



## Fish Passage Center

# Weekly Report #15–26

September 11, 2015

*Starting September 11, the weekly reports  
will be published every other week;  
the next report will be September 25.*

### Summary of Events

#### Water Supply

Precipitation throughout the Columbia Basin has varied between 62% and 187% of average at individual sub-basins over September. Precipitation above The Dalles has been 146% of average over September. Over the 2015 water year, precipitation has ranged between 73% and 94% of average.

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

Location	Water Year 2015 September 1–9, 2015		Water Year 2015 October 1, 2014 to September 9, 2015	
	Observed (inches)	% Average	Observed (inches)	% Average
Columbia above Coulee	1.30	185	35.1	94
Snake River above Ice Harbor	0.41	115	17.9	81
Columbia above The Dalles	0.67	146	23.1	85
Kootenai	1.32	179	36.4	94
Clark Fork	0.81	159	20.0	73
Flathead	1.21	187	29.4	82
Pend Oreille River Basin above Waneta Dam	0.90	159	25.5	78
Salmon River Basin	0.86	182	22.2	78
Upper Snake Tributaries	0.31	65	22.1	83
Clearwater	1.09	176	32.0	79
Willamette River above Portland	0.43	62	50.0	79

Grand Coulee Reservoir is at 1,280.6 feet (9-10-15) and has refilled 1.0 feet over the last week. Outflows at Grand Coulee have ranged between 51.1 and 82.6 Kcfs over the last week.

The Libby Reservoir is currently at elevation 2,440.4 feet (9-10-15) and has drafted 0.1 feet over the previous week. Daily average outflows at Libby Dam have been 6.1 Kcfs over the last week.

Hungry Horse is currently at an elevation of 3,539.8 feet (9-10-15) and drafted 0.9 feet over the last week. Outflows at Hungry Horse have been 2.3 to 2.5 Kcfs over the last week.

Dworshak is currently at an elevation of 1,525.9 feet (9-10-15) and drafted 4.5 feet over the last week. Outflows have been 5.9 Kcfs over the last week.

The Brownlee Reservoir was at an elevation of 2,055.8 feet on September 10, 2015, and has refilled 0.3 feet over the last week. Hells Canyon outflows have ranged between 7.0 and 9.6 Kcfs over the last 4 days.

The Summer Biological Opinion flow period began on June 21<sup>st</sup> and ended on August 31<sup>st</sup> with a flow objective of 50 Kcfs. Over the Summer Flow Period, flows at Lower Granite Dam averaged 25.9 Kcfs.

The Summer Biological Opinion Flow Objective (which began July 1<sup>st</sup> and ended August 31) was 200 Kcfs at McNary Dam. Over the Summer Flow Period, flows at McNary averaged 142.6 Kcfs.

#### Smolt Monitoring

All Smolt Monitoring Program bypass facilities on the Snake and Lower Columbia rivers continued sampling this week. Sampling at Rock Island Dam was terminated after the August 31<sup>st</sup> sample. Sampling at all four Smolt Monitoring Program traps has been terminated since late May.

Subyearling Chinook dominated the collections at all the SMP dam sites this week. When compared to last week, subyearling Chinook passage remained the same or decreased at all SMP bypass facilities.

Samples at BON continued to be dominated by subyearling Chinook. In fact, subyearling Chinook have been the only target species encountered in the samples at BON since July 8<sup>th</sup>. This week's daily average passage index for subyearling Chinook was approximately 60 fish per day, which is similar to last week's daily average passage index of about 50 per day.

Sampling at John Day Dam (JDA) was under the high temperature protocol for part of this week. The daily average temperature at the JDA forebay monitor fell below 69.5°F on September 4<sup>th</sup>. Normal index sampling resumed with the September 6<sup>th</sup> sample. Subyearling Chinook dominated the collections at JDA this week. Since the September 6<sup>th</sup> sample, the daily average passage index for subyearling Chinook has been about 10 fish per day. The only other target species that were encountered in this week's samples was one Pacific lamprey macrophthalmia in the September 7<sup>th</sup> sample. Sampling at JDA is scheduled to end after the sample on September 15<sup>th</sup>.

As with previous weeks, this week's samples at McNary Dam (MCN) were dominated by subyearling Chinook. This week's daily average passage index for subyearling Chinook was about 20 per day, which is similar to last week's daily average passage index of about 15 per day. The only spring migrants that were encountered in this week's samples were sockeye, which were encountered in the sample from September 4<sup>th</sup>. Finally, Pacific lamprey macrophthalmia were encountered in all four of this week's samples, with a daily average collection of about eight per day. To date, MCN has not sampled any Pacific lamprey ammocoetes for 2015.

Samples at Lower Granite Dam (LGR) continued to be dominated by subyearling Chinook juveniles this week. This week's daily average passage index for subyearling Chinook at LGR was about 240 per day, which is a decrease from last week's daily average passage index of about 550 per day. Yearling Chinook, coho, and steelhead were also encountered in this week's samples, but in very low numbers. Finally, one

Pacific lamprey ammocoete was encountered this week (September 8<sup>th</sup>).

Sampling at Little Goose Dam (LGS) was limited to a 24-hour sample every other day from April 2<sup>nd</sup> to April 30<sup>th</sup>. Little Goose Dam began collecting fish for transportation on May 1<sup>st</sup> and, therefore, collections at LGS are every day for the rest of the season. Subyearling Chinook continued to dominate the samples at LGS this week. This week's daily average passage index for subyearling Chinook at LGS was about 45 fish per day, which is a decrease over last week's daily average passage index of about 90 per day. The only spring migrants that were encountered in this week's samples were steelhead, which were encountered in four of this week's samples. Finally, Pacific lamprey macrophthalmia were encountered in six of this week's samples, with daily collections ranging from 0 to 3 fish per day.

Sampling at Lower Monumental Dam (LMN) was limited to a 24-hour sample every third day from April 4<sup>th</sup> to April 13<sup>th</sup> and every other day from April 15<sup>th</sup> to May 1<sup>st</sup>. At 1500 on May 1<sup>st</sup>, LMN began collecting fish for transportation and, therefore, collections at LMN are every day for the rest of the season. As with the last several weeks, this week's samples at LMN were dominated by subyearling Chinook, with a daily average passage index of about 20 per day, which is similar to last week's daily average passage index of about 25 per day. No other target species were encountered in this week's samples at LMN.

## 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. Approximately 500,000 spring Chinook pre-smolts were scheduled for release into the Clearwater River and its tributaries this week. These pre-smolts are 100% unmarked and are not expected to out-migrate until spring of 2016. There are no other releases scheduled for this zone over the next 2 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 to begin in this zone this week. No new releases of juvenile salmonids are scheduled to begin in this zone over the next 2 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 releases are scheduled for this zone over the next 2 weeks.

