



# Fish Passage Center

## Weekly Report #10 - 26

September 10, 2010

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### Summary of Events:

**Water Supply:** Precipitation throughout the Columbia Basin has varied between 12% and 99% of average at individual sub-basins over August. Precipitation above The Dalles has been 76% of average over August. Over the 2010 water year, precipitation has ranged between 84% and 100% 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 2010 August 1-30		Water Year 2010 October 1, 2009 to August 30, 2010	
	Observed (inches)	% Average	Observed (inches)	% Average
	Columbia Above Coulee	1.34	82	20.86
SNAKE RIVER ABOVE ICE HARBOR	0.68	82	16.20	96
Columbia Above The Dalles	0.87	76	20.41	92
Kootenai	1.32	81	20.62	84
Clark Fork	1.25	99	15.29	92
Flathead	1.39	89	21.95	100
Pend Oreille/ Spokane	0.47	38	27.64	93
Central Washington	0.05	12	8.67	100
SNAKE RIVER PLAIN	0.54	96	9.81	91
Salmon/Boise/ Payette	0.46	67	18.54	97
Clearwater	0.84	72	27.71	94
SW Washington Cascades/Cowlitz	0.19	13	61.84	90
Willamette Valley	0.38	36	53.63	93

Table 2 displays the June Final and July Final runoff volume forecasts for multiple reservoirs. The July Final Runoff Volume Forecasts remained similar to the June Final Forecasts at Upper Columbia locations; however increased between 11-18% relative to the June Final forecasts at Snake River locations. The current forecast at The Dalles between January and July is 81900 Kaf (76% of average).

**Table 2. June Final and July Final Runoff Volume Forecasts for various reservoirs within the Columbia and Snake River Basins.**

Location	June Final		July Final	
	% Average (1971 -2000)	Probable Runoff Volume (Kaf)	% Average (1971 -2000)	Probable Runoff Volume (Kaf)
The Dalles (Jan-July)	69	74000	76	81900
Grand Coulee (Jan-July)	74	46400	76	47900
Libby Res. Inflow, MT (Apr-Aug)	71	4420	71	4440
Hungry Horse Res. Inflow, MT (Jan-July)	75	1660	81	1800
Lower Granite Res. Inflow (Apr- July)	68	14600	86	18600
Brownlee Res. Inflow (Apr-July)	58	3670	74	4680
Dworshak Res. Inflow (Apr-July)	63	1670	74	1950

\* Denotes COE Forecast

The Summer Biological Opinion flow period began on June 21 in the lower Snake River (Lower Granite). According to the June Final Water Supply Forecast, the summer flow objective this summer was 50 Kcfs at Lower Granite, flows at Lower Granite Dam averaged 47.0 Kcfs from June 21-August 31.

The Summer Biological Opinion flow period began on July 1<sup>st</sup> at McNary Dam with a flow objective of 200 Kcfs. Flows from July 1<sup>st</sup> to August 31<sup>st</sup> averaged 154.8 Kcfs.

The Grand Coulee Reservoir is at 1278.6 feet (9-9-10) and refilled 1.5 feet over the last week. Outflows at Grand Coulee have ranged between 36.3 and 63.3 Kcfs over the last week.

The Libby Reservoir is currently at elevation 2440.9 feet (9-9-10) and drafted 0.8 feet last week. Outflows at Libby Dam have been 7.0-8.0 Kcfs.

Hungry Horse is currently at an elevation of 3545.7 feet (9-9-10) and has drafted 1.6 ft last week. Outflows at Hungry Horse are currently 3.9 Kcfs.

Dworshak is currently at an elevation of 1524.7 feet (9-9-10) and has drafted approximately 6.5 feet last week. Outflows from Dworshak are currently 7.8-8.2 Kcfs.

The Brownlee Reservoir was at an elevation of 2054.2 feet on September 9<sup>th</sup>, 2010 drafting 0.3 feet last week. Over the last week, outflows at Brownlee have ranged between 8.9-12.0 Kcfs.

