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Fish Passage Center

Weekly Report #17–29

October 6, 2017

The weekly reports will be published every other week; the next report will be October 20.

This Week's Highlights

Water Supply

Precipitation throughout the Columbia Basin has varied between 12% and 133% of average at individual sub-basins over October (Water Year 2018). Precipitation above The Dalles has been 48% of average over October. Over the complete 2017 Water Year, precipitation ranged between 97% and 132% of average.

Table 1. Summary of October precipitation (WY 2018) and cumulative WY 2017 October through September precipitation with respect to average (1971-2000), at select locations within the Columbia and Snake River Basins.

Location	Water Year 2018 October 1-5, 2017		Water Year 2017 October 1, 2016 to September 30, 2017	
	Observed (inches)	% Average	Observed (inches)	% Average
Columbia Above Coulee	0.21	41	39.2	103
Snake River Above Ice Harbor	0.21	81	26.7	118
Columbia Above The Dalles	0.17	48	29.8	108
Kootenai	0.20	39	39.6	104
Clark Fork	0.42	133	27.4	97
Flathead	0.49	114	39.9	109
Pend Oreille River Basin above Waneta Dam	0.38	98	35.0	105
Salmon River Basin	0.25	79	35.8	123
Upper Snake Tributaries	0.29	86	33.2	123
Clearwater	0.42	90	43.4	106
Willamette River above Portland	0.10	12	87.2	132

Grand Coulee Reservoir is at 1285.0 feet (10-5-17) and has drafted 0.9 feet over the last week. Outflows at Grand Coulee have ranged between 58.0 Kcfs and 80.1 Kcfs over the last week.

The Libby Reservoir is currently at elevation 2442.3 feet (10-5-17) and has drafted 0.3 feet over the past week. Daily average outflows at Libby Dam have been reduced from 6.0 to 4.2 Kcfs over the last week.

Hungry Horse is currently at an elevation of 3545.6 feet (10-5-17) and has drafted 1.0 feet last week. Outflows at Hungry Horse have been 2.4 Kcfs over the last week.

Dworshak is currently at an elevation of 1518.6 feet (10-5-17) and has drafted 0.8 feet over the last week. Dworshak outflows have been 1.8 Kcfs.

The Brownlee Reservoir was at an elevation of 2028.0 feet on October 5, 2017, and drafted 10.7 feet over the last week. Outflows at Hells Canyon have ranged between 19.0 and 25.5 Kcfs over the last four days.

Spill and Temperature

Although the voluntary spill season for the Snake and Middle Columbia rivers ended after August 31st, Lower Granite Dam continues to provide some spill during the construction activities to the juvenile bypass system. Spill at Lower Granite will be ~7.0 Kcfs during the daytime hours. This 7.0 Kcfs spill operation has occurred through the RSW (spillbay 1) since September 21st. Daily average temperatures in the Lower Granite tailrace have ranged between 62°F and 64°F over the last two weeks.

As of September 22nd, the forebay total dissolved gas (TDG) monitors at Lower Granite, Ice Harbor, McNary and Bonneville dams have all been removed for the year. However, the forebay temperature strings at Lower Granite, Ice Harbor, and McNary dams continue to collect data. The daily average temperatures at these three sites for October 5th (at the 3m string) were 63.2°F at Lower Granite, 63.8°F at Ice Harbor, and 63.3°F at McNary.

Smolt Monitoring

Sampling for the Smolt Monitoring Program (SMP) occurred at Bonneville and Little Goose dams this week. Sampling at Lower Granite Dam ended in early August this year in order to accommodate construction to the juvenile bypass and juvenile fish facilities. Sampling at Rock Island and John Day dams ended after the samples on August 31st and September 15th, respectively. Sampling at McNary and Lower Monumental dams ended at the end of September. This week's samples at Bonneville and Little Goose were dominated by subyearling Chinook. When compared to the previous week, passage of subyearling Chinook decreased at Bonneville Dam and stayed the same at Little Goose Dam. Very few spring migrants (i.e., yearling Chinook, coho, sockeye, and steelhead) were encountered in this week's samples.

This week's samples at Bonneville Dam (BON) were again dominated by subyearling Chinook. This week's daily average passage index for subyearling Chinook was about 70 per day. This is a decrease over the previous week's daily average passage index of about 140. No only spring migrants or lamprey juveniles were encountered in this week's samples at BON.

Similar to recent years, sampling at Little Goose Dam (LGS) was every-other-day until the start of transportation, at which time sampling went to every day. This week's samples at LGS were again dominated by subyearling Chinook. This week's daily average passage index for subyearling Chinook was about 75 per day, which is very similar to the previous week's daily average passage index of 80 per day. Passage of spring migrants remained low this week. Finally, Pacific lamprey ammocoetes were encountered in only one of this week's samples (Sept. 30th) and macropthalmia were encountered in six of this week's samples. This week's daily average collection for Pacific macropthalmia was 3 fish per day.

Hatchery Release

Effective 2017, the FPC has reorganized our hatchery release zones in an effort to more closely match the geographical regions used by NOAA in their ESU designations. The new river zones are: 1) Lower Columbia, 2) Middle Columbia, 3) Upper Columbia, and 4) Snake River. In addition, the FPC now provides a summary of hatchery releases below Bonneville Dam (i.e., Lower Columbia River Zone) in the weekly report.

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. No new releases were scheduled for this zone this week. The Nez Perce Tribe is scheduled to release approximately 250,000 spring Chinook into Lolo and Newsome creeks, tributaries of the Clearwater River, this month. These releases are currently scheduled to occur on or around October 10th. These pre-pre-smolts are not expected to out-migrate until spring of 2018.

Upper Columbia Zone: The Upper Columbia Zone encompasses the area of the Columbia River and its tributaries from Priest Rapids Dam to Chief Joseph Dam. No new releases were scheduled for this zone this week and no new releases are scheduled over the next two weeks.

Middle Columbia Zone: The Middle Columbia Zone is defined as the Columbia River and its tributaries from Bonneville Dam to Priest Rapids Dam (excluding the Snake River). No new releases were schedule for this zone this week and no new releases are scheduled over the next two weeks.

Lower Columbia Zone: The Lower Columbia Zone is defined as the Columbia River and its tributaries below Bonneville Dam. Sometime this month, the Lewis River Hatchery is scheduled to release approximately 400,000 spring Chinook pre-smolts into the Lewis River. These pre-smolts are not expected to out-migrate until the spring of 2018.