### Adult Passage

Fall Chinook counts began at Bonneville Dam (BON) on August 1st. Through September 11th, the 2015 cumulative adult fall Chinook count at BON is 428,695, which is about 98.5% of the 2014 count of 435,135, while being 1.7 times greater than the 10-year average count of 254,820. The 2015 Bonneville Dam fall Chinook jack count of 29,890 is about 65.9% of the 2014 count of 45,345 and 88.3% of the 10-year average count of 33,861. At 23,619, the cumulative adult fall Chinook count at Ice Harbor Dam (through September 10th) is about 1.4 times greater than the 2014 count and 1.9 times greater than the 10-year average count for the same period. At Lower Granite Dam, the cumulative 2015 fall Chinook adult count (through September 10th) is 11,227, which is about 1.2 times greater than the cumulative count for 2014 and 1.9 times greater than the 10-year average cumulative count.

Through September 10th, the 2015 cumulative adult steelhead count at BON is 216,564, which is about 86.1% of the 2014 count of 251,444 and 73.4% of the 10-year average count of 295,040. The 2015 cumulative adult wild steelhead count at BON is 82,376, which is about 75.6% of the 2014 count and 82.7% of the 10-year average count. Daily adult steelhead counts at Lower Granite Dam (LGR) ranged from 151 to 268 adults per day last week. This year's LGR cumulative steelhead count is 20,013 (through September 10th), which is about 86.7% of the 2014 count and 60.4% of the 10-year average count. The 2015 cumulative adult wild steelhead count at LGR is 9,023, which is about 81.2% of the 2014 count and 80.2% of the 10-year average count. At Willamette Falls, the 2015 cumulative count for steelhead is 7,473 (through September 7th). To date, this year's steelhead

count is 27.7% of the 2014 count and 32% of the 10-year average count.

Daily adult sockeye passage numbers at BON ranged between 0 and 8 last week. Through September 10th, the 2015 cumulative adult sockeye count at BON is 510,687, which is about 83.1% of the 2014 count but 2.1 times greater than the 10-year average count. Two of the major spawning sites for sockeye in the Upper Columbia River zone are Lake Wenatchee and Lake Osoyoos (Okanogan basin). The 2015 cumulative adult sockeye count at McNary Dam (through September 10th) is 279,066, which is about 51.1% of the 2014 count but 1.5 times greater than the 10-year average count. The LGR cumulative adult sockeye count for 2015 is 420, which is about 15.2% of the 2014 count and 44.5% of the 10-year average.

Adult coho passage at BON has increased over the last week, with daily passage numbers ranging from 1,235 to 1,556 per day. Through September 10th, the cumulative adult coho count at BON is 15,660, which is about 28% of the 2014 count and 36.2% of the 10-year average count.

## Hatchery Releases Last Two Weeks

<b>Hatchery Release Summary</b>									
<b>From: 8/29/2015 to 09/11/15</b>									
<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	Dworshak NFH	CH1	SP	2016	200,000	09-10-15	09-10-15	Nez Perce Tribal Hatchery	Clearwater River M F
Nez Perce Tribe	Dworshak NFH	CH1	SP	2016	300,000	09-10-15	09-10-15	Selway River	Clearwater River M F
<b>Nez Perce Tribe Total</b>					<b>500,000</b>				
<b>Grand Total</b>					<b>500,000</b>				

## Hatchery Releases Next Two Weeks

### Hatchery Release Summary

**From 9/12/2015 to 9/24/2015**

No Releases Scheduled

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
08/28/2015	101.5	0.0	104.1	0.0	105.8	0.0	102.8	0.0	107.4	0.0	112.4	1.2	110.6	1.8
08/29/2015	88.7	0.0	89.0	0.0	86.8	0.0	79.9	0.0	83.4	0.0	82.3	1.2	82.1	2.2
08/30/2015	77.1	0.0	78.0	0.0	81.5	0.0	79.5	0.0	83.9	0.0	87.1	1.5	90.7	2.4
08/31/2015	106.3	0.0	95.3	1.2	104.3	0.0	97.2	0.0	99.7	0.0	88.8	1.6	80.2	2.5
09/01/2015	76.8	0.1	84.2	0.2	94.8	0.0	91.7	0.0	98.4	0.0	99.4	2.0	97.9	2.8
09/02/2015	71.5	0.0	73.4	0.0	83.6	0.0	78.3	0.0	81.6	0.0	88.0	1.9	90.1	2.8
09/03/2015	61.0	0.0	63.3	0.0	68.2	0.0	70.8	0.0	76.4	0.0	87.6	1.8	91.4	2.7
09/04/2015	63.8	0.0	62.4	0.0	64.5	0.0	60.5	0.0	62.9	0.0	73.4	1.4	72.0	2.6
09/05/2015	59.7	0.0	58.1	0.0	59.7	0.0	60.4	0.0	64.0	0.0	64.2	5.3	63.4	2.6
09/06/2015	67.7	0.0	66.8	0.0	67.7	0.0	63.0	0.0	66.5	0.0	66.5	1.6	65.0	2.7
09/07/2015	51.1	0.0	51.0	0.0	54.3	0.0	57.6	0.0	59.4	0.0	72.3	1.5	73.9	2.6
09/08/2015	64.3	0.0	70.1	0.0	69.0	0.0	60.3	0.0	60.1	0.0	64.3	1.2	65.1	2.1
09/09/2015	70.0	0.0	65.5	0.0	68.7	0.0	67.0	0.0	68.1	0.0	71.7	1.3	78.9	2.2
09/10/2015	82.6	0.0	80.2	0.0	78.9	0.0	75.1	0.0	78.5	0.0	84.0	1.3	83.6	1.2

**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
08/28/2015	5.8	0.0	---	8.1	20.4	7.9	19.6	7.1	20.0	7.7	20.1	10.2
08/29/2015	5.8	0.0	---	8.3	19.3	6.7	19.4	7.2	19.7	7.6	19.7	10.2
08/30/2015	5.8	0.0	---	8.3	18.9	6.2	17.7	5.6	19.6	7.5	19.9	10.2
08/31/2015	5.9	0.0	---	8.3	19.0	6.3	18.1	5.5	18.3	6.0	18.4	8.8
09/01/2015	5.8	0.0	---	8.1	18.8	0.0	17.1	0.0	18.3	0.1	18.7	0.0
09/02/2015	5.8	0.0	---	8.1	17.1	0.0	16.1	0.0	16.6	0.0	13.9	0.0
09/03/2015	5.8	0.0	---	8.1	16.0	0.0	12.8	0.0	13.1	0.0	13.7	0.0
09/04/2015	5.8	0.0	---	8.1	18.3	0.0	15.7	0.0	13.1	0.0	10.7	0.0
09/05/2015	5.8	0.0	---	8.1	21.4	0.0	18.2	0.0	15.1	0.0	14.7	0.0
09/06/2015	5.9	0.0	---	8.1	23.9	0.0	18.6	0.0	19.2	0.0	18.0	0.0
09/07/2015	5.9	0.0	---	8.0	18.1	0.0	16.6	0.0	17.0	0.0	17.4	0.0
09/08/2015	5.9	0.0	---	8.7	21.4	0.0	20.5	0.0	20.9	0.0	21.9	0.0
09/09/2015	5.9	0.0	---	8.4	22.1	0.0	21.2	0.0	22.0	0.1	22.2	0.0
09/10/2015	5.9	0.0	---	9.1	18.0	0.0	16.8	0.0	18.5	0.1	18.8	0.0

