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Fish Passage Center

Weekly Report #15–21

August 7, 2015

Summary of Events

Water Supply

Precipitation throughout the Columbia Basin has varied between 6% and 221% of average at individual sub-basins over August. Precipitation above The Dalles has been 67% of average over July. Over the 2015 water year, precipitation has ranged between 74% and 93% of average.

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

Location	Water Year 2015 August 1-5, 2015		Water Year 2015 October 1, 2014 to August 5, 2015	
	Observed (inches)	% Average	Observed (inches)	% Average
Columbia above Coulee	0.24	64	32.2	93
Snake River above Ice Harbor	0.16	106	17.1	82
Columbia above The Dalles	0.15	67	21.7	84
Kootenai	0.25	61	33.3	93
Clark Fork	0.09	33	18.9	74
Flathead	0.02	6	27.7	83
Pend Oreille River Basin above Waneta Dam	0.04	16	24.2	79
Salmon River Basin	0.22	102	20.9	78
Upper Snake Tributaries	0.49	221	20.7	83
Clearwater	0.07	30	30.6	79
Willamette River above Portland	0.02	11	48.9	79

Grand Coulee Reservoir is at 1,285.3 feet (8-6-15) and has drafted 1.7 feet over the last week. Outflows at Grand Coulee have ranged between 91.0 and 112.2 Kcfs over the last week.

The Libby Reservoir is currently at elevation 2,442.9 feet (8-6-15) and has drafted 0.3 feet over the previous week. Daily average outflows at Libby Dam have been reduced from 7.5 to 7.1 Kcfs over the last week.

Hungry Horse is currently at an elevation of 3,545.5 feet (8-6-15) and drafted 0.7 feet over the last week. Outflows at Hungry Horse have increased from 1.8 to 2.2 Kcfs over the last week.

Dworshak is currently at an elevation of 1,552.2 feet (8-6-15) and drafted 6.2 feet over the last week. Outflows have ranged between 7.5 and 10.0 Kcfs for most of the last week and were further reduced to 5.6 Kcfs early in the morning on August 7, 2015.

The Brownlee Reservoir was at an elevation of 2,058.5 feet on August 6, 2015, and has drafted 5.2 feet over the last week. Hells Canyon outflows have ranged between 7.3 and 19.9 Kcfs over the last four days.

The Summer Biological Opinion flow period began on June 21st with a flow objective of 50 Kcfs. Over the Summer Flow Period, flows at Lower Granite Dam have averaged 29.3 Kcfs and, over the last week, have averaged 28.9 Kcfs.

The Summer Biological Opinion Flow Objective (which began July 1st) is 200 Kcfs at McNary Dam. Over the summer flow period, flows at McNary have averaged 141.4 Kcfs. Flows at McNary have averaged 141.9 Kcfs over the last week.

Spill

The 2015 summer fish spill program was initiated at the lower Snake River projects on June 21st. At the middle Columbia River projects, summer spill was initiated on June 16th rather than on July 1, as part of rolled-over court ordered operations.

At the lower Snake River projects spill is planned as described in the 2015 Fish Operations Plan (2015

FOP). With the start of summer spill on June 21st, spill at Lower Granite Dam switched from 20 Kcfs to 18 Kcfs; Little Goose Dam continued as 30% of instantaneous flow; Lower Monumental Dam switched to 17 Kcfs; and Ice Harbor Dam continued the "test-like" conditions alternating between blocks of days with 30% spill and 45Kcfs/gas cap spill. However, low flow over this past week and changes in project operations caused changes from the planned operation spill levels at all the Snake River projects.

Lower Granite Dam continued at a reduced spill level through the weekend, operating Unit 1, which has a higher hydraulic capacity. The project returned to Unit 2 operation early Monday morning (0459 hours), and the Fish Operations Plan spill level, without the RSW, was implemented using a uniform spill pattern. At Little Goose Dam spill operations continued as described in the FOP. Daily averaged spill over the past week ranged from 9.3 Kcfs to 11.2 Kcfs.

Summer spill volumes at Lower Monumental Dam were equal to all flow in excess of the amount needed to operate one turbine unit. Daily average spill ranged from 11.1 Kcfs to 17 Kcfs. At Ice Harbor Dam spill for the remainder of the summer is supposed to be 45 cfs/gas cap. However, flows are sufficiently low that the 45 Kcfs/gas cap spill condition is not implementable. Spill is occurring as all flow in excess of the amount needed to operate one turbine unit. Spill averaged from 13.1 Kcfs to 23.9 Kcfs at this project.

Project	Summer Spill Level (June 21–August 31) Day/Night
Lower Granite	18 Kcfs/18 Kcfs
Little Goose	30%/30%
Lower Monumental	17 Kcfs/17 Kcfs
Ice Harbor	45 Kcfs/Gas Cap

All the middle Columbia River projects are currently spilling to summer spill levels as described in the 2015 FOP. At Bonneville Dam low flows at times are precluding the stated spill levels, particularly the 121 Kcfs during nighttime hours. During these times spill is equal to all flow in excess of that needed to meet minimum project operations.

Project	Summer Spill Level (June 16–August 31) Day/Night
McNary	50%/50%
John Day	30%/30%
The Dalles	40%/40%
Bonneville	**June 16–Aug 31:** 85 Kcfs/121 Kcfs and 95 Kcfs/95 Kcfs

High temperatures and low fish numbers have precluded sampling for GBT this past week. All TDG measurements have been considerably below the waiver limits as a result of low flow and, therefore, low spill levels.

Smolt Monitoring

All Smolt Monitoring Program bypass facilities continued sampling this week. Sampling at all four Smolt Monitoring Program traps has been terminated for the season.

Passage of spring migrants (i.e., yearling Chinook, steelhead, coho, and sockeye) was extremely low at all of the SMP sites this week. Subyearling Chinook dominated the collections at all the SMP dam sites this week. When compared to last week, subyearling Chinook passage decreased at all SMP bypass facilities in the Lower and Upper Columbia River. At the Snake River facilities, subyearling Chinook passage this week increased (Lower Granite) or was similar (Little Goose and Lower Monumental) to the previous week.

The Bonneville Dam (BON) Juvenile Fish Facility continued to operate under the high temperature sampling protocol this week. Under the high temperature sampling protocol, SMP sampling at BON is modified from a daily 24-hour sample to an every-other-day 24-hour sample. The first non-sample day occurred on June 29th. This high temperature protocol will remain in place until the daily average temperature in the forebay falls below 69.5°F. 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 for the last three weeks of sampling. This week's daily average passage index for subyearling Chinook was about 250 per day which as a decrease over last week's daily average passage index of about 2,000 per day.

Sampling at John Day Dam (JDA) is also under the high temperature sampling protocol. Under the high temperature sampling protocol, SMP sampling at JDA is modified from a daily 24-hour sample to a condition only sample (for up to 6 hours) every Monday and Thursday. The first condition only sample occurred on Monday, June 29th. This high temperature protocol will remain in place until the daily average temperature in the forebay falls below 69.5°F. Because the high temperature protocol calls for a partial day sample, it is not appropriate to use the passage index as a measure of the magnitude of juvenile passage. Subyearling Chinook continued to dominate the collections at John Day Dam (JDA) this week. However, some spring migrants were encountered in this week's samples, as coho, sockeye, and steelhead juveniles were all encountered in the sample from July 31st. No lamprey juveniles were encountered in this week's samples.

