



Fish Passage Center

Weekly Report #18–20

October 5, 2018

Starting September 7, the weekly reports will be published every other week; the next report will be October 19.

This Week's Highlights

Water Supply

Precipitation throughout the Columbia Basin has varied between 6% and 397% of average at individual sub-basins over the first few days of October (Water Year 2019). Precipitation above The Dalles has been 146% of average over October. Over the 2018 water year, precipitation ranged between 84% and 103% of average.

Table 1. Summary of October precipitation and cumulative October through September precipitation with respect to average (1981-2010), at select locations within the Columbia and Snake River Basins.

Location	Water Year 2019 October 1-3, 2018		Water Year 2018 October 1, 2017 to September 30, 2018	
	Observed (inches)	% Average	Observed (inches)	% Average
Columbia Above Coulee	0.8	249	35.8	94
Snake River Above Ice Harbor	0.1	79	19.5	85
Columbia Above The Dalles	0.3	146	24.4	89
Kootenai	1.0	317	34.9	91
Clark Fork	0.4	190	28.4	100
Flathead	1.0	397	35.0	96
Pend Oreille River Basin above Waneta Dam	0.6	252	31.7	96
Salmon River Basin	0.1	50	26.1	90
Upper Snake Tributaries	0.3	173	23.9	88
Clearwater	0.4	154	42.6	103
Willamette River above Portland	0.0	6	55.1	84

Grand Coulee Reservoir is at 1283.8 feet (10-4-18) and has held steady over the last week. Outflows at Grand Coulee have ranged between 48.2 Kcfs and 70.6 Kcfs over the last week.

The Libby Reservoir is currently at elevation 2441.8 feet (10-4-18) and has held steady over the past week. Daily average outflows at Libby Dam have been 4-6 Kcfs over the last week.

Hungry Horse is currently at an elevation of 3548.8 feet (10-4-18) and has drafted 1.0 feet last week. Outflows at Hungry Horse have been 2.2-2.4 Kcfs over the last week.

Dworshak is currently at an elevation of 1518.9 feet (10-4-18) and has drafted 0.8 feet last week. Dworshak outflows have been 1.6 Kcfs.

The Brownlee Reservoir was at an elevation of 2040.0 feet on October 4th, 2018 and has drafted 0.4 feet. Outflows at Hells Canyon have ranged between 9.1 and 19.0 Kcfs over the last four days.

Temperature

With the termination of the voluntary spill program, the total dissolved gas (TDG) monitors in the forebays of most FCRPS projects have been removed for the year. Therefore, temperature data from many of these monitors are no longer available. However, the forebay temperature strings at Lower Granite and McNary continue to collect and report data. Herein, we report the daily average temperatures for these two projects from the forebay temperature strings located at the 3 meter depth. The daily average temperatures at these two sites on October 4th (at the 3 m depth) were 62.6 °F at Lower Granite and 63.2 °F at McNary. The forebay TDG monitor at Bonneville is no longer in operation and there is not a temperature string at this project. The daily average temperature on October 4th was 63.4 °F in the Bonneville tailrace (at the Warrendale TDG monitor).

Smolt Monitoring

Smolt Monitoring Program (SMP) activities continued at most FCRPS bypass facilities this week. Sampling at McNary Dam ended after sample on September 30th and sampling at Lower Monumental Dam ended after the sample on October 1st. This week's samples were dominated by subyearling Chinook at all three FCRPS bypass facilities that are continuing to sample.

This week's samples at Bonneville Dam (BON) were dominated by subyearling Chinook. This week's daily average passage index for subyearling Chinook was about 80 per day, which is a decrease from the previous week's daily average passage index of about 220 per day. No spring migrants were encountered in this week's samples. Furthermore, no lamprey juveniles were encountered this week.

Sampling at McNary Dam (MCN) ended after the sample on September 30th. The only salmonids that were encountered in the samples from the final week (Sept. 24-30) of sampling were subyearling Chinook, and in very low numbers. No lamprey juveniles were encountered in the final week of sampling at MCN.

Since the transition from barging to trucking, samples from Lower Granite Dam (LGR) may be held for up to 48-hours before being enumerated. Therefore, data from LGR may be delayed for 1-2 days over the remainder of the season. To date, the FPC has data from LGR through the sample on October 3rd. Subyearling Chinook continued to dominate the samples at LGR this week. This week's daily average passage index for subyearling Chinook was about 20 per day, which is a slight decrease from the previous week's daily average passage index of about 30 per day. Very few spring migrants were encountered in this week's samples. Pacific lamprey macrophthalmia were encountered in two of this week's samples while no ammocoetes were encountered this week.

Due to increased mortalities and incidences of *Columnaris* in September, the bypass system at Little Goose Dam (LGS) was switched to primary bypass on September 15th. Since this time, LGS has been operating under a reduced sampling protocol, where a 24-hour sample is conducted every third day, instead of every day. In addition, all fish collected in this sample are bypassed to the river, instead of being transported

from LGS. The most recent sample was conducted on October 3rd. There were 41 total subyearling Chinook in that sample, with 0% mortality. The next condition sample will occur on Saturday, October 6th. Pacific lamprey macrophthalmia were also encountered in the most recent condition sample. The total collection for pacific macrophthalmia from that sample was eight.

Sampling at Lower Monumental Dam (LMN) ended after the sample on October 1st. Subyearling Chinook dominated the samples at LMN over the last week (Sept. 25-Oct. 1) of sampling. However, daily passage indices for subyearling Chinook were low, generally in the 1-8 per day. Pacific lamprey macrophthalmia and ammocoetes were each collected in three of the samples from the last week of sampling.

Hatchery Releases

FPC has not received all data from some hatcheries as of 10/05/18, therefore, this hatchery release schedule represents the most up to date accounting that are available, but should not be considered a finalized record of hatchery releases.

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. In the past week there were no scheduled releases into this zone, nor are there any scheduled for the next two.

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. In the past week there were no scheduled releases into this zone, nor are there any scheduled for the next two.

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). In the past week there were no scheduled releases into this zone, nor are there any scheduled for the next two.

Lower Columbia Zone:

The Lower Columbia Zone is defined as the Columbia River and its tributaries below Bonneville Dam. In the past week there were 286,000 spring Chinook juveniles released into the Lewis River on the 1st of October. There are no scheduled releases into this zone in the next two weeks.

