



# Fish Passage Center

## Weekly Report #16–28

October 7, 2016

*Starting September 9, the weekly reports will be published every other week; the next report will be October 21.*

### Summary of Events

#### Water Supply

Precipitation throughout the Columbia Basin has varied between 121% and 430% of average at individual sub-basins over early October (Water Year 2017). Precipitation above The Dalles has been 130% of average over early October. Over the 2016 water year, precipitation ranged between 84% and 102% of average.

**Table 1.** Summary of October precipitation (Water Year 2017) and cumulative October through September 30<sup>th</sup> (Water Year 2016) precipitation with respect to average (1981–2010), at select locations within the Columbia and Snake River Basins.

Location	Water Year 2017		Water Year 2016 October 1, 2015 to September 30, 2016	
	October 1–5, 2016		Observed (inches)	% Average
	Observed (inches)	% Average		
Columbia above Coulee	0.6	110	36.6	97
Snowy River above Ice Harbor	0.5	198	20.4	90
Columbia above The Dalles	0.05	130	26.2	95
Kootenai	0.07	130	36.7	96
Clark Fork	0.08	240	23.8	84
Flathead	0.08	179	37.3	102
Pend Oreille River Basin above Waneta Dam	0.7	172	31.2	94
Salmon River Basin	1.0	308	25.9	89
Upper Snake Tributaries	1.4	430	22.8	85
Clearwater	0.6	121	38.8	94
Willamette River above Portland	2.2	269	68.4	104

Grand Coulee Reservoir is at 1,283.7 feet (10-6-16) and drafted 0.3 feet over the last week. Outflows at Grand Coulee have ranged between 54.4 and 69.4 Kcfs over the last week.

The Libby Reservoir is currently at elevation 2,445.4 feet (10-6-16) and has refilled 0.4 feet over the previous week. Daily average outflows at Libby Dam have been 4.0-5.1 Kcfs over the last week.

Hungry Horse is currently at an elevation of 3,549.2 feet (10-6-16) and has drafted 0.6 feet over the last week. Outflows at Hungry Horse have been 2.0-2.2 Kcfs over the last week.

Dworshak is currently at an elevation of 1,518.6 feet (10-6-16) and has drafted 0.5 feet over the last week. Dworshak outflows over the last week have been 1.6 Kcfs.

The Brownlee Reservoir was at an elevation of 2,048.9 feet on October 6<sup>th</sup>, 2016, and has drafted 2.0 ft. over the last week. Outflows at Hells Canyon have ranged between 9.2 and 16.8 Kcfs over the last week. The minimum flow at Hells Canyon is 8.5 Kcfs.

#### Smolt Monitoring

Smolt Monitoring Program (SMP) sampling this week occurred at the following SMP bypass facilities: Bonneville Dam, Little Goose Dam, and Lower Granite Dam. Sampling at Lower Monumental and McNary dams ended after the September 30 samples.

Subyearling Chinook were the only salmonids encountered in this week's samples at BON. This week's daily average passage index for subyearling Chinook at BON was less than 10 fish per day, which is similar to the previous week's daily average passage index. No lamprey juveniles were encountered at BON this week.

This week's samples at Lower Granite Dam (LGR) were again dominated by subyearling Chinook, with a daily average passage index of about 300 per day. This is a large increase over the previous week's daily average passage index of only about 20 subyearling Chinook per day. As is often observed this time of year, decaling rates for subyearling Chinook have been relatively high this week. Descaling rates for subyearling Chinook this week have ranged from 3.7% to 11.8%. Other juvenile salmonids that were encountered in this week's samples included yearling Chinook, sockeye, and steelhead. However, sample counts for these three species were very low. Finally, Pacific lamprey macrophthalmia were encountered in six of this week's samples, with a daily average sample count of seven per day. No Pacific lamprey ammocoetes were encountered this week at LGR.

Subyearling Chinook dominated this week's collections at Little Goose Dam (LGS). This week's daily average passage index for subyearling Chinook at LGS was about 45 per day, which is slightly below the previous week's daily average passage index of about 55. With exception to one steelhead on September 30<sup>th</sup>, no spring migrants were encountered in this week's samples at LGS. Finally, Pacific macrophthalmia were encountered every day this week, with a daily average collection of 7 fish per day. No Pacific ammocoetes were encountered at LGS 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. No releases were scheduled for this zone this week. However, approximately 245,500 spring Chinook pre-smolts are scheduled to be released into Lolo and Newson creeks (tributaries of the Clearwater River) next week. These pre-smolts are not expected to out-migrate until spring of 2017 and marking information on these fish is currently unknown. No other releases are 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 were scheduled 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 from Bonneville Dam to McNary Dam. No new releases were scheduled for this zone this week and no new releases are scheduled over the next two weeks.

### Adult Passage

The adult fall Chinook count of 426,043 is about 48.4% of the 2015 count of 881,073 and about 89.2% of the 10-year average count of 477,578. The 2016 Bonneville Dam fall Chinook jack count of 51,722 is about 69.3% of the 2015 count of 74,642 and 66.7% of the 10-year average count of 77,507. The 2016 adult fall Chinook count of 35,343 at Ice Harbor Dam in the Snake River is about 59.5% of the 2015 count while having 98 more fish than the 10-year average count of 35,245. The 2016 Lower Granite fall Chinook adult count of 31,721 is about 59.3% of the 2015 count but 1.1 times greater than the 10-year average count of 29,674.

The 2016 Bonneville Dam adult steelhead count of 179,574 is about 70.7% of the 2015 count of 253,916 and about 53.3% of the 10-year average count of 336,956. The 2016 Bonneville Dam adult wild steelhead count of 49,824 is about 53.7% of the 2015 count of 92,745 and about 44.8% of the 10-year average count of 111,072. Daily adult steelhead counts at Lower Granite Dam ranged from 1,301 to 2,705 adults per day last week. This year's Lower Granite steelhead count of 59,121 is about 64.2% of the 2015 count of 92,115 and 50.7% of the 10-year average count of 116,723. The 2016 Lower Granite Dam adult wild steelhead count of 14,320 is 55.2% of the 2015 count of 25,933 and about 45.9% of the 10-year average count of 31,196. At Willamette Falls, the 2016 count for steelhead was 26,384 as of October 5<sup>th</sup>. This year's steelhead count is about 3.3 times greater than the 2015 count of 7,947 and about 1.2 times greater than the 10-year average count of 22,532.

As of October 6<sup>th</sup>, the cumulative adult coho count at Bonneville Dam is 29,829, which is about 1.1 times greater than the 2015 count but only 34.2% of the 10-year average count of 87,103.