Sampling at McNary Dam (MCN) is also under the high temperature sampling protocol. Under the high temperature sampling protocol, sampling at MCN continues to be a 24-hour sample every other day but with a modified target sample size of 100 instead of 300–500 fish. The high temperature protocol went into effect on the afternoon of July 1st and will remain in effect until the daily average temperature in the MCN forebay falls below 69.5°F. This week's samples at MCN were dominated by subyearling Chinook. This week's daily average passage index for subyearling Chinook was about 450 per day, which is a decrease over last week's daily average passage index of about 1,400 per day. The only spring migrants that were encountered in this week's samples were steelhead. Finally, Pacific lamprey macropthalmia were encountered in two of this week's three samples, with a daily average collection of 7 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 4,250 per day, which was a slight increase over last week's daily average passage index of about 3,550 per day. Very few spring migrants were encountered in this week's samples. Only two Pacific lamprey macropthalmia were sampled this week, one on August 1st and one on August 5th.

Sampling at Little Goose Dam (LGS) was limited to a 24-hour sample every other day from April 2nd to April 30th. Little Goose Dam began collecting fish for transportation on May 1st 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 440 fish per day, which is very similar to last week's daily average passage index of about 420 per day. The only spring migrants that were encountered in this week's samples were steelhead, which were encountered every day this week but in relatively low numbers. Finally, Pacific lamprey macropthalmia were encountered in four of this week's samples. No Pacific lamprey ammocoetes were encountered at LGS this week.

Sampling at Lower Monumental Dam (LMN) was limited to a 24-hour sample every third day from April 4th to April 13th and every other day from April 15th to May 1st. At 1500 on May 1st, 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 60 per day. This is a slight 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 only one of this week's samples (August 1st). Finally, no lamprey juveniles were encountered in this week's samples.

Although passage has been low, SMP samples at Rock Island Dam (RIS) continued to be dominated by subyearling Chinook juveniles this week. This week's daily average passage index was about 30 fish per day, which is lower than last week's daily average passage index of about 40 per day. Sockeye and coho were the only spring migrants encountered in this week's samples, although their numbers were extremely low. Finally, Pacific lamprey macropthalmia were encountered in all seven of this week's samples. Daily collections this week ranged from one to four fish per day. No Pacific lamprey ammocoetes were encountered in this week's samples.

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 new releases were scheduled for this zone this week and no new releases are scheduled 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 began to pass Bonneville Dam on August 1st. The adult fall Chinook count of 4,837 is about 1.9 times greater than the 2014 count of 2,492 and 2 times greater than the 10-year average count of 2,408. The 2015 Bonneville Dam fall Chinook jack count of 473 is about 41% of the 2014 count of 1,155 and 81.4% of the 10-year average count of 581. The 2015 adult summer Chinook count of 13,965 at Lower Granite Dam in the Snake River has 233 fewer fish than the 2014 count and 1,542 fewer fish than the 10-year average count. The 2015 Lower Granite summer Chinook jack count of 3,984 is about 57% of the 2014 count and about 63.5% of the 10-year average count.

The 2015 Bonneville Dam adult steelhead count of 98,852 is about 79.2% of the 2014 count of 124,857 and about 73.3% of the 10-year average count of 134,793. The 2015 Bonneville Dam adult wild steelhead count of 48,494 is about 77.8% of the 2014 count of 62,328 and 85% of the 10-year average count of 57,039. Daily adult steelhead counts at Lower Granite Dam ranged from 16 to 42 adults per day last week. This year's Lower Granite steelhead count of 10,253 is about 79.7% of the 2014 count of 12,865 and 78.3% of the 10-year average count of 13,091. The 2015 Lower Granite Dam adult wild steelhead count of 5,038 is about 79.5% of the 2014 count of 6,339, while having 82 more fish than the 10-year average count of 4,956. At Willamette Falls, the 2015 count for steelhead was 6,993 as of August 3rd. This year's steelhead count is 26.6% of the 2014 count of 26,315 and 30.5% of the 10-year average count of 22,926.

Daily adult sockeye passage numbers at Bonneville Dam ranged between 111 and 218 last week. The 2015 adult sockeye count at Bonneville Dam of 509,828 is about 83.1% of the 2014 count of 613,750, while being 2.1 times greater than the 10-year average count of 241,212. Two of the major spawning sites for sockeye in the Upper Columbia River zone are Lake Wenatchee and Lake Osoyoos (Okanogan basin). The 2015 McNary Dam adult sockeye count of 276,888 is about 50.8% of the 2014 count of 545,423, while being 1.5 times greater than the 10-year average count of 181,489. The Lower Granite Dam 2015 adult sockeye count of 386 has 2,256 fewer fish than the 2014 count and 538 fewer fish than the 10-year average count of 924.

Four adult coho have crossed Bonneville Dam so far this year. As of August 6th at Bonneville Dam, the adult shad count was 1,813,833. This year's shad count is about 69.7% of the 2014 count of 2,602,853 and 72.4% of the 10-year average count of 2,506,333.

Hatchery Releases Last Two Weeks

Hatchery Release Summary

From 7/25/2015 to 08/07/2015

No Releases

Hatchery Releases Next Two Weeks

Hatchery Release Summary

From 8/8/2015 to 8/20/2015

No Releases Scheduled

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

	Grand Coulee		Chief Joseph		Wells		Rocky Reach		Rock Island		Wanapum		Priest Rapids	
Date	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill
07/24/2015	110.0	0.0	104.8	0.0	105.3	8.0	101.5	8.0	102.9	18.4	101.1	17.9	98.5	27.7
07/25/2015	90.0	0.0	105.3	0.0	105.9	7.7	104.2	7.8	106.5	17.4	103.6	20.0	100.4	29.4
07/26/2015	80.5	0.0	83.8	0.0	89.1	6.9	84.3	7.4	87.2	16.9	98.4	19.4	98.9	28.3
07/27/2015	91.8	0.0	89.9	0.0	90.8	6.8	88.0	8.6	89.7	20.5	95.5	18.0	94.0	27.9
07/28/2015	111.4	0.0	97.3	4.8	100.8	7.9	96.5	8.7	98.4	20.6	108.2	18.4	106.7	28.8
07/29/2015	108.6	0.0	107.9	3.2	111.9	8.9	113.1	12.9	112.5	21.3	117.8	18.0	117.2	27.5
07/30/2015	101.4	0.0	105.0	0.0	109.2	9.0	104.3	8.7	107.6	21.0	118.0	18.6	118.5	27.8
07/31/2015	101.5	0.0	105.1	0.0	109.0	8.7	105.1	8.8	106.7	21.2	109.0	17.8	109.4	26.5
08/01/2015	93.9	0.0	92.9	0.0	96.8	7.3	92.3	9.2	94.2	20.5	107.3	17.4	107.1	26.2
08/02/2015	91.0	0.0	97.8	0.0	95.6	7.3	88.8	8.2	90.9	17.8	75.1	17.4	69.7	27.6
08/03/2015	100.8	0.0	92.6	0.0	98.0	7.2	94.6	9.9	93.7	22.8	113.0	19.4	113.0	28.2
08/04/2015	112.2	0.0	108.0	0.0	108.2	8.1	102.8	10.1	103.1	22.7	105.2	19.3	106.7	23.6
08/05/2015	104.6	0.0	114.8	0.0	117.5	9.1	111.9	9.8	113.5	21.1	116.6	19.4	113.2	29.0
08/06/2015	109.7	0.0	106.1	0.0	124.1	8.9	122.7	8.7	125.4	20.6	122.6	20.1	126.5	25.8