Adult Passage

Adult Passage Daily passage numbers at Bonneville Dam ranged between 615 and 2,321 adult Chinook in the last week. The 2018 Bonneville Dam adult fall Chinook count of 175,841 is about 59.2% of the 2017 count and about 34.6% of the 10-year average. At Willamette Falls, 1,959 adult fall Chinook have been counted so far this year. As of October 4th, a total of 86,574 adult fall Chinook have been counted at McNary Dam and 14,930 have been counted at Lower Granite Dam. The 2018 McNary Dam adult fall Chinook count is about 70.9% of the 2017 count and about 39.8% of the 10-year average count.

The 2018 Bonneville Dam adult steelhead count of 97,303 is about 85.6% the 2017 count of 113,687 and about 32.1% of the 10-year average count of 302,973. The 2018 Bonneville Dam adult unclipped steelhead count of 31,643 is about 95.2% of the 2017 count of 33,209 and about 30.6% of the 10-year average count of 103,391. Daily adult steelhead counts at Lower Granite Dam ranged from 1,166 to 1,725 adults per day last week. This year's Lower Granite steelhead count of 31,187 is about 74.7% of the 2017 count of 41,739 and about 30.4% of the 10-year average count of 102,432. The 2018 Lower Granite Dam adult unclipped steelhead count of 7,176 is about 76.1% of the 2017 count of 9,425 and 25.3% of the 10-year average count of 28,345. At Willamette Falls, the 2018 count for steelhead was 10,888 as of September 29th. This year's steelhead count is about 3.9 times greater than the 2017 count of 2,805 while being 51.7% of the 10-year average count of 21,049.

The 2018 Bonneville Dam adult coho count of 29,628 is about 57.7% of the 2017 count and about 36.1% of the 10-year average count. A total of 43,434 lampreys have been counted at Bonneville Dam so far this year. The Bonneville 2018 lamprey count is about 52.6% of the 2017 count of 82,543, while being about 1.4 times greater than the 10-year average count of 30,528.

Hatchery Releases Last Two Weeks

Hatchery Release Summary

From: **9/22/2018** to **10/05/18**

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver	Zone
Oregon Dept. of Fish and Wildlife	Bonneville Hatchery	CH0	FA	2019	400,000	09-28-18	09-28-18	Tanner Creek	Tanner Creek	LCOL
Oregon Dept. of Fish and Wildlife Total					400,000					
Washington Dept. of Fish and Wildlife	Lewis River Hatchery	CH0	SP	2018	186,300	10-01-18	11-01-18	Lewis River Hatchery	Lewis River	LCOL
Washington Dept. of Fish and Wildlife	Speelyai Hatchery	CH0	SP	2018	15,000	10-01-18	10-01-18	Lewis River	Lewis River	LCOL
Washington Dept. of Fish and Wildlife	Speelyai Hatchery	CH0	SP	2018	35,000	10-01-18	10-01-18	Lewis River	Lewis River	LCOL
Washington Dept. of Fish and Wildlife	Speelyai Hatchery	CH0	SP	2018	50,000	10-01-18	10-01-18	Lewis River	Lewis River	LCOL
Washington Dept. of Fish and Wildlife Total					286,300					
Grand Total					686,300					

Hatchery Releases Next Two Weeks

Hatchery Release Summary

From: **10/6/2018** to **10/19/2018**

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver	Zone

Grand Total

0

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

Date	Grand Coulee		Chief Joseph		Wells		Rocky Reach		Rock Island		Wanapum		Priest Rapids	
	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill
09/21/2018	63.6	0.1	63.9	0.0	58.1	0.0	58.3	0.0	60.9	0.0	58.7	1.0	56.7	1.6
09/22/2018	53.6	0.1	50.6	0.0	54.9	0.0	56.3	4.4	56.4	0.0	53.5	1.4	49.3	1.7
09/23/2018	57.6	0.1	58.2	0.0	58.4	0.0	56.8	2.0	58.0	0.0	58.8	1.6	56.2	1.7
09/24/2018	78.4	0.1	76.1	0.0	87.1	0.7	84.7	0.0	87.0	0.0	92.7	1.8	88.6	1.6
09/25/2018	63.0	0.1	66.1	0.0	65.5	0.0	66.6	0.0	67.5	0.0	83.6	1.4	81.4	1.6
09/26/2018	71.9	0.1	67.5	0.0	59.3	0.0	62.9	0.0	65.2	0.0	86.6	1.1	80.7	1.7
09/27/2018	69.3	0.1	71.7	0.0	62.4	0.0	59.0	0.0	59.4	0.0	68.0	0.6	66.3	1.6
09/28/2018	70.6	0.1	68.6	0.0	66.2	0.0	68.9	0.0	70.0	0.0	72.2	0.8	67.6	1.7
09/29/2018	61.0	0.1	63.2	0.0	61.1	0.0	51.8	0.0	53.8	0.0	52.5	0.9	51.8	1.7
09/30/2018	45.2	0.1	48.2	0.0	60.2	1.8	64.8	0.0	63.9	0.0	64.6	1.2	59.9	1.7
10/01/2018	69.0	0.0	66.9	0.0	62.1	0.0	63.1	0.0	65.6	0.0	69.3	1.0	66.0	1.7
10/02/2018	48.2	0.0	48.1	0.0	63.3	0.0	60.7	0.0	62.0	0.0	65.5	7.7	55.8	2.2
10/03/2018	57.1	53.5	55.5	0.0	61.6	0.0	63.9	0.0	65.5	0.0	88.9	0.9	80.2	2.8
10/04/2018	54.0	0.0	50.5	0.0	50.0	0.0	51.0	0.0	51.8	0.0	71.4	0.2	73.4	2.3