Adult Passage

The adult fall Chinook count of 298,522 is about 69.8% of the 2016 count of 427,338 and about 60.4% of the 10-year average count of 494,303. The 2017 Bonneville Dam fall Chinook jack count of 35,315 is about 68% of the 2016 count of 51,936 and 43.7% of the 10-year average count of 80,835. The 2017 adult fall Chinook count of 23,925 at Ice Harbor Dam in the Snake River is about 68% of the 2016 count and 63.6% of the 10-year average count of 37,642. The 2017 Lower Granite fall Chinook adult count of 22,169 is about 70.5% of the 2016 count and 69.7% of the 10-year average count of 31,785.

The 2017 Bonneville Dam adult steelhead count of 114,038 is about 63.2% of the 2016 count of 180,388 and 35.3% of the 10-year average count of 323,275. The 2017 Bonneville Dam adult unclipped steelhead count of 33,268 is about 66.5% of the 2016 count of 50,038 and 30.8% of the 10-year average count of 108,104. Daily adult steelhead counts at Lower Granite Dam ranged from 2,185 to 3,231 adults per day last week. This year's Lower Granite steelhead count of 43,924 is about 46.3% of the 2016 count of 56,416 and about 20% of the 10-year average count of 111,195. The 2017 Lower Granite Dam adult unclipped steelhead count of 9,694 is about 70.2% of the 2016 count of 13,806 and 32.1% of the 10-year average count of 30,196. At Willamette Falls, the 2017 count for steelhead was 2,789 as of October 4th. This year's steelhead count is about 10.2% of the 2016 count of 27,284 and 12.3% of the 10-year average count of 22,747.

As of October 5th, the cumulative adult coho count at Bonneville Dam is 52,089, which is about 1.7 times greater than the 2016 count but only 61.4% of the 10-year average count of 84,778. A total of 82,574 lampreys have been counted at Bonneville Dam so far this year. The Bonneville 2017 lamprey count is about 1.6 times greater than the 2016 count of 52,238 and 3.4 times greater than the 10-year average count of 24,203.

Hatchery Releases Last Two Weeks

Hatchery Release Summary

From: **9/23/2017** **to** **10/06/17**

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver	Zone
Washington Dept. of Fish and Wildlife	Lewis River Hatchery	CH0	SP	2018	400,000	10-01-17	11-01-17	Lewis River Hatchery	Lewis River	LCOL
Washington Dept. of Fish and Wildlife Total					**400,000**					
Grand Total					**400,000**					

Hatchery Releases Next Two Weeks

Hatchery Release Summary

From: **10/7/2017** **to** **10/20/2017**

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver	Zone
Nez Perce Tribe	Nez Perce Tribal Hatchery	CH0	SP	2018	90,000	10-10-17	10-12-17	Newsome Creek	S Fk Clearwater River	SNAK
Nez Perce Tribe	Nez Perce Tribal Hatchery	CH0	SP	2018	160,000	10-10-17	10-12-17	Lolo Creek	Clearwater River M F	SNAK
Nez Perce Tribe Total					**250,000**					
Grand Total					**250,000**					

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

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
09/22/2017	55.8	0.1	54.5	0.0	56.4	0.0	49.3	0.0	52.2	0.0	52.7	1.9	52.2	2.5
09/23/2017	58.4	0.1	55.3	0.0	61.8	0.0	56.6	0.1	61.0	0.0	48.6	1.9	45.7	2.6
09/24/2017	71.2	0.1	70.6	0.0	64.2	0.0	63.6	2.9	66.7	0.4	65.2	8.1	61.6	7.0
09/25/2017	71.0	0.1	73.2	0.0	79.2	0.0	76.3	0.4	80.9	0.0	83.8	3.4	81.7	7.8
09/26/2017	67.8	0.1	66.3	0.0	65.1	0.0	70.6	0.0	77.3	0.0	99.9	1.9	96.1	16.8
09/27/2017	72.8	0.1	71.6	0.0	71.1	0.0	64.1	0.0	68.1	0.0	74.2	1.9	76.4	2.8
09/28/2017	77.7	0.1	79.3	0.0	79.0	0.0	74.0	0.0	79.2	0.4	76.3	1.9	70.7	2.6
09/29/2017	63.7	0.1	58.9	0.0	70.6	0.0	71.6	0.0	77.6	0.0	82.0	1.9	77.2	2.8
09/30/2017	61.7	0.1	62.3	0.0	51.5	0.0	50.6	0.0	51.9	0.1	54.3	1.9	57.2	2.7
10/01/2017	58.0	0.0	59.3	0.0	65.2	0.0	62.7	0.0	66.6	0.0	64.7	1.9	61.4	2.6
10/02/2017	80.1	0.0	79.0	0.0	77.2	0.0	76.0	0.0	80.2	0.0	88.1	1.9	82.2	4.7
10/03/2017	65.5	0.0	64.4	0.0	67.4	0.0	71.9	0.0	77.4	0.1	80.9	1.9	77.0	3.9
10/04/2017	65.7	0.0	69.1	0.0	71.2	0.0	70.7	0.0	75.6	0.0	89.5	1.9	90.0	9.3
10/05/2017	66.0	0.0	67.4	0.0	67.1	0.0	61.0	0.0	66.5	0.0	90.3	1.9	90.2	2.0

