	0
08/19/2012	*	---	---	---	---	0	2	0	1	50	---	---
08/20/2012	*	---	---	---	---	0	5	0	2	0	---	0
08/21/2012	*	---	---	---	---	2	1	0	1	0	0	---
08/22/2012	*	---	---	---	---	0	5	0	1	50	---	8
08/23/2012	*	---	---	---	---	---	1	---	2	50	---	---
08/24/2012	*	---	---	---	---	---	---	---	---	---	17	---
Total:		**0**	**0**	**0**	**0**	**6**	**43**	**0**	**9**	**460**	**687**	**52**
# Days:		**0**	**0**	**0**	**0**	**13**	**14**	**13**	**14**	**10**	**7**	**9**
Average:		**0**	**0**	**0**	**0**	**0**	**3**	**0**	**1**	**46**	**98**	**6**
YTD		**6**	**0**	**0**	**0**	**6,990**	**6,422**	**2,208**	**133**	**121,010**	**502,056**	**31,841**

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, pacific lamprey macropthalmia, and unidentified lamprey species.
† 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.
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.
WTB and LEW data collected for the FPC by Idaho Dept. of Fish and Game.

Two Week Transportation Summary

Source: Fish Passage Center Updated: 8/24/12 8:45 AM

08/10/12 TO 08/24/12

		Species					
Site	Data	**CH0**	**CH1**	CO	ST	SO	**Grand Total**
LGR	Sum of NumberCollected	3,668	10	6	11	18	3,713
	Sum of NumberBarged	3,122	8	2	4	8	3,144
	Sum of NumberBypassed	0	0	0	2	2	4
	Sum of Numbertrucked	1,137	2	3	7	6	1,155
	Sum of SampleMorts	23	0	1	0	2	26
	Sum of FacilityMorts	2	0	0	0	0	2
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	25	0	1	0	2	28
LGS	Sum of NumberCollected	4,817	5	9	41	22	4,894
	Sum of NumberBarged	3,914	4	5	29	9	3,961
	Sum of NumberBypassed	0	0	0	0	1	1
	Sum of Numbertrucked	1,283	1	4	15	9	1,312
	Sum of SampleMorts	23	0	0	0	0	23
	Sum of FacilityMorts	13	0	0	0	1	14
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	36	0	0	0	1	37
LMN	Sum of NumberCollected	369		1	1		371
	Sum of NumberBarged	466		0	0		466
	Sum of NumberBypassed	0		0	1		1
	Sum of Numbertrucked	67		1	0		68
	Sum of SampleMorts	6		0	0		6
	Sum of FacilityMorts	10		0	0		10
	Sum of ResearchMorts	0		0	0		0
	Sum of TotalProjectMorts	16		0	0		16
MCN	Sum of NumberCollected	200,230				270	200,500
	Sum of NumberBarged	0				0	0
	Sum of NumberBypassed	94,401				170	94,571
	Sum of Numbertrucked	105,197				99	105,296
	Sum of SampleMorts	21				0	21
	Sum of FacilityMorts	611				1	612
	Sum of ResearchMorts	0				0	0
	Sum of TotalProjectMorts	632				1	633
Total Sum of NumberCollected		209,084	15	16	53	310	209,478
Total Sum of NumberBarged		7,502	12	7	33	17	7,571
Total Sum of NumberBypassed		94,401	0	0	3	173	94,577
Total Sum of Numbertrucked		107,684	3	8	22	114	107,831
Total Sum of SampleMorts		73	0	1	0	2	76
Total Sum of FacilityMorts		636	0	0	0	2	638
Total Sum of ResearchMorts		0	0	0	0	0	0
Total Sum of TotalProjectMorts		709	0	1	0	4	714

YTD Transportation Summary

Source: Fish Passage Center Updated: 8/24/12 8:45 AM

TO: 08/24/12

		Species					
Site	Data	**CH0**	**CH1**	CO	SO	ST	**Grand Total**
LGR	Sum of NumberCollected	667,597	2,693,485	47,651	30,595	2,353,368	5,792,696
	Sum of NumberBarged	652,812	989,041	39,447	29,087	949,611	2,659,998
	Sum of NumberBypassed	11,455	1,702,758	8,165	1,428	1,403,472	3,127,278
	Sum of NumberTrucked	1,137	2	3	6	7	1,155
	Sum of SampleMorts	373	180	3	11	61	628
	Sum of FacilityMorts	1,820	1,429	33	63	182	3,527
	Sum of ResearchMorts	0	75	0	0	35	110
	Sum of TotalProjectMorts	2,193	1,684	36	74	278	4,265
LGS	Sum of NumberCollected	662,466	1,498,495	53,313	25,737	971,247	3,211,258
	Sum of NumberBarged	659,750	1,109,499	51,706	25,027	683,534	2,529,516
	Sum of NumberBypassed	121	388,249	1,601	691	287,507	678,169
	Sum of NumberTrucked	1,283	1	4	9	15	1,312
	Sum of SampleMorts	149	30	0	2	15	196
	Sum of FacilityMorts	749	716	2	6	173	1,646
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	898	746	2	8	188	1,842
LMN	Sum of NumberCollected	249,646	543,398	14,386	13,396	438,637	1,259,463
	Sum of NumberBarged	235,990	531,284	14,356	13,372	428,327	1,223,329
	Sum of NumberBypassed	12,941	11,582	19	13	9,827	34,382
	Sum of NumberTrucked	67	0	1	0	0	68
	Sum of SampleMorts	110	60	0	3	36	209
	Sum of FacilityMorts	538	472	10	8	150	1,178
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	648	532	10	11	186	1,387
MCN	Sum of NumberCollected	1,280,890	1,040,137	72,876	555,709	247,889	3,197,501
	Sum of NumberBarged	0	0	0	0	0	0
	Sum of NumberBypassed	1,174,739	1,039,959	72,876	555,534	247,862	3,090,970
	Sum of NumberTrucked	105,197	0	0	99	0	105,296
	Sum of SampleMorts	179	43	0	28	10	260
	Sum of FacilityMorts	775	135	0	48	17	975
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	954	178	0	76	27	1,235
Total Sum of NumberCollected		2,860,599	5,775,515	188,226	625,437	4,011,141	13,460,918
Total Sum of NumberBarged		1,548,552	2,629,824	105,509	67,486	2,061,472	6,412,843
Total Sum of NumberBypassed		1,199,256	3,142,548	82,661	557,666	1,948,668	6,930,799
Total Sum of NumberTrucked		107,684	3	8	114	22	107,831
Total Sum of SampleMorts		811	313	3	44	122	1,293
Total Sum of FacilityMorts		3,882	2,752	45	125	522	7,326
Total Sum of ResearchMorts		0	75	0	0	35	110
Total Sum of TotalProjectMorts		4,693	3,140	48	169	679	8,729