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

Date	Dworshak		Brownlee Inflow	Hells Canyon Outflow	Lower Granite		Little Goose		Lower Monumental		Ice Harbor	
	Flow	Spill			Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill
09/21/2018	2.4	0.0	---	---	23.5	0.0	18.8	0.0	18.0	0.0	21.4	0.0
09/22/2018	2.5	0.0	---	---	20.6	0.0	20.5	0.0	22.4	0.0	22.2	0.0
09/23/2018	2.5	0.0	---	---	22.4	0.0	21.4	0.0	20.9	0.0	17.8	0.0
09/24/2018	1.6	0.0	---	---	19.1	0.0	17.3	0.0	18.1	0.0	15.9	0.0
09/25/2018	1.6	0.0	---	---	20.4	0.0	19.6	0.0	21.9	0.0	24.2	0.0
09/26/2018	1.6	0.0	---	---	22.4	0.0	18.8	0.0	18.2	0.0	16.8	0.0
09/27/2018	1.6	0.0	---	---	19.3	0.0	18.8	0.0	18.4	0.0	16.0	0.0
09/28/2018	1.6	0.0	---	---	22.2	0.0	21.4	0.0	23.0	0.0	21.5	0.0
09/29/2018	1.6	0.0	---	---	17.2	0.0	15.3	0.0	13.5	0.0	14.9	0.0
09/30/2018	1.6	0.0	---	---	20.6	0.0	19.4	0.0	19.5	0.0	19.9	0.0
10/01/2018	1.6	0.0	---	---	16.8	0.0	15.7	0.0	16.9	0.0	15.1	0.0
10/02/2018	1.6	0.0	---	---	18.9	0.0	18.2	0.0	19.1	0.0	19.7	0.0
10/03/2018	1.7	0.0	---	---	22.5	0.0	23.4	0.0	22.1	0.0	23.1	0.0
10/04/2018	1.6	0.0	---	---	19.9	0.0	19.9	0.0	20.5	0.0	20.7	0.0

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

Date	McNary		John Day		The Dalles		Bonneville			
	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	PH1	PH2
09/21/2018	76.3	0.0	81.2	0.9	80.0	0.0	89.3	1.3	0.0	80.7
09/22/2018	72.2	0.0	71.4	0.9	72.3	0.0	76.6	1.2	0.0	68.0
09/23/2018	70.3	0.0	59.0	0.9	58.5	0.0	72.0	1.2	0.0	63.4
09/24/2018	85.2	0.0	91.0	0.9	90.6	0.0	96.6	4.2	0.0	85.0
09/25/2018	128.2	0.0	122.8	0.9	122.5	0.0	120.3	1.3	1.6	110.0
09/26/2018	93.9	0.0	94.9	0.9	95.9	0.0	108.9	1.2	0.4	99.9
09/27/2018	93.5	0.0	94.7	0.9	93.2	0.0	101.4	1.2	0.0	92.7
09/28/2018	89.1	0.0	86.9	0.9	86.4	0.0	95.8	1.2	0.0	87.2
09/29/2018	76.2	0.0	76.6	0.7	77.0	0.0	82.0	1.2	0.0	73.3
09/30/2018	79.5	0.0	84.7	0.8	86.4	0.0	91.1	1.2	0.0	82.5
10/01/2018	81.6	0.0	77.6	0.9	76.3	0.0	82.4	1.2	0.0	73.8
10/02/2018	76.0	0.0	63.3	0.9	67.5	0.0	78.5	1.2	0.0	69.8
10/03/2018	95.0	0.0	85.2	0.9	82.1	0.0	87.3	1.2	0.0	78.7
10/04/2018	99.7	0.0	85.3	0.9	85.6	0.0	91.5	1.2	0.7	82.2

FISH PASSAGE CENTER

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

[INTERNAL PURPOSES ONLY]

Date 10/5/2018 7:15:10 AM

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Total Dissolved Gas Data at Upper Columbia Sites

Hungry H. Dnst				Boundary				Grand Coulee				Grand C. Tlwr				Chief Joseph				Chief J. Dnst				Date	
Date	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	Date
09/21									102.0	102.3	102.6	24	101.8	102.3	103.0	24	102.4	102.5	102.7	6	101.5	101.9	102.2	24	09/21
09/22									101.9	102.5	102.6	24	102.2	102.6	102.9	24	102.4	102.6	102.8	9	101.7	102.1	103.0	24	09/22
09/23									100.9	102.1	101.5	24	100.7	102.1	101.8	24	101.6	102.4	102.6	9	101.0	101.6	101.8	24	09/23
09/24									100.3	101.0	100.8	24	100.1	100.4	101.2	24	100.9	101.6	101.4	20	100.2	100.9	101.2	24	09/24
09/25									100.2	100.5	101.0	24	100.0	100.6	102.3	24	100.9	101.2	101.0	6	100.1	100.6	101.2	24	09/25
09/26									100.6	100.9	101.1	24	100.3	100.8	101.2	24	101.1	101.1	101.3	8	100.1	100.5	100.9	24	09/26
09/27									101.0	101.2	101.4	24	100.6	101.0	101.5	24	100.8	101.2	101.0	13	100.2	100.4	100.7	24	09/27
09/28									101.3	101.5	101.7	24	100.7	101.1	101.6	24	101.4	101.4	101.6	12	100.7	101.2	101.9	24	09/28
09/29									101.7	101.9	102.2	24	101.0	101.4	101.6	24				0	100.6	100.9	101.5	24	09/29
09/30									101.4	101.9	101.7	24	101.0	101.5	102.0	24				0	100.6	100.9	101.7	24	09/30
10/01									101.4	101.5	101.5	24	100.8	101.4	101.6	24	101.6	102.1	102.4	9	100.7	101.0	101.6	24	10/01
10/02									101.7	102.0	102.2	24	100.8	101.6	102.1	24				0	101.3	101.9	103.2	24	10/02
10/03									100.0	101.6	100.6	24	99.4	100.7	100.1	24				0	99.3	100.9	100.5	24	10/03
10/04									100.0	100.2	100.4	23	99.5	99.8	100.0	23				0	99.4	99.8	100.5	23	10/04