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
09/22/2017	2.4	0.0	---	15.9	24.9	3.4	27.2	0.0	25.0	0.0	24.3	0.0
09/23/2017	1.8	0.0	---	16.0	26.7	3.5	20.1	0.0	22.1	0.0	22.3	0.0
09/24/2017	1.8	0.0	---	16.8	23.5	3.5	21.5	0.0	21.4	0.0	17.8	0.0
09/25/2017	1.8	0.0	---	18.2	23.5	3.5	22.4	0.0	22.9	0.0	23.5	0.0
09/26/2017	1.8	0.0	---	19.2	26.6	3.5	27.6	0.0	26.1	0.0	27.0	0.0
09/27/2017	1.8	0.0	---	21.5	26.2	3.5	26.1	0.0	26.1	0.0	26.8	0.0
09/28/2017	1.8	0.0	---	23.4	31.1	3.4	33.4	0.0	32.2	0.0	29.2	0.0
09/29/2017	1.8	0.0	---	21.8	30.2	3.3	31.9	0.0	35.5	0.0	34.9	0.0
09/30/2017	1.8	0.0	---	21.0	23.9	3.5	26.6	0.0	25.7	0.0	26.6	0.0
10/01/2017	1.8	0.0	---	21.3	29.2	3.5	31.3	0.0	30.8	0.0	30.7	0.0
10/02/2017	1.8	0.0	---	24.5	31.0	3.5	31.9	0.0	33.1	0.0	33.5	0.0
10/03/2017	1.8	0.0	---	21.9	33.7	3.5	34.5	0.0	36.4	0.0	34.2	0.0
10/04/2017	1.8	0.0	---	22.6	29.4	3.5	31.7	0.0	30.8	0.0	31.5	0.0
10/05/2017	1.8	0.0	---	21.4	29.6	3.5	31.1	0.0	34.0	0.0	35.1	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
09/22/2017	94.9	0.0	95.8	0.9	100.1	0.0	105.7	1.2	64.2	32.9
09/23/2017	72.1	0.0	73.0	0.8	78.5	0.0	86.0	1.2	50.3	27.1
09/24/2017	71.5	0.0	72.0	0.9	77.4	0.0	80.1	1.2	44.3	27.1
09/25/2017	91.5	0.0	85.4	0.9	86.0	0.0	83.6	1.2	48.2	26.8
09/26/2017	115.8	0.0	114.5	0.9	112.9	0.0	121.8	0.8	73.9	39.7
09/27/2017	116.3	0.0	115.7	0.9	115.0	0.0	120.3	1.2	74.7	36.9
09/28/2017	110.1	0.0	110.4	0.9	108.8	0.0	122.5	1.2	73.6	40.3
09/29/2017	114.3	0.0	112.2	0.9	111.9	0.0	121.0	1.2	79.0	33.3
09/30/2017	89.4	0.0	78.1	0.9	77.3	0.0	87.2	1.2	51.3	27.3
10/01/2017	92.6	0.0	79.4	0.9	81.4	0.0	84.3	1.2	48.7	27.0
10/02/2017	110.6	0.0	103.6	0.9	102.2	0.0	109.4	1.2	71.4	29.3
10/03/2017	113.5	0.0	103.2	0.9	105.4	0.0	113.7	1.2	76.3	28.7
10/04/2017	107.4	0.0	111.9	0.9	109.2	0.0	115.5	1.2	73.2	33.7
10/05/2017	129.1	0.0	111.2	0.8	113.5	0.0	123.6	1.1	72.1	43.0

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

Total Dissolved Gas Saturation Data at Upper Columbia River Sites

	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
9/22	---	---	---	0	---	---	---	0	100.9	101.0	101.2	24	100.8	101.6	102.9	24	100.7	100.9	101.4	24
9/23	---	---	---	0	---	---	---	0	100.7	100.8	101.0	24	101.1	101.6	102.0	24	100.7	100.9	101.1	24
9/24	---	---	---	0	---	---	---	0	100.4	100.7	101.0	24	101.0	101.4	101.6	24	100.6	100.7	100.9	24
9/25	---	---	---	0	---	---	---	0	100.6	100.8	101.1	24	100.6	101.0	101.5	24	100.7	101.0	101.4	24
9/26	---	---	---	0	---	---	---	0	100.5	100.9	102.3	24	101.1	102.2	105.9	24	100.9	101.3	101.7	24
9/27	---	---	---	0	---	---	---	0	100.6	100.7	100.8	24	100.9	101.6	103.5	24	101.3	101.6	101.9	24
9/28	---	---	---	0	---	---	---	0	101.0	101.5	101.9	24	101.3	102.1	104.6	24	101.8	102.2	102.4	24
9/29	---	---	---	0	---	---	---	0	101.7	101.8	101.9	24	101.8	102.5	103.0	24	102.0	102.3	103.0	24
9/30	---	---	---	0	---	---	---	0	101.2	101.3	101.5	24	101.9	102.3	102.7	24	102.0	102.3	102.6	24
10/1	---	---	---	0	---	---	---	0	101.2	101.3	101.5	24	101.7	102.3	102.9	24	101.6	101.9	102.7	24
10/2	---	---	---	0	---	---	---	0	100.7	100.8	101.1	24	100.3	100.8	101.2	24	100.6	101.0	101.3	24
10/3	---	---	---	0	---	---	---	0	100.1	100.3	100.4	24	99.6	100.2	101.2	24	99.5	100.0	100.3	24
10/4	---	---	---	0	---	---	---	0	100.4	100.5	100.7	24	99.8	100.3	100.8	24	100.1	100.5	100.8	24
10/5	---	---	---	0	---	---	---	0	100.5	100.7	101.0	23	99.8	100.1	100.5	23	100.2	100.6	101.0	23

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
9/22	100.9	101.3	102.3	24	100.2	100.8	101.1	24	100.9	101.4	102.0	24	100.2	100.4	100.5	24	98.9	99.5	99.9	23
9/23	100.9	101.3	102.0	24	100.5	100.9	101.4	23	101.1	101.6	102.3	23	100.3	100.5	100.9	23	98.8	99.8	100.4	23
9/24	100.5	100.8	101.3	24	100.1	100.4	100.8	24	100.6	101.1	101.6	24	100.4	100.7	101.1	23	101.2	102.2	107.3	20
9/25	100.6	101.0	101.4	24	100.0	100.3	100.5	24	100.6	101.0	101.6	24	100.8	100.9	101.1	23	100.3	100.5	102.3	21
9/26	100.8	101.3	101.9	24	99.5	100.0	100.3	24	100.4	100.9	101.5	24	100.6	100.7	100.8	24	100.0	100.4	102.4	23
9/27	100.5	101.0	101.4	24	99.9	100.8	101.4	24	100.7	101.4	102.2	24	100.8	101.1	101.5	22	99.5	100.3	100.7	18
9/28	101.2	101.6	102.1	24	100.8	101.7	102.0	24	101.6	102.3	103.0	24	101.2	101.6	101.8	24	100.4	101.2	101.4	23
9/29	101.4	101.8	102.6	24	101.5	101.6	101.9	20	102.2	102.7	103.3	20	101.6	101.7	101.8	24	100.8	101.3	101.6	21
9/30	101.6	102.1	102.8	24	---	---	---	0	---	---	---	0	101.3	101.4	101.5	24	99.1	99.7	100.8	24
10/1	101.1	101.7	102.7	24	---	---	---	0	---	---	---	0	101.0	101.2	101.3	24	99.1	99.6	100.3	24
10/2	100.1	100.6	100.9	24	99.9	100.0	100.4	14	100.3	100.4	101.1	14	100.6	100.8	100.8	23	99.8	100.1	100.5	21
10/3	99.0	99.5	100.2	24	98.9	99.1	99.3	24	99.6	100.1	100.8	24	99.8	100.0	100.1	24	99.6	99.9	100.4	23
10/4	99.2	99.2	99.8	7	99.1	99.5	99.9	24	99.8	100.4	101.1	24	100.0	100.0	100.1	23	99.8	100.1	100.3	22
10/5	---	---	---	0	98.9	99.5	99.7	23	99.6	100.2	100.8	23	100.0	100.3	100.5	23	99.6	99.7	100.3	19