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

Date	McNary		John Day		The Dalles		Bonneville			
	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	PH2	
08/28/2015	140.8	70.4	143.6	43.0	129.4	51.6	142.2	95.7	0.9	33.3
08/29/2015	116.6	58.4	101.6	30.4	96.9	38.7	116.0	72.2	0.8	30.5
08/30/2015	111.0	55.5	100.0	30.0	93.3	37.0	104.0	61.1	0.8	29.6
08/31/2015	117.2	58.5	111.7	33.6	101.6	40.4	111.8	68.4	0.8	30.2
09/01/2015	110.7	0.2	95.3	1.0	91.0	0.0	100.5	2.7	34.4	56.0
09/02/2015	95.3	0.0	92.8	1.1	93.0	0.0	97.7	1.4	33.2	55.7
09/03/2015	110.0	0.0	107.6	1.0	105.3	0.0	109.6	1.3	44.9	56.0
09/04/2015	92.2	0.0	98.7	1.0	98.8	0.0	110.8	1.3	47.8	54.2
09/05/2015	82.8	0.0	78.9	1.2	77.6	0.0	85.6	1.3	24.0	52.9
09/06/2015	77.6	0.0	74.3	1.0	74.5	0.0	83.3	1.3	17.5	57.1
09/07/2015	83.9	0.0	78.4	1.0	75.8	0.0	82.8	1.3	18.1	55.9
09/08/2015	95.5	0.0	93.6	0.9	93.4	0.0	102.1	1.3	35.1	58.3
09/09/2015	97.5	0.0	98.0	0.9	96.0	0.0	100.4	1.3	34.4	57.3
09/10/2015	98.5	0.0	100.6	1.2	100.1	0.0	110.4	1.4	45.7	56.0

## 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	<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>#</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>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>				
8/28	103.9	104.1	104.3	24	---	---	---	0	103.9	104.1	104.4	24	103.2	103.7	105.4	24	102.8	102.9	103.2	24
8/29	103.4	103.7	104.2	24	---	---	---	0	104.1	104.6	105.0	24	104.1	104.7	105.3	24	103.4	103.6	103.7	24
8/30	103.6	103.8	104.1	24	---	---	---	0	103.1	103.5	104.0	24	103.6	104.2	104.8	24	102.7	103.0	103.3	24
8/31	104.2	104.7	106.0	24	---	---	---	0	103.1	103.3	103.6	24	103.1	103.4	104.2	24	102.1	102.2	102.2	24
9/1	104.1	104.7	105.3	24	---	---	---	0	102.9	103.1	103.3	24	103.3	104.0	105.2	24	102.5	103.0	103.3	24
9/2	103.7	104.1	104.9	24	---	---	---	0	103.3	103.5	103.6	24	104.1	104.5	105.6	24	102.5	102.8	103.0	24
9/3	102.2	102.8	103.2	24	---	---	---	0	103.4	103.5	103.6	24	103.2	103.7	104.0	24	102.6	103.0	103.3	24
9/4	101.8	102.3	102.6	24	---	---	---	0	103.2	103.5	103.7	24	103.4	103.9	104.5	24	102.0	102.5	102.6	24
9/5	102.1	102.4	102.7	24	---	---	---	0	102.5	102.9	103.5	24	103.6	103.7	103.7	24	102.1	102.4	102.6	24
9/6	102.1	102.5	102.8	24	---	---	---	0	101.2	101.3	101.6	24	102.6	102.8	103.0	24	101.5	101.9	102.2	24
9/7	101.7	102.0	102.3	24	---	---	---	0	100.6	100.7	101.0	24	102.4	102.9	103.4	24	101.7	102.2	102.6	24
9/8	101.5	101.9	102.3	24	---	---	---	0	100.8	100.9	101.0	24	102.3	102.7	103.3	24	102.1	102.7	102.9	24
9/9	101.3	101.6	101.9	24	---	---	---	0	100.9	101.0	101.1	24	102.1	102.7	103.1	24	102.5	103.1	103.5	24
9/10	100.6	101.0	101.2	23	---	---	---	0	100.6	100.7	101.0	23	101.5	101.9	102.6	23	102.4	102.6	102.8	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>#</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>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>				
8/28	102.6	102.8	103.9	24	103.1	103.4	103.7	24	103.5	103.7	103.9	24	104.0	104.2	104.4	24	103.4	103.7	103.9	24
8/29	103.8	104.4	105.7	24	103.2	103.5	103.6	24	103.5	103.7	104.0	24	104.3	104.7	104.9	24	103.6	103.9	104.2	24
8/30	103.4	104.2	105.1	24	101.9	102.1	102.5	24	102.2	102.5	103.0	24	102.6	102.9	103.3	24	102.1	102.5	103.0	24
8/31	102.4	103.1	107.6	24	101.1	101.3	101.5	24	101.4	101.6	101.8	24	101.9	102.0	102.2	24	101.4	101.6	101.9	24
9/1	103.6	104.2	105.1	24	101.2	101.6	101.9	24	101.4	101.7	101.8	24	101.4	101.6	101.6	24	101.3	101.5	101.6	24
9/2	104.2	105.3	106.6	24	101.4	101.7	102.0	24	101.0	101.3	101.5	24	101.2	101.4	101.6	24	101.0	101.3	101.5	24
9/3	104.3	105.3	106.4	24	101.5	102.0	102.6	24	101.1	101.7	102.2	24	100.5	100.7	100.8	24	100.4	100.6	101.1	24
9/4	103.5	104.2	104.5	24	101.7	102.1	102.6	22	101.2	101.9	102.4	22	100.4	100.5	100.7	24	100.1	100.4	100.7	24
9/5	104.8	105.3	105.8	24	102.2	102.4	102.6	24	101.5	101.9	102.4	24	100.6	100.7	101.1	24	100.0	100.1	100.4	24
9/6	104.2	104.8	106.2	24	101.3	101.6	101.8	24	100.9	101.2	101.5	24	100.4	100.6	100.7	24	99.6	99.8	99.9	24
9/7	104.3	105.0	106.7	24	101.7	102.1	102.7	24	101.0	101.7	102.6	24	100.6	100.7	101.5	24	99.4	99.6	99.9	24
9/8	104.0	104.8	105.3	24	102.1	102.5	102.8	24	101.5	102.4	102.7	24	100.9	101.3	101.5	24	99.8	100.2	100.7	24
9/9	103.1	103.7	104.6	24	103.0	103.5	104.1	23	102.6	103.5	103.9	23	101.5	102.0	102.4	24	101.1	101.9	102.3	24
9/10	102.5	103.0	103.8	23	102.6	103.0	103.7	22	102.2	103.2	103.8	22	101.8	102.0	102.4	23	101.4	101.8	102.2	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>#</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>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>				
8/28	103.3	103.7	104.3	24	103.3	103.6	104.2	24	103.4	103.8	104.1	24	---	---	---	0	102.5	102.8	103.0	24
8/29	103.8	104.1	104.2	24	103.8	104.2	104.5	24	102.6	102.7	103.2	13	---	---	---	0	101.7	101.8	102.7	13
8/30	102.3	102.8	103.5	24	102.5	102.9	103.5	24	101.4	101.8	102.0	24	---	---	---	0	100.6	100.9	101.4	24
8/31	101.7	101.9	101.9	24	101.7	101.8	101.9	24	101.3	102.3	102.6	24	---	---	---	0	100.6	101.4	102.0	24
9/1	101.5	101.7	102.0	24	101.5	101.8	101.9	24	102.4	103.1	103.5	24	---	---	---	0	101.4	102.1	102.5	24
9/2	100.9	101.2	101.8	24	101.0	101.3	101.8	24	102.0	102.3	102.5	24	---	---	---	0	101.0	101.4	101.7	24
9/3	100.4	100.5	100.8	23	100.3	100.5	100.8	24	101.1	101.7	102.4	24	---	---	---	0	99.9	100.9	101.5	24
9/4	100.3	100.4	100.7	24	100.0	100.3	100.5	24	100.6	101.5	102.2	24	---	---	---	0	99.9	101.1	101.8	24
9/5	99.9	100.2	100.5	24	99.8	100.0	100.3	24	99.8	99.9	100.2	24	---	---	---	0	99.4	99.8	100.2	24
9/6	99.5	99.6	99.7	24	99.2	99.6	99.9	24	99.7	100.5	100.8	24	---	---	---	0	98.7	99.3	100.2	24
9/7	100.1	100.4	100.9	24	99.7	100.2	100.7	24	99.4	100.6	101.2	24	---	---	---	0	98.8	99.5	100.0	24
9/8	100.8	101.1	101.7	24	100.3	100.9	101.7	24	99.8	100.5	101.0	24	---	---	---	0	99.2	99.8	100.1	24
9/9	100.6	101.1	101.3	24	100.5	100.5	101.2	13	---	---	---	0	---	---	---	0	---	---	---	0
9/10	100.9	101.2	101.7	23	101.2	101.2	101.6	8	---	---	---	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>Clrwr-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>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>	
8/28	102.7	102.9	103.1	24	---	---	---	0	99.4	99.6	99.8	24	100.4	101.1	101.8	23	100.3	100.8	101.3	24
8/29	102.4	102.5	102.7	13	---	---	---	0	99.9	100.3	100.5	24	100.7	101.3	102.1	24	100.1	100.4	100.6	24
8/30	101.0	101.2	101.5	24	---	---	---	0	99.4	99.7	100.0	24	100.3	101.2	102.1	24	99.9	100.4	100.9	24
8/31	100.9	101.7	102.0	24	---	---	---	0	99.2	99.7	100.1	24	100.4	101.8	102.9	24	100.7	101.9	103.0	23
9/1	101.9	102.5	102.8	24	---	---	---	0	100.0	100.6	101.1	24	100.9	102.4	103.7	24	101.5	102.9	104.4	23
9/2	101.9	102.1	102.5	24	---	---	---	0	99.9	100.1	100.9	24	100.1	100.7	101.3	24	100.3	100.8	101.5	23
9/3	101.2	101.5	101.8	24	---	---	---	0	99.5	99.7	99.9	24	99.8	100.5	101.2	24	100.3	101.2	102.2	24
9/4	101.3	101.8	102.1	24	---	---	---	0	99.8	100.2	100.7	24	100.1	101.4	102.5	24	101.1	102.2	103.5	21
9/5	100.7	101.0	101.5	24	---	---	---	0	99.3	99.6	99.8	24	99.2	99.5	99.7	24	99.8	100.0	100.3	24
9/6	100.3	100.9	101.4	24	---	---	---	0	98.9	99.2	99.6	24	99.4	100.5	102.0	24	100.5	101.6	102.7	24
9/7	100.5	100.6	100.8	24	---	---	---	0	98.9	99.2	99.6	24	99.7	100.8	102.1	24	100.9	102.0	103.1	24
9/8	100.5	101.0	101.2	24	---	---	---	0	99.1	99.5	99.9	24	99.5	100.8	101.7	24	101.4	102.6	103.8	24
9/9	---	---	---	0	---	---	---	0	99.3	99.7	100.2	24	99.8	101.1	102.5	24	101.6	102.7	104.0	24
9/10	---	---	---	0	---	---	---	0	99.2	99.5	99.9	23	99.3	100.4	101.2	23	101.2	102.4	103.7	23