Total Dissolved Gas Data at Upper Columbia Sites

Wells				Wells Dwnstrm				Rocky Reach				Rocky R. Tlwr				Rock Island				Rock I. Tlwr				Date	
Date	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	Date
09/21	101.3	102.0	102.4	24	101.4	101.9	102.3	24	102.4	103.2	104.5	24	102.8	103.6	105.4	22	101.5	101.9	102.2	24	101.6	102.1	102.4	20	09/21
09/22	101.5	101.9	102.2	23	101.4	101.9	102.6	23	103.4	104.1	104.3	23	105.0	106.6	111.9	20	102.2	102.6	102.8	22	102.3	102.7	103.0	20	09/22
09/23	101.0	101.4	102.0	24	100.7	101.3	101.9	24	102.0	103.0	103.0	24	102.9	105.1	110.0	24	102.5	103.5	105.2	24	102.6	103.3	104.8	24	09/23
09/24	100.4	101.2	101.1	24	100.6	101.1	102.4	24	101.1	102.1	101.5	23	101.5	103.5	102.7	22	101.0	102.0	102.3	22	101.1	102.8	101.7	22	09/24
09/25	100.4	101.0	101.3	24	100.2	100.7	101.2	24	100.5	101.0	100.9	24	100.9	101.9	102.4	24	100.3	100.9	100.8	24	100.6	101.0	101.2	24	09/25
09/26	100.9	101.4	102.2	24	100.5	101.3	101.9	24	101.0	101.5	101.9	24	100.9	101.7	102.8	23	100.7	100.8	101.1	24	101.0	101.3	101.6	23	09/26
09/27	101.2	101.6	102.2	24	101.0	101.7	102.4	24	102.0	102.5	103.2	24	101.0	101.9	102.4	23	101.2	101.6	101.7	23	101.4	101.9	102.1	20	09/27
09/28	101.4	102.0	102.6	24	101.2	101.9	102.6	24	102.1	102.5	102.9	24	101.6	102.2	103.7	23	101.7	101.9	102.3	24	101.9	102.2	102.3	20	09/28
09/29	100.8	101.9	101.4	24	100.6	101.7	101.5	24	102.3	102.5	102.7	24	102.1	103.0	103.7	21	101.8	102.2	102.4	23	101.9	102.2	102.4	21	09/29
09/30	100.5	100.9	101.4	24	101.4	102.4	105.7	24	101.9	102.3	102.3	24	101.7	102.5	103.0	23	101.1	101.5	101.5	23	101.1	101.6	101.6	23	09/30
10/01	100.4	100.7	101.1	24	100.1	100.7	101.4	24	101.8	102.1	102.3	24	102.3	102.5	103.7	21	101.2	101.4	101.8	20	101.2	101.5	101.8	20	10/01
10/02	100.4	101.1	101.5	24	100.2	101.0	101.6	24	101.8	102.1	102.2	24	102.0	103.0	102.9	23	101.1	101.8	102.2	24	101.5	102.0	102.3	23	10/02
10/03	99.0	100.1	99.5	24	98.8	100.0	99.9	24	100.8	101.6	101.1	22	100.7	102.1	101.9	21	99.7	100.9	100.1	22	99.7	101.1	100.1	21	10/03
10/04	99.3	99.6	100.3	21	99.0	99.5	100.1	21	100.1	100.7	100.9	22	100.3	101.4	101.9	21	100.1	100.3	100.5	22	100.1	100.3	100.5	19	10/04

FISH PASSAGE CENTER

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

[INTERNAL PURPOSES ONLY]

Date 10/5/2018 7:15:10 AM

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Total Dissolved Gas Data at Upper and Mid-Columbia Sites

Wanapum				Wanapum Tlwr				Priest Rapids				Priest R. Dnstr				Pasco				Date	
Date	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	Date
09/21	99.8	101.3	101.9	24	100.9	101.3	101.5	24	100.9	101.1	101.6	24	101.4	101.8	102.0	24					09/21
09/22	98.5	101.0	101.3	24	101.0	101.4	101.7	24	100.1	101.3	101.4	24	101.0	101.8	101.5	24					09/22
09/23	98.8	100.1	100.7	24	100.4	101.1	101.2	24	99.3	99.9	100.1	24	100.1	100.8	100.7	24					09/23
09/24	99.3	101.0	101.6	24	99.7	100.3	100.1	24	99.0	99.5	100.0	24	99.6	100.3	100.0	24					09/24
09/25	100.8	101.9	102.8	24	100.2	100.7	100.8	24	99.8	100.3	100.7	24	99.9	100.5	100.7	24					09/25
09/26	101.5	103.4	103.7	24	101.6	102.3	102.7	24	101.3	102.2	103.0	24	101.3	102.2	102.5	24					09/26
09/27	103.9	105.1	106.4	24	102.8	103.3	103.7	24	102.2	103.1	104.3	24	102.3	103.3	103.6	24					09/27
09/28	104.1	105.4	106.4	24	103.3	103.9	104.1	24	103.4	104.5	105.6	24	103.2	104.2	104.5	24					09/28
09/29	103.6	105.5	105.1	24	103.1	103.9	103.8	24	103.6	104.6	104.5	24	103.5	104.2	104.6	24					09/29
09/30	102.7	103.6	104.2	24	102.3	103.1	102.9	24	102.7	104.1	103.3	24	102.5	103.8	103.0	24					09/30
10/01	103.0	103.6	104.8	24	102.4	102.8	103.2	24	102.4	102.9	103.4	24	102.5	102.9	103.0	24					10/01
10/02	102.7	103.5	103.7	24	106.7	111.1	125.3	24	102.1	102.7	102.9	24	102.4	102.9	103.3	24					10/02
10/03	101.2	102.4	102.7	24	100.9	108.9	101.6	24	101.4	102.4	105.4	24	101.4	102.5	103.7	24					10/03
10/04				0				0				0				0					10/04

Total Dissolved Gas Data at Snake and Clearwater Sites

Dworshak				Clrwr Peck				Anatone				Clrwr-Lewiston				Lower Granite				Lower G. Tlwr				Date	
Date	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	Date
09/21	101.5	103.0	103.0	24													97.9	98.4	98.6	24					09/21
09/22	101.2	101.9	101.9	24													97.7	98.3	98.1	24					09/22
09/23	101.2	101.7	102.5	24													97.1	97.5	97.7	24					09/23
09/24	104.4	106.0	107.1	24													97.0	97.3	97.7	24					09/24
09/25	105.0	105.9	107.1	24													97.1	97.4	97.6	24					09/25
09/26	105.2	106.3	107.4	24													97.5	98.0	98.2	24					09/26
09/27	105.7	106.7	107.8	24													97.9	99.0	100.6	24					09/27
09/28	106.2	107.2	108.3	24													99.5	100.6	104.3	24					09/28
09/29	106.3	107.2	108.2	24													98.6	99.2	99.1	24					09/29
09/30	105.9	106.9	107.1	24													97.6	98.8	98.4	24					09/30
10/01	105.9	106.8	107.6	24													97.3	98.0	98.5	24					10/01
10/02	105.8	106.4	106.9	24													98.3	98.8	99.5	24					10/02
10/03	104.8	105.9	106.4	24													97.0	98.5	97.5	24					10/03
10/04	105.1	105.7	106.8	23													96.7	97.1	98.0	23					10/04