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
9/22	99.9	100.2	100.7	22	99.4	100.0	100.7	18	97.8	99.6	100.7	24	98.7	99.5	100.1	24	96.2	97.2	98.5	24
9/23	99.8	100.2	100.7	23	99.6	100.0	100.5	21	98.8	100.3	101.3	24	99.1	99.9	100.4	24	96.3	97.0	97.9	24
9/24	100.2	100.7	102.3	21	100.2	100.7	102.0	18	97.8	100.0	101.3	24	101.8	104.7	117.6	24	97.7	98.8	99.7	24
9/25	100.3	100.6	101.5	22	100.4	100.6	101.5	20	99.8	100.2	100.5	24	100.3	101.0	106.1	24	100.9	102.6	105.5	24
9/26	100.1	100.5	100.8	23	100.1	100.4	100.8	22	99.9	100.4	100.8	24	100.0	100.3	100.6	24	100.1	100.5	101.0	24
9/27	100.3	100.6	100.9	23	100.2	100.8	101.1	20	100.1	100.7	101.3	24	100.0	100.5	100.9	24	99.4	100.0	100.4	24
9/28	100.7	101.3	101.9	24	101.4	101.7	102.8	20	101.2	102.5	104.3	24	100.5	101.4	101.8	24	98.6	100.2	100.9	24
9/29	100.9	101.1	101.6	22	101.4	101.5	102.0	21	101.5	102.0	102.4	24	101.0	101.5	101.8	24	99.9	100.5	101.5	24
9/30	100.3	100.6	100.9	24	100.7	101.0	101.5	23	98.6	99.6	99.8	24	99.2	99.7	100.1	24	98.5	99.3	100.2	24
10/1	99.8	99.9	100.3	24	100.3	100.4	100.8	23	99.2	99.4	99.7	24	99.0	99.4	99.9	24	98.1	98.5	99.7	24
10/2	99.8	99.9	100.1	21	100.0	100.1	100.1	21	99.3	99.6	100.1	24	99.3	99.7	100.1	24	97.9	98.9	99.4	24
10/3	99.4	99.9	100.1	23	99.7	99.9	100.1	23	98.7	99.4	99.7	24	98.9	99.6	100.1	24	98.1	98.8	99.5	24
10/4	99.7	99.9	100.1	23	99.8	100.0	100.1	20	98.9	99.9	101.1	24	99.4	99.8	100.2	24	99.1	100.1	101.0	24
10/5	99.5	99.7	99.9	21	99.9	100.0	100.4	15	99.4	100.1	100.9	24	99.2	99.8	100.2	24	100.2	101.0	101.8	24

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

Total Dissolved Gas Saturation Data at Lower Columbia 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
9/22	---	---	---	0	---	---	---	0	100.3	100.8	101.6	24	---	---	---	0	---	---	---	0
9/23	---	---	---	0	---	---	---	0	102.7	103.8	104.9	24	---	---	---	0	---	---	---	0
9/24	---	---	---	0	---	---	---	0	102.9	103.7	104.9	24	---	---	---	0	---	---	---	0
9/25	---	---	---	0	---	---	---	0	102.9	103.6	104.7	24	---	---	---	0	---	---	---	0
9/26	---	---	---	0	---	---	---	0	102.7	103.5	104.5	24	---	---	---	0	---	---	---	0
9/27	---	---	---	0	---	---	---	0	102.6	103.5	104.6	24	---	---	---	0	---	---	---	0
9/28	---	---	---	0	---	---	---	0	102.9	103.8	104.8	24	---	---	---	0	---	---	---	0
9/29	---	---	---	0	---	---	---	0	103.3	104.2	105.3	24	---	---	---	0	---	---	---	0
9/30	---	---	---	0	---	---	---	0	102.9	103.5	104.2	24	---	---	---	0	---	---	---	0
10/1	---	---	---	0	---	---	---	0	102.8	103.4	104.2	24	---	---	---	0	---	---	---	0
10/2	---	---	---	0	---	---	---	0	102.6	103.2	103.9	24	---	---	---	0	---	---	---	0
10/3	---	---	---	0	---	---	---	0	102.3	102.9	103.9	24	---	---	---	0	---	---	---	0
10/4	---	---	---	0	---	---	---	0	102.2	102.6	103.3	24	---	---	---	0	---	---	---	0
10/5	---	---	---	0	---	---	---	0	102.8	103.6	104.2	23	---	---	---	0	---	---	---	0

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
9/22	---	---	---	0	---	---	---	0	104.0	109.3	110.8	24	---	---	---	0	93.9	96.6	98.0	22
9/23	---	---	---	0	---	---	---	0	104.1	109.8	111.6	24	---	---	---	0	96.6	96.8	97.0	24
9/24	---	---	---	0	---	---	---	0	104.0	109.9	111.0	24	---	---	---	0	96.7	97.0	97.3	24
9/25	---	---	---	0	---	---	---	0	104.1	110.0	111.2	24	---	---	---	0	96.3	96.7	97.0	24
9/26	---	---	---	0	---	---	---	0	103.4	109.0	111.2	24	---	---	---	0	96.0	96.4	96.6	24
9/27	---	---	---	0	---	---	---	0	103.7	109.4	111.3	24	---	---	---	0	97.1	97.5	97.7	24
9/28	---	---	---	0	---	---	---	0	103.4	107.6	108.6	24	---	---	---	0	99.3	100.3	100.9	24
9/29	---	---	---	0	---	---	---	0	104.2	108.6	109.7	24	---	---	---	0	100.7	101.3	101.5	24
9/30	---	---	---	0	---	---	---	0	105.2	110.2	111.8	24	---	---	---	0	101.6	101.8	102.1	24
10/1	---	---	---	0	---	---	---	0	104.5	108.7	110.8	24	---	---	---	0	100.7	100.8	101.0	24
10/2	---	---	---	0	---	---	---	0	104.1	108.6	109.5	24	---	---	---	0	100.2	100.5	100.7	24
10/3	---	---	---	0	---	---	---	0	103.5	107.9	108.4	24	---	---	---	0	99.6	99.9	100.2	24
10/4	---	---	---	0	---	---	---	0	104.0	108.3	109.8	24	---	---	---	0	99.9	100.3	100.9	24
10/5	---	---	---	0	---	---	---	0	103.5	107.7	108.5	23	---	---	---	0	99.5	99.7	100.0	23