## Hatchery Releases Last Two Weeks

**Hatchery Release Summary**  
From: 9/24/2016 to 10/07/16

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
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No Releases Scheduled

## Hatchery Releases Next Two Weeks

**Hatchery Release Summary**  
**10/8/2016 to 10/21/2016**

<b>Agency</b>	<b>Hatchery</b>	<b>Species</b>	<b>Race</b>	<b>MigYr</b>	<b>NumRel</b>	<b>RelStart</b>	<b>RelEnd</b>	<b>RelSite</b>	<b>RelRiver</b>
Nez Perce Tribe	Nez Perce Tribal Hatchery	CH0	SP	2017	84,000	10-12-16	10-12-16	Newsome Creek	S Fk Clearwater River
Nez Perce Tribe	Nez Perce Tribal Hatchery	CH0	SP	2017	161,500	10-12-16	10-12-16	Lolo Creek	Clearwater River M F
<b>Nez Perce Tribe Total</b>					<b>245,500</b>				
<b>Grand Total</b>					<b>245,500</b>				

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

**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
09/23/2016	72.2	0.1	70.4	0.0	68.0	0.0	64.9	0.0	68.1	0.0	66.8	2.6	63.8	2.4
09/24/2016	72.6	0.1	68.5	0.0	73.5	0.0	76.1	0.0	79.1	0.0	88.4	2.6	86.2	2.8
09/25/2016	54.3	0.1	56.7	0.0	60.6	0.0	57.1	0.0	59.9	0.3	70.8	1.9	73.0	2.5
09/26/2016	63.5	0.1	60.3	0.0	70.3	0.0	73.8	0.0	76.9	3.3	90.9	1.5	87.8	9.5
09/27/2016	64.8	0.1	66.5	0.0	59.5	0.0	60.0	0.0	62.2	1.8	66.1	1.4	67.6	1.9
09/28/2016	84.8	0.1	77.8	0.0	73.6	0.0	73.5	0.0	77.6	0.0	75.4	1.5	73.3	2.1
09/29/2016	69.3	0.1	74.0	0.0	74.5	0.0	72.7	0.0	75.9	0.0	74.3	2.1	72.8	2.0
09/30/2016	76.5	0.1	72.2	0.0	72.2	0.0	71.7	0.0	75.8	0.2	73.0	2.4	72.6	2.3
10/01/2016	61.3	0.0	66.7	0.0	67.2	0.0	66.1	0.0	66.4	0.0	66.1	2.4	60.0	2.4
10/02/2016	67.0	0.0	68.5	0.0	70.1	0.0	69.8	0.0	74.4	0.0	83.0	2.5	81.7	2.7
10/03/2016	69.4	0.0	65.1	0.0	67.6	0.0	70.5	0.0	74.3	0.0	78.4	2.3	73.6	2.6
10/04/2016	54.4	0.0	60.1	0.0	64.7	0.0	64.2	0.0	66.4	0.0	79.4	1.9	80.2	2.4
10/05/2016	64.6	0.0	56.2	0.0	61.2	0.0	59.9	0.0	61.0	0.0	73.5	1.7	74.1	2.4
10/06/2016	63.4	0.0	64.9	0.0	62.0	0.0	61.3	0.0	64.2	0.0	62.1	1.7	59.3	2.3

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

Date	Dworshak		Brownlee		Hells Canyon		Lower Granite		Little Goose		Lower Monumental		Ice Harbor	
	Flow	Spill	Inflow	Outflow	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill
09/23/2016	1.6	0.0	---	10.1	19.6	0.0	15.3	0.0	13.4	0.0	13.5	0.0	13.5	0.0
09/24/2016	1.6	0.0	---	9.0	15.9	0.0	15.8	0.0	15.4	0.0	15.5	0.0	15.5	0.0
09/25/2016	1.6	0.0	---	11.1	12.9	0.0	13.0	0.0	12.2	0.0	10.5	0.0	10.5	0.0
09/26/2016	1.6	0.0	---	10.7	18.9	0.0	19.1	0.0	20.7	0.0	22.0	0.0	22.0	0.0
09/27/2016	1.6	0.0	---	10.9	19.9	0.0	17.4	0.0	16.9	0.0	16.4	0.0	16.4	0.0
09/28/2016	1.6	0.0	---	12.8	18.5	0.0	17.9	0.0	17.7	0.0	17.1	0.0	17.1	0.0
09/29/2016	1.6	0.0	---	13.3	20.4	0.0	17.0	0.0	16.6	0.0	19.0	0.0	19.0	0.0
09/30/2016	1.6	0.0	---	14.7	18.3	0.0	16.2	0.0	16.7	0.0	15.3	0.0	15.3	0.0
10/01/2016	1.6	0.0	---	13.5	17.1	0.0	12.8	0.0	13.0	0.0	12.2	0.0	12.2	0.0
10/02/2016	1.6	0.0	---	12.9	20.0	0.0	13.4	0.0	13.4	0.0	13.9	0.0	13.9	0.0
10/03/2016	1.6	0.0	---	13.0	22.6	0.0	17.8	0.0	18.0	0.0	17.1	0.0	17.1	0.0
10/04/2016	1.6	0.0	---	12.8	18.0	0.0	17.6	0.0	17.2	0.0	17.7	0.0	17.7	0.0
10/05/2016	1.6	0.0	---	12.2	22.0	0.0	21.4	0.0	22.6	0.0	22.0	0.0	22.0	0.0
10/06/2016	1.6	0.0	---	12.8	23.9	0.0	22.3	0.0	21.4	0.0	20.4	0.0	20.4	0.0

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

Date	McNary		John Day		The Dalles		Bonneville		PH1	PH2
	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill		
09/23/2016	79.7	0.0	77.7	1.0	76.7	0.0	84.2	1.3	33.8	41.8
09/24/2016	82.0	0.0	77.2	0.9	78.7	0.0	85.1	1.3	35.2	41.2
09/25/2016	92.7	0.0	89.5	0.9	88.0	0.0	92.9	1.2	42.2	42.0
09/26/2016	106.2	0.0	104.8	0.9	104.5	0.0	114.2	1.2	61.0	44.6
09/27/2016	111.3	0.0	105.0	0.9	106.4	0.0	108.0	1.2	57.6	41.7
09/28/2016	88.6	0.0	90.0	0.9	89.1	0.0	101.7	1.2	52.1	41.0
09/29/2016	92.1	0.0	90.0	0.9	88.4	0.0	92.2	1.2	42.6	41.0
09/30/2016	85.6	0.0	78.0	0.9	76.3	0.0	83.6	1.3	33.8	41.1
10/01/2016	83.2	0.0	74.6	0.9	75.6	0.0	88.5	1.3	40.4	39.4
10/02/2016	80.5	0.0	62.7	0.9	62.1	0.0	78.4	1.3	28.4	41.4
10/03/2016	90.7	0.0	76.5	0.9	77.3	0.0	85.1	1.2	35.2	41.3
10/04/2016	102.6	0.0	89.3	1.0	87.2	0.0	89.0	1.3	36.2	44.1
10/05/2016	99.6	0.0	102.8	0.9	101.4	0.0	107.6	1.2	55.3	43.7
10/06/2016	85.0	0.0	88.7	0.9	91.8	0.0	103.5	1.2	52.8	42.0