FISH PASSAGE CENTER

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

[INTERNAL PURPOSES ONLY]

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Total Dissolved Gas Data at Lower Snake Sites

Little Goose				L. Goose Tlwr				Lower Mon.				Lwr. Mon. Tlwr				Ice Harbor				Tlwr Ice Harbor				Date	
Date	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	Date
09/21					98.3	98.3	98.6	14					101.8	102.6	103.4	24					101.3	102.0	102.9	24	09/21
09/22					97.7	98.3	98.2	24					100.5	102.2	101.8	24					100.8	101.8	102.1	24	09/22
09/23					97.4	97.7	98.2	24					100.3	101.0	101.7	24					100.5	101.3	102.8	24	09/23
09/24					96.6	97.4	97.6	24					99.0	100.3	100.1	24					99.7	101.0	101.6	24	09/24
09/25					96.1	96.6	97.0	24					98.5	99.1	99.5	24					99.8	100.4	101.3	24	09/25
09/26					96.6	97.1	97.8	24					98.7	99.4	100.9	24					100.4	101.3	102.8	24	09/26
09/27					97.0	97.6	98.0	24					99.1	99.6	100.3	24					101.1	102.0	103.8	24	09/27
09/28					97.4	98.0	98.4	24					98.9	99.4	99.8	24					100.8	101.8	101.7	24	09/28
09/29					97.9	98.4	98.9	24					98.9	99.4	99.7	24					100.5	101.2	101.7	24	09/29
09/30					97.9	98.4	98.4	24					98.2	99.4	99.7	24					100.3	101.0	102.0	24	09/30
10/01					97.4	97.8	98.2	24					97.8	98.0	98.5	24					99.8	100.6	101.5	24	10/01
10/02					98.2	98.6	99.1	24					98.2	98.9	100.4	24					99.9	100.5	101.2	24	10/02
10/03					97.6	98.3	101.0	24					97.0	98.3	98.5	24					98.4	99.7	99.4	24	10/03
10/04					97.0	97.5	97.3	23					97.1	97.4	98.7	23					98.2	98.9	99.9	23	10/04

Total Dissolved Gas Data at Mid-Columbia Sites

McNary-Wash.				Tlwr McNary				John Day				Tlwr John Day				The Dalles				Dnstr T. Dalles				Date	
Date	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	Date
09/21					99.5	100.1	100.7	24	99.2	99.7	100.0	24	100.5	101.1	101.7	24	100.1	100.4	100.7	24	101.0	101.4	101.5	24	09/21
09/22					99.2	100.0	99.9	24	99.1	99.8	99.6	24	100.4	101.0	100.9	24	99.9	100.4	100.3	24	100.8	101.3	101.2	24	09/22
09/23					99.1	99.5	99.8	24	98.6	98.9	98.8	24	100.2	100.6	100.8	24	99.5	99.9	99.7	24	100.7	101.0	101.1	24	09/23
09/24					99.0	99.4	99.7	24	98.2	98.7	98.8	24	99.8	100.4	101.8	24	98.8	99.4	99.2	24	100.2	100.9	100.7	24	09/24
09/25					99.2	99.6	99.9	24	98.8	99.3	100.0	24	99.1	100.0	99.7	24	98.7	99.1	99.3	24	99.2	99.7	99.8	24	09/25
09/26					99.1	99.6	99.5	24	98.3	99.4	98.9	13	99.4	99.8	100.4	24	98.7	99.2	99.1	11	99.6	100.1	100.4	24	09/26
09/27					99.3	99.8	100.1	24				0	100.8	101.6	102.1	24				0	100.2	100.5	100.7	24	09/27
09/28					100.1	100.7	101.0	24				0	101.5	102.1	102.9	24				0	101.1	101.5	101.9	24	09/28
09/29					100.3	100.7	101.0	24				0	102.1	102.7	103.7	24				0	101.8	102.2	102.4	24	09/29
09/30					99.5	100.6	100.1	24				0	101.9	102.7	102.8	24				0	101.3	101.9	101.9	24	09/30
10/01					99.7	100.0	100.3	24				0	101.0	102.1	102.0	24				0	101.4	101.7	101.9	24	10/01
10/02					100.0	100.5	101.2	24				0	100.5	101.1	101.9	24				0	101.6	102.2	102.4	24	10/02
10/03					99.1	100.2	99.7	24				0	100.3	100.7	101.2	24				0	100.4	101.5	101.1	24	10/03
10/04					98.7	99.2	99.2	23				0	100.4	100.6	101.3	23				0	99.6	100.6	99.9	23	10/04

FISH PASSAGE CENTER

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

[INTERNAL PURPOSES ONLY]

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Total Dissolved Gas Data at Mid-Columbia Sites

Date	Bonneville				Warrendale				Camas/Washug.				Cascade Isld.				Date
	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	
09/21	101.1	101.5	101.6	24	103.1	103.8	104.7	24	104.1	104.7	105.3	24	113.3	118.3	121.9	24	09/21
09/22	100.9	101.4	101.3	24	102.8	103.8	103.7	24	103.2	104.5	103.9	24	109.6	113.4	114.5	24	09/22
09/23	100.1	100.5	100.5	24	100.6	102.5	102.7	24	102.1	102.8	103.1	24	111.6	113.5	116.5	24	09/23
09/24	99.9	100.5	100.7	24	102.8	104.0	106.1	24	102.2	102.9	103.4	24	116.2	117.2	131.0	24	09/24
09/25	100.4	100.5	100.8	24	102.2	103.9	102.9	24	102.2	102.9	103.3	24	114.2	118.1	122.1	24	09/25
09/26	100.8	101.3	101.7	24	102.8	103.3	103.7	24	101.4	102.6	103.4	19	114.7	120.0	122.4	24	09/26
09/27	101.6	101.7	101.7	9	103.9	104.6	105.5	24				0	117.8	120.1	123.5	11	09/27
09/28				0	103.7	104.5	105.3	24				0				0	09/28
09/29				0	103.4	104.3	104.1	24				0				0	09/29
09/30				0	103.0	103.3	103.7	24				0				0	09/30
10/01				0	103.1	103.7	104.6	24				0				0	10/01
10/02				0	102.8	103.4	104.0	24				0				0	10/02
10/03				0	101.9	102.6	103.0	24				0				0	10/03
10/04				0	101.9	102.2	102.6	23				0				0	10/04