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
9/22	---	---	---	0	97.6	97.8	97.9	24	---	---	---	0	99.1	99.5	99.7	24	---	---	---	0
9/23	---	---	---	0	97.1	97.2	97.4	24	---	---	---	0	98.9	99.4	99.7	24	---	---	---	0
9/24	---	---	---	0	96.6	96.7	96.9	24	---	---	---	0	98.8	99.4	100.4	24	---	---	---	0
9/25	---	---	---	0	96.5	96.7	96.8	24	---	---	---	0	98.7	99.4	100.0	24	---	---	---	0
9/26	---	---	---	0	96.2	96.5	96.7	24	---	---	---	0	98.8	99.4	100.1	24	---	---	---	0
9/27	---	---	---	0	97.1	97.7	98.0	24	---	---	---	0	99.4	100.3	101.2	24	---	---	---	0
9/28	---	---	---	0	98.0	98.7	99.0	24	---	---	---	0	99.4	100.0	100.4	24	---	---	---	0
9/29	---	---	---	0	98.9	99.7	100.9	24	---	---	---	0	99.1	99.7	100.4	24	---	---	---	0
9/30	---	---	---	0	96.8	97.2	97.4	24	---	---	---	0	98.2	98.8	99.7	24	---	---	---	0
10/1	---	---	---	0	96.7	96.9	97.0	24	---	---	---	0	98.9	100.1	106.1	24	---	---	---	0
10/2	---	---	---	0	96.5	96.7	96.9	24	---	---	---	0	97.9	98.3	98.6	24	---	---	---	0
10/3	---	---	---	0	96.9	97.4	97.5	24	---	---	---	0	97.6	97.9	98.4	24	---	---	---	0
10/4	---	---	---	0	97.7	98.0	98.2	24	---	---	---	0	97.5	98.1	98.7	24	---	---	---	0
10/5	---	---	---	0	98.4	98.8	99.1	23	---	---	---	0	97.1	97.4	97.9	23	---	---	---	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
9/22	---	---	---	0	99.0	99.4	100.0	24	99.2	99.3	99.6	24	99.9	100.0	100.1	24	99.3	99.7	99.9	24
9/23	---	---	---	0	98.4	98.8	99.5	24	99.0	99.2	99.5	24	100.0	100.1	100.3	24	99.5	99.7	99.9	24
9/24	---	---	---	0	98.0	98.4	98.7	24	98.6	98.8	98.9	24	99.9	100.0	100.1	24	99.8	100.1	100.3	24
9/25	---	---	---	0	98.9	99.3	99.6	24	98.5	98.7	98.9	24	99.6	99.7	100.0	24	100.0	100.2	100.3	24
9/26	---	---	---	0	99.8	100.4	101.2	24	98.1	98.3	98.4	24	99.1	99.3	99.5	24	99.2	99.4	99.6	24
9/27	---	---	---	0	101.0	101.5	101.7	24	98.1	98.1	98.8	16	99.1	99.4	99.6	24	98.7	98.7	99.3	13
9/28	---	---	---	0	101.0	101.5	102.2	24	---	---	---	0	99.7	100.1	100.4	24	---	---	---	0
9/29	---	---	---	0	101.1	101.4	101.6	24	---	---	---	0	99.9	100.0	100.1	24	---	---	---	0
9/30	---	---	---	0	99.8	100.4	100.9	24	---	---	---	0	99.4	99.6	99.7	24	---	---	---	0
10/1	---	---	---	0	100.4	100.9	101.4	24	---	---	---	0	99.4	99.6	99.7	24	---	---	---	0
10/2	---	---	---	0	100.2	100.5	101.0	24	---	---	---	0	98.9	99.1	99.3	24	---	---	---	0
10/3	---	---	---	0	98.8	99.1	99.3	24	---	---	---	0	98.5	98.8	99.0	24	---	---	---	0
10/4	---	---	---	0	98.3	98.5	98.8	24	---	---	---	0	98.8	99.0	99.2	24	---	---	---	0
10/5	---	---	---	0	98.4	98.7	99.0	23	---	---	---	0	98.7	98.9	99.1	23	---	---	---	0

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
9/22	99.0	99.5	99.9	24	98.7	98.7	99.2	13	102.3	102.7	103.1	24	---	---	---	0	108.5	108.5	109.3	10
9/23	99.6	100.3	100.8	24	---	---	---	0	102.5	103.4	103.9	24	---	---	---	0	---	---	---	0
9/24	100.0	101.0	101.7	24	---	---	---	0	101.5	102.7	104.1	24	---	---	---	0	---	---	---	0
9/25	100.2	100.8	101.4	24	---	---	---	0	98.7	101.5	102.7	24	---	---	---	0	---	---	---	0
9/26	99.4	99.7	99.9	24	---	---	---	0	97.2	99.0	99.9	24	---	---	---	0	---	---	---	0
9/27	99.4	100.3	100.7	24	---	---	---	0	103.2	103.9	104.5	24	---	---	---	0	---	---	---	0
9/28	100.1	100.6	100.8	24	---	---	---	0	103.8	104.3	104.7	24	---	---	---	0	---	---	---	0
9/29	100.0	100.2	100.4	24	---	---	---	0	103.0	103.4	103.8	24	---	---	---	0	---	---	---	0
9/30	100.1	100.6	101.0	24	---	---	---	0	102.6	102.8	103.3	24	---	---	---	0	---	---	---	0
10/1	100.2	100.5	100.8	24	---	---	---	0	102.3	102.5	103.0	24	---	---	---	0	---	---	---	0
10/2	99.8	100.0	100.2	24	---	---	---	0	102.5	102.8	103.0	24	---	---	---	0	---	---	---	0
10/3	99.2	99.4	99.7	24	---	---	---	0	101.8	102.2	102.6	24	---	---	---	0	---	---	---	0
10/4	99.1	99.3	99.7	24	---	---	---	0	102.6	103.2	103.8	24	---	---	---	0	---	---	---	0
10/5	99.1	99.5	99.8	23	---	---	---	0	102.7	103.4	104.1	23	---	---	---	0	---	---	---	0