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

	Dworshak		Brownlee	Hells Canyon	Lower Granite		Little Goose		Lower Monumental		Ice Harbor	
Date	Flow	Spill	Inflow	Outflow	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill
07/24/2015	7.7	0.0	---	12.8	30.5	11.7	27.1	4.9	25.3	13.0	26.8	16.9
07/25/2015	7.8	0.0	---	11.9	27.3	8.6	26.6	10.4	27.5	17.4	26.4	16.3
07/26/2015	10.0	0.0	---	11.0	25.7	7.0	26.5	9.3	25.4	13.0	26.1	16.3
07/27/2015	9.9	0.0	---	9.8	28.8	10.0	27.9	9.4	25.3	13.0	26.7	17.0
07/28/2015	10.0	0.0	---	12.1	27.5	8.9	27.1	3.9	28.1	15.5	28.2	18.2
07/29/2015	7.8	0.0	---	12.6	29.8	11.3	26.8	4.6	25.4	12.9	26.4	16.0
07/30/2015	7.8	0.0	---	15.2	28.5	9.9	31.3	10.6	30.7	17.4	31.6	21.7
07/31/2015	10.0	0.0	---	14.7	31.3	12.8	29.0	10.6	27.9	14.0	27.7	18.1
08/01/2015	10.0	0.0	---	15.1	31.2	12.5	31.1	11.2	31.1	17.0	33.8	23.9
08/02/2015	10.0	0.0	---	15.6	31.7	13.1	30.5	11.2	28.8	16.5	28.8	18.9
08/03/2015	6.5	0.2	---	13.6	30.9	15.1	30.7	11.2	30.0	16.3	29.8	20.0
08/04/2015	7.6	0.0	---	13.1	25.7	12.9	24.5	11.2	22.8	10.3	23.1	13.1
08/05/2015	7.6	0.0	---	10.6	26.4	13.8	26.4	9.3	24.4	12.0	26.2	16.3
08/06/2015	7.6	0.0	---	9.3	24.9	12.1	24.3	9.3	23.4	11.1	23.4	13.2

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

	McNary		John Day		The Dalles		Bonneville			
Date	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	PH1	PH2
07/24/2015	137.7	69.2	127.1	37.9	113.9	45.7	126.1	81.5	0.9	31.3
07/25/2015	129.4	65.0	124.5	37.5	115.7	46.5	135.3	87.5	0.9	34.5
07/26/2015	145.2	72.8	125.2	37.4	110.1	44.4	128.3	83.3	0.9	31.8
07/27/2015	135.3	67.8	126.0	37.7	112.7	45.0	126.7	81.5	0.9	31.9
07/28/2015	130.3	65.2	129.8	38.8	120.5	48.0	131.7	86.6	0.9	31.8
07/29/2015	152.9	76.6	136.8	40.8	123.7	49.2	137.5	90.5	5.7	29.0
07/30/2015	153.7	77.0	154.6	46.1	142.2	57.1	157.5	99.8	1.0	44.3
07/31/2015	155.5	77.8	144.5	43.3	130.3	52.1	145.6	94.6	0.9	37.7
08/01/2015	150.9	75.6	144.7	43.2	131.6	52.7	133.7	88.8	0.9	31.6
08/02/2015	130.5	65.6	117.7	35.5	106.9	42.6	133.6	88.5	0.9	31.8
08/03/2015	126.9	63.7	119.6	35.9	110.9	44.4	129.4	85.1	0.7	31.7
08/04/2015	139.8	70.2	135.9	40.7	123.4	49.2	128.7	85.4	0.0	32.0
08/05/2015	140.8	70.4	124.6	37.4	113.5	45.5	129.9	86.9	0.1	31.6
08/06/2015	149.0	74.7	133.8	40.2	118.7	47.4	132.1	87.8	0.9	32.1

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

Total Dissolved Gas Saturation Data at Upper Columbia River Sites

	Hungry H. Dnst				Boundary				Grand Coulee				Grand C. Tlwr				Chief Joseph			
	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
7/24	102.5	103.7	104.6	24	---	---	---	0	108.6	108.7	108.8	24	106.2	106.8	107.2	24	107.0	107.4	107.8	24
7/25	104.8	105.4	105.7	24	---	---	---	0	108.5	108.6	108.7	24	105.7	106.5	107.2	24	106.7	106.9	107.0	24
7/26	105.4	106.0	106.6	24	---	---	---	0	108.5	108.6	108.7	24	106.2	106.7	107.1	24	105.7	106.1	106.5	24
7/27	105.0	105.6	106.0	24	---	---	---	0	108.0	108.2	108.4	24	106.2	106.6	107.1	24	105.3	105.5	105.6	24
7/28	104.7	105.2	105.5	24	---	---	---	0	107.5	107.7	107.8	24	105.7	106.2	106.6	24	105.2	105.8	106.2	24
7/29	105.0	105.5	105.7	24	---	---	---	0	107.5	107.6	107.8	24	105.7	106.4	107.7	24	106.0	106.6	106.9	24
7/30	104.1	104.6	105.4	24	---	---	---	0	107.5	107.8	108.1	24	105.3	106.3	106.8	24	106.5	107.2	107.6	24
7/31	104.1	104.7	105.1	24	---	---	---	0	107.9	108.1	108.3	24	105.6	106.4	107.0	24	106.8	107.5	107.9	24
8/1	104.4	105.1	105.5	24	---	---	---	0	108.0	108.2	108.4	24	106.0	106.7	107.4	24	107.0	107.3	107.5	24
8/2	104.8	105.5	106.2	24	---	---	---	0	107.8	108.0	108.2	24	106.2	106.8	107.7	24	107.1	107.4	107.6	24
8/3	105.3	106.0	106.4	24	---	---	---	0	107.9	108.0	108.3	24	106.6	107.1	107.8	24	106.9	107.1	107.4	24
8/4	105.2	105.6	106.2	24	---	---	---	0	107.4	107.7	108.0	24	106.0	106.6	107.1	24	106.6	106.8	107.0	24
8/5	103.7	104.1	104.4	24	---	---	---	0	107.2	107.3	107.6	16	105.6	106.3	106.8	24	106.4	106.7	106.8	24
8/6	103.9	104.6	105.0	23	---	---	---	0	106.7	106.9	107.0	23	105.4	105.8	106.3	23	105.7	106.1	106.5	23

Total Dissolved Gas Saturation Data at Mid Columbia River Sites

	Chief J. Dnst				Wells				Wells Dwnstrm				Rocky Reach				Rocky R. Tlwr			
	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
7/24	106.4	106.8	107.1	24	106.8	107.2	107.9	22	108.7	109.1	109.8	22	107.2	107.6	108.0	24	110.2	110.8	111.8	24
7/25	106.3	106.5	106.8	24	105.9	106.1	106.5	22	107.7	107.9	108.4	22	107.3	107.4	107.6	24	110.1	110.6	111.2	24
7/26	106.0	106.5	107.2	24	105.1	105.5	105.9	23	107.0	107.5	107.9	23	106.5	106.7	107.0	24	109.3	109.7	110.1	24
7/27	104.8	105.2	105.7	24	104.9	105.3	106.0	21	106.8	107.2	107.9	21	105.3	105.6	105.8	24	109.0	109.7	110.1	24
7/28	105.8	106.7	109.0	24	104.9	105.4	106.2	20	106.6	107.2	108.3	20	105.2	105.6	105.9	24	109.2	110.2	110.6	24
7/29	105.7	106.5	107.3	24	105.6	106.6	107.1	23	107.7	108.6	109.2	23	105.9	106.4	106.6	24	110.7	112.2	113.6	24
7/30	106.0	106.5	106.9	24	106.6	107.5	108.2	23	108.2	109.4	110.1	23	106.9	107.4	107.8	24	110.4	111.2	111.6	24
7/31	106.4	106.7	107.1	24	107.3	108.2	108.9	24	109.0	109.9	110.5	24	108.0	108.5	109.1	24	110.8	111.6	112.0	24
8/1	107.2	107.8	108.8	24	107.5	108.1	108.6	24	108.9	109.6	110.3	24	109.1	109.6	110.2	24	111.3	112.3	112.9	24
8/2	106.7	106.9	107.6	24	107.1	107.5	108.1	24	108.8	109.3	110.0	24	109.0	109.4	109.8	24	111.0	111.9	112.2	24
8/3	106.8	107.3	108.0	24	106.9	107.2	107.7	24	108.4	108.8	109.3	24	108.6	108.8	109.1	24	111.3	112.0	112.5	24
8/4	106.5	106.8	107.7	24	106.1	106.4	107.0	24	107.7	108.5	109.0	24	107.8	108.0	108.2	24	111.0	111.8	112.1	24
8/5	105.9	106.3	106.6	24	105.6	106.0	106.4	24	107.4	108.0	108.7	24	106.5	106.7	107.0	24	110.7	111.6	112.1	24
8/6	105.4	105.8	106.3	23	105.4	105.8	106.3	23	107.2	107.8	108.3	23	105.6	105.8	106.0	23	110.3	110.9	111.4	23