Hours used in calculating values:

24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
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FISH PASSAGE CENTER

Smolt Monitoring Program Two Week Passage Index Report

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COMBINED YEARLING CHINOOK

Date	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (Index)	LGS (Index)	LMN (Index)	RIS (Index)	MCN (Index)	JDA (Index)	BO2 (Index)
09/21/2018					0	0	1				0
09/22/2018					0		0		0		0
09/23/2018					1		0				0
09/24/2018					0	0	0		0		0
09/25/2018					0		1				0
09/26/2018					1		0		0		0
09/27/2018					0	0	0				0
09/28/2018					0		0		0		0
09/29/2018					0		0				0
09/30/2018					1	0	0		0		0
10/01/2018					0		0				0
10/02/2018					0						0
10/03/2018					0	0					0
10/04/2018											0
10/05/2018											
Total:	0	0	0	0	3	0	2	0	0	0	0
# Days:	0	0	0	0	13	5	11	0	5	0	14
Average:	0	0	0	0	0	0	0	0	0	0	0
YTD:	23,452	41,212	21,824	12,792	4,639,022	2,838,053	2,045,319	49,702	1,494,206	1,257,455	1,890,717

Number of hours sampled:

- No data available or no sample conducted

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
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FISH PASSAGE CENTER

Smolt Monitoring Program Two Week Passage Index Report

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COMBINED SUBYEARLING CHINOOK

Date	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (Index)	LGS (Index)	LMN (Index)	RIS (Index)	MCN (Index)	JDA (Index)	BO2 (Index)
09/21/2018					21	4	7				407
09/22/2018					51		7		20		254
09/23/2018					49		6				255
09/24/2018					30	0	2		0		178
09/25/2018					11		5				157
09/26/2018					21		1		20		180
09/27/2018					25	8	2				127
09/28/2018					31		5		0		101
09/29/2018					12		8				33
09/30/2018					8	12	2		0		34
10/01/2018					9		7				67
10/02/2018					31						136
10/03/2018					14	41					0
10/04/2018											169
10/05/2018											
Total:	0	0	0	0	313	65	52	0	40	0	2,098
# Days:	0	0	0	0	13	5	11	0	5	0	14
Average:	0	0	0	0	24	13	5	0	8	0	150
YTD:	0	6	89	192	875,449	941,053	508,504	36,289	2,289,265	1,068,593	2,883,755

Number of hours sampled:

- No data available or no sample conducted

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
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FISH PASSAGE CENTER

Smolt Monitoring Program Two Week Passage Index Report

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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)
09/21/2018					0	0	0				0
09/22/2018					0		0		0		0
09/23/2018					0		0				0
09/24/2018					0	0	0		0		0
09/25/2018					0		0				0
09/26/2018					0		0		0		0
09/27/2018					0	0	0				0
09/28/2018					0		0		0		0
09/29/2018					0		0				0
09/30/2018					0	0	0		0		0
10/01/2018					0		0				0
10/02/2018					0						0
10/03/2018					0	0					0
10/04/2018											0
10/05/2018											
Total:	0	0	0	0	0	0	0	0	0	0	0
# Days:	0	0	0	0	13	5	11	0	5	0	14
Average:	0	0	0	0	0	0	0	0	0	0	0
YTD:	0	0	1,224	1,365	262,532	215,275	42,479	44,218	226,511	120,100	477,487

Number of hours sampled:

- No data available or no sample conducted

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
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FISH PASSAGE CENTER

Smolt Monitoring Program Two Week Passage Index Report

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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)
09/21/2018					1	0	0				0
09/22/2018					0			0	0		0
09/23/2018					0			0			0
09/24/2018					0	0		0	0		0
09/25/2018					0			0			0
09/26/2018					1			0	0		0
09/27/2018					0	0		0			0
09/28/2018					0			0	0		0
09/29/2018					0			0			0
09/30/2018					0	0		1	0		0
10/01/2018					0			0			0
10/02/2018					0						0
10/03/2018					0	0					0
10/04/2018											0
10/05/2018											
Total:	0	0	0	0	2	0	1	0	0	0	0
# Days:	0	0	0	0	13	5	11	0	5	0	14
Average:	0	0	0	0	0	0	0	0	0	0	0
YTD:	723	27,446	3,888	5,328	3,924,768	3,004,340	1,942,824	24,918	240,968	681,274	356,557

Number of hours sampled:

- No data available or no sample conducted

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
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FISH PASSAGE CENTER

Smolt Monitoring Program Two Week Passage Index Report

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COMBINED SOCKEYE

Date	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (Index)	LGS (Index)	LMN (Index)	RIS (Index)	MCN (Index)	JDA (Index)	BO2 (Index)
09/21/2018					0	0	0				0
09/22/2018					0		0		0		0
09/23/2018					0		0				0
09/24/2018					0	0	0		0		0
09/25/2018					0		0				0
09/26/2018					0		0		0		0
09/27/2018					0	0	0				0
09/28/2018					1		0		0		0
09/29/2018					0		0				0
09/30/2018					0	2	0		0		0
10/01/2018					0		0				0
10/02/2018					0						0
10/03/2018					2	0					0
10/04/2018											0
10/05/2018											
Total:	0	0	0	0	3	2	0	0	0	0	0
# Days:	0	0	0	0	0	0	0	0	0	0	0
Average:	0	0	0	0	0	0	0	0	0	0	0
YTD:	0	0	4	115	260,634	120,870	58,625	76,238	1,527,709	383,716	741,306

Number of hours sampled:

- No data available or no sample conducted

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
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FISH PASSAGE CENTER

Smolt Monitoring Program Two Week Passage Index Report

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COMBINED LAMPREY JUVENILES

Date	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR* (Sample)	LGS (Coll)	LMN (Coll)	RIS (Coll)	MCN (Coll)	JDA (Coll)	BO2 (Coll)
09/21/2018					0	6	4				0
09/22/2018					0		1		0		0
09/23/2018					0		3				0
09/24/2018					0	2	0		0		0
09/25/2018					0		1				0
09/26/2018					1		1		0		0
09/27/2018					0	14	1				0
09/28/2018					1		1		0		0
09/29/2018					0		0				0
09/30/2018					1	22	0		0		0
10/01/2018					0		5				0
10/02/2018					0						0
10/03/2018					0	8					0
10/04/2018											0
10/05/2018											
Total:	0	0	0	0	3	52	17	0	0	0	0
# Days:	0	0	0	0	13	6	14	0	5	0	14
Average:	0	0	0	0	0	9	1	0	0	0	0
YTD:		1	3		560	36,103	56,922	371	226,628	227,728	27,329

- No data available or no sample conducted

- 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.