#### **Smolt Monitoring:**

Subyearling Chinook indices continued to decrease over the past week at all Snake River Sites and at McNary Dam. While at Bonneville dam the average index for subyearling Chinook was up slightly this week.

At Lower Granite Dam passage indices for subyearling Chinook decreased this past week with the index averaging 135 per day while last week the index averaged 235 fish per day. Little Goose Dam also saw a decrease in the average subyearling passage index this past week when the index averaged 21 per day compared to 110 per day last week. Similarly, at Lower Monumental Dam passage indices were down this past week compared to the previous week.

At McNary Dam subyearling Chinook indices averaged 2,400 per day this week compared to 10,400 per day average last week. John Day Dam and Bonneville Dam are back on full samples with the reduced river temperatures over the past two weeks.

#### **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. There were no releases of juvenile salmonids scheduled for this zone this week. Furthermore, there are no releases of juvenile salmonids scheduled for this zone over the next two weeks.

**Mid-Columbia Zone:** The Mid-Columbia Zone encompasses the area of the Columbia River and its tributaries from McNary Dam to Chief Joseph Dam. There were no releases of juvenile salmonids scheduled for this zone this week. Furthermore, there are no releases of juvenile salmonids scheduled for this zone over the next two weeks.

**Lower Columbia Zone:** The Lower Columbia Zone is defined as the Columbia River and its tributaries from Bonneville Dam to McNary Dam. There were no releases of juvenile salmonids scheduled for this zone this week. There are also no releases of juvenile salmonids scheduled for this zone over the next two weeks.

#### **Adult Fish Passage:**

Daily counts of fall Chinook at Bonneville Dam ranged from 15,534 to 21,612. The 2010 adult fall Chinook count of 248,116 is 1.25 times greater than the 2009 count and 1.18 times greater than the 10 average. The 2010 Bonneville Dam fall Chinook jack count of 26,554 is about 39.1% of the 2009 count. However, the 2010 fall Chinook jack count is about 1.15 times greater than the 10 year average. The 2010 McNary Dam adult fall Chinook count of 47,987 has 79 more fish than the 2009 count and is 1.35 times greater than the 10 year average. The 2010 fall Chinook jack McNary Dam jack count of 6342 is about 23.8% of the 2009 count and about 90.6% of the 10 year average. The 2010 Lower Granite fall Chinook adult dam count of 7,780 is about 1.5 times greater than the 2009 count and 3.1 times greater than the 10 year average.

Daily steelhead counts at Bonneville Dam for the past week ranged between 2,888 and 3,843. The Bonneville Dam 2010 steelhead count of 358,188 is about 67.3% of the 2009 count of 532,155. However, the 2010 steelhead count is about 1.11 times greater than of the 10 year average of 322,160. At Willamette Falls Dam, the 2010 count for steelhead was 28,799, as of August 21st. This year's steelhead count is about 1.68 times greater than the 2009 count of 17,142 at Willamette Falls Dam for the same date range.

During this time of year, there are times when there are higher steelhead counts at upstream projects compared to downstream projects. The higher counts of steelhead at upstream sites compared to downstream sites in any particular year is because some steelhead spend the winter between sites, for instance between Ice Harbor and Lower Granite, and then start their migration upstream the following year. The summer steelhead run is delineated according to dates of passage past Bonneville Dam and is made up of two components. A-run steelhead are considered those that pass Bonneville Dam from the first of June through August 25th and B-run steelhead pass Bonneville from August 26th through October. The 2010 B-run adult steelhead count at Bonneville of 54,100 is about 61.3% of the 2009 count of 88,169 and about 83.9% of the 10 year average count of 64,464.

In the Snake River, this year's Lower Granite steelhead count of 53,638 is about 88.2% of the 2009 count, while being about 1.84 times greater than the 10 year average count of 29,019. The 2010 LGR wild steelhead count as of September 9th was 19,575. The 2010 Rock Island Dam adult steelhead count of 15,259 is about 69.2% of the 2009 count, while being 1.6 times greater than the 10 year average.