Total Dissolved Gas Saturation at Mid Columbia River Sites

	Rock Island				Rock I. Tlwr				Wanapum				Wanapum Tlwr				Priest Rapids			
	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
7/24	107.0	107.5	108.2	24	112.1	112.8	114.0	24	106.5	107.1	107.6	24	110.3	110.8	112.1	24	107.7	108.1	108.7	24
7/25	107.0	107.4	108.1	24	112.1	112.9	113.6	24	106.6	106.9	107.0	24	111.5	112.6	114.5	24	107.7	108.2	109.6	24
7/26	106.5	106.8	107.2	24	111.8	112.8	116.2	24	106.1	106.4	106.6	24	110.4	111.1	112.0	24	108.0	108.5	110.0	24
7/27	105.6	105.9	106.4	24	112.5	113.4	115.1	24	104.4	104.8	105.2	24	109.3	110.2	112.9	24	105.9	106.4	106.9	24
7/28	105.5	106.1	106.7	24	112.3	113.0	114.6	24	104.8	106.2	107.4	24	109.5	110.6	112.5	24	105.6	106.8	108.3	24
7/29	106.3	107.0	107.5	24	112.5	113.3	115.1	24	106.0	108.3	108.9	24	110.2	110.8	111.7	24	109.0	109.8	110.3	24
7/30	107.3	107.7	108.3	24	112.8	113.4	114.2	24	107.4	110.2	111.2	24	111.4	111.9	113.1	24	109.3	110.2	111.2	24
7/31	107.8	108.7	109.6	24	113.1	113.8	114.3	24	110.0	111.6	112.3	24	111.8	112.1	113.2	24	110.4	110.9	111.4	24
8/1	108.5	109.3	110.2	24	113.8	114.4	115.6	24	110.4	111.7	112.7	24	111.9	112.2	113.1	24	110.0	110.6	110.8	24
8/2	108.9	109.4	110.1	24	113.9	114.3	115.2	24	107.8	110.5	111.3	24	112.4	113.1	113.5	24	110.5	110.9	111.5	24
8/3	108.4	108.8	109.5	24	114.9	115.7	116.9	23	109.0	109.3	110.0	24	111.9	112.8	114.4	24	108.7	109.1	109.8	24
8/4	108.2	108.4	108.6	24	114.3	114.8	115.6	24	108.3	108.4	108.7	24	111.7	112.4	113.6	24	108.5	109.0	109.6	24
8/5	107.1	107.5	108.2	24	112.8	113.8	115.6	23	106.9	107.2	107.8	24	110.7	111.4	113.5	24	107.5	108.2	109.3	24
8/6	106.7	107.2	107.5	23	112.0	113.1	114.1	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

	Priest R. Dnst				Pasco				Dworshak				Clrwtr-Peck				Anatone			
	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
7/24	112.6	114.2	116.4	24	---	---	---	0	98.9	99.3	99.8	24	101.4	102.6	104.2	24	101.9	103.3	104.5	24
7/25	112.5	113.9	116.4	24	---	---	---	0	99.0	99.4	99.8	24	101.4	102.7	103.9	24	102.1	103.3	104.4	24
7/26	111.8	112.6	114.9	24	---	---	---	0	98.8	99.0	99.4	24	100.6	101.3	102.5	24	100.3	100.3	100.8	8
7/27	111.5	112.9	115.4	24	---	---	---	0	98.6	99.0	99.2	24	100.3	101.0	102.1	24	100.7	101.2	101.7	20
7/28	111.8	113.4	115.8	24	---	---	---	0	98.1	98.4	98.8	24	99.8	100.8	102.2	24	101.5	103.1	104.3	24
7/29	112.5	114.1	116.8	24	---	---	---	0	98.4	98.9	99.2	24	100.8	102.1	103.6	24	102.1	103.4	105.0	23
7/30	112.7	113.6	116.2	24	---	---	---	0	98.7	99.2	99.5	24	100.1	100.5	102.0	17	102.2	103.7	105.2	24
7/31	112.9	113.5	115.5	24	---	---	---	0	98.8	99.2	99.5	24	100.7	101.8	103.1	24	102.3	103.6	104.9	24
8/1	112.8	113.8	116.1	24	---	---	---	0	99.2	99.6	100.0	24	101.1	102.1	103.5	24	102.3	103.6	104.7	24
8/2	114.6	115.6	117.0	24	---	---	---	0	99.3	99.7	100.1	24	101.1	102.1	103.3	24	102.2	103.5	104.7	24
8/3	112.2	113.2	114.6	24	---	---	---	0	101.0	102.5	104.7	24	102.3	104.1	106.5	24	101.4	102.1	102.9	23
8/4	112.2	114.3	116.5	24	---	---	---	0	99.6	99.9	100.3	24	100.9	101.9	103.2	24	101.8	103.1	104.5	24
8/5	112.0	113.4	115.8	24	---	---	---	0	99.5	99.8	100.3	24	100.1	100.1	100.6	7	101.6	102.7	104.1	24
8/6	---	---	---	0	---	---	---	0	99.2	99.4	99.8	23	102.8	102.8	104.1	11	101.2	102.5	103.8	23

Total Dissolved Gas Saturation Data at Snake River Sites

	Clrwtr-Lewiston				Lower Granite				L. Granite Tlwr				Little Goose				L. Goose Tlwr			
	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
7/24	104.1	106.8	108.8	24	102.4	102.7	103.1	24	108.8	110.4	111.2	24	104.5	104.7	104.9	24	104.6	105.8	107.9	24
7/25	103.6	105.7	106.9	24	102.1	102.2	102.5	24	106.6	107.6	108.1	24	103.6	104.1	104.5	24	106.8	107.4	107.9	24
7/26	103.4	105.4	107.0	24	101.8	101.9	102.0	24	105.1	105.5	106.1	24	103.4	103.5	103.7	24	105.9	106.4	107.0	24
7/27	102.4	103.9	105.1	24	101.2	101.4	101.7	24	107.0	108.1	110.2	24	103.4	103.5	103.7	24	105.4	105.9	106.3	24
7/28	103.2	105.7	107.5	24	100.7	100.9	101.0	24	105.8	106.2	106.7	24	102.8	103.0	103.4	24	101.8	103.0	104.8	24
7/29	103.6	106.2	108.2	24	100.2	100.3	100.5	24	107.4	108.9	109.4	24	102.0	102.1	102.3	24	101.3	102.8	105.1	24
7/30	103.8	106.5	108.4	24	99.7	99.9	100.1	24	106.9	108.3	108.8	24	101.9	102.1	102.2	24	105.0	105.4	105.9	24
7/31	103.7	106.2	108.0	24	99.7	99.9	100.2	24	108.3	111.1	111.8	24	101.8	102.0	102.2	24	105.3	106.0	106.6	24
8/1	103.8	106.2	108.1	24	100.4	101.1	102.2	24	109.3	109.8	111.7	24	101.7	102.0	102.3	24	105.5	106.1	107.1	24
8/2	103.5	105.9	107.6	24	102.8	103.5	104.0	24	109.6	110.6	111.8	24	102.6	103.0	103.8	24	105.9	106.3	106.9	24
8/3	102.8	104.5	105.8	24	103.2	103.3	103.6	24	110.4	111.6	112.0	24	103.8	104.1	104.4	24	105.6	106.1	106.5	24
8/4	103.8	105.9	107.6	24	102.4	102.6	102.8	24	109.8	110.3	110.6	24	104.0	104.5	105.0	24	103.6	104.1	105.2	24
8/5	103.5	105.6	107.6	24	101.7	102.0	102.3	24	109.9	110.6	111.2	24	103.4	103.7	103.9	24	103.2	103.7	105.1	24
8/6	103.5	105.8	107.5	23	101.8	102.0	102.4	23	109.5	110.0	110.4	23	103.8	104.1	104.6	23	102.7	103.2	103.6	23