Number of hours sampled:

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
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FISH PASSAGE CENTER

Smolt Monitoring Program Two Week Passage Index Report

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Smolt Monitoring Program Sites and Agency Collaborations:

- 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
- LGS (Index) - Little Goose Bypass Collection System : Passage Index Counts
- LMN (Index) - Lower Monumental Dam Bypass Collection System : Passage Index Counts
- RIS (Index) - Rock Island Dam Second Powerhouse Bypass Trap : Passage Index Counts
- MCN (Index) - McNary Dam Bypass Collection System : Passage Index Counts
- JDA (Index) - John Day Dam Bypass Collection System : Passage Index Counts
- BO2 (Index) - Bonneville Dam Second Powerhouse Bypass Collection System : Passage Index Counts

- No data available or no sample conducted

Number of hours sampled:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
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Important Information About this Report:

- For clip information see: <http://www.fpc.org/currentdaily/smpcomments.htm>
- 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. Equations for passage index are provided below for each site.
 - LGR, LGS, LMN, MCN, JDA (Index) = Lower Granite Dam Bypass Collection System : Passage Index Counts Passage Index = Collection Counts / (Powerhouse Flow / (Powerhouse Flow + Spill))
 - RIS, BO2 (Index) = Rock Island Dam Second Powerhouse Bypass Trap : Passage Index Counts Passage Index = Collection Counts / (Powerhouse 2 Flow / (Powerhouse 1 & 2 Flow + Spill))
- 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 macrophthalmia, and unidentified lamprey species.
- 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.

FISH PASSAGE CENTER

Two Week Transportation Summary Report 9/21/2018 12:00:00 AM TO 10/5/2018 12:00:00 AM

Date 10/5/2018 9:17:26 AM

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Lower Granite Dam

Data	Chinook Subyearlings	Chinook Yearlings	Coho	Sockeye	Steelhead	Grand Total
Sum of Number Collected	313	3	0	3	2	323
Sum of Number Barged	0	0	0	0	0	0
Sum of Number Bypassed	0	0	0	0	1	2
Sum of Number Trucked	321	3	1	2	1	329
Sum of Sample Morts	1	0	0	1	0	2
Sum of Facility Morts	0	0	0	0	0	0
Sum of Reseach Morts	0	0	0	0	0	0
Sum of Total Project Mort	1	0	0	1	0	2

Little Goose Dam

Data	Chinook Subyearlings	Chinook Yearlings	Coho	Sockeye	Steelhead	Grand Total
Sum of Number Collected	65	0	0	2	0	69
Sum of Number Barged	0	0	0	0	0	0
Sum of Number Bypassed	65	0	0	2	0	69
Sum of Number Trucked	0	0	0	0	0	0
Sum of Sample Morts	0	0	0	0	0	0
Sum of Facility Morts	0	0	0	0	0	0
Sum of Reseach Morts	0	0	0	0	0	0
Sum of Total Project Mort	0	0	0	0	0	0

FISH PASSAGE CENTER

Two Week Transportation Summary Report

9/21/2018 12:00:00 AM TO 10/5/2018 12:00:00 AM

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Lower Monumental Dam

Data	Chinook Subyearlings	Chinook Yearlings	Coho	Sockeye	Steelhead	Grand Total
Sum of Number Collected	52	2	0	0	1	56
Sum of Number Barged	0	0	0	0	0	0
Sum of Number Bypassed	63	2	0	0	1	67
Sum of Number Trucked	0	0	0	0	0	0
Sum of Sample Morts	2	0	0	0	0	2
Sum of Facility Morts	0	0	0	0	0	0
Sum of Reseach Morts	0	0	0	0	0	0
Sum of Total Project Mort	2	0	0	0	0	2

Total

Data	Chinook Subyearlings	Chinook Yearlings	Coho	Sockeye	Steelhead	Grand Total
Sum of Number Collected	430	5	0	5	3	446
Sum of Number Barged	0	0	0	0	0	0
Sum of Number Bypassed	128	2	0	2	2	136
Sum of Number Trucked	321	3	1	2	1	329
Sum of Sample Morts	3	0	0	1	0	4
Sum of Facility Morts	0	0	0	0	0	0
Sum of Reseach Morts	0	0	0	0	0	0
Sum of Total Project Mort	3	0	0	1	0	4

FISH PASSAGE CENTER

YTD Transportation Summary Report

Date 10/5/2018 9:17:03 AM

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Lower Granite Dam

Data	Chinook Subyearlings	Chinook Yearlings	Coho	Sockeye	Steelhead	Grand Total
Sum of Number Collected	530974	3041149	182826	188706	2522948	8989551
Sum of Number Barged	508800	2429169	179217	184065	1811318	6923887
Sum of Number Bypassed	14637	610813	3539	4465	711358	2056170
Sum of Number Trucked	6325	4	6	2	2	6341
Sum of Sample Morts	251	58	0	10	45	409
Sum of Facility Morts	936	1063	64	164	190	2607
Sum of Reseach Morts	25	42	0	0	35	137
Sum of Total Project Mort	1212	1163	64	174	270	3153

Little Goose Dam

Data	Chinook Subyearlings	Chinook Yearlings	Coho	Sockeye	Steelhead	Grand Total
Sum of Number Collected	568499	1857033	137102	74678	1969535	6576382
Sum of Number Barged	559195	1546147	136377	66134	1357466	5022785
Sum of Number Bypassed	925	306206	407	7718	611659	1538574
Sum of Number Trucked	4094	0	2	4	6	4112
Sum of Sample Morts	228	41	4	14	14	315
Sum of Facility Morts	4057	4639	312	808	390	10596
Sum of Reseach Morts	0	0	0	0	0	0
Sum of Total Project Mort	4285	4680	316	822	404	10911