Two-Week Summary of Passage Indices

Source: Fish Passage Center Updated: 10/6/2017 10:20

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)
09/22/2017		---	---	---	---	---	0	0	---	0	---	0
09/23/2017		---	---	---	---	---	0	0	---	---	---	0
09/24/2017		---	---	---	---	---	0	0	---	0	---	0
09/25/2017		---	---	---	---	---	0	0	---	---	---	0
09/26/2017		---	---	---	---	---	0	0	---	0	---	0
09/27/2017		---	---	---	---	---	0	0	---	---	---	0
09/28/2017		---	---	---	---	---	0	0	---	0	---	0
09/29/2017		---	---	---	---	---	0	0	---	---	---	0
09/30/2017		---	---	---	---	---	0	0	---	0	---	0
10/01/2017	*	---	---	---	---	---	0	0	---	---	---	0
10/02/2017		---	---	---	---	---	0	---	---	---	---	0
10/03/2017		---	---	---	---	---	0	---	---	---	---	0
10/04/2017		---	---	---	---	---	0	---	---	---	---	0
10/05/2017		---	---	---	---	---	0	---	---	---	---	0
10/06/2017		---	---	---	---	---	---	---	---	---	---	---
Total:		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
# Days:		**0**	**0**	**0**	**0**	**0**	**14**	**10**	**0**	**5**	**0**	**14**
Average:		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
YTD		**33,704**	**22,233**	**21,106**	**8**	**3,998,337**	**2,400,545**	**2,885,797**	**50,596**	**1,583,272**	**1,720,241**	**1,947,910**

				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)
09/22/2017		---	---	---	---	---	44	8	---	60	---	148
09/23/2017		---	---	---	---	---	20	9	---	---	---	211
09/24/2017		---	---	---	---	---	55	2	---	68	---	23
09/25/2017		---	---	---	---	---	221	2	---	---	---	31
09/26/2017		---	---	---	---	---	101	3	---	36	---	49
09/27/2017		---	---	---	---	---	47	2	---	---	---	116
09/28/2017		---	---	---	---	---	134	5	---	40	---	383
09/29/2017		---	---	---	---	---	110	1	---	---	---	160
09/30/2017		---	---	---	---	---	128	4	---	40	---	64
10/01/2017	*	---	---	---	---	---	67	7	---	---	---	27
10/02/2017		---	---	---	---	---	64	---	---	---	---	34
10/03/2017		---	---	---	---	---	42	---	---	---	---	0
10/04/2017		---	---	---	---	---	56	---	---	---	---	52
10/05/2017		---	---	---	---	---	62	---	---	---	---	148
10/06/2017		---	---	---	---	---	---	---	---	---	---	---
Total:		**0**	**0**	**0**	**0**	**0**	**1,151**	**43**	**0**	**244**	**0**	**1,446**
# Days:		**0**	**0**	**0**	**0**	**0**	**14**	**10**	**0**	**5**	**0**	**14**
Average:		**0**	**0**	**0**	**0**	**0**	**82**	**4**	**0**	**49**	**0**	**103**
YTD		**0**	**11**	**40**	**0**	**1,020,549**	**1,067,265**	**655,488**	**74,306**	**2,476,636**	**1,067,668**	**4,049,322**

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)
09/22/2017		---	---	---	---	---	0	0	---	0	---	0
09/23/2017		---	---	---	---	---	0	0	---	---	---	0
09/24/2017		---	---	---	---	---	0	0	---	0	---	0
09/25/2017		---	---	---	---	---	0	0	---	---	---	0
09/26/2017		---	---	---	---	---	0	0	---	0	---	0
09/27/2017		---	---	---	---	---	0	0	---	---	---	0
09/28/2017		---	---	---	---	---	0	0	---	0	---	0
09/29/2017		---	---	---	---	---	0	0	---	---	---	0
09/30/2017		---	---	---	---	---	0	0	---	0	---	0
10/01/2017	*	---	---	---	---	---	0	0	---	---	---	0
10/02/2017		---	---	---	---	---	0	---	---	---	---	0
10/03/2017		---	---	---	---	---	0	---	---	---	---	0
10/04/2017		---	---	---	---	---	0	---	---	---	---	0
10/05/2017		---	---	---	---	---	0	---	---	---	---	0
10/06/2017		---	---	---	---	---	---	---	---	---	---	---
Total:		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
# Days:		**0**	**0**	**0**	**0**	**0**	**14**	**10**	**0**	**5**	**0**	**14**
Average:		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
YTD		**0**	**0**	**2,232**	**0**	**128,502**	**86,636**	**69,601**	**35,300**	**86,630**	**96,620**	**356,050**

				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)
09/22/2017		---	---	---	---	---	0	0	---	0	---	0
09/23/2017		---	---	---	---	---	0	0	---	---	---	0
09/24/2017		---	---	---	---	---	0	0	---	0	---	0
09/25/2017		---	---	---	---	---	0	0	---	---	---	0
09/26/2017		---	---	---	---	---	0	0	---	0	---	0
09/27/2017		---	---	---	---	---	0	0	---	---	---	0
09/28/2017		---	---	---	---	---	0	0	---	0	---	0
09/29/2017		---	---	---	---	---	0	0	---	---	---	0
09/30/2017		---	---	---	---	---	0	0	---	0	---	0
10/01/2017	*	---	---	---	---	---	0	0	---	---	---	0
10/02/2017		---	---	---	---	---	1	---	---	---	---	0
10/03/2017		---	---	---	---	---	0	---	---	---	---	0
10/04/2017		---	---	---	---	---	0	---	---	---	---	0
10/05/2017		---	---	---	---	---	0	---	---	---	---	0
10/06/2017		---	---	---	---	---	---	---	---	---	---	---
Total:		**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**
# Days:		**0**	**0**	**0**	**0**	**0**	**14**	**10**	**0**	**5**	**0**	**14**
Average:		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
YTD		**7,117**	**15,916**	**7,614**	**1**	**4,065,200**	**1,853,173**	**2,517,521**	**32,136**	**442,841**	**1,317,075**	**264,534**

