



## Fish Passage Center

# Weekly Report #16–24

August 26, 2016

### Summary of Events

#### Water Supply

Precipitation throughout the Columbia Basin has varied between 14% and 91% of average at individual sub-basins over August. Precipitation above The Dalles has been 35% of average over early August. Over the 2016 water year, precipitation has ranged between 81% and 104% of average.

**Table 1.** Summary of August precipitation and cumulative October through August 24<sup>th</sup> precipitation with respect to average (1981–2010), at select locations within the Columbia and Snake River Basins.

Location	Water Year 2016		Water Year 2016	
	August 1–24, 2016		October 1, 2015 to August 24, 2016	
	Observed (inches)	% Average	Observed (inches)	% Average
Columbia above Coulee	0.77	53	34.3	97
Sneke River above Ice Harbor	0.09	15	19.3	90
Columbia above The Dalles	0.30	35	24.9	95
Kootenai	0.96	63	34.1	96
Clark Fork	0.50	42	22.2	85
Flathead	1.14	91	35.5	104
Pend Oreille River Basin above Waneta Dam	0.69	59	29.6	95
Salmon River Basin	0.13	15	24.4	88
Upper Snake Tributaries	0.26	26	20.4	81
Clearwater	0.21	20	37.5	96
Willamette River above Portland	0.10	14	66.9	105

Table 2 displays the August 25<sup>th</sup> ESP runoff volume forecasts for multiple reservoirs along with the June COE forecasts at Libby and Dworshak. The August 25<sup>th</sup> ESP forecast at The Dalles between April and August is 78,354 Kaf (90% of average).

**Table 2.** August ESP Runoff Volume Forecasts for various reservoirs within the Columbia and Snake River Basins.

Location	August 25, 2016 5-day QPF ESP	
	% Average (1981–2010)	Runoff Volume (Kaf)
The Dalles (Apr–Aug)	90	78,354
Grand Coulee (Apr–Aug)	91	51,895
Libby Res. Inflow, MT (Apr–Aug)	92 110*	5,417 6,445*
Hungry Horse Res. Inflow, MT (Apr–Aug)	86	1,674
Lower Granite Res. Inflow (Apr–July)	83	16,494
Brownlee Res. Inflow (Apr–July)	72	3,961
Dworshak Res. Inflow (Apr–July)	85 86*	2,064 2,057*

\* Denotes COE June Forecast

Grand Coulee Reservoir is at 1,279.7 feet (8-25-16) and drafted 2.4 feet over the last week. Outflows at Grand Coulee have ranged between 83.2 and 95.9 Kcfs over the last week.

The Libby Reservoir is currently at elevation 2,447.1 feet (8-25-16) and has drafted 0.3 feet over the previous week. Daily average outflows at Libby Dam have been 7.0 Kcfs over the last week.

Hungry Horse is currently at an elevation of 3,554.8 feet (8-25-16) and has refilled 0.2 feet over the last week. Outflows at Hungry Horse have been 2.0 Kcfs over the last week.

Dworshak is currently at an elevation of 1,539.5 feet (8-25-16) and has drafted 6.2 feet over the last week. Dworshak outflows over the last week were reduced from 10.2 Kcfs to 6.9 Kcfs.

The Brownlee Reservoir was at an elevation of 2,052.4 feet on August 24<sup>th</sup>, 2016, and has drafted 1.1 ft. over the last week. Outflows at Hells Canyon have ranged between 6.8 and 18.9 Kcfs over the last week.

The Summer Biological Opinion flow period began on June 21<sup>st</sup> with a flow objective of 50.4 Kcfs at Lower Granite. Over the Summer Flow Period, flows at Lower Granite Dam have averaged 31.8 Kcfs and 23.6 Kcfs over the last week.

The Summer Biological Opinion Flow Objective is 200 Kcfs at McNary Dam (began July 1<sup>st</sup>). Over the Summer Flow Period, flows at McNary have averaged 151.4 Kcfs and 133.6 Kcfs last week.

**Spill and River Temperature**

No spill has occurred at Dworshak Dam over the past week.

Summer spill for juvenile fish passage began on June 21<sup>st</sup> and will continue through August 31<sup>st</sup>. Summer spill for fish passage at the Snake River projects is to occur at the following amounts described in the 2016 Fish Operations Plan (FOP).

Project	Spill Level Day/Night
Lower Granite	18 Kcfs/18 Kcfs
Little Goose	30%/30%
Lower Monumental	17 Kcfs/17 Kcfs
Ice Harbor	July 13-August 31: 45 Kcfs/Gas Cap

At Lower Granite Dam the removable spillway weir was closed on June 29<sup>th</sup> to reduce the amount of surface warm water transferred from the forebay to the tailrace. The spill pattern was changed from a “bulk” spill pattern to a “uniform” spill pattern. Over the past week spill occurred as all flow in excess of that needed for the operation of one turbine unit and ranged from a daily average of 8.4 to 13.6 Kcfs. At Little Goose Dam spill was changed on July 6<sup>th</sup> from spilling 30% of instantaneous flow, to a fixed volume spill operation to maintain compatibility with Lower Granite and Lower Monumental operations. Presently, spill is a fixed volume of 8.9 Kcfs. Spill over the past week ranged from a daily average of 7.3 to 10.7 Kcfs. At Lower

Monumental Dam spill is supposed to equal 17 Kcfs, but with the low flows in the Snake it is occurring as all flow in excess of that needed to operate one turbine unit. Total daily spill over the past week ranged from 7.1 Kcfs to 15.0 Kcfs. At Ice Harbor Dam spill has also occurred as all flow in excess of that needed for the operation of one turbine unit. Spill has ranged from a daily average of 11.1 to 21.3 Kcfs.

Summer spill for fish passage began on June 16<sup>th</sup> at the middle Columbia River projects. Spill for fish passage at the middle Columbia River projects is to occur at the following amounts described in the 2016 FOP.

Project	Spill Level Day/Night
McNary	June 16-Aug 31: 50%/50%
John Day	July 20-August 31: 30%/30%
The Dalles	40%/40%
Bonneville	95 Kcfs/95 Kcfs

This past week all Middle Columbia River projects (McNary, John Day and The Dalles dams) have spilled at the 2016 FOP levels. Spill at Bonneville Dam has been changed to 95 Kcfs to address erosion concerns below the project. During some periods spill was less than the 95 Kcfs, but was equal to all flow in excess of powerhouse minimums. Spill at Bonneville ranged from a daily average of 74.5 to 94.7 Kcfs.

All sites were within TDG criteria over the past week.

**Note:** The State of Oregon TDG waiver requires compliance only with 120% TDG in the tailrace, while the State of Washington requires compliance with both a 115% TDG forebay requirement and a 120% tailrace TDG requirement. The State of Oregon and the State of Washington also use different methodologies to estimate the 12-hour average TDG. For Oregon, the 12-hour average is based on the 12 highest hourly TDG measurements in a single calendar day (not necessarily consecutive). For Washington, the 12-hour average is based on 12-hour rolling averages. The highest of the rolling averages is what is reported as the 12-hour average for a given day. The location of a TDG monitor will dictate which of these methodologies is used for compliance monitoring. The Washington methodology will apply to all the lower Snake River projects, as well as the middle Columbia River forebay monitors. On any

given day the compliance of the tailrace monitors at the middle Columbia River projects will be determined using either the Washington or Oregon methodology, whichever is the most restrictive, and spill will be decreased if needed.

Low fish numbers has precluded sampling for GBT at the SMP sites. Consequently, monitoring for GBT has concluded for the season.