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

	Lower Mon.				L. Mon. Tlwr				Ice Harbor				Ice Harbor Tlwr				McNary-Oregon			
	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
7/24	105.1	105.5	106.1	24	112.6	112.9	114.2	24	108.6	109.1	110.1	24	111.2	111.8	112.7	24	---	---	---	0
7/25	105.0	105.3	105.9	24	114.1	114.7	115.3	24	108.5	108.9	109.2	24	109.7	110.3	110.8	24	---	---	---	0
7/26	105.9	106.2	106.5	24	112.6	112.9	113.2	24	108.3	108.7	109.2	24	110.1	111.1	111.9	24	---	---	---	0
7/27	104.3	105.4	106.7	24	112.1	112.6	113.3	24	107.7	108.0	108.7	24	109.8	110.7	111.6	24	---	---	---	0
7/28	103.4	103.6	103.9	24	113.8	114.9	115.5	24	108.0	108.5	109.1	24	111.9	113.5	114.7	24	---	---	---	0
7/29	103.1	103.5	104.4	24	112.0	112.5	113.2	24	108.8	109.0	109.4	24	110.9	111.9	112.6	24	---	---	---	0
7/30	103.0	103.3	103.7	24	115.0	115.5	117.3	24	109.8	110.2	110.9	24	112.8	114.3	114.8	24	---	---	---	0
7/31	104.6	105.7	106.9	24	112.8	113.6	114.8	24	110.3	110.8	111.5	24	111.3	112.4	113.2	24	---	---	---	0
8/1	105.3	105.7	106.7	24	114.9	115.3	116.0	24	112.3	112.8	113.5	24	113.8	114.5	115.0	24	---	---	---	0
8/2	104.6	104.7	105.0	24	114.7	115.0	115.3	24	112.8	113.2	113.8	24	113.1	113.8	114.4	24	---	---	---	0
8/3	103.3	104.0	105.0	24	114.7	115.0	115.6	24	113.1	113.8	114.4	24	112.7	113.1	113.7	24	---	---	---	0
8/4	104.7	105.5	105.8	24	112.1	112.6	113.3	23	112.5	113.0	113.7	24	110.3	111.2	111.8	24	---	---	---	0
8/5	104.9	105.1	105.2	24	112.4	113.1	113.3	24	111.7	112.0	112.4	24	110.7	112.0	113.3	24	---	---	---	0
8/6	104.8	105.1	105.5	23	112.3	112.7	113.1	23	111.4	111.9	112.4	23	110.0	110.7	111.7	23	---	---	---	0

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

Total Dissolved Gas Saturation Data at Lower Columbia River Sites

	McNary-Wash				McNary Tlwr				John Day				John Day Tlwr				The Dalles			
	24 h	12 h		#	24 h	12 h		#	24h	12h		#	24h	12h		#	24h	12h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	AVG	High	hr
7/24	104.7	104.8	105.0	24	113.9	114.3	114.9	24	102.5	102.8	103.1	24	112.2	113.2	113.8	24	103.5	104.3	104.5	24
7/25	104.5	104.7	105.0	24	112.8	114.6	115.5	24	102.1	102.3	102.4	24	111.7	112.3	112.4	24	104.7	105.1	105.2	24
7/26	104.3	104.5	104.6	24	113.9	115.3	116.1	24	101.6	101.7	101.9	24	111.3	111.8	112.1	24	104.4	104.6	104.8	24
7/27	103.8	103.9	104.1	24	113.5	113.8	114.4	24	100.8	101.0	101.5	24	110.6	111.0	111.6	24	103.7	103.9	104.1	24
7/28	103.6	103.8	104.1	24	113.7	114.2	114.5	24	100.1	100.4	100.7	24	110.8	111.4	112.3	24	104.1	105.0	105.3	24
7/29	104.7	105.4	107.6	24	115.3	116.0	116.5	24	101.1	102.1	103.4	24	110.5	111.3	111.6	24	107.1	108.2	108.6	24
7/30	106.6	107.1	107.8	24	115.4	116.0	116.6	24	103.3	104.0	105.7	24	111.1	111.6	112.4	24	107.6	107.9	108.2	24
7/31	108.1	108.8	109.8	24	115.9	116.3	116.5	24	103.8	104.4	105.4	24	110.2	111.0	111.8	24	107.6	108.1	108.5	24
8/1	109.8	110.7	111.4	24	115.1	115.4	115.5	24	104.2	105.2	105.9	24	109.6	110.8	111.6	24	107.5	108.0	108.5	24
8/2	110.7	111.2	111.7	24	113.9	114.6	115.9	24	105.2	105.7	106.4	24	108.0	108.6	109.5	24	107.2	107.6	108.1	24
8/3	110.2	110.5	110.8	24	112.6	112.7	112.8	24	105.2	105.5	105.9	24	107.0	107.8	108.1	24	105.7	105.9	106.3	24
8/4	109.4	109.7	109.9	24	112.9	113.6	114.0	24	105.7	106.0	106.5	24	108.0	109.7	110.4	24	105.3	105.8	106.1	24
8/5	107.2	107.8	108.3	24	113.7	114.8	115.3	24	105.3	105.6	105.8	24	107.7	108.3	109.0	24	104.9	105.3	105.4	24
8/6	105.2	105.4	105.8	23	114.6	114.9	115.2	23	104.9	105.3	105.5	23	107.7	108.9	109.6	23	104.6	105.3	105.6	23

Total Dissolved Gas Saturation Data at Lower Columbia River Sites

	The Dalles Dnst				Bonneville				Warrendale				Camas\Washougal				Cascade Island			
	24 h	12 h		#	24 h	12 h		#	24h	12h		#	24h	12h		#	24h	12h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
7/24	109.9	110.5	111.0	24	103.0	103.3	103.6	24	114.5	115.0	115.4	24	111.6	112.9	113.6	24	113.6	114.1	117.3	24
7/25	110.7	111.2	111.5	24	103.4	103.5	103.6	24	114.8	115.3	116.0	24	111.1	111.9	112.7	24	113.9	114.5	116.5	24
7/26	110.2	110.6	110.9	24	103.5	103.8	103.9	24	114.6	114.8	115.1	24	111.6	112.8	113.6	24	113.3	113.4	113.4	24
7/27	110.1	110.4	110.8	24	103.7	103.7	103.8	24	114.3	114.6	114.9	24	111.2	112.0	112.7	24	113.2	113.2	113.3	24
7/28	110.8	111.6	111.9	24	104.6	105.3	105.8	24	115.2	115.9	116.4	24	111.8	113.5	114.2	24	113.6	114.0	116.4	24
7/29	112.3	113.3	113.6	24	106.6	107.8	108.6	24	115.7	116.2	116.6	24	113.9	115.2	115.8	24	114.5	115.3	117.6	24
7/30	113.3	113.9	114.2	24	109.9	110.7	111.1	24	117.6	118.3	118.8	24	114.9	116.2	117.4	24	117.2	117.4	117.7	24
7/31	113.0	113.7	114.1	24	111.7	112.4	112.7	24	116.8	117.6	117.9	24	114.9	115.9	116.5	24	117.1	117.1	117.2	24
8/1	112.8	113.5	113.9	24	111.5	111.7	111.9	24	117.0	117.2	117.4	24	115.0	116.5	117.5	24	114.7	115.7	117.0	24
8/2	112.2	112.6	113.1	24	109.0	109.6	111.0	24	116.7	117.3	117.7	24	114.3	115.1	116.0	24	114.3	114.9	116.8	24
8/3	111.2	111.4	112.0	24	106.5	107.1	107.9	24	115.2	115.6	115.8	24	113.3	113.9	114.8	24	113.5	113.5	113.6	24
8/4	111.2	111.7	112.0	24	104.1	104.4	104.7	24	113.8	114.4	114.9	24	111.2	112.0	112.8	24	113.3	113.3	113.6	24
8/5	111.1	111.3	111.5	24	103.0	103.2	103.6	24	114.0	114.5	114.9	24	109.8	111.0	111.7	24	113.5	113.8	115.5	24
8/6	110.8	111.7	112.1	23	103.3	103.7	104.2	23	114.7	115.0	115.5	23	111.1	112.6	113.7	23	113.6	113.8	116.4	23