## 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

Date	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	#					
	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High					
9/23	101.6	102.0	102.4	24	---	---	---	0	100.4	100.8	101.1	24	99.5	100.1	101.0	24	100.1	100.4	100.9	24
9/24	100.5	100.8	101.0	24	---	---	---	0	99.8	100.0	100.3	24	98.4	98.9	99.3	24	99.0	99.3	99.5	24
9/25	100.4	100.9	102.6	24	---	---	---	0	99.5	99.6	99.7	24	98.4	99.1	99.5	24	98.9	99.2	99.5	24
9/26	99.9	100.4	100.6	24	---	---	---	0	100.1	100.6	101.0	24	98.9	99.6	100.0	24	99.6	100.4	100.7	24
9/27	100.5	100.8	101.2	24	---	---	---	0	100.5	100.6	100.8	24	99.1	99.6	100.4	24	100.0	100.3	100.4	24
9/28	100.4	100.8	101.0	24	---	---	---	0	100.4	100.5	100.6	24	98.8	99.3	99.7	24	99.9	100.3	100.6	24
9/29	100.7	101.0	101.3	24	---	---	---	0	100.3	100.5	100.6	24	98.6	99.3	99.9	24	100.2	100.7	100.9	24
9/30	100.9	101.3	101.6	24	---	---	---	0	100.6	100.7	100.8	24	98.4	98.9	99.3	24	100.2	100.4	100.6	24
10/1	101.2	101.4	101.9	24	---	---	---	0	100.5	100.7	100.7	24	98.3	98.8	99.2	24	99.5	99.8	99.9	24
10/2	100.9	101.4	101.8	24	---	---	---	0	100.4	100.7	100.8	24	98.3	99.0	99.6	24	99.1	99.4	99.7	24
10/3	101.2	101.6	101.9	24	---	---	---	0	100.5	100.5	100.7	24	98.4	98.8	99.2	24	99.1	99.4	99.7	24
10/4	100.9	101.2	101.5	24	---	---	---	0	100.3	100.4	100.6	24	98.2	98.7	99.0	24	98.8	99.0	99.3	24
10/5	100.8	101.3	101.9	24	---	---	---	0	99.8	100.0	100.1	24	98.1	98.7	99.0	24	98.6	98.9	99.3	24
10/6	100.5	100.9	101.3	23	---	---	---	0	99.3	99.5	99.7	23	97.5	98.1	98.6	23	98.2	98.4	98.6	23

### Total Dissolved Gas Saturation Data at Mid Columbia River Sites

Date	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	#					
	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High					
9/23	100.6	100.9	101.3	24	100.1	100.3	100.5	24	100.3	100.7	101.2	24	100.5	100.6	100.8	24	100.2	100.5	100.7	24
9/24	99.6	99.9	100.4	24	99.2	99.6	100.0	24	99.4	99.9	100.4	24	99.4	99.5	99.9	24	99.3	99.6	99.7	24
9/25	99.4	99.9	100.4	24	99.2	99.6	100.3	24	99.3	99.9	100.7	24	99.3	99.5	100.0	24	98.9	99.4	99.7	24
9/26	100.2	100.7	101.3	24	100.1	100.7	101.4	22	100.3	101.1	101.9	22	100.0	100.4	100.9	24	99.6	100.4	100.8	24
9/27	100.7	101.2	101.9	24	100.6	100.9	101.6	23	100.6	101.1	102.2	23	100.7	100.9	101.3	24	100.2	100.7	100.9	24
9/28	100.1	100.4	100.7	24	100.3	100.5	100.7	24	100.3	100.8	101.4	24	100.6	100.8	101.1	24	100.4	100.9	101.1	24
9/29	100.8	101.4	101.8	24	100.4	100.7	101.1	24	100.5	100.9	101.4	24	101.0	101.1	101.5	24	100.8	101.1	101.2	24
9/30	100.5	100.8	101.1	24	100.2	100.3	100.4	23	100.3	100.5	101.0	23	101.0	101.2	101.5	24	100.7	101.1	101.4	24
10/1	100.1	100.7	101.4	24	100.1	100.3	100.4	24	100.1	100.5	100.9	24	100.7	100.8	101.1	24	100.2	100.4	100.7	24
10/2	99.8	100.2	101.0	24	99.7	100.0	100.4	24	99.7	100.3	101.1	24	100.3	100.4	100.5	24	100.4	100.6	100.8	24
10/3	99.6	99.9	101.0	24	99.6	99.9	100.4	24	99.7	100.4	101.1	24	100.2	100.3	100.4	24	100.0	100.4	100.5	24
10/4	99.6	100.2	101.2	24	99.1	99.3	99.5	24	99.1	99.5	100.0	24	100.0	100.2	100.3	24	99.9	100.1	100.3	24
10/5	99.0	99.5	100.3	24	98.5	98.8	99.2	24	98.3	98.8	99.5	24	99.5	99.6	99.7	24	99.2	99.5	99.7	24
10/6	98.6	98.9	99.3	23	97.9	98.3	98.4	23	97.7	98.3	98.7	23	98.8	98.9	99.1	23	98.8	99.2	99.5	23