**Temperature:** At present, water temperatures are above the 68°F temperature standard at the forebays of Bonneville, McNary and Ice Harbor dams. The forebay temperatures at Lower Granite Dam are similar to last week and to the past ten years' average. The daily average temperature in the Lower Granite forebay for August 25<sup>th</sup> was 66.1° F. It is above 70°F (70.2°F) downstream at the forebay of Ice Harbor Dam, where the temperature is about the same as last week. At McNary and Bonneville dams the forebay temperatures were 70.6°F and 71.7°F, respectively on August 25<sup>th</sup>. These forebay temperatures are warmer than observed in 2015, and greater than the ten-year averages observed at these projects.

### Smolt Monitoring

Smolt Monitoring Program (SMP) sampling was ongoing at all SMP bypass facilities this week. High temperature sampling protocols remained in effect at Bonneville, John Day, and McNary dams this week. Subyearling Chinook dominated this week's samples at all of the SMP bypass facilities. When compared to the previous week, subyearling Chinook passage decreased at the Middle Columbia bypass facilities and most of the Snake River facilities, while remaining the same at Rock Island Dam.

The high temperature sampling protocol remained in effect at Bonneville Dam (BON) this week. Under this sampling protocol, sampling at BON occurs every-other-day (24-hour sample), with a target sample size of 100 fish. This sampling protocol will remain in place until temperatures in the Bonneville Forebay drop below 69.5°F. Subyearling Chinook were encountered in only one of this week's three samples (August 20<sup>th</sup>). No other salmonids were encountered in this week's samples at BON. Finally, no lamprey juveniles were encountered in this week's samples.

The high temperature sampling protocol remained

in effect at John Day Dam (JDA) this week. Under this protocol, sampling at JDA occurs twice per week (6-hour sample) for condition only. These condition monitoring samples will occur on Mondays and Thursdays, with FPC receiving the data on Tuesdays and Fridays. The high temperature protocol will remain in place until temperatures in the John Day Forebay drop below 69.5°F. Because the high temperature protocol at JDA calls for a partial sample (i.e., 6-hour sample), it is not appropriate to use the passage index as a measure of magnitude of juvenile passage. Subyearling Chinook dominated the collections at JDA this week. In fact, subyearling Chinook were the only target species encountered this week's two condition samples at JDA.

The high temperature sampling protocol remained in effect at McNary Dam (MCN) this week. Under this sampling protocol, sampling at MCN remains every-other-day (24-hour sample), with a reduced target sample size of 100 fish. This sampling protocol will remain in place until temperatures in the McNary Forebay drop below 69.5°F. This week's samples at MCN were dominated by subyearling Chinook, with a daily average passage index of about 90 per day. This is similar to last week's daily average passage index of about 70 subyearling Chinook per day. No spring migrants were encountered in this week's samples. Pacific lamprey macrophthalmia were encountered every day this week, with a daily average collection of about 15 per day.

This week's samples at Lower Granite Dam (LGR) were again dominated by subyearling Chinook, with a daily average passage index of approximately 600 per day. This is a decrease over last week's daily average passage index of about 900 subyearling Chinook per day. The only spring migrants that were encountered in this week's samples were yearling Chinook and steelhead, but in very low numbers. Finally, both Pacific lamprey ammocoetes and macrophthalmia were encountered in one this week's samples. Pacific ammocoetes were encountered on August 25<sup>th</sup> and macrophthalmia were encountered on August 23<sup>rd</sup> and 24<sup>th</sup>.

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 240 per day, which is a decrease from last week's daily passage index of about 340. The only spring migrants that were encountered in this week's

samples were steelhead, but in very low numbers. Finally, Pacific macrophthalmia were encountered every day this week, with a daily average collection of two fish per day. No Pacific ammocoetes were encountered this week.

This week's samples at Lower Monumental Dam (LMN) were again dominated by subyearling Chinook, with a daily average passage index of only about 20 per day, which is very similar to last week's daily average passage index for subyearling Chinook at LMN. The only spring migrants that were encountered in this week's samples at LMN were steelhead, which were encountered nearly every day this week. Finally, Pacific lamprey macrophthalmia were encountered in three of this week's samples.

Collections of salmonids at Rock Island Dam (RIS) remained extremely low this week. This week's daily average passage index for subyearling Chinook at RIS was about 5 per day, which is similar to last week's daily average passage index of about 7 per day. The only other salmonids that were encountered this week were sockeye, but in only one sample (August 19<sup>th</sup>). Finally, Pacific lamprey ammocoetes were encountered in one of this week's samples (August 25<sup>th</sup>). No macrophthalmia were encountered in this week's samples at RIS.

### 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 300,000 spring Chinook pre-smolts are scheduled for release into the Selway River, a tributary of the Clearwater River, on or around September 1<sup>st</sup>. These spring Chinook pre-smolts are 100% unmarked and are not expected to out-migrate until spring of 2017.

**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 60,945 has 8,411 more fish than the 2015 count of 52,534 and is 1.5 times greater than the 10-year average count of 39,782. The 2016 Bonneville Dam fall Chinook jack count of 7,657 is 1.7 times greater than the 2015 count of 4,580 and has 896 more fish than the 10-year average count of 6,761. The 2016 adult fall Chinook count of 3,432 at Ice Harbor Dam in the Snake River has 95 more fish than the 2015 count and 1,530 more fish than the 10-year average count. The 2016 Lower Granite fall Chinook adult count of 1,330 has 224 fewer fish than the 2015 count and 715 more fish than the 10-year average count.

The 2016 Bonneville Dam adult steelhead count of 106,010 is about 61% of the 2015 count of 171,198 and about 45.1% of the 10-year average count of 235,065. The 2016 Bonneville Dam adult wild steelhead count of 35,406 is about 50.2% of the 2015 count of 70,542 and about 50% of the 10-year average count of 86,482. Daily adult steelhead counts at Lower Granite Dam ranged from 74 to 113 adults per day last week. This year's Lower Granite steelhead count of 10,531 is about 84% of the 2015 count of 12,531 and 56.4% of the 10-year average count of 18,669. The 2016 Lower Granite Dam adult wild steelhead count of 5,347 is 85.1% of the 2015 count of 6,281 and is about 73.2% of the 10-year average count of 7,307. At Willamette Falls, the 2016 count for steelhead was 25,898 as of August 24<sup>th</sup>. This year's steelhead count is about 3.7 times greater than the 2015 count of 7,002 and about 1.2 times greater than the 10-year average count of 22,013.

Daily adult sockeye passage numbers at Bonneville Dam ranged between 1 and 14 last week. The 2016 adult sockeye count at Bonneville Dam of 342,479 is about 67.1% of the 2015 count and 1.2 times greater than the 10-year average count. The 2016 adult sockeye count at McNary Dam of 261,648 is about 94% of the 2015 count, while being about 1.3 times greater than the 10-year average count. The Lower Granite Dam 2016 adult sockeye count of 811 has 398 more fish than the 2015 count of 413 and 171 fewer fish than the 10-year average count. Seven hundred and thirty-six adult coho have crossed Bonneville Dam so far this year.