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

Date	<u>Clrwr-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>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>	
8/28	101.7	102.8	103.7	24	98.7	98.8	99.1	13	104.3	104.5	104.7	24	98.6	99.0	100.1	23	106.6	106.8	107.1	24
8/29	101.7	102.4	103.2	24	99.0	99.3	99.6	24	104.1	104.5	104.8	24	101.9	103.8	105.7	24	106.9	107.2	107.5	24
8/30	101.2	102.1	102.8	24	98.5	98.8	99.1	24	103.6	103.7	104.0	24	99.2	99.7	100.2	24	105.9	106.2	106.4	24
8/31	102.5	104.6	106.1	24	98.8	99.3	99.4	24	103.9	104.3	104.5	24	99.4	100.0	100.7	24	105.8	106.2	106.5	24
9/1	102.9	105.1	106.9	24	99.4	99.7	100.0	24	98.9	99.5	103.6	24	100.6	100.8	100.8	24	100.0	100.6	105.9	24
9/2	101.5	102.3	103.1	24	99.1	99.4	99.8	24	98.4	98.7	98.9	24	100.3	100.5	101.0	24	99.0	99.3	99.5	24
9/3	101.1	102.1	103.4	23	98.3	98.5	98.8	24	97.7	97.8	98.1	24	99.2	99.5	100.1	24	98.1	98.4	98.9	24
9/4	102.3	104.4	106.6	24	98.7	99.3	100.0	24	98.0	98.5	99.0	24	99.5	99.8	100.1	24	98.5	99.1	99.5	24
9/5	100.5	101.0	101.4	24	98.6	99.0	99.3	24	97.5	97.7	98.0	24	98.7	98.8	99.3	24	97.9	98.0	98.3	24
9/6	101.2	102.9	104.7	23	99.0	99.6	100.1	24	97.7	98.0	98.5	24	98.2	98.4	98.7	24	97.4	97.6	98.2	24
9/7	101.8	103.6	105.4	24	97.8	98.1	98.5	24	97.0	97.3	97.5	24	97.7	97.9	98.0	24	97.0	97.4	97.9	24
9/8	102.3	104.3	106.0	24	97.1	97.3	97.8	24	97.4	97.8	98.0	24	97.0	97.4	97.6	24	96.8	97.4	99.2	24
9/9	102.7	104.8	106.6	24	96.9	97.0	97.1	24	97.4	97.7	98.1	24	95.1	95.4	95.6	24	95.4	95.8	96.3	24
9/10	102.5	104.6	106.3	23	96.9	97.1	97.7	23	97.4	97.8	98.3	23	94.4	94.7	95.3	23	94.8	95.1	95.5	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>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>	
8/28	103.0	103.6	104.2	24	106.8	107.0	107.2	24	103.1	103.4	104.0	23	107.6	108.0	108.6	24	---	---	---	0
8/29	104.1	104.6	104.9	24	106.9	107.3	107.5	24	103.2	103.9	104.3	24	107.1	107.5	107.7	24	---	---	---	0
8/30	103.1	103.4	103.6	24	105.5	106.2	106.5	24	102.5	103.1	103.2	24	106.8	107.1	107.6	24	---	---	---	0
8/31	102.2	102.2	102.4	23	104.6	105.1	105.8	24	102.1	102.2	102.3	24	106.5	107.0	107.8	24	---	---	---	0
9/1	101.5	101.7	102.0	24	101.1	101.6	104.2	24	102.2	102.4	102.5	24	103.0	103.8	105.8	24	---	---	---	0
9/2	100.2	100.7	101.0	24	100.9	101.3	102.5	24	101.6	101.8	102.1	24	101.9	102.4	103.4	24	---	---	---	0
9/3	100.0	100.2	100.3	24	100.0	100.4	101.2	24	100.8	100.9	101.0	24	101.3	102.0	103.2	24	---	---	---	0
9/4	100.2	100.3	100.5	24	100.0	100.4	101.5	24	100.4	100.5	100.6	24	101.2	101.9	103.0	24	---	---	---	0
9/5	99.6	99.8	100.2	24	99.3	99.8	100.5	24	99.8	100.0	100.1	24	100.4	100.9	101.5	24	---	---	---	0
9/6	99.0	99.1	99.2	24	98.7	99.1	100.0	24	99.2	99.3	99.4	24	99.5	99.9	100.7	24	---	---	---	0
9/7	98.5	98.6	98.7	24	98.7	99.2	99.8	24	98.8	98.8	99.0	24	99.6	100.3	101.4	24	---	---	---	0
9/8	98.2	98.5	98.7	24	98.2	98.6	99.2	24	98.9	99.0	99.2	24	99.5	100.1	100.9	24	---	---	---	0
9/9	97.7	97.9	98.1	24	97.8	98.2	98.6	24	98.9	99.0	99.0	24	99.8	100.4	101.0	24	---	---	---	0
9/10	96.9	97.1	97.4	23	97.3	97.8	98.6	23	98.2	98.3	98.5	23	99.3	99.8	100.5	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>24 h</u>	<u>12 h</u>			<u>24h</u>	<u>12h</u>			<u>24h</u>	<u>12h</u>			<u>24h</u>	<u>12h</u>		
	<u>Avg</u>	<u>Avg</u>	<u>High</u>		<u>Avg</u>	<u>Avg</u>	<u>High</u>		<u>Avg</u>	<u>Avg</u>	<u>High</u>		<u>Avg</u>	<u>Avg</u>	<u>High</u>		<u>Avg</u>	<u>AVG</u>	<u>High</u>	
8/28	104.2	104.7	105.2	24	113.3	114.4	115.4	24	103.7	104.3	105.2	24	111.3	112.2	112.9	24	106.9	107.3	107.5	24