### Total Dissolved Gas Saturation at Mid Columbia River Sites

Date	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	#					
	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High					
9/23	99.9	100.1	100.3	24	100.1	100.3	100.7	24	98.6	99.5	100.1	24	101.0	101.6	102.9	24	100.4	100.6	100.9	24
9/24	98.7	99.2	99.3	24	99.2	99.3	99.5	24	98.6	99.2	99.6	24	99.5	99.9	100.3	24	99.2	99.4	99.8	24
9/25	98.8	98.9	99.2	24	99.2	99.5	100.9	24	97.8	99.8	100.3	24	99.5	100.1	100.3	24	99.4	99.7	99.9	24
9/26	99.6	99.9	100.5	24	100.6	101.6	105.6	24	100.6	102.4	104.6	24	100.4	100.8	101.0	24	100.2	100.7	100.8	24
9/27	100.2	100.3	100.7	24	100.9	101.5	105.6	23	99.2	101.0	101.9	24	100.6	101.0	101.1	24	100.7	100.9	101.0	24
9/28	100.0	100.4	100.8	24	100.4	100.5	100.8	24	100.5	102.0	102.9	24	100.6	101.0	101.3	24	100.6	100.8	101.0	24
9/29	100.4	100.7	100.8	24	100.6	100.8	100.9	24	99.0	101.4	102.4	24	101.1	101.5	101.8	24	100.9	101.2	101.3	24
9/30	100.6	100.7	100.8	24	100.8	100.8	100.9	24	99.8	101.1	101.7	24	101.0	101.3	101.5	24	100.8	100.9	101.0	24
10/1	100.1	100.4	100.7	24	100.3	100.6	100.8	24	98.7	99.9	100.1	24	100.9	101.3	102.0	24	100.3	100.4	100.6	24
10/2	99.8	100.1	100.3	24	100.0	100.2	100.3	24	100.1	100.4	100.7	24	100.9	101.1	101.2	24	100.4	100.6	100.9	24
10/3	100.0	100.1	100.3	24	100.1	100.3	100.4	23	99.9	100.3	100.7	24	100.7	100.9	101.1	24	100.3	100.4	100.5	24
10/4	99.4	99.5	99.9	24	99.5	99.6	99.9	23	99.5	99.9	100.1	24	100.2	100.3	100.6	24	100.2	100.3	100.4	24
10/5	99.0	99.2	99.3	24	99.2	99.4	99.7	24	---	---	---	0	---	---	---	0	---	---	---	0
10/6	98.6	98.7	98.8	23	98.8	99.0	99.2	23	---	---	---	0	---	---	---	0	---	---	---	0

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

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

Date	<u>Priest R. Dnst</u>			<u>Pasco</u>			<u>Dworshak</u>			<u>Clrwtr-Peck</u>			<u>Anatone</u>							
	<u>24 h</u>	<u>12 h</u>	#	<u>24 h</u>	<u>12 h</u>	#	<u>24 h</u>	<u>12 h</u>	#	<u>24 h</u>	<u>12 h</u>	#	<u>24 h</u>	<u>12 h</u>	#					
	Avg	Avg		High	hr		Avg	Avg		High	hr		Avg	Avg		High	hr	Avg	Avg	High
9/23	101.4	101.8	102.2	24	---	---	---	0	104.1	104.5	105.0	24	---	---	---	0	100.7	101.5	102.4	24
9/24	100.4	100.7	100.9	24	---	---	---	0	103.3	103.7	104.2	24	---	---	---	0	100.6	101.4	102.5	24
9/25	100.6	101.3	102.1	24	---	---	---	0	103.2	103.8	104.4	24	---	---	---	0	100.8	101.9	103.0	24
9/26	102.5	104.5	109.1	24	---	---	---	0	104.0	105.0	105.6	24	---	---	---	0	101.6	102.6	103.8	24
9/27	101.7	102.2	102.7	24	---	---	---	0	104.4	104.9	105.4	24	---	---	---	0	101.5	102.3	103.4	24
9/28	101.6	101.9	102.1	24	---	---	---	0	104.6	105.2	105.7	24	---	---	---	0	101.3	102.2	103.3	23
9/29	101.8	102.3	102.7	24	---	---	---	0	104.6	105.1	105.6	24	---	---	---	0	101.2	101.9	103.0	22
9/30	101.6	101.9	102.2	24	---	---	---	0	104.6	105.2	105.7	24	---	---	---	0	101.2	102.1	103.1	24
10/1	101.2	101.5	101.9	24	---	---	---	0	104.2	104.5	104.8	24	---	---	---	0	100.8	101.5	102.5	23
10/2	101.2	101.7	102.0	24	---	---	---	0	104.6	105.3	105.8	24	---	---	---	0	101.3	102.4	103.6	24
10/3	101.2	101.4	101.9	24	---	---	---	0	104.4	104.6	104.7	24	---	---	---	0	100.8	101.3	101.9	23
10/4	100.9	101.3	101.8	24	---	---	---	0	104.0	104.3	104.6	24	---	---	---	0	100.0	100.0	101.0	12
10/5	---	---	---	0	---	---	---	0	104.0	104.6	105.2	24	---	---	---	0	---	---	---	0
10/6	---	---	---	0	---	---	---	0	103.5	104.0	104.7	23	---	---	---	0	---	---	---	0

### Total Dissolved Gas Saturation Data at Snake River Sites

Date	<u>Clrwtr-Lewiston</u>			<u>Lower Granite</u>			<u>L. Granite Tlwr</u>			<u>Little Goose</u>			<u>L. Goose Tlwr</u>							
	<u>24 h</u>	<u>12 h</u>	#	<u>24 h</u>	<u>12 h</u>	#	<u>24 h</u>	<u>12 h</u>	#	<u>24 h</u>	<u>12 h</u>	#	<u>24 h</u>	<u>12 h</u>	#					
	Avg	Avg		High	hr		Avg	Avg		High	hr		Avg	Avg		High	hr	Avg	Avg	High
9/23	---	---	---	0	---	---	---	0	98.6	98.8	99.1	24	---	---	---	0	98.5	98.8	99.3	24
9/24	---	---	---	0	---	---	---	0	98.2	98.5	99.0	24	---	---	---	0	97.7	97.9	98.3	24
9/25	---	---	---	0	---	---	---	0	98.9	99.7	99.9	24	---	---	---	0	97.4	97.8	98.0	24
9/26	---	---	---	0	---	---	---	0	101.8	103.3	104.3	24	---	---	---	0	98.5	99.2	99.6	24
9/27	---	---	---	0	---	---	---	0	101.6	102.1	102.6	24	---	---	---	0	99.1	99.6	100.1	24
9/28	---	---	---	0	---	---	---	0	99.8	100.1	100.5	24	---	---	---	0	99.0	99.5	100.1	24
9/29	---	---	---	0	---	---	---	0	99.8	100.5	100.7	23	---	---	---	0	98.8	99.2	99.5	24
9/30	---	---	---	0	---	---	---	0	99.9	100.5	100.9	24	---	---	---	0	99.3	99.9	100.3	24
10/1	---	---	---	0	---	---	---	0	98.9	99.3	100.1	24	---	---	---	0	98.4	98.7	99.1	24
10/2	---	---	---	0	---	---	---	0	100.5	101.9	102.2	24	---	---	---	0	99.3	100.2	100.6	24
10/3	---	---	---	0	---	---	---	0	100.1	100.5	101.5	24	---	---	---	0	99.7	100.0	100.4	24
10/4	---	---	---	0	---	---	---	0	99.2	99.6	100.4	24	---	---	---	0	99.0	99.4	99.5	24
10/5	---	---	---	0	---	---	---	0	99.1	99.5	100.4	24	---	---	---	0	99.4	99.5	99.7	24
10/6	---	---	---	0	---	---	---	0	97.8	98.0	98.6	23	---	---	---	0	98.9	99.4	99.7	23