The 2010 adult coho count at Bonneville Dam is 27,465 adults and 1,765 jacks. The Bonneville 2010 adult coho count is about 33.4% of the 2009 count and about 60.2% of the 10 year average. The Bonneville 2010 coho jack count is about 46.4% of the 2009 count of 3,798 and about 72.4% of the 10 year average count of 2,438.

**Hatchery Releases Last Two Weeks**

**There were no hatchery releases from 08/27/10-9/09/10.**

**Hatchery Releases Next Two Weeks**

**There are no hatchery releases planned from 09/10/10-9/24/10.**

**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
08/27/2010	70.9	0.2	70.0	0.0	70.3	0.0	75.4	0.0	77.5	0.0	88.1	1.4	85.7	1.0
08/28/2010	65.9	0.2	65.5	0.0	61.9	0.0	64.3	0.0	66.1	0.0	67.5	1.4	64.0	0.7
08/29/2010	46.7	0.2	53.4	0.0	50.1	0.0	52.1	0.0	55.3	0.0	47.8	0.9	43.5	1.0
08/30/2010	84.5	0.2	80.9	0.0	76.7	0.0	74.8	0.0	75.0	0.0	78.9	1.6	75.6	1.0
08/31/2010	83.7	0.2	81.0	0.0	85.2	0.4	83.4	0.8	83.2	0.0	77.4	1.6	72.1	1.0
09/01/2010	50.9	0.1	58.4	0.0	60.6	0.0	63.4	0.0	65.3	0.0	78.8	2.7	74.0	0.8
09/02/2010	53.1	0.2	57.1	0.0	59.8	0.0	56.6	0.0	58.1	0.0	62.9	1.8	62.5	1.1
09/03/2010	63.3	0.2	57.2	0.0	57.8	0.0	59.2	0.0	61.2	0.0	63.1	1.7	59.6	1.0
09/04/2010	42.2	0.2	38.5	0.0	41.5	0.0	44.2	0.0	46.6	0.0	50.5	1.9	49.2	0.9
09/05/2010	36.3	0.2	40.2	0.0	39.6	0.0	38.7	0.0	39.9	0.0	40.1	1.9	40.2	1.0
09/06/2010	51.1	0.2	54.6	0.0	57.7	0.0	52.6	0.0	53.5	0.0	58.5	1.9	50.2	1.0
09/07/2010	50.6	0.2	52.3	0.0	56.2	0.0	58.8	0.0	60.9	0.0	76.7	1.7	74.2	1.0
09/08/2010	42.8	0.2	40.7	0.0	48.6	0.0	50.8	0.0	53.4	0.0	65.8	1.4	65.1	1.0
09/09/2010	42.5	0.2	42.4	0.0	41.2	0.0	41.0	0.0	44.1	0.0	44.9	1.2	46.0	1.0

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

Date	Dworshak		Brownlee Canyon		Lower Granite		Little Goose		Lower Monumental		Ice Harbor	
	Flow	Spill	Inflow	Outflow	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill
08/27/2010	8.0	0.0	8.5	9.0	25.1	12.3	25.3	9.3	24.2	12.1	24.9	15.3
08/28/2010	8.0	0.0	8.9	8.9	24.1	11.5	23.7	8.4	22.2	9.9	23.3	13.1
08/29/2010	8.1	0.0	8.9	9.0	24.1	11.5	23.7	7.5	22.2	9.9	21.9	11.9
08/30/2010	8.1	0.0	9.1	9.0	24.2	11.5	24.8	7.5	22.1	10.0	22.0	11.9
08/31/2010	8.1	0.0	9.5	9.0	24.2	11.5	24.6	7.5	23.3	10.9	22.7	13.0
09/01/2010	8.1	0.0	9.6	9.0	25.5	0.0	25.5	0.0	25.5	0.0	23.6	0.0
09/02/2010	8.2	0.0	9.5	8.8	27.6	0.0	26.3	0.0	26.6	0.0	27.5	0.0
09/03/2010	8.1	0.0	10.2	8.7	27.0	0.0	26.0	0.0	23.8	0.0	24.1	0.0
09/04/2010	8.2	0.0	9.6	8.9	25.7	0.0	18.3	0.0	15.5	0.0	12.0	0.0
09/05/2010	8.2	0.0	9.5	9.1	25.4	0.0	22.2	0.0	22.3	0.0	20.2	0.0
09/06/2010	8.2	0.0	9.6	9.5	24.6	0.0	22.9	0.0	23.6	0.0	25.0	0.0
09/07/2010	8.2	0.0	9.8	12.2	26.6	0.0	27.9	0.0	25.0	0.0	21.9	0.0
09/08/2010	7.8	0.4	10.3	11.3	25.0	0.0	22.6	0.0	24.0	0.0	24.7	0.0
09/09/2010	7.9	0.2	10.9	11.4	25.5	0.0	14.7	0.0	13.6	0.0	12.9	0.0