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)
09/22/2017		---	---	---	---	---	1	0	---	0	---	0
09/23/2017		---	---	---	---	---	0	0	---	---	---	0
09/24/2017		---	---	---	---	---	3	0	---	0	---	0
09/25/2017		---	---	---	---	---	1	0	---	---	---	0
09/26/2017		---	---	---	---	---	1	0	---	0	---	0
09/27/2017		---	---	---	---	---	1	0	---	---	---	0
09/28/2017		---	---	---	---	---	1	0	---	4	---	0
09/29/2017		---	---	---	---	---	1	0	---	---	---	0
09/30/2017		---	---	---	---	---	1	0	---	0	---	0
10/01/2017	*	---	---	---	---	---	0	0	---	---	---	0
10/02/2017		---	---	---	---	---	0	---	---	---	---	0
10/03/2017		---	---	---	---	---	1	---	---	---	---	0
10/04/2017		---	---	---	---	---	1	---	---	---	---	0
10/05/2017		---	---	---	---	---	2	---	---	---	---	0
10/06/2017		---	---	---	---	---	---	---	---	---	---	---
Total:		**0**	**0**	**0**	**0**	**0**	**14**	**0**	**0**	**4**	**0**	**0**
# Days:		**0**	**0**	**0**	**0**	**0**	**14**	**10**	**0**	**5**	**0**	**14**
Average:		**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**0**
YTD		**6**	**0**	**0**	**0**	**61,191**	**24,490**	**34,028**	**11,197**	**156,404**	**117,049**	**145,288**

				COMBINED LAMPREY JUVENILES								
		WTB	IMN	GRN	LEW	LGR†	LGS	LMN	RIS	MCN	JDA	BO2
Date		(Coll)	(Coll)	(Coll)	(Coll)	(Samp)	(Coll)	(Coll)	(Coll)	(Coll)	(Coll)	(Coll)
09/22/2017		---	---	---	---	---	0	0	---	20	---	0
09/23/2017		---	---	---	---	---	1	0	---	---	---	4
09/24/2017		---	---	---	---	---	1	0	---	8	---	0
09/25/2017		---	---	---	---	---	0	0	---	---	---	0
09/26/2017		---	---	---	---	---	0	0	---	12	---	0
09/27/2017		---	---	---	---	---	2	0	---	---	---	0
09/28/2017		---	---	---	---	---	7	0	---	8	---	0
09/29/2017		---	---	---	---	---	6	0	---	---	---	0
09/30/2017		---	---	---	---	---	4	0	---	8	---	0
10/01/2017	*	---	---	---	---	---	3	0	---	---	---	0
10/02/2017		---	---	---	---	---	1	---	---	---	---	0
10/03/2017		---	---	---	---	---	0	---	---	---	---	0
10/04/2017		---	---	---	---	---	3	---	---	---	---	0
10/05/2017		---	---	---	---	---	4	---	---	---	---	0
10/06/2017		---	---	---	---	---	---	---	---	---	---	---
Total:		**0**	**0**	**0**	**0**	**0**	**32**	**0**	**0**	**56**	**0**	**4**
# Days:		**0**	**0**	**0**	**0**	**0**	**14**	**10**	**0**	**5**	**0**	**14**
Average:		**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**11**	**0**	**0**
YTD		**0**	**3**	**4**	**0**	**287**	**7,521**	**2,985**	**63**	**33,257**	**62,484**	**42,224**

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.
Three classes of fish counts are shown in these tables:
Sample counts (Samp) are provided for juvenile lamprey at LGR. See note below for details †.
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.
† In 2013 it was confirmed that juvenile lamprey can escape the sample tank at LGR which would lead to unreliable estimates of collection. Therefore, only sample counts are provided in this report.

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.
Fall (post SMP season) trapping at the Imnaha River Fish Trap (IMN) is funded by the Lower Snake River Compensation Program (LSRCP)
WTB and LEW data collected for the FPC by Idaho Dept. of Fish and Game.

Two Week Transportation Summary

Source: Fish Passage Center Updated: 10/6/17 10:21 AM

09/22/17 TO 10/06/17

		Species			
Site	Data	**CH0**	ST	SO	**Grand Total**
LGS	Sum of NumberCollected	1,151	1	14	1,166
	Sum of NumberBarged	0	0	0	0
	Sum of NumberBypassed	1	0	0	1
	Sum of Numbertrucked	1,138	1	11	1,150
	Sum of SampleMorts	10	0	1	11
	Sum of FacilityMorts	2	0	2	4
	Sum of ResearchMorts	0	0	0	0
	Sum of TotalProjectMorts	12	0	3	15
LMN	Sum of NumberCollected	43			43
	Sum of NumberBarged	0			0
	Sum of NumberBypassed	0			0
	Sum of Numbertrucked	41			41
	Sum of SampleMorts	1			1
	Sum of FacilityMorts	1			1
	Sum of ResearchMorts	0			0
	Sum of TotalProjectMorts	2			2
Total Sum of NumberCollected		1,194	1	14	1,209
Total Sum of NumberBarged		0	0	0	0
Total Sum of NumberBypassed		1	0	0	1
Total Sum of Numbertrucked		1,179	1	11	1,191
Total Sum of SampleMorts		11	0	1	12
Total Sum of FacilityMorts		3	0	2	5
Total Sum of ResearchMorts		0	0	0	0
Total Sum of TotalProjectMorts		14	0	3	17