8/29	103.9	104.8	105.6	24	112.4	112.8	113.2	24	105.0	105.3	105.7	24	109.2	110.1	111.1	24	108.0	108.3	108.6	24
8/30	101.9	102.2	102.6	24	112.5	112.7	113.0	24	104.1	104.3	104.5	24	108.0	108.4	108.8	24	105.5	105.9	106.6	24
8/31	101.0	101.3	101.4	24	112.6	112.9	113.1	24	103.9	104.2	104.4	24	107.8	108.2	108.8	24	105.6	106.3	106.5	24
9/1	101.2	101.3	101.4	24	102.4	103.7	112.5	24	103.7	103.9	104.1	24	101.6	104.2	105.1	24	106.8	107.1	107.3	24
9/2	100.6	100.8	101.2	24	100.3	100.5	100.8	24	102.9	103.1	103.5	24	103.0	103.3	103.7	24	104.3	105.6	106.8	24
9/3	99.7	99.9	100.1	24	99.9	100.3	100.6	24	102.2	102.3	102.5	24	102.6	102.9	103.3	24	101.0	101.2	101.5	24
9/4	100.2	100.4	100.7	24	100.0	100.4	100.9	24	101.9	102.0	102.1	24	101.7	102.1	102.3	24	101.0	101.4	101.6	24
9/5	99.9	100.1	100.2	24	99.5	99.8	100.2	24	100.9	101.3	101.7	24	100.3	100.9	101.3	24	100.4	100.6	101.1	24
9/6	99.2	99.4	99.5	24	98.7	98.8	99.0	24	100.0	100.1	100.3	24	98.2	98.6	98.9	24	99.7	99.8	99.9	24
9/7	99.1	99.2	99.3	24	98.8	99.3	99.5	24	99.6	99.7	99.9	24	97.1	98.0	98.5	24	99.7	100.0	100.3	24
9/8	99.6	99.8	100.1	24	99.3	99.9	100.3	24	99.6	99.9	100.0	24	96.9	97.4	97.8	24	100.3	100.8	101.2	24
9/9	100.2	100.9	102.0	24	99.9	100.4	100.5	24	99.8	100.0	100.1	24	93.3	93.6	94.2	24	100.9	101.2	101.5	24
9/10	100.4	100.4	101.1	10	100.7	101.4	102.0	23	100.3	100.9	101.5	23	92.5	93.8	96.0	23	100.5	100.7	100.9	23

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

Date	<u>The Dalles Dnst</u>			#	<u>Bonneville</u>			#	<u>Warrendale</u>			#	<u>Camas\Washougal</u>			#	<u>Cascade Island</u>			#
	<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>			<u>24h</u>	<u>12h</u>			<u>24h</u>	<u>12h</u>			<u>24h</u>	<u>12h</u>		
	<u>Avg</u>	<u>Avg</u>	<u>High</u>		<u>Avg</u>	<u>Avg</u>	<u>High</u>		<u>Avg</u>	<u>Avg</u>	<u>High</u>		<u>Avg</u>	<u>Avg</u>	<u>High</u>		<u>Avg</u>	<u>Avg</u>	<u>High</u>	
8/28	112.1	112.8	113.4	24	107.6	108.4	109.6	24	117.4	117.9	118.3	24	114.5	115.7	116.9	24	117.1	117.3	117.6	24
8/29	111.7	112.0	112.8	24	108.2	109.0	109.8	24	116.3	117.0	118.3	24	112.9	114.6	116.4	24	114.0	115.1	117.4	24
8/30	110.6	111.0	111.6	24	106.9	107.3	107.7	24	116.4	116.8	117.2	24	109.4	110.0	110.5	24	112.6	112.6	112.7	24
8/31	110.6	111.1	111.4	24	106.8	107.2	107.4	24	117.2	117.8	118.2	24	112.7	114.4	115.4	24	113.0	113.4	113.6	24
9/1	107.2	108.1	110.5	24	106.7	106.8	107.3	24	111.1	113.4	117.0	24	114.2	115.2	115.6	24	108.1	109.1	111.7	24
9/2	105.0	105.7	106.4	24	105.2	105.6	106.0	24	107.5	107.8	108.2	24	106.9	108.1	112.3	24	107.3	107.8	109.0	24
9/3	101.7	102.1	102.5	24	104.5	104.7	104.9	24	107.1	107.5	108.1	24	105.1	105.8	106.0	24	108.3	108.9	110.4	24
9/4	101.1	101.5	101.6	24	103.9	104.4	104.9	24	106.4	106.7	107.1	24	105.0	105.6	105.8	24	107.5	108.2	109.7	24
9/5	101.0	101.2	101.5	24	101.6	102.0	102.6	24	104.7	105.1	105.5	24	103.4	103.9	104.9	24	107.3	108.0	109.3	24
9/6	100.7	100.9	101.1	24	100.2	100.5	100.7	24	103.1	104.2	104.4	24	102.6	102.8	103.4	24	106.6	107.4	108.8	24
9/7	100.6	101.0	101.2	24	99.5	99.7	99.9	24	101.7	103.0	103.9	24	102.7	103.3	103.7	24	106.6	107.6	109.3	24
9/8	100.9	101.3	101.6	24	100.5	101.0	101.3	24	102.8	103.8	104.5	24	103.4	104.0	104.5	24	107.0	108.1	109.3	24
9/9	101.6	102.0	102.3	24	101.4	101.7	102.0	24	103.3	104.0	104.6	24	103.5	104.0	104.2	24	106.8	107.7	108.5	24
9/10	101.1	101.4	101.8	23	101.9	102.3	102.8	23	105.0	105.7	106.3	23	103.6	104.5	105.0	23	106.2	107.1	108.8	23