Two-Week Summary of Passage Indices

Source: Fish Passage Center Updated: 8/7/2015 7:03

* One or more of the sites on this date had an incomplete or biased sample.
See Sampling Comments: http://www.fpc.org/currentDaily/smpcomments.htm
For clip information see: http://www.fpc.org/CurrentDaily/catch.htm
For sockeye and yearling chinook (Snake only) race information see: http://www.fpc.org/smoltqueries/currentsmpsubmitdata.asp

COMBINED YEARLING CHINOOK

Date		WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (INDEX)	LGS (INDEX)	LMN (INDEX)	RIS (INDEX)	MCN (INDEX)	JDA (INDEX)	BO2 (INDEX)
07/24/2015	*	---	---	---	---	0	0	0	0	0	0	0
07/25/2015	*	---	---	---	---	0	0	0	0	---	---	---
07/26/2015	*	---	---	---	---	0	0	0	0	0	---	0
07/27/2015	*	---	---	---	---	0	0	0	0	---	---	---
07/28/2015	*	---	---	---	---	0	0	0	0	0	0	0
07/29/2015	*	---	---	---	---	0	0	0	0	---	---	---
07/30/2015	*	---	---	---	---	0	0	0	0	0	---	0
07/31/2015	*	---	---	---	---	0	0	0	0	---	0	---
08/01/2015	*	---	---	---	---	0	0	0	0	0	---	0
08/02/2015	*	---	---	---	---	0	0	0	0	---	---	---
08/03/2015	*	---	---	---	---	0	0	0	0	0	---	0
08/04/2015	*	---	---	---	---	0	0	0	0	---	0	---
08/05/2015	*	---	---	---	---	0	0	0	0	0	---	0
08/06/2015	*	---	---	---	---	0	0	0	0	---	---	---
08/07/2015		---	---	---	---	---	---	---	---	---	---	---
Total:		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
# Days:		**0**	**0**	**0**	**0**	**14**	**14**	**14**	**14**	**7**	**4**	**7**
Average:		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
YTD		**40,054**	**68,276**	**7,458**	**1,081**	**1,769,194**	**1,156,885**	**1,126,664**	**16,457**	**1,340,101**	**664,378**	**1,712,479**

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)
07/24/2015	*	---	---	---	---	4,964	823	198	78	2,395	1,518	4,667
07/25/2015	*	---	---	---	---	4,369	656	136	65	---	---	---
07/26/2015	*	---	---	---	---	3,196	282	87	40	1,399	---	2,487
07/27/2015	*	---	---	---	---	4,279	430	51	32	---	---	---
07/28/2015	*	---	---	---	---	3,494	255	46	17	915	971	492
07/29/2015	*	---	---	---	---	2,839	307	51	23	---	---	---
07/30/2015	*	---	---	---	---	1,683	181	46	37	878	---	161
07/31/2015	*	---	---	---	---	1,020	115	35	40	---	462	---
08/01/2015	*	---	---	---	---	1,307	158	84	36	641	---	247
08/02/2015	*	---	---	---	---	2,573	509	118	26	---	---	---
08/03/2015	*	---	---	---	---	4,300	477	66	26	544	---	418
08/04/2015	*	---	---	---	---	9,236	721	32	20	---	201	---
08/05/2015	*	---	---	---	---	7,515	707	46	16	176	---	139
08/06/2015	*	---	---	---	---	3,778	367	16	26	---	---	---
08/07/2015		---	---	---	---	---	---	---	---	---	---	---
Total:		**0**	**0**	**0**	**0**	**54,553**	**5,988**	**1,012**	**482**	**6,948**	**3,152**	**8,611**
# Days:		**0**	**0**	**0**	**0**	**14**	**14**	**14**	**14**	**7**	**4**	**7**
Average:		**0**	**0**	**0**	**0**	**3,897**	**428**	**72**	**34**	**993**	**788**	**1,230**
YTD		**1**	**114**	**1,292**	**2,077**	**1,122,186**	**951,428**	**330,504**	**20,629**	**1,561,720**	**825,887**	**2,186,314**

Two-Week Summary of Passage Indices

				COMBINED COHO								
		WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date		(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
07/24/2015	*	---	---	---	---	0	0	0	0	0	0	0
07/25/2015	*	---	---	---	---	0	0	0	0	---	---	---
07/26/2015	*	---	---	---	---	0	0	0	0	0	---	0
07/27/2015	*	---	---	---	---	0	0	0	0	---	---	---
07/28/2015	*	---	---	---	---	0	3	0	0	0	0	0
07/29/2015	*	---	---	---	---	0	0	0	0	---	---	---
07/30/2015	*	---	---	---	---	0	0	0	0	10	---	0
07/31/2015	*	---	---	---	---	0	0	0	0	---	10	---
08/01/2015	*	---	---	---	---	0	0	0	1	0	---	0
08/02/2015	*	---	---	---	---	8	0	0	0	---	---	---
08/03/2015	*	---	---	---	---	0	0	0	0	0	---	0
08/04/2015	*	---	---	---	---	0	0	0	0	---	0	---
08/05/2015	*	---	---	---	---	0	0	0	0	0	---	0
08/06/2015	*	---	---	---	---	0	0	0	0	---	---	---
08/07/2015		---	---	---	---	---	---	---	---	---	---	---
Total:		**0**	**0**	**0**	**0**	**8**	**3**	**0**	**1**	**10**	**10**	**0**
# Days:		**0**	**0**	**0**	**0**	**14**	**14**	**14**	**14**	**7**	**4**	**7**
Average:		**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**3**	**0**
YTD		**0**	**0**	**0**	**47**	**40,380**	**60,300**	**37,631**	**14,704**	**66,248**	**70,109**	**692,863**

				COMBINED STEELHEAD								
		WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date		(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
07/24/2015	*	---	---	---	---	64	18	0	0	0	0	0
07/25/2015	*	---	---	---	---	16	13	23	0	---	---	---
07/26/2015	*	---	---	---	---	0	19	0	0	21	---	0
07/27/2015	*	---	---	---	---	29	19	17	1	---	---	---
07/28/2015	*	---	---	---	---	15	3	0	0	0	0	0
07/29/2015	*	---	---	---	---	15	2	0	0	---	---	---
07/30/2015	*	---	---	---	---	16	5	0	0	10	---	0
07/31/2015	*	---	---	---	---	0	18	0	0	---	3	---
08/01/2015	*	---	---	---	---	18	9	8	0	21	---	0
08/02/2015	*	---	---	---	---	25	20	0	0	---	---	---
08/03/2015	*	---	---	---	---	0	13	0	0	10	---	0
08/04/2015	*	---	---	---	---	51	20	0	0	---	0	---
08/05/2015	*	---	---	---	---	0	21	0	0	10	---	0
08/06/2015	*	---	---	---	---	0	13	0	0	---	---	---
08/07/2015		---	---	---	---	---	---	---	---	---	---	---
Total:		**0**	**0**	**0**	**0**	**249**	**193**	**48**	**1**	**72**	**3**	**0**
# Days:		**0**	**0**	**0**	**0**	**14**	**14**	**14**	**14**	**7**	**4**	**7**
Average:		**0**	**0**	**0**	**0**	**18**	**14**	**3**	**0**	**10**	**1**	**0**
YTD		**2,567**	**40,594**	**672**	**11,678**	**1,300,115**	**1,073,340**	**576,051**	**12,754**	**456,589**	**201,079**	**1,021,904**