## Hatchery Releases Last Two Weeks

### Hatchery Release Summary

From: 8/13/2016 to 08/26/16

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**  
From: 8/27/2016 to 9/9/2016

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
Nez Perce Tribe	Dworshak NFH	CH1	SP	2017	300,000	09-01-16	09-01-16	Selway River	Clearwater River M F
<b>Nez Perce Tribe</b>									
<b>Total</b>					<b>300,000</b>				
<b>Grand Total</b>					<b>300,000</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
08/12/2016	97.4	0.1	101.1	0.0	101.3	7.6	103.8	10.6	106.2	0.3	115.3	18.2	110.9	23.8
08/13/2016	89.9	0.1	88.6	0.0	95.2	6.9	95.1	8.6	98.5	0.0	109.3	17.4	108.0	22.7
08/14/2016	95.5	0.1	92.0	0.0	89.3	6.0	83.7	8.5	86.0	0.0	84.9	17.6	82.2	23.4
08/15/2016	101.8	0.1	101.3	0.0	102.1	7.7	99.0	10.0	102.4	0.0	101.2	14.1	94.0	24.6
08/16/2016	102.1	0.1	102.2	0.0	100.4	8.1	95.8	0.0	97.6	0.0	95.2	1.6	90.9	20.2
08/17/2016	99.3	0.1	102.4	0.0	101.5	7.9	99.5	0.0	100.1	0.0	98.0	1.9	92.6	4.3
08/18/2016	114.6	0.1	114.6	0.0	112.7	8.6	108.5	1.4	110.1	0.0	111.6	2.2	106.5	2.7
08/19/2016	94.4	0.1	93.0	0.0	102.2	8.2	107.7	10.5	112.6	2.6	127.4	6.6	125.8	4.4
08/20/2016	91.9	0.1	90.0	0.0	92.1	0.0	90.4	0.0	94.9	0.0	111.2	1.4	112.5	2.4
08/21/2016	83.2	0.1	84.6	0.0	81.1	0.0	77.4	0.0	81.4	0.0	71.4	1.5	71.1	2.3
08/22/2016	89.8	0.1	90.3	0.0	95.5	0.0	97.1	0.0	99.5	0.0	114.5	2.1	107.9	2.3
08/23/2016	85.7	0.1	85.3	0.0	92.0	0.0	92.1	0.0	95.6	0.0	111.3	1.8	111.8	2.4
08/24/2016	88.0	0.1	88.1	0.0	88.9	0.0	86.2	0.0	88.6	0.0	96.5	1.7	92.3	2.2
08/25/2016	96.0	0.1	98.0	0.0	95.9	0.0	94.4	0.0	97.5	0.0	96.8	1.6	92.8	2.4

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

Date	Dworshak		Brownlee Inflow	Hells Canyon	Lower Granite		Little Goose		Lower Monumental		Ice Harbor	
	Flow	Spill		Outflow	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill
08/12/2016	7.8	0.0	---	8.7	25.1	10.8	24.2	8.8	23.5	11.1	26.1	15.1
08/13/2016	7.8	0.0	---	8.7	25.0	12.1	24.3	8.8	22.7	10.5	26.1	15.1
08/14/2016	7.8	0.0	---	8.9	22.6	9.7	22.1	8.8	21.0	8.8	23.3	12.5
08/15/2016	10.1	0.0	---	10.4	23.6	10.6	19.5	8.9	18.9	6.8	21.3	10.5
08/16/2016	10.1	0.0	---	11.2	29.5	16.1	27.6	7.2	26.4	12.6	28.9	18.2
08/17/2016	10.1	0.0	---	9.9	25.8	13.1	26.3	8.8	25.5	13.4	28.2	17.2
08/18/2016	10.2	0.0	---	11.1	26.8	14.0	24.0	13.5	22.7	10.4	24.1	12.9
08/19/2016	10.2	0.0	---	10.3	28.8	16.1	29.3	8.9	28.2	15.0	32.4	21.3
08/20/2016	10.2	0.0	---	9.8	26.5	13.8	23.4	10.7	21.1	8.8	23.9	13.0
08/21/2016	8.0	0.0	---	8.2	24.7	12.0	22.6	7.4	22.2	9.9	24.4	13.6
08/22/2016	7.9	0.0	---	8.4	21.2	8.4	21.4	7.3	19.9	7.6	22.9	12.1
08/23/2016	8.0	0.0	---	7.9	21.4	8.6	21.2	7.3	19.5	7.3	21.9	11.1
08/24/2016	6.9	0.0	---	9.2	21.3	8.6	20.2	7.2	19.5	7.1	22.0	11.1
08/25/2016	6.9	0.0	---	10.4	21.5	8.6	19.9	7.3	19.4	7.1	22.0	11.1

**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		
08/12/2016	153.9	77.1	141.6	42.5	130.7	52.3	146.4	94.3	0.9	38.7
08/13/2016	143.6	72.0	142.5	42.8	128.2	51.5	144.6	94.5	0.9	36.8
08/14/2016	127.9	64.0	118.0	35.3	107.4	43.0	125.7	81.4	0.9	31.0
08/15/2016	119.6	59.9	109.8	33.1	100.1	40.1	118.9	75.6	1.1	29.9
08/16/2016	128.0	64.1	114.9	34.6	105.1	42.0	114.2	70.7	0.9	30.1
08/17/2016	127.5	63.9	123.8	37.1	117.1	46.7	123.7	79.4	0.9	31.0
08/18/2016	134.7	67.4	126.1	37.9	113.9	45.3	127.3	83.5	0.9	30.5
08/19/2016	155.0	77.5	149.8	44.9	137.5	55.1	149.0	94.0	0.9	41.6
08/20/2016	159.8	79.8	148.4	44.1	135.8	54.0	145.6	94.7	0.9	37.5
08/21/2016	121.5	60.5	106.2	31.7	98.9	39.3	126.0	79.3	0.9	33.3
08/22/2016	121.7	60.7	121.4	36.6	112.1	44.8	126.4	82.2	0.7	31.1
08/23/2016	127.4	63.7	123.5	37.3	112.3	44.9	122.9	78.6	0.9	30.9
08/24/2016	133.6	66.9	119.9	35.8	108.6	43.4	122.7	78.4	1.0	30.9
08/25/2016	118.5	59.3	117.7	35.3	108.1	43.2	120.8	76.6	0.9	30.9

## 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	<u>Hungry H. Dnst</u>			<u>Boundary</u>			<u>Grand Coulee</u>			<u>Grand C. Tlwr</u>			<u>Chief Joseph</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	Avg		Avg	High		Avg	Avg		High	Avg		Avg	High			
8/12	103.3	103.8	104.1	24	---	---	---	0	104.0	104.2	104.4	24	101.9	102.3	102.7	24	102.5	103.0	103.3	24
8/13	103.7	104.3	104.7	24	---	---	---	0	104.4	104.7	105.1	24	102.3	102.9	103.3	24	103.3	103.8	103.9	24
8/14	104.0	104.4	104.9	24	---	---	---	0	105.3	105.4	105.5	24	102.6	103.1	103.4	24	103.7	104.0	104.3	24
8/15	104.3	104.4	104.8	15	---	---	---	0	105.3	105.5	105.7	24	102.4	102.8	103.3	24	103.5	103.7	103.9	24
8/16	104.0	104.7	105.0	23	---	---	---	0	105.2	105.4	105.7	24	102.6	103.0	103.4	24	103.7	104.1	104.5	24
8/17	104.4	104.7	105.0	24	---	---	---	0	105.2	105.4	105.5	24	102.7	103.2	103.6	24	103.6	103.8	104.1	24
8/18	103.9	104.2	104.8	24	---	---	---	0	105.2	105.3	105.5	24	102.4	102.8	103.4	24	103.1	103.4	103.7	24
8/19	104.0	104.5	105.1	24	---	---	---	0	105.2	105.5	106.1	24	101.7	102.3	102.9	24	102.7	103.2	103.8	24
8/20	103.9	103.9	104.2	12	---	---	---	0	105.7	106.2	107.2	24	102.4	103.3	104.1	24	103.5	104.1	104.4	24
8/21	---	---	---	0	---	---	---	0	106.3	106.6	107.4	24	103.2	103.8	104.7	24	104.1	104.5	105.1	24
8/22	105.5	105.6	105.9	15	---	---	---	0	105.7	105.8	106.1	24	102.4	102.9	103.3	24	103.2	103.5	103.9	24
8/23	104.2	104.7	105.4	24	---	---	---	0	104.4	105.1	106.6	24	101.8	102.4	103.3	24	102.3	102.6	102.9	24
8/24	103.6	104.0	104.7	22	---	---	---	0	103.5	103.9	104.4	24	101.7	102.2	102.7	24	102.4	102.8	103.2	21
8/25	104.0	105.1	105.6	23	---	---	---	0	103.9	104.1	104.3	23	101.8	102.6	103.1	23	102.6	103.1	103.3	23