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

Date	<u>Lower Mon.</u>			<u>L. Mon. Tlwr</u>			<u>Ice Harbor</u>			<u>Ice Harbor Tlwr</u>			<u>McNary-Oregon</u>							
	<u>24 h</u>	<u>12 h</u>	#	<u>24 h</u>	<u>12 h</u>	#	<u>24 h</u>	<u>12 h</u>	#	<u>24 h</u>	<u>12 h</u>	#	<u>24 h</u>	<u>12 h</u>	#					
	Avg	Avg		High	hr		Avg	Avg		High	hr		Avg	Avg		High	hr	Avg	Avg	High
9/23	---	---	---	0	96.3	96.6	97.0	24	---	---	---	0	98.5	98.9	99.7	24	---	---	---	0
9/24	---	---	---	0	95.4	95.6	95.8	24	---	---	---	0	97.6	98.2	99.4	24	---	---	---	0
9/25	---	---	---	0	95.2	95.5	96.1	24	---	---	---	0	97.5	98.6	100.1	24	---	---	---	0
9/26	---	---	---	0	96.4	97.1	97.3	24	---	---	---	0	98.0	98.6	99.4	24	---	---	---	0
9/27	---	---	---	0	96.7	97.3	98.9	24	---	---	---	0	98.7	99.7	101.3	24	---	---	---	0
9/28	---	---	---	0	96.6	97.1	97.9	24	---	---	---	0	98.9	99.6	101.1	24	---	---	---	0
9/29	---	---	---	0	96.3	96.6	97.0	24	---	---	---	0	99.0	99.8	101.2	24	---	---	---	0
9/30	---	---	---	0	96.6	97.1	97.6	24	---	---	---	0	98.9	99.4	99.8	24	---	---	---	0
10/1	---	---	---	0	96.1	96.2	96.5	24	---	---	---	0	99.0	99.9	103.0	24	---	---	---	0
10/2	---	---	---	0	97.4	98.0	98.2	24	---	---	---	0	99.4	100.5	101.7	24	---	---	---	0
10/3	---	---	---	0	97.2	97.5	97.9	24	---	---	---	0	98.9	99.5	100.2	24	---	---	---	0
10/4	---	---	---	0	97.7	98.2	98.6	24	---	---	---	0	98.7	99.3	100.0	24	---	---	---	0
10/5	---	---	---	0	98.0	98.3	98.6	24	---	---	---	0	98.3	98.8	100.4	24	---	---	---	0
10/6	---	---	---	0	97.3	97.6	97.9	23	---	---	---	0	98.0	98.6	99.8	22	---	---	---	0

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

### Total Dissolved Gas Saturation Data at Lower Columbia River Sites

Date	McNary-Wash			McNary Tlwr			John Day			John Day Tlwr			The Dalles							
	24 h	12 h	High	#	24 h	12 h	High	#	24h	12h	High	#	24h	12h	High	#				
	Avg	Avg			Avg	Avg			Avg	Avg			Avg	Avg						
9/23	---	---	---	0	99.5	99.7	99.8	24	---	---	---	0	99.3	99.8	101.1	24	---	---	---	0
9/24	---	---	---	0	98.9	99.3	99.9	24	---	---	---	0	98.2	98.7	100.1	24	---	---	---	0
9/25	---	---	---	0	99.2	99.7	100.0	24	---	---	---	0	98.2	98.9	99.9	24	---	---	---	0
9/26	---	---	---	0	100.5	101.1	101.5	24	---	---	---	0	99.5	100.5	101.2	24	---	---	---	0
9/27	---	---	---	0	101.0	101.1	101.5	24	---	---	---	0	100.2	100.5	100.9	24	---	---	---	0
9/28	---	---	---	0	101.2	101.7	101.9	24	---	---	---	0	100.7	101.4	101.7	24	---	---	---	0
9/29	---	---	---	0	102.2	102.8	103.7	24	---	---	---	0	101.4	102.1	102.8	24	---	---	---	0
9/30	---	---	---	0	102.2	102.8	103.3	24	---	---	---	0	100.4	101.0	101.7	24	---	---	---	0
10/1	---	---	---	0	101.7	102.1	102.6	24	---	---	---	0	100.3	100.6	101.1	24	---	---	---	0
10/2	---	---	---	0	102.1	102.6	103.1	24	---	---	---	0	100.9	102.0	102.7	24	---	---	---	0
10/3	---	---	---	0	101.4	101.6	101.8	24	---	---	---	0	101.5	101.9	102.9	24	---	---	---	0
10/4	---	---	---	0	100.9	101.1	101.3	24	---	---	---	0	100.9	101.2	101.5	24	---	---	---	0
10/5	---	---	---	0	100.2	100.5	100.7	24	---	---	---	0	99.9	100.2	100.3	24	---	---	---	0
10/6	---	---	---	0	99.6	99.8	100.2	23	---	---	---	0	99.4	99.6	99.7	23	---	---	---	0

### Total Dissolved Gas Saturation Data at Lower Columbia River Sites

Date	The Dalles Dnst			Bonneville			Warrendale			Camas\Washougal			Cascade Island							
	24 h	12 h	High	#	24 h	12 h	High	#	24h	12h	High	#	24h	12h	High	#				
	Avg	Avg			Avg	Avg			Avg	Avg			Avg	Avg						
9/23	100.2	100.4	100.4	24	---	---	---	0	102.9	103.2	103.5	24	---	---	---	0	---	---	---	0
9/24	99.3	99.7	99.9	24	---	---	---	0	102.2	102.5	103.0	24	---	---	---	0	---	---	---	0
9/25	99.4	99.9	100.0	24	---	---	---	0	102.9	103.7	104.4	24	---	---	---	0	---	---	---	0
9/26	100.1	100.5	100.8	24	---	---	---	0	103.0	103.8	104.6	24	---	---	---	0	---	---	---	0
9/27	100.2	100.4	100.6	24	---	---	---	0	103.4	104.0	104.5	24	---	---	---	0	---	---	---	0
9/28	100.4	100.9	101.1	24	---	---	---	0	104.1	104.5	104.9	24	---	---	---	0	---	---	---	0
9/29	100.6	100.8	101.1	24	---	---	---	0	103.6	103.9	104.3	24	---	---	---	0	---	---	---	0
9/30	100.6	100.9	101.1	24	---	---	---	0	103.6	104.2	104.3	24	---	---	---	0	---	---	---	0
10/1	100.6	100.7	100.8	24	---	---	---	0	103.4	103.8	104.3	24	---	---	---	0	---	---	---	0
10/2	100.9	101.4	101.8	24	---	---	---	0	103.3	103.7	104.1	24	---	---	---	0	---	---	---	0
10/3	100.7	100.9	101.1	24	---	---	---	0	103.0	103.4	103.8	24	---	---	---	0	---	---	---	0
10/4	100.2	100.3	100.5	24	---	---	---	0	102.8	103.1	103.6	24	---	---	---	0	---	---	---	0
10/5	99.8	99.9	100.1	24	---	---	---	0	102.4	102.8	102.9	24	---	---	---	0	---	---	---	0
10/6	99.5	99.6	99.8	23	---	---	---	0	102.4	102.7	102.9	23	---	---	---	0	---	---	---	0