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)
07/24/2015	*	---	---	---	---	0	0	0	0	0	0	0
07/25/2015	*	---	---	---	---	0	0	0	1	---	---	---
07/26/2015	*	---	---	---	---	0	0	0	1	0	---	0
07/27/2015	*	---	---	---	---	0	0	0	3	---	---	---
07/28/2015	*	---	---	---	---	0	0	0	3	0	0	0
07/29/2015	*	---	---	---	---	0	0	0	3	---	---	---
07/30/2015	*	---	---	---	---	0	0	0	0	0	---	0
07/31/2015	*	---	---	---	---	0	0	0	0	---	3	---
08/01/2015	*	---	---	---	---	9	0	0	0	0	---	0
08/02/2015	*	---	---	---	---	0	0	0	0	---	---	---
08/03/2015	*	---	---	---	---	0	0	0	0	0	---	0
08/04/2015	*	---	---	---	---	0	0	0	3	---	0	---
08/05/2015	*	---	---	---	---	0	0	0	1	0	---	0
08/06/2015	*	---	---	---	---	0	0	0	0	---	---	---
08/07/2015		---	---	---	---	---	---	---	---	---	---	---
Total:		**0**	**0**	**0**	**0**	**9**	**0**	**0**	**15**	**0**	**3**	**0**
# Days:		**0**	**0**	**0**	**0**	**14**	**14**	**14**	**14**	**7**	**4**	**7**
Average:		**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**1**	**0**
YTD		**74**	**0**	**4**	**47**	**16,237**	**19,851**	**11,030**	**3,908**	**128,904**	**104,375**	**149,234**

				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)
07/24/2015	*	---	---	---	---	0	0	0	2	20	0	0
07/25/2015	*	---	---	---	---	0	5	0	1	---	---	---
07/26/2015	*	---	---	---	---	0	0	0	2	20	---	0
07/27/2015	*	---	---	---	---	0	4	0	2	---	---	---
07/28/2015	*	---	---	---	---	0	4	0	0	20	0	0
07/29/2015	*	---	---	---	---	1	2	0	1	---	---	---
07/30/2015	*	---	---	---	---	0	2	4	3	20	---	0
07/31/2015	*	---	---	---	---	0	2	0	3	---	0	---
08/01/2015	*	---	---	---	---	1	2	0	2	0	---	0
08/02/2015	*	---	---	---	---	0	2	0	1	---	---	---
08/03/2015	*	---	---	---	---	0	0	0	2	5	---	0
08/04/2015	*	---	---	---	---	0	0	0	2	---	0	---
08/05/2015	*	---	---	---	---	1	2	0	2	15	---	0
08/06/2015	*	---	---	---	---	0	0	0	4	---	---	---
08/07/2015		---	---	---	---	---	---	---	---	---	---	---
Total:		**0**	**0**	**0**	**0**	**3**	**25**	**4**	**27**	**100**	**0**	**0**
# Days:		**0**	**0**	**0**	**0**	**14**	**14**	**14**	**14**	**7**	**4**	**7**
Average:		**0**	**0**	**0**	**0**	**0**	**2**	**0**	**2**	**14**	**0**	**0**
YTD		**0**	**1**	**0**	**0**	**32**	**8,161**	**2,334**	**137**	**8,705**	**19,949**	**4,105**

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 macropthalmia, and unidentified lamprey species.
† In 2013 it was confirmed that juvenile lamprey can escape the sample tank at LGR which would lead to unreliable estimates of collection. Therefore, only sample counts are provided in this report.

Definitions for Smolt Index Counts
WTB (Collection) = Salmon River Trap at Whitebird : Collection Counts
IMN (Collection) = Imnaha River Trap : Collection Counts
GRN (Collection) = Grande Ronde River Trap : Collection Counts
LEW (Collection) = Snake River Trap at Lewiston : Collection Counts
LGR (Index) = Lower Granite Dam Bypass Collection System : Passage Index Counts
Passage Index = Collection Counts / {Powerhouse Flow / (Powerhouse Flow + Spill)}
LGS (Index) = Little Goose Bypass Collection System : Passage Index Counts
Passage Index = Collection Counts / {Powerhouse Flow / (Powerhouse Flow + Spill)}
LMN (Index) = Lower Monumental Dam Bypass Collection System : Passage Index Counts
Passage Index = Collection Counts / {Powerhouse Flow / (Powerhouse Flow + Spill)}
RIS (Index) = Rock Island Dam Second Powerhouse Bypass Trap : Passage Index Counts
Passage Index = Collection Counts / {Powerhouse 2 Flow / (Powerhouse 1 & 2 Flow + Spill)}
MCN (Index) = McNary Dam Bypass Collection System : Passage Index Counts
Passage Index = Collection Counts / {Powerhouse Flow / (Powerhouse Flow + Spill)}
JDA (Index) = John Day Dam Bypass Collection System : Passage Index Counts
Passage Index = Collection Counts / {Powerhouse Flow / (Powerhouse Flow + Spill)}
BO2 (Index) = Bonneville Dam Second Powerhouse Bypass Collection System : Passage Index Counts
Passage Index = Collection Counts / {Powerhouse 2 Flow / (Powerhouse 1 & 2 Flow + Spill)}

JDA and BO2 data collected for the FPC by Pacific States Marine Fisheries Commission.
RIS data collected for the FPC by Chelan Co. PUD.
LGR, LMN, and MCN data collected for the FPC by Washington Dept. of Fish and Wildlife.
LGS and GRN data collected for the FPC by Oregon Dept. of Fish and Wildlife.
IMN data collected for the FPC by the Nez Perce Tribe.
Fall (post SMP season) trapping at the Imnaha River Fish Trap (IMN) is funded by the Lower Snake River Compensation Program (LSRCP)
WTB and LEW data collected for the FPC by Idaho Dept. of Fish and Game.

Two Week Transportation Summary

Source: Fish Passage Center Updated: 8/7/15 7:02 AM

07/24/15 TO 08/07/15

		Species				
Site	Data	**CH0**	CO	ST	SO	**Grand Total**
LGR	Sum of NumberCollected	31,555	5	150	5	31,715
	Sum of NumberBarged	27,334	5	130	3	27,472
	Sum of NumberBypassed	0	0	1	0	1
	Sum of Numbertrucked	4,139	0	19	0	4,158
	Sum of SampleMorts	26	0	0	1	27
	Sum of FacilityMorts	56	0	0	1	57
	Sum of ResearchMorts	0	0	0	0	0
	Sum of TotalProjectMorts	82	0	0	2	84
LGS	Sum of NumberCollected	4,078	2	127		4,207
	Sum of NumberBarged	4,047	2	126		4,175
	Sum of NumberBypassed	0	0	0		0
	Sum of Numbertrucked	0	0	0		0
	Sum of SampleMorts	16	0	1		17
	Sum of FacilityMorts	15	0	0		15
	Sum of ResearchMorts	0	0	0		0
	Sum of TotalProjectMorts	31	0	1		32
LMN	Sum of NumberCollected	448		20		468
	Sum of NumberBarged	441		20		461
	Sum of NumberBypassed	0		0		0
	Sum of Numbertrucked	0		0		0
	Sum of SampleMorts	2		0		2
	Sum of FacilityMorts	5		0		5
	Sum of ResearchMorts	0		0		0
	Sum of TotalProjectMorts	7		0		7
Total Sum of NumberCollected		36,081	7	297	5	36,390
Total Sum of NumberBarged		31,822	7	276	3	32,108
Total Sum of NumberBypassed		0	0	1	0	1
Total Sum of Numbertrucked		4,139	0	19	0	4,158
Total Sum of SampleMorts		44	0	1	1	46
Total Sum of FacilityMorts		76	0	0	1	77
Total Sum of ResearchMorts		0	0	0	0	0
Total Sum of TotalProjectMorts		120	0	1	2	123