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

Date	<u>Chief J. Dnst</u>			<u>Wells</u>			<u>Wells Dwnstrm</u>			<u>Rocky Reach</u>			<u>Rocky R. 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	Avg		Avg	High		Avg	Avg		High	Avg		Avg	High			
8/12	102.7	103.0	103.8	24	103.3	104.0	104.8	24	105.0	106.0	106.7	24	105.0	105.6	106.2	24	111.7	112.7	113.4	24
8/13	103.6	103.8	104.2	24	103.4	104.4	105.0	24	104.2	105.5	106.3	24	105.7	106.2	106.5	24	111.0	112.1	112.3	24
8/14	103.7	104.0	104.3	24	104.0	104.9	105.6	24	104.8	106.0	106.6	24	106.4	106.8	107.2	24	110.7	111.9	112.8	24
8/15	103.4	103.7	103.9	24	104.1	104.9	105.6	24	105.4	106.6	107.4	24	105.8	106.1	106.4	24	111.3	112.8	113.5	24
8/16	103.6	103.8	104.1	24	104.1	105.0	105.9	23	105.8	106.7	107.6	23	105.7	106.0	106.4	24	106.0	106.5	109.7	24
8/17	103.6	103.9	104.3	24	104.2	104.9	105.6	24	105.7	106.4	107.1	24	106.2	106.6	107.2	24	105.6	106.2	106.6	24
8/18	102.9	103.2	103.4	24	103.7	104.2	104.9	23	105.3	105.9	106.5	23	106.1	106.5	106.9	24	105.9	106.3	107.3	24
8/19	102.8	103.0	103.3	24	103.2	103.9	104.6	24	104.4	105.3	106.0	24	105.6	105.9	106.2	24	108.2	110.9	120.5	24
8/20	103.4	103.7	103.9	24	103.8	104.8	105.5	24	103.1	104.5	105.2	24	106.2	106.6	106.8	24	105.8	106.3	106.7	24
8/21	104.3	104.9	106.0	24	104.2	104.7	105.1	24	103.2	104.0	104.7	24	106.7	107.1	107.7	24	106.0	106.3	106.7	24
8/22	103.4	104.0	104.5	24	102.7	103.2	103.5	24	102.0	102.6	103.1	24	104.6	105.1	106.0	24	104.2	104.7	105.4	24
8/23	102.5	103.1	103.9	24	102.2	103.0	103.9	23	101.3	102.3	102.8	23	102.5	102.8	103.2	24	102.4	102.6	103.0	24
8/24	102.3	102.8	103.5	24	102.5	103.1	103.8	23	101.6	102.5	103.2	23	102.1	102.5	103.0	24	101.7	102.4	102.7	24
8/25	102.4	102.7	103.0	23	103.2	104.0	104.6	23	102.7	104.1	104.9	23	102.6	103.0	103.5	23	102.4	103.1	103.5	23

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

Date	<u>Rock Island</u>			<u>Rock I. Tlwr</u>			<u>Wanapum</u>			<u>Wanapum Tlwr</u>			<u>Priest Rapids</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	Avg		Avg	High		Avg	Avg		High	Avg		Avg	High			
8/12	106.0	106.8	108.0	24	106.7	107.6	111.5	24	108.5	109.6	110.2	24	110.6	111.2	113.4	24	109.7	109.9	110.1	24
8/13	106.9	107.5	108.0	24	106.9	107.3	108.0	24	109.0	110.1	111.1	24	110.6	110.8	111.1	24	110.4	110.7	111.0	24
8/14	107.0	107.4	107.7	24	106.7	107.1	107.5	24	107.7	108.8	110.5	24	111.1	111.8	112.6	24	110.2	110.4	110.6	24
8/15	106.7	107.3	107.8	24	106.4	107.0	107.5	24	106.6	107.7	108.9	24	109.4	111.0	112.9	24	109.4	109.5	109.8	24
8/16	106.3	106.6	107.4	24	106.1	106.5	107.2	23	105.7	107.5	108.9	24	105.9	106.6	106.9	24	109.3	109.5	109.7	24
8/17	105.0	105.6	106.1	24	104.4	105.2	105.6	24	105.9	107.1	107.9	24	105.5	106.0	106.4	24	108.0	108.3	108.7	24
8/18	105.4	105.8	106.2	24	105.0	105.5	105.7	24	107.0	108.2	109.5	24	106.3	107.1	107.6	24	107.5	107.6	107.8	24
8/19	107.0	109.5	113.8	24	107.3	109.6	112.5	24	105.5	106.2	107.0	24	106.7	108.0	118.7	24	107.5	108.0	109.2	24
8/20	105.4	106.0	106.5	24	105.1	105.6	106.3	24	104.9	105.7	106.3	24	105.0	105.6	105.9	24	108.6	109.0	109.3	24
8/21	105.7	105.9	106.4	24	105.1	105.3	105.8	24	104.0	104.7	105.4	24	104.8	105.6	106.0	24	106.4	106.6	106.9	24
8/22	104.1	104.4	105.3	24	103.8	104.1	104.7	24	102.7	103.4	104.5	24	103.8	104.1	104.6	24	105.0	105.3	105.9	24
8/23	102.2	102.5	102.9	24	102.0	102.3	103.2	24	102.4	103.6	104.5	24	102.8	103.1	103.3	24	103.6	103.7	103.9	24
8/24	101.8	102.2	102.5	24	101.3	101.8	102.0	24	102.6	104.3	105.2	24	102.8	103.7	104.0	24	103.5	103.6	103.7	24
8/25	102.2	102.7	103.1	23	101.7	102.2	102.6	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>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>					
	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High					
8/12	112.2	112.9	116.5	24	---	---	---	0	99.7	100.1	100.5	24	101.0	102.5	104.4	24	102.0	103.4	104.9	24
8/13	112.1	112.3	112.4	24	---	---	---	0	100.0	100.4	100.8	24	101.0	102.4	103.6	24	102.0	103.5	104.8	24
8/14	113.3	114.8	116.2	24	---	---	---	0	100.3	100.8	101.2	24	100.8	102.2	104.3	24	102.0	103.4	104.8	24
8/15	112.5	113.8	115.9	24	---	---	---	0	99.9	100.2	100.6	24	101.2	102.4	103.5	24	101.6	103.1	104.5	24
8/16	112.1	114.4	116.5	24	---	---	---	0	99.9	100.2	100.6	24	101.0	102.2	103.2	24	101.8	103.2	104.6	24
8/17	107.1	107.7	108.4	24	---	---	---	0	100.0	100.4	100.8	24	101.2	102.5	103.6	24	101.8	103.1	104.5	24
8/18	105.5	106.1	106.6	24	---	---	---	0	100.0	100.4	100.8	24	101.3	102.5	103.6	24	101.8	103.2	104.6	24
8/19	106.6	107.4	109.6	24	---	---	---	0	99.7	100.0	100.3	24	100.9	101.9	102.8	24	101.6	103.0	104.3	24
8/20	106.9	107.6	109.7	24	---	---	---	0	100.0	100.4	100.7	24	100.9	102.0	102.9	24	101.8	103.3	104.7	24
8/21	105.7	106.5	107.1	24	---	---	---	0	100.7	101.2	101.6	24	99.2	101.5	104.0	24	101.9	103.3	104.8	24
8/22	103.4	103.7	104.0	24	---	---	---	0	100.1	100.4	100.8	24	99.4	101.5	102.6	24	100.9	102.0	102.9	24
8/23	102.5	103.1	103.4	24	---	---	---	0	99.5	99.8	100.2	24	98.2	100.3	102.4	24	100.9	102.3	103.6	24
8/24	103.2	103.8	104.2	24	---	---	---	0	99.5	99.9	100.4	24	96.9	98.2	99.3	24	101.3	102.8	104.1	24
8/25	---	---	---	0	---	---	---	0	99.7	100.1	100.6	22	97.4	98.8	100.3	22	101.7	103.0	104.3	23