Cumulative Adult Passage at Mainstem Dams Through: 08/24

		Spring Chinook						Summer Chinook						Fall Chinook					
		2012		2011		10-Yr Avg.		2012		2011		10-Yr Avg.		2012		2011		10-Yr Avg.	
DAM	EndDate	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack
BON	08/23	158075	7591	167097	50945	152015	20110	81663	12235	108279	51451	92437	17241	20163	5164	26066	5551	21414	3560
TDA	08/23	117071	7173	124164	40146	112195	16495	69222	10392	81123	39845	79218	13523	10872	3086	15598	3810	10532	2062
JDA	08/23	107655	6755	103401	39823	94492	15370	60814	10415	75375	35544	72273	14191	6126	1782	8691	2964	6101	1735
MCN	08/23	102763	4787	101246	31750	86252	13687	64428	5104	74621	28165	68072	11090	5421	947	6698	1537	4251	840
IHR	08/23	71957	2905	69306	18161	60108	8392	14182	1481	26758	12378	18923	4410	1068	211	1786	198	725	107
LMN	08/23	68608	2891	69832	18094	58469	7193	15150	1611	31176	13730	19948	4267	848	229	1041	146	493	124
LGS	08/23	68247	3449	67321	23492	54053	8198	14748	1613	42211	18214	18393	5041	661	146	1025	89	336	39
LGR	08/23	66366	3525	59342	22063	54084	9639	13163	1717	36764	16425	17083	5652	249	62	606	91	199	53
PRD	08/21	19495	1015	15246	6030	16630	1325	50667	1994	50865	4223	58386	2526	2047	849	1949	427	1721	473
RIS	08/20	19881	800	13089	8394	14658	2236	52184	3343	44432	14299	54861	5446	896	353	619	401	542	155
RRH	08/20	6641	459	6989	3491	5643	822	45528	2775	38861	8131	42042	4317	339	99	205	170	189	59
WEL	08/22	5311	700	4153	3969	4833	817	37419	2977	28741	8015	30231	2310	0	0	0	0	0	0
WFA	08/18	35899	1314	43748	1399	50770	1108	-	-	-	-	-	-	7	3	40	2	21	5

	Coho						Sockeye			Steelhead					
	2012		2011		10-Yr Avg.				10-Yr			10-Yr	Wild 2012	Wild 2011	Wild 10-Yr
DAM	Adult	Jack	Adult	Jack	Adult	Jack	2012	2011	Avg.	2012	2011	Avg.			Avg.
BON	1066	203	5386	422	1895	224	515666	185788	130979	155455	254256	244054	61852	99322	84941
TDA	205	65	1114	251	244	64	410081	138290	109313	96081	171345	98620	41673	71587	39756
JDA	120	43	528	179	109	39	394121	143592	113821	60916	122669	75058	27886	53858	29572
MCN	11	2	54	25	6	2	364133	113933	93284	51376	92647	51314	20821	36412	19338
IHR	0	0	0	0	0	0	453	1139	390	9863	52483	28700	3252	16205	8292
LMN	0	0	0	0	0	0	486	1394	486	10321	43649	25056	4216	15376	8388
LGS	0	0	0	0	0	0	451	1435	467	7648	29611	16160	3965	11998	5870
LGR	0	0	0	0	0	0	453	1497	573	11491	29371	19720	5185	12633	6770
PRD	3	0	0	0	16	0	408249	145063	118724	6936	7116	6949	-	-	-
RIS	0	0	0	0	0	0	410498	146067	115741	5533	4956	5310	2708	2811	3040
RRH	0	0	0	0	0	0	363153	132048	94685	4519	3548	3881	2204	1997	2046
WEL	0	0	0	0	0	0	325914	111442	91971	2658	2009	2192	1268	1003	1142
WFA	10	22	51	109	11	18	-	-	-	28902	27352	27125	-	-	-

PRD and WFA do 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: 08/24/12

BON counts from January 1, 2012 to March 14, 2012 (historical counts begin March 15):

Year	Chinook Adult	Chinook Jack	Steelhead	Wild Steelhead
2012	12	1	1,471	497
2011	47	0	1,370	580