## Two-Week Summary of Passage Indices

Source: Fish Passage Center

Updated: 9/11/2015 7:48

\* 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/currentsmptsubmitdata.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)	
08/28/2015	*	---	---	---	---	0	0	0	0	---	0	---
08/29/2015	*	---	---	---	---	0	0	0	0	---	---	0
08/30/2015	*	---	---	---	---	0	0	0	0	---	---	---
08/31/2015	*	---	---	---	---	0	0	0	0	---	---	0
09/01/2015	*	---	---	---	---	0	0	0	---	---	0	---
09/02/2015	*	---	---	---	---	0	0	0	---	---	---	0
09/03/2015	*	---	---	---	---	0	0	0	---	---	---	---
09/04/2015	*	---	---	---	---	0	0	0	---	0	0	0
09/05/2015	*	---	---	---	---	0	0	0	---	---	---	0
09/06/2015		---	---	---	---	0	0	0	---	0	0	0
09/07/2015	*	---	---	---	---	0	0	0	---	---	0	0
09/08/2015		---	---	---	---	1	0	0	---	0	0	0
09/09/2015	*	---	---	---	---	0	0	0	---	---	0	0
09/10/2015		---	---	---	---	---	0	---	---	0	0	0
09/11/2015		---	---	---	---	---	---	---	---	---	---	---
<hr/>												
<b>Total:</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># Days:</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>13</b>	<b>14</b>	<b>13</b>	<b>4</b>	<b>7</b>	<b>8</b>	<b>10</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>40,054</b>	<b>68,276</b>	<b>7,458</b>	<b>1,081</b>	<b>1,769,195</b>	<b>1,156,885</b>	<b>1,126,664</b>	<b>16,457</b>	<b>1,340,101</b>	<b>664,378</b>	<b>1,712,479</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)	
08/28/2015	*	---	---	---	---	622	70	27	4	---	6	---
08/29/2015	*	---	---	---	---	770	170	13	2	0	---	64
08/30/2015	*	---	---	---	---	811	196	37	5	---	---	---
08/31/2015	*	---	---	---	---	637	60	23	1	8	---	26
09/01/2015	*	---	---	---	---	407	39	17	---	---	12	---
09/02/2015	*	---	---	---	---	264	20	41	---	40	---	66
09/03/2015	*	---	---	---	---	322	46	24	---	---	---	---
09/04/2015	*	---	---	---	---	286	33	32	---	36	2	127
09/05/2015	*	---	---	---	---	225	32	23	---	---	---	0
09/06/2015		---	---	---	---	403	67	28	---	28	8	23
09/07/2015	*	---	---	---	---	295	57	15	---	---	10	40
09/08/2015		---	---	---	---	141	34	16	---	16	5	29
09/09/2015	*	---	---	---	---	102	31	10	---	---	10	68
09/10/2015		---	---	---	---	---	61	---	---	12	15	57
09/11/2015		---	---	---	---	---	---	---	---	---	---	---
<hr/>												
<b>Total:</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5,285</b>	<b>916</b>	<b>306</b>	<b>12</b>	<b>140</b>	<b>68</b>	<b>500</b>
<b># Days:</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>13</b>	<b>14</b>	<b>13</b>	<b>4</b>	<b>7</b>	<b>8</b>	<b>10</b>
<b>Average:</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>407</b>	<b>65</b>	<b>24</b>	<b>3</b>	<b>20</b>	<b>9</b>	<b>50</b>
<b>YTD</b>		<b>1</b>	<b>114</b>	<b>1,292</b>	<b>2,077</b>	<b>1,152,586</b>	<b>960,178</b>	<b>332,087</b>	<b>20,817</b>	<b>1,563,199</b>	<b>826,314</b>	<b>2,189,427</b>

## Two-Week Summary of Passage Indices

<b>COMBINED COHO</b>											
Date	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (INDEX)	LGS (INDEX)	LMN (INDEX)	RIS (INDEX)	MCN (INDEX)	JDA (INDEX)	BO2 (INDEX)
08/28/2015 *	---	---	---	---	3	2	0	0	---	0	---
08/29/2015 *	---	---	---	---	0	0	0	0	0	---	0
08/30/2015 *	---	---	---	---	3	0	0	0	---	---	---
08/31/2015 *	---	---	---	---	0	0	0	0	0	---	0
09/01/2015 *	---	---	---	---	3	0	0	---	---	0	---
09/02/2015 *	---	---	---	---	0	0	0	---	0	---	0
09/03/2015 *	---	---	---	---	0	0	0	---	---	---	---
09/04/2015 *	---	---	---	---	0	0	0	---	0	0	0
09/05/2015 *	---	---	---	---	0	0	0	---	---	---	0
09/06/2015	---	---	---	---	0	0	0	---	0	0	0
09/07/2015 *	---	---	---	---	0	0	0	---	---	0	0
09/08/2015	---	---	---	---	1	0	0	---	0	0	0
09/09/2015 *	---	---	---	---	0	0	0	---	---	0	0
09/10/2015	---	---	---	---	---	0	---	---	0	0	0
09/11/2015	---	---	---	---	---	---	---	---	---	---	---
<b>Total:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>2</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>13</b>	<b>14</b>	<b>13</b>	<b>4</b>	<b>7</b>	<b>8</b>	<b>10</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>0</b>	<b>0</b>	<b>0</b>	<b>47</b>	<b>40,408</b>	<b>60,310</b>	<b>37,631</b>	<b>14,704</b>	<b>66,248</b>	<b>70,109</b>	<b>692,863</b>