**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>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>					
	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High					
8/12	102.9	105.2	106.9	24	100.3	100.5	100.7	24	107.7	108.2	108.7	24	104.7	104.9	105.0	24	108.5	108.8	109.2	24
8/13	103.0	105.2	106.9	24	100.5	100.6	100.9	24	109.1	109.4	109.8	24	104.8	105.0	105.3	24	108.7	109.0	109.4	24
8/14	103.1	105.3	107.1	24	100.6	100.7	100.8	24	106.9	107.7	108.8	24	105.3	105.7	106.0	24	108.9	109.5	110.0	24
8/15	102.7	104.8	106.3	24	100.4	100.6	100.9	24	106.4	107.7	108.6	24	105.9	106.2	106.8	24	110.7	112.9	114.8	24
8/16	102.6	104.6	106.1	24	101.0	101.5	102.1	24	109.3	111.2	112.0	24	106.3	106.7	107.2	24	108.8	109.2	109.6	24
8/17	102.6	104.7	106.3	24	102.4	102.6	102.9	24	108.8	109.3	110.3	24	106.7	107.1	107.3	24	109.1	109.5	109.9	24
8/18	102.7	104.7	106.5	24	102.2	102.3	102.5	24	108.5	108.9	109.4	24	107.5	107.8	108.2	24	112.2	114.8	115.3	24
8/19	102.5	104.5	106.1	24	101.7	101.9	102.2	24	109.7	111.1	112.0	24	106.2	106.9	108.3	24	108.6	109.0	109.4	24
8/20	102.4	104.5	106.1	24	101.9	102.2	102.5	24	108.0	109.3	109.9	24	106.3	106.6	107.4	24	109.2	109.8	110.2	24
8/21	102.7	104.8	106.7	24	102.4	102.8	103.0	24	108.5	109.0	109.4	24	106.1	106.2	106.5	24	108.2	108.5	108.9	24
8/22	102.0	103.6	104.8	24	101.7	101.8	101.9	24	104.9	105.6	106.3	24	106.0	106.5	106.7	24	108.0	108.4	108.9	24
8/23	101.9	104.0	105.7	24	100.8	101.0	101.1	24	104.9	105.2	105.5	24	106.0	106.1	106.4	24	108.2	108.8	109.4	24
8/24	102.2	104.4	106.2	24	100.9	101.0	101.3	24	104.8	105.2	105.3	24	105.5	105.6	105.8	24	108.0	108.7	109.0	24
8/25	102.3	104.1	106.1	22	101.4	101.7	102.0	23	105.0	105.5	106.4	23	105.9	106.2	106.5	18	108.5	108.9	109.6	18

**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>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>					
	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High					
8/12	103.6	103.8	104.2	24	111.2	111.6	112.0	24	105.4	105.6	105.7	24	108.1	108.7	109.3	24	---	---	---	0
8/13	104.5	105.1	105.6	24	110.5	110.8	111.1	24	105.7	106.0	106.4	24	108.0	108.7	109.3	24	---	---	---	0
8/14	105.7	106.1	106.4	24	109.7	110.2	110.9	24	106.3	106.4	106.5	24	107.2	107.7	108.3	24	---	---	---	0
8/15	105.6	105.9	106.5	24	107.8	108.1	108.5	24	107.1	107.6	108.0	22	106.5	107.0	107.6	24	---	---	---	0
8/16	105.5	105.8	106.2	24	111.0	113.2	114.7	24	107.9	108.1	108.3	24	108.7	111.0	113.4	24	---	---	---	0
8/17	105.7	106.0	106.6	24	112.1	114.0	114.4	24	108.7	108.8	109.1	24	109.0	110.4	112.4	24	---	---	---	0
8/18	105.6	106.0	106.7	24	110.1	110.6	111.6	24	108.8	108.9	109.2	24	106.4	107.1	107.9	24	---	---	---	0
8/19	106.4	106.7	107.0	24	111.9	112.7	114.3	24	108.9	109.2	110.2	24	110.0	112.1	114.2	24	---	---	---	0
8/20	106.5	106.7	106.9	24	109.3	110.5	111.7	24	108.4	108.7	109.3	24	106.8	107.5	108.1	24	---	---	---	0
8/21	106.9	107.3	108.0	24	109.5	110.0	110.3	24	109.2	109.4	109.8	24	106.5	107.2	108.2	24	---	---	---	0
8/22	106.4	106.6	107.3	24	107.7	108.1	108.4	24	108.1	108.4	108.9	24	106.6	107.3	108.1	24	---	---	---	0
8/23	106.0	106.3	106.8	24	108.1	108.8	109.4	24	107.0	107.3	107.7	24	107.0	107.8	108.4	24	---	---	---	0
8/24	105.9	106.1	106.3	24	108.3	108.7	109.2	24	106.8	107.1	107.3	24	106.9	107.5	108.4	24	---	---	---	0
8/25	105.8	105.9	106.0	23	107.8	108.2	108.5	23	106.7	106.8	106.9	23	106.8	107.4	108.1	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