## Two-Week Summary of Passage Indices

Source: Fish Passage Center

Updated: 10/7/2016 9:08

### 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/currentsmppsubmitdata.asp>

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)
09/22/2016	---	---	---	---	0	0	0	---	0	---	0
09/23/2016 *	---	---	---	---	1	0	0	---	---	---	0
09/24/2016	---	---	---	---	1	0	0	---	0	---	0
09/25/2016 *	---	---	---	---	0	0	0	---	---	---	0
09/26/2016	---	---	---	---	1	0	0	---	0	---	0
09/27/2016 *	---	---	---	---	0	0	0	---	---	---	0
09/28/2016	---	---	---	---	0	0	0	---	0	---	0
09/29/2016 *	---	---	---	---	2	0	0	---	---	---	0
09/30/2016	---	---	---	---	0	0	0	---	0	---	0
10/01/2016	---	---	---	---	0	0	---	---	---	---	0
10/02/2016	---	---	---	---	0	0	---	---	---	---	0
10/03/2016	---	---	---	---	2	0	---	---	---	---	0
10/04/2016	---	---	---	---	0	0	---	---	---	---	0
10/05/2016	---	---	---	---	3	0	---	---	---	---	0
10/06/2016	---	---	---	---	3	0	---	---	---	---	0
<hr/>											
<b>Total:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>13</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b># Days:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>15</b>	<b>15</b>	<b>9</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>15</b>
<b>Average:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>YTD</b>	<b>27,295</b>	<b>56,779</b>	<b>16,183</b>	<b>7,757</b>	<b>5,899,076</b>	<b>3,490,956</b>	<b>4,892,142</b>	<b>44,784</b>	<b>2,181,660</b>	<b>1,456,048</b>	<b>2,660,728</b>

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)
09/22/2016	---	---	---	---	7	95	13	---	4	---	22
09/23/2016 *	---	---	---	---	7	53	3	---	---	---	60
09/24/2016	---	---	---	---	4	79	5	---	4	---	0
09/25/2016 *	---	---	---	---	2	103	3	---	---	---	0
09/26/2016	---	---	---	---	2	50	2	---	0	---	0
09/27/2016 *	---	---	---	---	13	25	3	---	---	---	0
09/28/2016	---	---	---	---	32	35	1	---	12	---	0
09/29/2016 *	---	---	---	---	67	40	1	---	---	---	0
09/30/2016	---	---	---	---	163	37	3	---	0	---	19
10/01/2016	---	---	---	---	198	27	---	---	---	---	0
10/02/2016	---	---	---	---	189	42	---	---	---	---	0
10/03/2016	---	---	---	---	212	35	---	---	---	---	0
10/04/2016	---	---	---	---	226	46	---	---	---	---	0
10/05/2016	---	---	---	---	346	44	---	---	---	---	20
10/06/2016	---	---	---	---	856	81	---	---	---	---	22
<hr/>											
<b>Total:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2,324</b>	<b>792</b>	<b>34</b>	<b>0</b>	<b>20</b>	<b>0</b>	<b>143</b>
<b># Days:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>15</b>	<b>15</b>	<b>9</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>15</b>
<b>Average:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>155</b>	<b>53</b>	<b>4</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>10</b>
<b>YTD</b>	<b>0</b>	<b>78</b>	<b>698</b>	<b>2,869</b>	<b>1,184,751</b>	<b>884,331</b>	<b>328,334</b>	<b>20,979</b>	<b>4,329,629</b>	<b>939,671</b>	<b>3,126,334</b>

## 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)
09/22/2016	---	---	---	---	0	0	0	---	0	---	0
09/23/2016 *	---	---	---	---	0	0	0	---	---	---	0
09/24/2016	---	---	---	---	0	0	0	---	0	---	0
09/25/2016 *	---	---	---	---	0	0	0	---	---	---	0
09/26/2016	---	---	---	---	0	0	0	---	0	---	0
09/27/2016 *	---	---	---	---	0	0	0	---	---	---	0
09/28/2016	---	---	---	---	0	0	0	---	0	---	0
09/29/2016 *	---	---	---	---	0	0	0	---	---	---	0
09/30/2016	---	---	---	---	0	0	0	---	0	---	0
10/01/2016	---	---	---	---	0	0	---	---	---	---	0
10/02/2016	---	---	---	---	0	0	---	---	---	---	0
10/03/2016	---	---	---	---	0	0	---	---	---	---	0
10/04/2016	---	---	---	---	0	0	---	---	---	---	0
10/05/2016	---	---	---	---	0	0	---	---	---	---	0
10/06/2016	---	---	---	---	0	0	---	---	---	---	0
<hr/>											
<b>Total:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b># Days:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>15</b>	<b>15</b>	<b>9</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>15</b>
<b>Average:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>YTD</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>316</b>	<b>198,074</b>	<b>147,678</b>	<b>60,123</b>	<b>45,366</b>	<b>154,245</b>	<b>58,662</b>	<b>802,520</b>

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)
09/22/2016	---	---	---	---	1	0	0	---	0	---	0
09/23/2016 *	---	---	---	---	0	0	0	---	---	---	0
09/24/2016	---	---	---	---	0	1	0	---	0	---	0
09/25/2016 *	---	---	---	---	0	0	0	---	---	---	0
09/26/2016	---	---	---	---	0	0	0	---	0	---	0
09/27/2016 *	---	---	---	---	0	0	0	---	---	---	0
09/28/2016	---	---	---	---	0	0	0	---	0	---	0
09/29/2016 *	---	---	---	---	0	1	0	---	---	---	0
09/30/2016	---	---	---	---	1	1	0	---	0	---	0
10/01/2016	---	---	---	---	0	0	---	---	---	---	0
10/02/2016	---	---	---	---	0	0	---	---	---	---	0
10/03/2016	---	---	---	---	0	0	---	---	---	---	0
10/04/2016	---	---	---	---	0	0	---	---	---	---	0
10/05/2016	---	---	---	---	0	0	---	---	---	---	0
10/06/2016	---	---	---	---	1	0	---	---	---	---	0
<hr/>											
<b>Total:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b># Days:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>15</b>	<b>15</b>	<b>9</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>15</b>
<b>Average:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>YTD</b>	<b>755</b>	<b>26,537</b>	<b>3,377</b>	<b>9,186</b>	<b>3,957,238</b>	<b>2,295,509</b>	<b>1,838,113</b>	<b>17,664</b>	<b>735,196</b>	<b>502,821</b>	<b>622,598</b>