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

Date	McNary		John Day		The Dalles		Bonneville		PH1	PH2
	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill		
08/27/2010	120.8	60.7	109.9	32.9	103.8	41.4	112.6	69.5	0.0	30.7
08/28/2010	106.9	51.3	99.4	29.8	95.1	37.7	111.0	68.1	0.0	30.6
08/29/2010	99.6	43.5	95.0	28.5	94.0	37.3	108.0	64.9	0.0	30.7
08/30/2010	93.0	37.3	95.3	28.6	90.2	34.2	103.9	60.9	0.0	30.6
08/31/2010	100.3	45.5	88.5	26.6	88.9	34.2	96.6	55.3	0.0	30.7
09/01/2010	92.3	0.0	81.7	0.9	83.7	0.0	87.2	2.1	1.2	76.5
09/02/2010	93.4	0.0	96.8	0.9	100.7	0.0	108.5	1.7	18.6	80.8
09/03/2010	82.9	0.0	80.2	0.9	81.9	0.0	91.2	1.6	1.7	80.5
09/04/2010	68.0	0.0	61.5	1.0	64.5	0.0	80.9	1.5	0.0	72.0
09/05/2010	68.8	0.0	62.8	0.8	64.9	0.0	76.8	1.5	10.5	57.4
09/06/2010	68.0	0.0	65.5	1.0	70.1	0.0	73.9	1.7	15.4	49.4
09/07/2010	88.9	0.0	87.3	0.7	89.1	0.0	86.5	1.5	15.5	62.1
09/08/2010	92.8	0.0	89.5	0.9	91.7	0.0	98.4	1.5	15.3	74.2
09/09/2010	86.9	0.0	82.6	0.9	84.3	0.0	94.4	1.4	16.6	69.0

## 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>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>		
	Avg	Avg	High		Avg	Avg	High		Avg	Avg	High		Avg	Avg	High		Avg	Avg	High	
8/27	104.4	104.7	105.0	24	104.2	104.6	105.0	24	105.5	105.9	106.2	24	104.5	105.1	105.6	24	105.5	105.8	106.1	24
8/28	104.2	104.6	105.2	24	104.0	104.8	105.4	24	105.7	106.0	106.4	24	104.5	105.7	106.6	24	105.0	105.6	106.0	24
8/29	104.1	104.2	104.4	24	103.4	104.0	104.6	23	104.9	105.1	105.3	24	103.7	104.3	104.8	23	104.2	104.7	104.9	24
8/30	103.6	103.9	104.3	24	103.4	104.0	104.7	22	104.4	104.9	105.3	24	104.3	104.9	105.5	22	104.0	104.2	104.5	24
8/31	102.6	102.8	103.1	24	102.8	103.5	105.7	21	102.7	102.8	103.3	24	104.0	104.3	104.9	21	104.0	104.2	104.3	24
9/1	102.2	102.4	102.8	24	103.3	104.0	104.5	24	102.0	102.3	102.5	24	103.1	103.7	104.2	24	104.0	104.3	104.8	24
9/2	101.6	101.8	102.2	24	102.4	103.1	103.7	24	101.3	101.7	102.2	24	102.2	102.8	103.2	24	104.0	104.6	105.6	24
9/3	101.9	102.4	102.6	24	103.1	104.0	104.7	24	102.2	102.5	102.8	24	103.8	104.7	105.2	24	103.8	104.5	105.0	24
9/4	102.8	103.2	103.4	24	103.6	104.2	104.6	24	102.3	102.4	102.6	24	103.9	104.9	105.3	24	104.2	104.5	105.0	24
9/5	102.5	102.9	103.4	24	103.1	103.5	103.9	24	102.4	102.5	102.8	24	103.8	104.5	106.3	24	102.7	103.3	103.4	24
9/6	102.2	102.4	102.6	24	102.2	102.8	103.4	22	102.4	102.5	102.8	24	103.4	104.1	104.9	22	103.6	104.3	104.6	24
9/7	102.5	102.8	103.2	23	102.5	103.1	103.7	22	102.5	102.7	102.8	24	104.3	104.6	105.9	22	104.1	104.7	104.9	24
9/8	104.6	105.9	107.1	24	102.4	102.7	103.5	23	102.4	102.5	102.5	24	104.4	104.7	104.9	23	103.8	104.4	104.9	24
9/9	104.3	104.8	105.5	24	102.4	102.9	103.3	24	101.9	102.0	102.1	24	104.4	104.8	105.2	24	103.8	104.3	104.7	24