Date	<u>McNary-Wash</u>			<u>McNary Tlwr</u>			<u>John Day</u>			<u>John Day Tlwr</u>			<u>The Dalles</u>							
	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24h</u>	<u>12h</u>	<u>#</u>	<u>24h</u>	<u>12h</u>	<u>#</u>	<u>24h</u>	<u>12h</u>	<u>#</u>					
	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>AVG</u>	<u>High</u>	<u>hr</u>				
8/12	105.7	106.4	107.6	24	115.1	115.8	116.3	24	103.5	103.7	104.4	24	112.9	113.5	113.9	24	107.1	107.5	107.8	24
8/13	107.1	107.5	108.0	24	114.9	115.8	116.5	24	104.8	105.2	106.6	24	113.3	113.6	113.8	24	107.8	108.3	108.6	24
8/14	107.9	108.3	108.7	24	114.0	114.5	115.0	24	104.4	104.9	106.0	24	112.5	112.6	112.9	24	107.2	107.7	108.1	24
8/15	107.9	108.3	108.7	24	112.9	113.7	114.7	24	104.4	105.0	105.7	24	111.9	112.1	112.3	24	105.6	105.8	106.0	24
8/16	108.9	109.4	110.4	24	113.8	115.4	116.3	23	105.1	105.9	106.4	24	112.3	112.8	113.1	24	105.4	105.8	106.0	24
8/17	108.7	108.9	109.2	24	114.8	115.5	116.3	24	106.2	106.8	107.2	24	113.5	114.1	115.9	24	106.0	106.4	106.9	24
8/18	108.2	108.5	108.8	24	115.1	116.3	117.0	24	107.3	108.1	108.5	24	114.5	115.5	116.2	24	107.1	108.2	108.6	24
8/19	108.1	108.6	110.1	24	115.6	116.7	117.1	24	108.7	109.2	109.6	24	114.9	115.4	116.0	24	109.4	110.2	110.6	24
8/20	108.6	109.1	109.7	24	116.2	116.8	117.2	24	108.4	108.9	109.3	24	114.5	115.0	115.3	24	110.3	110.8	111.1	24
8/21	107.0	107.9	108.4	24	113.7	114.3	114.8	24	108.0	108.5	108.8	24	114.0	114.2	114.5	24	109.4	109.9	110.1	24
8/22	103.8	104.1	104.8	24	113.3	114.2	115.2	24	106.1	106.3	106.8	24	113.1	113.3	113.5	24	105.0	105.7	106.6	24
8/23	103.6	103.7	104.2	24	113.5	114.0	114.4	24	105.2	105.7	106.0	24	112.4	112.7	113.1	24	104.6	105.5	105.8	24
8/24	103.4	103.8	105.1	24	113.5	113.9	114.1	24	105.8	106.5	107.7	24	112.5	112.8	112.9	24	107.6	108.5	109.0	24
8/25	102.9	103.1	103.2	23	113.1	113.5	113.8	23	105.9	106.3	106.9	23	113.2	113.7	114.4	23	108.2	109.0	109.5	23

Total Dissolved Gas Saturation Data at Lower Columbia River Sites

Date	<u>The Dalles Dnst</u>			<u>Bonneville</u>			<u>Warrendale</u>			<u>CamasWashougal</u>			<u>Cascade Island</u>							
	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24h</u>	<u>12h</u>	<u>#</u>	<u>24h</u>	<u>12h</u>	<u>#</u>	<u>24h</u>	<u>12h</u>	<u>#</u>					
	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>AVG</u>	<u>High</u>	<u>hr</u>				
8/12	112.7	113.5	113.9	24	108.9	109.8	110.3	24	116.8	117.4	117.9	24	114.5	115.6	116.1	24	117.1	117.3	117.4	24
8/13	113.1	113.5	113.8	24	111.0	111.9	112.3	24	117.1	117.6	118.1	24	115.1	116.1	116.9	24	117.2	117.3	117.5	24
8/14	112.3	112.6	113.0	24	110.1	110.9	111.9	24	115.9	116.4	117.0	24	113.9	114.5	115.1	24	114.6	115.3	117.1	24
8/15	111.0	111.3	111.4	24	106.8	107.3	108.3	24	115.2	115.6	115.9	24	112.0	113.0	113.6	24	114.0	114.2	114.3	24
8/16	110.7	111.0	111.4	24	104.7	104.9	105.5	24	114.5	114.7	115.2	24	111.4	112.2	112.9	24	114.1	114.4	114.6	24
8/17	111.7	112.1	112.6	24	103.6	103.8	104.2	24	114.3	114.6	114.8	24	111.2	112.3	113.0	24	114.2	114.2	114.3	24
8/18	112.1	113.2	113.7	24	104.4	105.2	105.7	24	115.6	116.4	116.8	24	112.8	114.4	115.3	24	114.0	114.1	114.9	24
8/19	113.6	114.8	115.2	24	106.4	107.3	108.6	24	115.5	116.1	116.6	24	111.3	113.1	114.6	24	117.0	117.3	117.4	24
8/20	114.4	115.1	115.5	24	109.8	110.8	111.3	24	116.9	117.9	118.5	24	111.2	112.6	114.4	24	117.2	117.4	117.6	24
8/21	112.4	113.0	114.1	24	110.0	110.6	111.3	24	115.4	115.9	116.8	24	112.9	113.7	114.5	24	114.5	115.6	117.5	24
8/22	111.0	111.4	111.9	24	105.9	106.5	107.9	24	114.9	115.3	116.0	24	109.8	111.1	111.7	24	114.7	116.2	116.6	24
8/23	110.4	111.4	111.8	24	104.4	104.8	105.0	24	115.4	115.8	116.2	24	111.6	113.4	114.1	24	113.5	113.9	116.6	24
8/24	111.6	112.3	112.7	24	105.2	106.4	107.5	24	115.5	116.1	117.0	24	112.6	113.9	114.3	24	113.4	113.6	113.7	24
8/25	112.3	112.6	112.9	23	108.7	109.4	110.2	23	116.1	116.9	117.7	23	113.2	114.2	115.0	23	113.4	113.8	113.9	23

## Two-Week Summary of Passage Indices

Source: Fish Passage Center

Updated: 8/26/2016 10:45

### 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)	
08/12/2016	*	---	---	---	---	0	0	0	0	---	0	
08/13/2016	*	---	---	---	---	0	0	0	1	0	---	
08/14/2016	*	---	---	---	---	0	0	0	0	---	0	
08/15/2016	*	---	---	---	---	0	0	0	0	---	---	
08/16/2016	*	---	---	---	---	0	0	0	0	---	0	
08/17/2016	*	---	---	---	---	0	0	0	0	---	---	
08/18/2016	*	---	---	---	---	0	0	0	0	---	0	
08/19/2016	*	---	---	---	---	0	0	0	0	0	---	
08/20/2016	*	---	---	---	---	0	0	0	0	---	0	
08/21/2016	*	---	---	---	---	0	0	0	0	---	---	
08/22/2016	*	---	---	---	---	2	0	0	0	---	0	
08/23/2016	*	---	---	---	---	0	0	0	0	0	---	
08/24/2016	*	---	---	---	---	0	0	0	0	---	0	
08/25/2016	*	---	---	---	---	0	0	0	0	---	---	
08/26/2016	*	---	---	---	---	---	---	---	0	---	0	
<b>Total:</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	
<b># Days:</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>15</b>	<b>7</b>	<b>4</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>YTD</b>		<b>27,295</b>	<b>56,779</b>	<b>16,183</b>	<b>7,757</b>	<b>5,899,060</b>	<b>3,490,956</b>	<b>4,892,141</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)	
08/12/2016	*	---	---	---	---	1,743	256	24	9	---	11	633
08/13/2016	*	---	---	---	---	796	192	51	7	83	---	---
08/14/2016	*	---	---	---	---	759	282	81	4	---	---	450
08/15/2016	*	---	---	---	---	705	205	30	4	67	---	---
08/16/2016	*	---	---	---	---	882	236	17	12	---	3	562
08/17/2016	*	---	---	---	---	630	521	35	4	50	---	---
08/18/2016	*	---	---	---	---	684	674	40	8	---	---	242
08/19/2016	*	---	---	---	---	832	330	23	8	67	3	---
08/20/2016	*	---	---	---	---	917	311	20	9	---	---	156
08/21/2016	*	---	---	---	---	849	312	33	4	58	---	---
08/22/2016	*	---	---	---	---	577	310	22	1	---	---	0
08/23/2016	*	---	---	---	---	333	92	11	7	75	1	---
08/24/2016	*	---	---	---	---	360	79	28	4	---	---	0
08/25/2016	*	---	---	---	---	343	259	16	1	150	---	---
08/26/2016	*	---	---	---	---	---	---	---	0	---	---	15
<b>Total:</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>10,410</b>	<b>4,059</b>	<b>431</b>	<b>82</b>	<b>550</b>	<b>18</b>	<b>2,058</b>
<b># Days:</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>15</b>	<b>7</b>	<b>4</b>	<b>8</b>
<b>Average:</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>744</b>	<b>290</b>	<b>31</b>	<b>5</b>	<b>79</b>	<b>5</b>	<b>257</b>
<b>YTD</b>		<b>0</b>	<b>78</b>	<b>698</b>	<b>2,869</b>	<b>1,178,131</b>	<b>876,395</b>	<b>327,759</b>	<b>20,972</b>	<b>4,329,367</b>	<b>939,656</b>	<b>3,125,430</b>