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YTD Transportation Summary Report

Date 10/5/2018 9:17:03 AM

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Lower Monumental Dam

Data	Chinook Subyearlings	Chinook Yearlings	Coho	Sockeye	Steelhead	Grand Total
Sum of Number Collected	305621	1218105	24944	35305	1178571	3941117
Sum of Number Barged	304570	1018208	24840	33659	926249	3233775
Sum of Number Bypassed	678	199435	100	1598	252174	706159
Sum of Number Trucked	129	0	0	0	0	129
Sum of Sample Morts	25	7	0	3	7	49
Sum of Facility Morts	219	455	4	45	141	1005
Sum of Reseach Morts	0	0	0	0	0	0
Sum of Total Project Mort	244	462	4	48	148	1054

Total

Data	Chinook Subyearlings	Chinook Yearlings	Coho	Sockeye	Steelhead	Grand Total
Sum of Number Collected	1405094	6116287	344872	298689	5671054	19507050
Sum of Number Barged	1372565	4993524	340434	283858	4095033	15180447
Sum of Number Bypassed	16240	1116454	4046	13781	1575191	4300903
Sum of Number Trucked	10548	4	8	6	8	10582
Sum of Sample Morts	504	106	4	27	66	773
Sum of Facility Morts	5212	6157	380	1017	721	14208
Sum of Reseach Morts	25	42	0	0	35	137
Sum of Total Project Mort	5741	6305	384	1044	822	15118

Cumulative Adult Passage at Mainstem Dams Through: 10/04

dam	enddate	Spring Chinook						Summer Chinook						Fall Chinook					
		2018		2017		10-Yr Avg.		2018		2017		10-Yr Avg.		2018		2017		10-Yr Avg.	
		Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack
BON	10/04	87894	6456	83624	18110	152393	25835	61057	4349	88044	10648	101791	21805	175841	29561	297149	35089	508864	79190
TDA	10/04	57935	4793	58310	12497	119227	21697	49296	3787	69246	9277	84539	17568	115042	18788	189603	24663	310624	64442
JDA	10/04	50572	5053	46675	12475	103731	20380	42835	4293	60416	7363	75555	16777	94815	15684	141090	18206	243147	54577
MCN	10/04	44427	3472	44292	7020	94405	16297	42649	2513	57279	4705	71705	12468	86574	10579	122172	9690	217708	36249
IHR	10/04	32600	2197	28306	6949	68113	11204	5808	560	9284	2087	19109	4826	15283	3504	23689	4052	38537	15202
LMN	10/04	35398	3020	28545	8270	68100	11017	6143	717	8216	3388	19658	6010	15925	6316	22853	5362	34136	16939
LGS	10/04	31834	2486	26598	8335	63992	12109	7458	589	9086	3754	19425	6430	15493	3325	21907	3488	33722	12724
LGR	10/04	31161	2948	27357	8256	62850	13009	7304	819	8952	3627	17398	6872	14930	3657	21795	4815	32769	14335
PRD	10/03	7067	949	7268	783	18018	1858	40076	2269	52981	1760	60015	3091	14559	1754	21233	1652	52844	6543
WAN	10/03	8071	964	6612	484	17542	2163	37808	1450	49392	1355	56843	2474	8806	1338	11129	1050	22348	3789
RIS	10/03	7894	997	8080	564	18255	2598	38816	1646	56265	1333	59661	4992	6192	945	8451	969	12278	3751
RRH	10/03	5919	807	5864	406	8195	1153	33110	1106	42608	1060	47856	3464	4429	714	6232	781	9233	2590
WEL	10/03	7500	976	6589	820	8670	1609	22163	1101	30101	1102	37754	3567	1491	270	2087	311	3691	1129
WFA	09/29	24543	1999	35361	2644	35770	1705	0	0	0	0	0	0	1959	286	0	0	1269	346

DAM	ENDDATE	Coho						Sockeye			Steelhead						Lamprey		
		2018		2017		10-Yr Avg.		10-Yr			10-Yr			Unclipped	Unclipped	10-Yr	10-Yr		
		Adult	Jack	Adult	Jack	Adult	Jack	2018	2017	Avg.	2018	2017	Avg.	2018	2017	Avg.	2018	2017	Avg.
BON	10/04	29628	6190	51339	3290	82040	5502	193816	87693	321945	97303	113687	302973	31643	33209	103391	43434	82543	30528
TDA	10/04	18845	2100	28409	2727	38464	3809	152099	64054	273685	70716	87448	234802	20492	23075	78075	10508	30691	9420
JDA	10/04	14069	2444	24095	4363	30281	3426	168469	66030	264745	59513	70482	205353	18352	20327	67613	8552	23356	7406
MCN	10/04	9763	1281	16267	1024	20846	2756	155480	58014	230447	52395	65043	171776	15936	17760	52925	1561	2537	1331
IHR	10/04	704	210	3864	344	3023	280	382	392	959	32374	45154	126411	7070	9833	32269	1006	1415	469
LMN	10/04	744	328	4247	698	2861	495	398	346	1118	34279	46789	123525	8016	10133	33280	429	408	125
LGS	10/04	564	175	3780	690	2682	490	280	287	1047	29375	39005	106227	6788	8193	28197	57	480	91
LGR	10/04	501	246	2874	140	2188	190	275	228	1077	31187	41739	102432	7176	9425	28345	208	347	42
PRD	10/03	3991	264	6120	489	5792	535	189884	66670	271044	4425	5081	16846	0	0	0	11586	25861	6897
WAN	10/03	3476	252	3521	260	2182	240	196183	76075	241635	3884	4179	15342	0	0	0	8852	27745	6023
RIS	10/03	5964	278	4198	28	5976	373	172002	73217	263952	4416	4417	14847	1898	2090	6164	4967	21044	3413
RRH	10/03	2479	136	1127	9	1367	90	162668	46697	220842	3413	3131	11355	1356	1320	4427	5194	23776	3649
WEL	10/03	1463	59	414	5	636	3	153626	42294	209523	2955	2459	8483	1293	1202	3389	174	278	7
WFA	09/29	1239	1957	416	663	5744	1851	0	0	0	10888	2805	21049	2207	780	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.