<b>COMBINED STEELHEAD</b>											
Date	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (INDEX)	LGS (INDEX)	LMN (INDEX)	RIS (INDEX)	MCN (INDEX)	JDA (INDEX)	BO2 (INDEX)
08/28/2015 *	---	---	---	---	0	0	0	0	---	0	---
08/29/2015 *	---	---	---	---	0	0	0	0	0	---	0
08/30/2015 *	---	---	---	---	0	3	0	0	---	---	---
08/31/2015 *	---	---	---	---	0	1	0	0	8	---	0
09/01/2015 *	---	---	---	---	0	0	0	---	---	0	---
09/02/2015 *	---	---	---	---	0	1	0	---	0	---	0
09/03/2015 *	---	---	---	---	2	0	1	---	---	---	---
09/04/2015 *	---	---	---	---	0	1	0	---	0	0	0
09/05/2015 *	---	---	---	---	2	2	0	---	---	---	0
09/06/2015	---	---	---	---	0	0	0	---	0	0	0
09/07/2015 *	---	---	---	---	2	2	0	---	---	0	0
09/08/2015	---	---	---	---	0	0	0	---	0	0	0
09/09/2015 *	---	---	---	---	0	1	0	---	---	0	0
09/10/2015	---	---	---	---	---	0	---	---	0	0	0
09/11/2015	---	---	---	---	---	---	---	---	---	---	---
<b>Total:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>11</b>	<b>1</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>0</b>
<b># Days:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>13</b>	<b>14</b>	<b>13</b>	<b>4</b>	<b>7</b>	<b>8</b>	<b>10</b>
<b>Average:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>
<b>YTD</b>	<b>2,567</b>	<b>40,594</b>	<b>672</b>	<b>11,678</b>	<b>1,300,223</b>	<b>1,073,532</b>	<b>576,053</b>	<b>12,756</b>	<b>456,625</b>	<b>201,081</b>	<b>1,021,904</b>

## Two-Week Summary of Passage Indices

<b>COMBINED SOCKEYE</b>											
Date	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (INDEX)	LGS (INDEX)	LMN (INDEX)	RIS (INDEX)	MCN (INDEX)	JDA (INDEX)	BO2 (INDEX)
08/28/2015 *	---	---	---	---	0	0	0	0	---	0	---
08/29/2015 *	---	---	---	---	0	0	0	1	0	---	0
08/30/2015 *	---	---	---	---	0	0	0	0	---	---	---
08/31/2015 *	---	---	---	---	0	0	0	1	0	---	0
09/01/2015 *	---	---	---	---	0	0	0	---	---	0	---
09/02/2015 *	---	---	---	---	0	0	0	---	0	---	0
09/03/2015 *	---	---	---	---	0	0	0	---	---	---	---
09/04/2015 *	---	---	---	---	0	0	0	---	4	0	0
09/05/2015 *	---	---	---	---	0	0	0	---	---	---	0
09/06/2015	---	---	---	---	0	0	0	---	0	0	0
09/07/2015 *	---	---	---	---	0	0	0	---	---	0	0
09/08/2015	---	---	---	---	0	0	0	---	0	0	0
09/09/2015 *	---	---	---	---	0	0	0	---	---	0	0
09/10/2015	---	---	---	---	---	0	---	---	0	0	0
09/11/2015	---	---	---	---	---	---	---	---	---	---	---
<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>2</b>	<b>4</b>	<b>0</b>	<b>0</b>
<b># Days:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>13</b>	<b>14</b>	<b>13</b>	<b>4</b>	<b>7</b>	<b>8</b>	<b>10</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>1</b>	<b>1</b>	<b>0</b>	<b>0</b>
<b>YTD</b>	<b>74</b>	<b>0</b>	<b>4</b>	<b>47</b>	<b>16,237</b>	<b>19,851</b>	<b>11,030</b>	<b>3,932</b>	<b>128,918</b>	<b>104,375</b>	<b>149,234</b>

<b>COMBINED LAMPREY JUVENILES</b>											
Date	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR <sup>†</sup> (Samp)	LGS (Coll)	LMN (Coll)	RIS (Coll)	MCN (Coll)	JDA (Coll)	BO2 (Coll)
08/28/2015 *	---	---	---	---	1	0	0	0	---	---	1
08/29/2015 *	---	---	---	---	2	3	0	0	8	---	0
08/30/2015 *	---	---	---	---	0	3	0	0	---	---	---
08/31/2015 *	---	---	---	---	0	1	0	0	4	---	0
09/01/2015 *	---	---	---	---	0	2	0	---	---	0	---
09/02/2015 *	---	---	---	---	0	1	0	---	0	---	0
09/03/2015 *	---	---	---	---	0	3	1	---	---	---	---
09/04/2015 *	---	---	---	---	0	1	0	---	4	0	0
09/05/2015 *	---	---	---	---	0	1	0	---	---	---	0
09/06/2015	---	---	---	---	0	1	0	---	12	0	0
09/07/2015 *	---	---	---	---	0	3	0	---	---	5	0
09/08/2015	---	---	---	---	1	1	0	---	12	0	0
09/09/2015 *	---	---	---	---	0	1	0	---	---	0	0
09/10/2015	---	---	---	---	---	0	---	---	4	0	0
09/11/2015	---	---	---	---	---	---	---	---	---	---	---
<b>Total:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>21</b>	<b>1</b>	<b>0</b>	<b>44</b>	<b>6</b>	<b>0</b>
<b># Days:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>13</b>	<b>14</b>	<b>13</b>	<b>4</b>	<b>7</b>	<b>8</b>	<b>10</b>
<b>Average:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>1</b>	<b>0</b>
<b>YTD</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>43</b>	<b>8,215</b>	<b>2,335</b>	<b>169</b>	<b>9,023</b>	<b>19,956</b>	<b>4,105</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:

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:

9/11/15 7:50 AM

**08/28/15 TO 09/11/15**

		Species				
Site	Data	CH0	CH1	CO	ST	Grand Total
<b>LGR</b>	Sum of NumberCollected	4,152	1	7	6	4,166
	Sum of NumberBarged	0	0	0	0	0
	Sum of NumberBypassed	0	0	0	5	5
	Sum of Numbertrucked	4,562	1	7	1	4,571
	Sum of SampleMorts	25	0	0	0	25
	Sum of FacilityMorts	4	0	0	0	4
	Sum of ResearchMorts	0	0	0	0	0
	Sum of TotalProjectMorts	29	0	0	0	29
<b>LGS</b>	Sum of NumberCollected	728		1	10	739
	Sum of NumberBarged	0		0	0	0
	Sum of NumberBypassed	0		0	0	0
	Sum of Numbertrucked	799		1	9	809
	Sum of SampleMorts	8		0	1	9
	Sum of FacilityMorts	2		0	0	2
	Sum of ResearchMorts	0		0	0	0
	Sum of TotalProjectMorts	10		0	1	11
<b>LMN</b>	Sum of NumberCollected	263			1	264
	Sum of NumberBarged	0			0	0
	Sum of NumberBypassed	0			0	0
	Sum of Numbertrucked	275			1	276
	Sum of SampleMorts	4			0	4
	Sum of FacilityMorts	0			0	0
	Sum of ResearchMorts	0			0	0
	Sum of TotalProjectMorts	4			0	4
Total Sum of NumberCollected		5,143	1	8	17	5,169
Total Sum of NumberBarged		0	0	0	0	0
Total Sum of NumberBypassed		0	0	0	5	5
Total Sum of Numbertrucked		5,636	1	8	11	5,656
Total Sum of SampleMorts		37	0	0	1	38
Total Sum of FacilityMorts		6	0	0	0	6
Total Sum of ResearchMorts		0	0	0	0	0
Total Sum of TotalProjectMorts		43	0	0	1	44

**YTD Transportation Summary**

Source: Fish Passage Center

Updated:

9/11/15 7:50 AM

TO: 09/11/15

		Species					
Site	Data	CH0	CH1	CO	SO	ST	Grand Total
<b>LGR</b>	Sum of NumberCollected	682,851	1,150,139	26,322	10,915	826,785	2,697,012
	Sum of NumberBarged	656,833	473,291	22,805	10,483	363,282	1,526,694
	Sum of NumberBypassed	8,363	676,470	3,499	160	463,127	1,151,619
	Sum of NumberTrucked	15,880	1	7	0	43	15,931
	Sum of SampleMorts	258	43	1	8	32	342
	Sum of FacilityMorts	1,492	318	10	257	261	2,338
	Sum of ResearchMorts	25	16	0	7	40	88
	Sum of TotalProjectMorts	1,775	377	11	272	333	2,768
<b>LGS</b>	Sum of NumberCollected	645,303	807,530	42,069	13,866	748,836	2,257,604
	Sum of NumberBarged	639,244	545,396	40,315	13,818	535,296	1,774,069
	Sum of NumberBypassed	136	261,966	1,720	40	213,220	477,082
	Sum of NumberTrucked	3,364	0	5	0	31	3,400
	Sum of SampleMorts	151	21	0	2	15	189
	Sum of FacilityMorts	2,349	147	29	6	274	2,805
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	2,500	168	29	8	289	2,994
<b>LMN</b>	Sum of NumberCollected	174,348	642,436	22,120	6,690	322,642	1,168,236
	Sum of NumberBarged	172,399	581,534	21,816	6,640	285,463	1,067,852
	Sum of NumberBypassed	617	60,572	300	30	36,797	98,316
	Sum of NumberTrucked	636	0	0	0	2	638
	Sum of SampleMorts	68	45	2	0	39	154
	Sum of FacilityMorts	628	315	2	20	341	1,306
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	696	360	4	20	380	1,460
Total Sum of NumberCollected		1,502,502	2,600,105	90,511	31,471	1,898,263	6,122,852
Total Sum of NumberBarged		1,468,476	1,600,221	84,936	30,941	1,184,041	4,368,615
Total Sum of NumberBypassed		9,116	999,008	5,519	230	713,144	1,727,017
Total Sum of NumberTrucked		19,880	1	12	0	76	19,969
Total Sum of SampleMorts		477	109	3	10	86	685
Total Sum of FacilityMorts		4,469	780	41	283	876	6,449
Total Sum of ResearchMorts		25	16	0	7	40	88
Total Sum of TotalProjectMorts		4,971	905	44	300	1,002	7,222

**Cumulative Adult Passage at Mainstem Dams Through: 09/10**

DAM	END DATE	Spring Chinook						Summer Chinook						Fall Chinook					
		2015		2014		10-Yr Avg.		2015		2014		10-Yr Avg.		2015		2014		10-Yr Avg.	
		Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack
BON	09/10	220480	13314	188083	26094	132065	23978	161735	17730	109734	25342	87270	20126	428695	29890	435135	45345	254820	33861
TDA	09/10	194116	12307	143142	21080	101070	20309	123915	15458	96134	19525	74749	16059	221949	24981	212658	24106	116881	22052
JDA	09/10	166015	11514	123224	19103	88117	19021	108768	10988	86033	17655	66973	16286	162565	13791	134781	15190	73365	16977
MCN	09/10	156151	8767	107147	16033	79364	15788	96287	8723	87974	17022	63834	12059	116309	6184	77037	10005	46353	9310
IHR	09/10	116462	5745	79298	12428	55061	10384	21408	2807	17433	4474	17149	4587	23619	1794	17382	2468	12184	4220
LMN	09/10	111511	8697	79942	14020	55282	9560	17764	4835	16064	8136	18788	5227	18619	3147	14025	2564	10007	3854
LGS	09/10	105124	8553	77966	13649	51473	10681	15494	4464	17058	7477	17984	5853	15963	1811	10955	1408	8182	2471
LGR	09/10	104873	8379	79167	13732	50576	11930	14958	4222	14668	7106	15904	6380	11227	1631	9210	1304	5775	2173
PRD	09/09	27716	1570	23742	2649	15720	1631	78139	3550	78434	4889	53883	2434	13841	900	10505	2957	8931	2825
WAN	09/09	25982	1077	0	0	15431	2202	76636	2180	0	0	49981	2003	10716	705	0	0	4831	2288
RIS	09/09	31750	1092	23247	2934	15126	2669	88691	2476	77982	6494	51644	5343	8602	707	4136	2579	3154	2013
RRH	09/09	15244	609	12376	2377	6372	1183	76246	1937	58569	5017	40639	3786	6954	427	3352	1943	2525	1297
WEL	09/02	19971	1520	15377	2544	5959	1398	62129	3311	49255	5989	31068	3500	881	46	504	371	501	254
WFA	09/07	51046	2042	30071	1598	33725	1204	0	0	0	0	0	0	298	61	351	72	285	52

DAM	END DATE	Coho						Sockeye			Steelhead						Lamprey		
		2015		2014		10-Yr Avg.		2015	2014	10-Yr Avg.	2015	2014	10-Yr Avg.	Wild	Wild	10-Yr	2015	2014	10-Yr
		Adult	Jack	Adult	Jack	Adult	Jack	2015	2014	Avg.	2015	2014	Avg.	2015	2014	Avg.	2015	2014	Avg.
BON	09/10	15660	1979	55827	4082	43226	2381	510687	614179	241300	216564	251444	295040	82376	109028	99590	38100	31527	21194
TDA	09/10	6317	1240	19167	2932	11016	1534	429685	586177	206906	119980	134915	168580	46898	61663	59646	12031	11033	5851
JDA	09/10	4261	864	7355	1091	6782	1102	366127	557531	205463	76544	80849	130356	29561	35573	45292	7854	7987	5317
MCN	09/10	1187	313	3075	878	2352	374	279066	545995	181615	57235	71239	94858	22975	31939	32040	1609	1576	1610
IHR	09/10	60	28	172	66	137	21	1053	2390	742	27058	33164	56611	9643	11481	15069	721	688	253
LMN	09/10	18	8	113	68	80	12	887	2803	898	24318	35241	51231	10094	13759	15141	242	214	76
LGS	09/10	2	5	107	36	46	9	579	2809	879	15865	21173	32921	6909	9860	10425	99	128	39
LGR	09/10	4	0	7	1	2	1	420	2764	943	20013	23059	33095	9023	11109	11255	54	77	11
PRD	09/09	204	47	104	13	312	45	301231	608127	215739	8407	9409	12220	0	0	0	6240	6177	3397
WAN	09/09	135	16	0	0	176	46	296318	0	191339	8042	0	12162	0	0	0	4739	0	1875
RIS	09/09	43	1	0	0	73	27	264204	581054	212284	7453	6246	9942	3501	3181	4457	0	2311	982
RRH	09/09	3	0	0	0	3	1	215969	492810	181100	5247	3684	7211	2368	1832	3014	0	3371	671
WEL	09/02	0	0	0	0	0	0	186440	490622	174935	3079	2369	3518	1415	1241	1563	0	5	3
WFA	09/07	15	35	40	53	176	95	0	0	0	7473	26974	23377	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.