## Two-Week Summary of Passage Indices

COMBINED COHO												
Date	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (INDEX)	LGS (INDEX)	LMN (INDEX)	RIS (INDEX)	MCN (INDEX)	JDA (INDEX)	BO2 (INDEX)	
08/12/2016	*	---	---	---	0	0	0	0	0	0	0	
08/13/2016	*	---	---	---	0	0	0	0	0	0	0	
08/14/2016	*	---	---	---	0	0	0	0	0	0	0	
08/15/2016	*	---	---	---	0	0	0	0	0	0	0	
08/16/2016	*	---	---	---	0	0	0	0	0	0	0	
08/17/2016	*	---	---	---	0	0	0	0	0	0	0	
08/18/2016	*	---	---	---	0	0	0	0	0	0	0	
08/19/2016	*	---	---	---	0	0	0	0	0	0	0	
08/20/2016	*	---	---	---	0	0	0	0	0	0	0	
08/21/2016	*	---	---	---	0	0	0	0	0	0	0	
08/22/2016	*	---	---	---	0	0	0	0	0	0	0	
08/23/2016	*	---	---	---	0	0	0	0	0	0	0	
08/24/2016	*	---	---	---	0	0	0	0	0	0	0	
08/25/2016	*	---	---	---	0	0	0	0	0	0	0	
08/26/2016	*	---	---	---	---	---	---	0	---	---	0	
<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># Days:</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>15</b>	<b>7</b>	<b>4</b>	<b>8</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>YTD</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>316</b>	<b>198,072</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												
Date	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (INDEX)	LGS (INDEX)	LMN (INDEX)	RIS (INDEX)	MCN (INDEX)	JDA (INDEX)	BO2 (INDEX)	
08/12/2016	*	---	---	---	5	0	0	0	0	0	0	
08/13/2016	*	---	---	---	4	0	0	0	0	0	0	
08/14/2016	*	---	---	---	0	3	0	0	0	0	0	
08/15/2016	*	---	---	---	3	0	0	0	0	0	0	
08/16/2016	*	---	---	---	0	3	0	1	0	0	0	
08/17/2016	*	---	---	---	0	1	2	0	0	0	0	
08/18/2016	*	---	---	---	6	5	0	0	0	0	0	
08/19/2016	*	---	---	---	0	6	4	0	0	0	0	
08/20/2016	*	---	---	---	2	0	0	0	0	0	0	
08/21/2016	*	---	---	---	0	4	2	0	0	0	0	
08/22/2016	*	---	---	---	4	3	2	0	0	0	0	
08/23/2016	*	---	---	---	3	2	3	0	0	0	0	
08/24/2016	*	---	---	---	0	2	2	0	0	0	0	
08/25/2016	*	---	---	---	0	3	2	0	0	0	0	
08/26/2016	*	---	---	---	---	---	---	0	---	---	0	
<b>Total:</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>27</b>	<b>32</b>	<b>17</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	
<b># Days:</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>15</b>	<b>7</b>	<b>4</b>	<b>8</b>	
<b>Average:</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>1</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>3,957,227</b>	<b>2,295,497</b>	<b>1,838,106</b>	<b>17,663</b>	<b>735,188</b>	<b>502,821</b>	<b>622,598</b>

## Two-Week Summary of Passage Indices

COMBINED SOCKEYE											
	WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date	(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
08/12/2016	*	---	---	---	0	0	0	0	---	0	0
08/13/2016	*	---	---	---	0	0	0	0	0	---	---
08/14/2016	*	---	---	---	0	0	0	1	---	---	0
08/15/2016	*	---	---	---	0	0	0	0	0	---	---
08/16/2016	*	---	---	---	0	0	0	0	---	0	0
08/17/2016	*	---	---	---	0	0	0	0	0	---	---
08/18/2016	*	---	---	---	0	0	0	0	---	---	0
08/19/2016	*	---	---	---	0	0	0	1	0	0	---
08/20/2016	*	---	---	---	0	0	0	0	---	---	0
08/21/2016	*	---	---	---	0	0	0	0	0	---	---
08/22/2016	*	---	---	---	0	0	0	0	---	---	0
08/23/2016	*	---	---	---	0	0	0	0	0	0	---
08/24/2016	*	---	---	---	0	0	0	0	---	---	0
08/25/2016	*	---	---	---	0	0	0	0	0	---	---
08/26/2016	*	---	---	---	---	---	---	1	---	---	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>3</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>14</b>	<b>14</b>	<b>14</b>	<b>15</b>	<b>7</b>	<b>4</b>	<b>8</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>43,851</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>

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)
08/12/2016	*	---	---	---	0	2	4	0	---	0	4
08/13/2016	*	---	---	---	0	4	0	0	8	---	---
08/14/2016	*	---	---	---	1	8	6	0	---	---	0
08/15/2016	*	---	---	---	0	2	0	0	0	---	---
08/16/2016	*	---	---	---	1	3	0	0	---	0	4
08/17/2016	*	---	---	---	0	2	0	0	4	---	---
08/18/2016	*	---	---	---	0	4	0	0	---	---	0
08/19/2016	*	---	---	---	0	3	1	0	4	0	---
08/20/2016	*	---	---	---	0	3	0	0	---	---	0
08/21/2016	*	---	---	---	0	6	0	0	4	---	---
08/22/2016	*	---	---	---	0	0	0	0	---	---	0
08/23/2016	*	---	---	---	1	2	1	0	16	0	---
08/24/2016	*	---	---	---	2	2	0	0	---	---	0
08/25/2016	*	---	---	---	1	1	5	1	4	---	---
08/26/2016	*	---	---	---	---	---	---	0	---	---	0
<hr/>											
<b>Total:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>42</b>	<b>17</b>	<b>1</b>	<b>40</b>	<b>0</b>	<b>8</b>
<b># Days:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>15</b>	<b>7</b>	<b>4</b>	<b>8</b>
<b>Average:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>1</b>
<b>YTD</b>	<b>0</b>	<b>5</b>	<b>1</b>	<b>0</b>	<b>216</b>	<b>34,775</b>	<b>29,712</b>	<b>112</b>	<b>34,520</b>	<b>26,193</b>	<b>10,115</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:

8/26/16 10:46 AM

		08/12/16	TO	08/26/16			
		Species					
Site	Data	CH0	CH1	ST	Grand Total		
<b>LGR</b>	Sum of NumberCollected	5,104	1	14	5,119		
	Sum of NumberBarged	1,922	0	6	1,928		
	Sum of NumberBypassed	0	0	7	7		
	Sum of Numbertrucked	3,113	1	0	3,114		
	Sum of SampleMorts	65	0	1	66		
	Sum of FacilityMorts	4	0	0	4		
	Sum of ResearchMorts	0	0	0	0		
	Sum of TotalProjectMorts	69	0	1	70		
<b>LGS</b>	Sum of NumberCollected	2,518		19	2,537		
	Sum of NumberBarged	568		2	570		
	Sum of NumberBypassed	0		0	0		
	Sum of Numbertrucked	1,936		16	1,952		
	Sum of SampleMorts	8		0	8		
	Sum of FacilityMorts	6		1	7		
	Sum of ResearchMorts	0		0	0		
	Sum of TotalProjectMorts	14		1	15		
<b>LMN</b>	Sum of NumberCollected	231		9	240		
	Sum of NumberBarged	97		0	97		
	Sum of NumberBypassed	0		0	0		
	Sum of Numbertrucked	129		9	138		
	Sum of SampleMorts	4		0	4		
	Sum of FacilityMorts	1		0	1		
	Sum of ResearchMorts	0		0	0		
	Sum of TotalProjectMorts	5		0	5		
Total Sum of NumberCollected		7,853	1	42	7,896		
Total Sum of NumberBarged		2,587	0	8	2,595		
Total Sum of NumberBypassed		0	0	7	7		
Total Sum of Numbertrucked		5,178	1	25	5,204		
Total Sum of SampleMorts		77	0	1	78		
Total Sum of FacilityMorts		11	0	1	12		
Total Sum of ResearchMorts		0	0	0	0		
Total Sum of TotalProjectMorts		88	0	2	90		

**YTD Transportation Summary**

Source: Fish Passage Center

Updated: 8/26/16 10:46 AM

TO: 08/26/16

		Species					
Site	Data	CH0	CH1	CO	SO	ST	Grand Total
<b>LGR</b>	Sum of NumberCollected	754,726	4,510,005	150,414	33,350	2,986,091	8,434,586
	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	650	1,875,873	5,046,276
	Sum of NumberTrucked	3,113	1	0	0	0	3,114
	Sum of SampleMorts	229	94	1	16	37	377
	Sum of FacilityMorts	2,159	1,361	66	830	103	4,519
	Sum of ResearchMorts	202	422	0	5	68	697
	Sum of TotalProjectMorts	2,590	1,877	67	851	208	5,593
<b>LGS</b>	Sum of NumberCollected	608,567	2,438,124	104,356	22,900	1,600,768	4,774,715
	Sum of NumberBarged	602,659	1,022,201	90,682	22,669	670,896	2,409,107
	Sum of NumberBypassed	2,872	1,415,436	13,600	7	929,747	2,361,662
	Sum of NumberTrucked	1,936	0	0	0	16	1,952
	Sum of SampleMorts	144	23	1	22	12	202
	Sum of FacilityMorts	956	464	73	202	97	1,792
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	1,100	487	74	224	109	1,994
<b>LMN</b>	Sum of NumberCollected	183,564	3,510,225	40,585	11,370	1,285,415	5,031,159
	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	129	0	0	0	9	138
	Sum of SampleMorts	51	127	0	5	23	206
	Sum of FacilityMorts	144	353	1	18	99	615
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	195	480	1	23	122	821
Total Sum of NumberCollected		1,546,857	10,458,354	295,355	67,620	5,872,274	18,240,460
Total Sum of NumberBarged		1,500,022	4,322,808	242,306	65,866	2,411,405	8,542,407
Total Sum of NumberBypassed		37,210	6,132,701	52,907	657	3,460,405	9,683,880
Total Sum of NumberTrucked		5,178	1	0	0	25	5,204
Total Sum of SampleMorts		424	244	2	43	72	785
Total Sum of FacilityMorts		3,259	2,178	140	1,050	299	6,926
Total Sum of ResearchMorts		202	422	0	5	68	697
Total Sum of TotalProjectMorts		3,885	2,844	142	1,098	439	8,408



**Cumulative Adult Passage at Mainstem Dams Through: 08/25**

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	08/25	137215	11145	220480	13314	146704	24884	119591	10834	161735	17730	95523	21451	60945	7657	52534	4580	39782	6761
TDA	08/25	105504	9999	194116	12307	114381	21222	95764	8800	123915	15458	80170	17256	26552	3417	29516	3139	18762	3875
JDA	08/25	93659	8262	166015	11514	99110	19896	90259	7715	108768	10988	71447	16841	15698	1979	20263	1989	10365	2635
MCN	08/25	82626	7237	156151	8767	89797	16347	83894	6501	96287	8723	67089	12624	11083	1246	15337	1270	7086	1390
IHR	08/25	67484	5029	116462	5745	63912	10829	13980	1538	21408	2807	18404	4767	3432	556	3337	198	1902	272
LMN	08/25	66115	6268	111511	8697	63840	10328	12460	2344	17764	4835	19733	5633	3094	507	2387	280	1359	281
LGS	08/25	62597	6365	105124	8553	59587	11445	12480	1919	15494	4464	18840	6201	2427	266	1971	172	994	135
LGR	08/25	62050	5480	104873	8379	58449	12640	12075	2107	14958	4222	16726	6692	1330	213	1554	144	615	116
PRD	08/23	16843	1003	27716	1570	17080	1731	80288	5126	78139	3550	55483	2565	2376	355	5197	343	2374	988
WAN	08/23	17164	919	25982	1077	16645	2069	79255	4110	76636	2180	52935	2019	1766	285	5143	275	2094	734
RIS	08/24	18646	715	31748	1092	17101	2726	79253	3434	88691	2476	55112	5343	1519	379	3911	197	1510	746
RRH	08/24	9449	351	15244	609	7441	1202	58559	2827	76246	1937	44031	3757	899	189	2112	96	1029	442
WEL	08/24	11789	833	19971	1520	7481	1542	44134	2439	60919	3251	33563	3569	0	0	0	0	0	0
WFA	08/24	29294	2123	51046	2042	35288	1298	0	0	0	0	0	0	19	8	54	6	73	17

DAM	ENDDATE	Coho						Sockeye			Steelhead						Lamprey		
		2016		2015		10-Yr Avg.		2016	2015	10-Yr Avg.	2016	2015	10-Yr Avg.	Wild	Wild	10-Yr	2016	2015	10-Yr
		Adult	Jack	Adult	Jack	Adult	Jack												
BON	08/25	736	189	860	205	3436	354	342479	510552	285055	106010	171198	235065	35406	70542	86482	48888	37105	21122
TDA	08/25	89	39	108	25	471	117	288298	429413	243321	33054	66350	106762	14210	32157	44711	10065	11427	5805
JDA	08/25	25	23	91	24	221	81	289875	365552	235026	18337	31080	76566	9051	15561	31080	8346	7285	4816
MCN	08/25	107	42	21	6	29	8	261648	278464	203106	16072	25176	56698	7405	12460	22046	1316	1438	1138
IHR	08/25	5	0	0	0	0	0	898	1047	840	9925	12272	30462	4001	5530	9119	753	687	234
LMN	08/25	-2	3	0	0	0	0	1024	885	983	9351	11941	30338	4551	6092	10324	221	225	75
LGS	08/25	1	0	0	0	0	0	948	573	929	9106	5959	15353	4562	3538	6093	189	117	29
LGR	08/25	1	0	0	0	0	0	811	413	982	10531	12531	18669	5347	6281	7307	93	51	11
PRD	08/23	0	1	0	0	15	0	311053	301117	238385	2673	5392	7248	0	0	0	5931	5524	2612
WAN	08/23	1	0	2	0	2	0	322433	296187	202985	2421	5226	7244	0	0	0	4250	4038	1354
RIS	08/24	0	0	0	0	0	0	310224	263697	231507	2261	4508	5823	1013	2277	2868	1756	1775	552
RRH	08/24	0	0	0	0	0	0	235803	215513	197071	1656	3024	4197	680	1505	1916	1545	1669	468
WEL	08/24	0	0	0	0	0	0	215865	186200	187948	1204	2209	2322	521	1077	1097	1	0	0
WFA	08/24	0	0	2	0	18	26	0	0	0	25898	7002	22013	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.