## Two-Week Summary of Passage Indices

Date	COMBINED SOCKEYE										
	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (INDEX)	LGS (INDEX)	LMN (INDEX)	RIS (INDEX)	MCN (INDEX)	JDA (INDEX)	BO2 (INDEX)
09/22/2016	---	---	---	---	1	0	0	---	0	---	0
09/23/2016 *	---	---	---	---	0	0	0	---	---	---	0
09/24/2016	---	---	---	---	0	0	0	---	0	---	0
09/25/2016 *	---	---	---	---	0	0	0	---	---	---	0
09/26/2016	---	---	---	---	0	0	0	---	0	---	0
09/27/2016 *	---	---	---	---	1	0	0	---	---	---	0
09/28/2016	---	---	---	---	0	0	0	---	0	---	0
09/29/2016 *	---	---	---	---	0	0	0	---	---	---	0
09/30/2016	---	---	---	---	0	0	0	---	0	---	0
10/01/2016	---	---	---	---	1	0	---	---	---	---	0
10/02/2016	---	---	---	---	0	0	---	---	---	---	0
10/03/2016	---	---	---	---	0	0	---	---	---	---	0
10/04/2016	---	---	---	---	0	0	---	---	---	---	0
10/05/2016	---	---	---	---	2	0	---	---	---	---	0
10/06/2016	---	---	---	---	1	0	---	---	---	---	0
<hr/>											
<b>Total:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b># Days:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>15</b>	<b>15</b>	<b>9</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>15</b>
<b>Average:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>YTD</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>133</b>	<b>43,858</b>	<b>32,774</b>	<b>24,148</b>	<b>56,642</b>	<b>861,061</b>	<b>303,206</b>	<b>801,582</b>

Date	COMBINED LAMPREY JUVENILES										
	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR <sup>†</sup> (Samp)	LGS (Coll)	LMN (Coll)	RIS (Coll)	MCN (Coll)	JDA (Coll)	BO2 (Coll)
09/22/2016	---	---	---	---	4	11	1	---	12	---	0
09/23/2016 *	---	---	---	---	10	16	1	---	---	---	0
09/24/2016	---	---	---	---	1	20	0	---	4	---	0
09/25/2016 *	---	---	---	---	22	17	0	---	---	---	0
09/26/2016	---	---	---	---	3	17	0	---	4	---	0
09/27/2016 *	---	---	---	---	11	11	0	---	---	---	0
09/28/2016	---	---	---	---	2	11	0	---	8	---	0
09/29/2016 *	---	---	---	---	17	5	0	---	---	---	0
09/30/2016	---	---	---	---	3	14	1	---	0	---	0
10/01/2016	---	---	---	---	12	4	---	---	---	---	0
10/02/2016	---	---	---	---	0	8	---	---	---	---	0
10/03/2016	---	---	---	---	25	8	---	---	---	---	0
10/04/2016	---	---	---	---	4	5	---	---	---	---	0
10/05/2016	---	---	---	---	3	6	---	---	---	---	0
10/06/2016	---	---	---	---	1	3	---	---	---	---	0
<hr/>											
<b>Total:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>118</b>	<b>156</b>	<b>3</b>	<b>0</b>	<b>28</b>	<b>0</b>	<b>0</b>
<b># Days:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>15</b>	<b>15</b>	<b>9</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>15</b>
<b>Average:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>0</b>
<b>YTD</b>	<b>0</b>	<b>5</b>	<b>1</b>	<b>0</b>	<b>539</b>	<b>35,084</b>	<b>29,725</b>	<b>113</b>	<b>34,684</b>	<b>26,193</b>	<b>10,119</b>

## 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:

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 macrophthalmia, 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:

10/7/16 9:09 AM

**09/23/16                      TO                      10/07/16**

		Species				
Site	Data	CH0	CH1	ST	SO	Grand Total
<b>LGR</b>	Sum of NumberCollected	2,324	13	3	6	2,346
	Sum of NumberBarged	0	0	0	0	0
	Sum of NumberBypassed	0	0	3	1	4
	Sum of Numbertrucked	2,291	13	1	4	2,309
	Sum of SampleMorts	52	0	0	1	53
	Sum of FacilityMorts	0	0	0	0	0
	Sum of ResearchMorts	0	0	0	0	0
	Sum of TotalProjectMorts	52	0	0	1	53
<b>LGS</b>	Sum of NumberCollected	792		3		795
	Sum of NumberBarged	0		0		0
	Sum of NumberBypassed	1		0		1
	Sum of Numbertrucked	984		2		986
	Sum of SampleMorts	4		0		4
	Sum of FacilityMorts	0		1		1
	Sum of ResearchMorts	0		0		0
	Sum of TotalProjectMorts	4		1		5
<b>LMN</b>	Sum of NumberCollected	34				34
	Sum of NumberBarged	0				0
	Sum of NumberBypassed	0				0
	Sum of Numbertrucked	43				43
	Sum of SampleMorts	0				0
	Sum of FacilityMorts	0				0
	Sum of ResearchMorts	0				0
	Sum of TotalProjectMorts	0				0
Total Sum of NumberCollected		3,150	13	6	6	3,175
Total Sum of NumberBarged		0	0	0	0	0
Total Sum of NumberBypassed		1	0	3	1	5
Total Sum of Numbertrucked		3,318	13	3	4	3,338
Total Sum of SampleMorts		56	0	0	1	57
Total Sum of FacilityMorts		0	0	1	0	1
Total Sum of ResearchMorts		0	0	0	0	0
Total Sum of TotalProjectMorts		56	0	1	1	58

### YTD Transportation Summary

Source: Fish Passage Center

Updated:

10/7/16 9:09 AM

TO: 10/07/16

		Species					
Site	Data	CH0	CH1	CO	SO	ST	Grand Total
<b>LGR</b>	Sum of NumberCollected	760,827	4,510,021	150,415	33,357	2,986,101	8,440,721
	Sum of NumberBarged	717,253	1,403,213	117,278	31,849	1,110,010	3,379,603
	Sum of NumberBypassed	31,770	3,104,914	33,069	651	1,875,882	5,046,286
	Sum of NumberTrucked	9,090	17	1	4	1	9,113
	Sum of SampleMorts	353	94	1	18	37	503
	Sum of FacilityMorts	2,159	1,361	66	830	103	4,519
	Sum of ResearchMorts	202	422	0	5	68	697
	Sum of TotalProjectMorts	2,714	1,877	67	853	208	5,719
<b>LGS</b>	Sum of NumberCollected	615,966	2,438,124	104,356	22,900	1,600,777	4,782,123
	Sum of NumberBarged	602,659	1,022,201	90,682	22,669	670,896	2,409,107
	Sum of NumberBypassed	2,874	1,415,436	13,600	7	929,747	2,361,664
	Sum of NumberTrucked	9,316	0	0	0	24	9,340
	Sum of SampleMorts	159	23	1	22	12	217
	Sum of FacilityMorts	958	464	73	202	98	1,795
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	1,117	487	74	224	110	2,012
<b>LMN</b>	Sum of NumberCollected	184,102	3,510,226	40,585	11,370	1,285,420	5,031,703
	Sum of NumberBarged	180,110	1,897,394	34,346	11,348	630,499	2,753,697
	Sum of NumberBypassed	2,568	1,612,351	6,238	0	654,785	2,275,942
	Sum of NumberTrucked	654	1	0	0	14	669
	Sum of SampleMorts	64	127	0	5	23	219
	Sum of FacilityMorts	144	353	1	18	99	615
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	208	480	1	23	122	834
Total Sum of NumberCollected		1,560,895	10,458,371	295,356	67,627	5,872,298	18,254,547
Total Sum of NumberBarged		1,500,022	4,322,808	242,306	65,866	2,411,405	8,542,407
Total Sum of NumberBypassed		37,212	6,132,701	52,907	658	3,460,414	9,683,892
Total Sum of NumberTrucked		19,060	18	1	4	39	19,122
Total Sum of SampleMorts		576	244	2	45	72	939
Total Sum of FacilityMorts		3,261	2,178	140	1,050	300	6,929
Total Sum of ResearchMorts		202	422	0	5	68	697
Total Sum of TotalProjectMorts		4,039	2,844	142	1,100	440	8,565

**Cumulative Adult Passage at Mainstem Dams Through: 10/06**

DAM	ENDDATE	Spring Chinook						Summer Chinook						Fall Chinook					
		2016		2015		10-Yr Avg.		2016		2015		10-Yr Avg.		2016		2015		10-Yr Avg.	
		Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack
BON	10/04	137215	11145	220480	13314	146704	24884	119591	10834	161735	17730	95523	21451	426043	51722	881073	74642	477578	77507
TDA	10/06	105504	9999	194116	12307	114381	21222	95764	8800	123915	15458	80170	17256	301589	48507	571829	77305	290319	63832
JDA	10/04	93659	8262	166015	11514	99110	19896	90259	7715	108768	10988	71447	16841	251060	36045	458742	52056	222306	54296
MCN	10/06	82626	7237	156151	8767	89797	16347	83894	6501	96287	8723	67089	12624	224898	22858	423329	42137	200039	37748
IHR	10/06	67484	5029	116462	5745	63912	10829	13980	1538	21408	2807	18404	4767	35343	11782	59425	7659	35245	15440
LMN	10/06	66115	6268	111511	8697	63840	10328	12460	2344	17764	4835	19733	5633	31875	13778	51116	14166	31608	16866
LGS	10/06	62597	6365	105124	8553	59587	11445	12480	1919	15494	4464	18840	6201	32076	9852	53592	8884	30687	12870
LGR	10/06	62050	5480	104873	8379	58449	12640	12075	2107	14958	4222	16726	6692	31721	10086	53510	8714	29674	14562
PRD	10/04	16843	1003	27716	1570	17080	1731	80288	5126	78139	3550	55483	2565	32962	2633	58879	4002	51406	6754
WAN	10/04	17164	919	25982	1077	16645	2069	79255	4110	76636	2180	52935	2019	19054	1724	38855	2495	22495	4187
RIS	10/05	18646	715	31748	1092	17101	2726	79253	3434	88691	2476	55112	5343	11292	1721	24222	1932	11452	3844
RRH	10/05	9449	351	15244	609	7441	1202	58559	2827	76246	1937	44031	3757	8603	1268	20178	1323	8658	2648
WEL	10/05	11789	833	19971	1520	7481	1542	44646	2492	62129	3311	34173	3761	3494	535	8277	505	3600	1435
WFA	10/04	29294	2123	51046	2042	35288	1298	0	0	0	0	0	0	900	207	1778	628	1395	375

DAM	ENDDATE	Coho						Sockeye			Steelhead						Lamprey		
		2016		2015		10-Yr Avg.		2016	2015	10-Yr Avg.	10-Yr		2016	2015	10-Yr	2016	2015	10-Yr	
		Adult	Jack	Adult	Jack	Adult	Jack				Wild	Wild							Wild
BON	10/04	29829	4325	27900	3793	87103	5632	342495	510707	285072	179574	253916	336956	49824	92745	111072	52228	38436	22863
TDA	10/06	17961	1725	21614	2964	39550	3846	288397	429782	243357	132429	197057	260358	35598	68702	83981	11550	12362	6497
JDA	10/04	13188	2208	16406	2742	30695	3712	289972	366327	235110	110135	153139	225475	30549	52851	71864	9645	8275	5649
MCN	10/06	8990	961	14263	3041	21272	2916	261695	279678	203222	99313	148140	193419	26000	48112	57698	1599	1723	1515
IHR	10/06	1423	124	1125	163	2784	259	898	1051	840	74355	101742	142068	16782	26994	35379	875	757	290
LMN	10/06	1989	365	741	267	2531	431	1024	888	983	70285	100952	139191	16182	28195	36560	239	266	87
LGS	10/06	1127	348	1214	196	2556	436	961	583	929	62182	92036	118201	14775	24325	29668	190	70	31
LGR	10/06	1407	168	747	61	2150	212	815	435	983	59121	92115	116723	14320	25933	31196	107	52	13
PRD	10/04	1289	164	2919	416	5835	535	311072	301270	238397	5959	13184	18226	0	0	0	8011	6622	4613
WAN	10/04	899	82	2035	179	2250	269	322458	296339	202998	5342	13018	17262	0	0	0	9124	5194	2865
RIS	10/05	1263	82	2903	91	6685	417	310335	264632	231624	6356	12767	16045	2300	5527	6701	3662	2161	1225
RRH	10/05	191	18	1147	81	1607	104	235921	216339	197185	5015	9685	12315	1692	3965	4788	3435	2131	1041
WEL	10/05	173	10	658	26	753	3	216031	187026	188122	3847	7841	9185	1420	3074	3678	7	0	0
WFA	10/04	1855	1606	698	597	7468	2115	0	0	0	26384	7947	22532	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.