YTD Transportation Summary

Source: Fish Passage Center Updated: 8/7/15 7:02 AM

TO: 08/07/15

		Species					
Site	Data	**CH0**	**CH1**	CO	SO	ST	**Grand Total**
LGR	Sum of NumberCollected	664,195	1,150,138	26,305	10,915	826,724	2,678,277
	Sum of NumberBarged	650,036	473,291	22,795	10,483	363,257	1,519,862
	Sum of NumberBypassed	8,362	676,470	3,499	160	463,117	1,151,608
	Sum of NumberTrucked	4,139	0	0	0	19	4,158
	Sum of SampleMorts	202	43	1	8	30	284
	Sum of FacilityMorts	1,456	318	10	257	261	2,302
	Sum of ResearchMorts	0	16	0	7	40	63
	Sum of TotalProjectMorts	1,658	377	11	272	331	2,649
LGS	Sum of NumberCollected	639,374	807,530	42,062	13,866	748,706	2,251,538
	Sum of NumberBarged	636,775	545,396	40,316	13,819	535,201	1,771,507
	Sum of NumberBypassed	136	261,966	1,720	40	213,220	477,082
	Sum of NumberTrucked	0	0	0	0	0	0
	Sum of SampleMorts	127	21	0	2	13	163
	Sum of FacilityMorts	2,336	147	26	5	272	2,786
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	2,463	168	26	7	285	2,949
LMN	Sum of NumberCollected	173,280	642,436	22,120	6,690	322,640	1,167,166
	Sum of NumberBarged	171,971	581,534	21,816	6,640	285,463	1,067,424
	Sum of NumberBypassed	617	60,572	300	30	36,797	98,316
	Sum of NumberTrucked	0	0	0	0	0	0
	Sum of SampleMorts	64	45	2	0	39	150
	Sum of FacilityMorts	628	315	2	20	341	1,306
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	692	360	4	20	380	1,456
Total Sum of NumberCollected		1,476,849	2,600,104	90,487	31,471	1,898,070	6,096,981
Total Sum of NumberBarged		1,458,782	1,600,221	84,927	30,942	1,183,921	4,358,793
Total Sum of NumberBypassed		9,115	999,008	5,519	230	713,134	1,727,006
Total Sum of NumberTrucked		4,139	0	0	0	19	4,158
Total Sum of SampleMorts		393	109	3	10	82	597
Total Sum of FacilityMorts		4,420	780	38	282	874	6,394
Total Sum of ResearchMorts		0	16	0	7	40	63
Total Sum of TotalProjectMorts		4,813	905	41	299	996	7,054

Cumulative Adult Passage at Mainstem Dams Through: 08/06

		Spring Chinook						Summer Chinook						Fall Chinook					
	END	2015		2014		10-Yr Avg.		2015		2014		10-Yr Avg.		2015		2014		10-Yr Avg.	
DAM	DATE	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack
BON	08/06	220480	13314	188083	26094	132065	23978	161735	17730	109734	25342	87270	20126	4837	473	2492	1155	2408	581
TDA	08/06	194116	12307	143142	21080	101070	20309	123915	15458	96134	19525	74749	16059	1753	215	1037	546	938	258
JDA	08/06	166015	11514	123224	19103	88117	19021	108768	10988	86033	17655	66973	16286	397	70	289	125	214	80
MCN	08/06	156151	8767	107147	16033	79364	15788	95174	8655	87234	16657	63283	11922	0	0	0	0	0	0
IHR	08/06	116462	5745	79298	12428	55061	10384	21003	2772	17112	4426	16910	4554	0	0	0	0	0	0
LMN	08/06	111511	8697	79942	14020	55282	9560	17072	4717	15588	8052	18481	5162	0	0	0	0	1	0
LGS	08/06	105124	8553	77966	13649	51473	10681	14545	4356	16479	7394	17560	5784	0	0	0	0	0	0
LGR	08/06	104873	8379	79167	13732	50576	11930	13965	3984	14198	6984	15507	6272	0	0	0	0	0	0
PRD	08/04	27716	1570	23742	2649	15720	1631	71217	3085	75144	3332	51154	1744	0	0	0	0	0	0
WAN	08/04	25982	1077	0	0	15431	2202	69505	1897	0	0	47234	1450	0	0	0	0	0	0
RIS	08/05	31749	1092	23247	2934	15126	2669	77722	2116	74175	4815	48153	4359	0	0	0	0	0	0
RRH	08/05	15244	609	12376	2377	6372	1183	64444	1585	54310	3450	36450	3002	0	0	0	0	0	0
WEL	08/05	19971	1520	15377	2544	5959	1398	46833	2647	43482	3677	25906	2304	0	0	0	0	0	0
WFA	08/03	50842	2025	29969	1564	33595	1158	0	0	0	0	0	0	0	0	0	0	0	0

		Coho						Sockeye			Steelhead						Lamprey		
	END	2015		2014		10-Yr Avg.				10-Yr			10-Yr	Wild	Wild	10-Yr			10-Yr
DAM	DATE	Adult	Jack	Adult	Jack	Adult	Jack	2015	2014	Avg.	2015	2014	Avg.	2015	2014	Avg.	2015	2014	Avg.
BON	08/06	4	7	11	0	7	2	509828	613750	241212	98852	124857	134793	48494	62328	57039	31823	27350	17674
TDA	08/06	2	0	0	0	0	0	428348	585638	206800	35137	63433	67241	19983	34691	31441	9683	8335	4357
JDA	08/06	0	0	0	1	3	1	363863	556971	205329	15846	39818	49500	8988	20266	21569	6265	5993	3636
MCN	08/06	13	5	0	0	1	0	276888	545423	181489	12244	32362	35445	6630	16338	14244	1245	1005	810
IHR	08/06	0	0	0	0	0	0	1000	2368	741	6031	15772	19111	2990	5914	5780	513	334	122
LMN	08/06	0	0	0	0	0	0	863	2788	897	6776	19163	18900	3557	7737	6337	136	88	32
LGS	08/06	0	0	0	0	0	0	546	2768	874	2847	9420	9056	1852	5012	3698	96	55	13
LGR	08/06	0	0	0	0	0	0	386	2642	924	10253	12865	13091	5038	6339	4956	33	26	2
PRD	08/04	0	0	0	0	0	0	297825	606801	215294	2307	3582	3293	0	0	0	3816	2106	757
WAN	08/04	0	0	0	0	0	0	292056	0	190944	1927	0	3421	0	0	0	2584	0	261
RIS	08/05	0	-2	0	0	0	0	259434	578746	211542	1556	2017	2389	905	1152	1295	0	200	105
RRH	08/05	0	0	0	0	0	0	211189	489576	180114	887	1048	1737	522	576	888	0	239	41
WEL	08/05	0	0	0	0	0	0	182035	484743	173189	550	656	757	316	355	378	0	0	2
WFA	08/03	1	0	9	0	0	0	0	0	0	6993	26315	22926	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.

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