YTD Transportation Summary

Source: Fish Passage Center Updated: 10/6/17 10:21 AM

TO: 10/06/17

		Species					
Site	Data	**CH0**	**CH1**	CO	SO	ST	**Grand Total**
LGR	Sum of NumberCollected	628,393	2,362,698	74,225	35,589	2,329,514	5,430,419
	Sum of NumberBarged	601,027	978,688	63,247	19,699	949,358	2,612,019
	Sum of NumberBypassed	21,922	1,381,285	10,900	15,670	1,379,888	2,809,665
	Sum of NumberTrucked	0	0	0	0	0	0
	Sum of SampleMorts	252	90	5	11	53	411
	Sum of FacilityMorts	5,180	2,609	73	209	193	8,264
	Sum of ResearchMorts	12	26	0	0	22	60
	Sum of TotalProjectMorts	5,444	2,725	78	220	268	8,735
LGS	Sum of NumberCollected	620,018	1,337,946	43,198	13,745	1,065,072	3,079,979
	Sum of NumberBarged	595,712	495,706	39,956	10,029	313,270	1,454,673
	Sum of NumberBypassed	18,450	837,161	3,201	3,321	751,541	1,613,674
	Sum of NumberTrucked	2,952	0	0	13	7	2,972
	Sum of SampleMorts	177	29	1	13	10	230
	Sum of FacilityMorts	2,727	5,050	40	369	244	8,430
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	2,904	5,079	41	382	254	8,660
LMN	Sum of NumberCollected	330,615	1,459,195	33,440	17,200	1,293,668	3,134,118
	Sum of NumberBarged	339,179	931,886	32,959	12,568	710,514	2,027,106
	Sum of NumberBypassed	5,667	489,563	800	4,597	560,086	1,060,713
	Sum of NumberTrucked	329	3	0	0	3	335
	Sum of SampleMorts	52	37	2	5	31	127
	Sum of FacilityMorts	309	1,089	39	120	387	1,944
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	361	1,126	41	125	418	2,071
Total Sum of NumberCollected		1,579,026	5,159,839	150,863	66,534	4,688,254	11,644,516
Total Sum of NumberBarged		1,535,918	2,406,280	136,162	42,296	1,973,142	6,093,798
Total Sum of NumberBypassed		46,039	2,708,009	14,901	23,588	2,691,515	5,484,052
Total Sum of NumberTrucked		3,281	3	0	13	10	3,307
Total Sum of SampleMorts		481	156	8	29	94	768
Total Sum of FacilityMorts		8,216	8,748	152	698	824	18,638
Total Sum of ResearchMorts		12	26	0	0	22	60
Total Sum of TotalProjectMorts		8,709	8,930	160	727	940	19,466

Cumulative Adult Passage at Mainstem Dams Through: 10/05

		Spring Chinook						Summer Chinook						Fall Chinook					
		2017		2016		10-Yr Avg.		2017		2016		10-Yr Avg.		2017		2016		10-Yr Avg.	
dam	enddate	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack
BON	10/05	83624	18110	137215	11145	150783	25708	88044	10648	119591	10834	97732	22097	298522	35315	427338	51936	494303	80835
TDA	10/05	58308	12497	105504	9999	118766	22002	69246	9277	95764	8800	81626	17772	192349	25192	300419	48298	302422	66055
JDA	10/05	46675	12475	93659	8262	103450	20515	60416	7363	90259	7715	73088	17197	143871	18660	254399	36695	237450	56580
MCN	10/05	44292	7020	87191	7374	93925	16835	56982	4616	83894	6501	69220	12937	124030	9851	223840	22678	212453	38254
IHR	10/05	28306	6949	67484	5029	68114	11248	9284	2087	13980	1538	18950	4865	23925	4157	35221	11638	37642	15807
LMN	10/05	28545	8270	66115	6266	68087	10905	8216	3388	12460	2344	19984	5812	23122	5467	31749	13680	33508	17366
LGS	10/05	26598	8335	62597	6365	63765	12007	9086	3754	12480	1919	19272	6335	22214	3564	31878	9712	32793	13284
LGR	10/05	27357	8256	62050	5480	62403	13092	8952	3627	12110	2113	17232	6836	22169	4911	31449	9874	31785	14867
PRD	10/03	7268	783	16843	1003	17901	1826	52981	1760	80288	5126	57783	3021	20503	1593	32540	2618	52359	6761
WAN	10/03	6612	484	17164	919	17602	2161	49392	1355	79255	4110	55377	2415	10545	980	18823	1714	22388	4128
RIS	10/04	8080	564	18646	715	18006	2748	56265	1333	79253	3434	56857	5479	8759	986	11170	1711	11928	3829
RRH	10/04	5864	406	9449	351	7849	1209	42608	1060	58559	2827	45767	3863	6594	806	8412	1253	9022	2655
WEL	10/04	6589	820	11789	833	8215	1601	30101	1102	44646	2492	36069	3814	2131	320	3423	517	3647	1188
WFA	10/04	34186	2442	30317	2161	34636	1490	0	0	0	0	0	0	1439	259	900	207	1306	367

		Coho						Sockeye			Steelhead						Lamprey		
		2017		2016		10-Yr Avg.				10-Yr			10-Yr	Unclipped	Unclipped	10-Yr			10-Yr
DAM	ENDDATE	Adult	Jack	Adult	Jack	Adult	Jack	2017	2016	Avg.	2017	2016	Avg.	2017	2016	Avg.	2017	2016	Avg.
BON	10/05	52089	3350	30124	4366	84778	5571	87693	342495	315613	114038	180388	323275	33268	50038	108104	82547	52238	24203
TDA	10/05	28974	2776	17708	1721	38534	3749	64054	288397	269194	88217	131015	250699	23187	35223	81997	30692	11546	6951
JDA	10/05	24475	4419	13252	2216	30578	3541	66033	289976	260571	71318	111657	221150	20588	30966	71624	23361	9726	5660
MCN	10/05	16636	1046	8940	955	20841	2864	58015	261695	226465	66026	98009	187260	18001	25667	56561	2542	1598	1433
IHR	10/05	4077	349	1397	122	2800	261	392	898	922	46738	72362	137472	10046	16261	34289	1415	873	355
LMN	10/05	4445	720	1943	358	2600	450	346	1024	1091	47990	67828	133281	10307	15595	35457	408	240	93
LGS	10/05	4078	754	1072	344	2525	453	288	961	1025	40734	59774	114812	8482	14282	29718	480	190	42
LGR	10/05	3223	171	1329	166	2115	199	228	815	1062	43924	56416	111195	9694	13806	30196	347	107	16
PRD	10/03	5793	480	1268	164	5509	505	66670	311072	266838	5016	5917	17691	0	0	0	25852	7999	4968
WAN	10/03	3025	222	892	82	2003	234	76075	322458	235861	4085	5323	16603	0	0	0	27713	9120	3408
RIS	10/04	5060	31	1230	80	6205	410	73217	310334	259142	4512	6304	15688	2127	2288	6513	21056	3643	1453
RRH	10/04	1396	14	179	16	1426	100	46697	235921	218240	3261	4968	11989	1369	1682	4659	23834	3413	1344
WEL	10/04	490	5	159	9	676	3	42295	216031	207518	2549	3782	8903	1241	1403	3568	278	7	0
WFA	10/04	524	894	1855	1606	7281	2146	0	0	0	2789	27284	22747	0	0	0	0	0	0

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: 10/06/17