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

Date	<u>Chief J. Dnst</u>			#	<u>Wells</u>			#	<u>Wells Dwnstrm</u>			#	<u>Rocky Reach</u>			#	<u>Rocky R. Tlwr</u>			#
	<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>		
	Avg	Avg	High		Avg	Avg	High		Avg	Avg	High		Avg	Avg	High		Avg	Avg	High	
8/27	107.1	107.8	108.8	24	106.9	107.5	108.6	24	108.5	109.1	110.9	24	107.0	107.3	107.6	24	105.5	106.1	106.6	24
8/28	107.2	107.8	109.0	24	106.5	107.1	107.8	24	108.0	108.6	109.3	24	107.0	107.2	107.8	24	105.4	105.8	106.1	24
8/29	106.5	107.7	110.9	24	106.4	107.1	107.8	24	107.8	108.7	109.5	24	106.8	107.2	107.6	24	104.9	105.3	105.7	24
8/30	105.3	105.9	107.6	24	104.8	105.1	105.6	24	105.5	106.1	106.6	24	106.6	106.7	106.9	24	105.1	105.7	106.1	24
8/31	105.1	105.5	105.8	24	104.1	104.3	104.5	24	104.5	104.9	105.4	24	105.6	105.8	105.8	24	105.0	105.4	106.7	24
9/1	106.0	107.0	108.2	24	103.8	104.2	104.7	24	103.7	104.2	104.6	24	105.0	105.3	105.7	24	103.8	104.2	104.9	24
9/2	104.5	106.0	107.5	24	103.6	104.4	105.1	23	103.6	104.4	104.7	23	103.6	104.2	104.7	24	102.2	102.6	103.0	24
9/3	103.8	105.0	105.7	24	105.6	107.1	108.3	24	105.1	106.7	107.1	24	103.9	104.2	104.6	24	102.5	102.9	103.4	24
9/4	104.3	105.0	105.6	24	106.1	106.7	107.1	24	105.7	106.3	106.8	24	103.9	104.2	104.7	24	102.5	102.8	103.1	24
9/5	105.2	106.6	108.3	24	105.3	105.8	106.2	24	105.4	106.0	106.7	24	103.3	103.6	103.9	24	102.0	102.3	102.4	24
9/6	105.4	106.3	107.2	24	104.0	104.5	105.0	24	104.1	104.7	105.4	24	103.4	103.7	104.1	24	101.9	102.7	103.1	24
9/7	106.3	107.1	108.3	24	103.1	103.5	103.7	24	103.3	103.6	103.8	24	103.4	103.4	103.5	24	102.2	102.6	102.9	24
9/8	106.3	107.3	108.8	24	104.4	105.0	106.0	24	104.2	104.7	105.9	24	103.4	103.7	103.9	24	102.3	102.7	103.0	24
9/9	106.5	107.6	108.7	24	104.6	105.2	105.5	24	104.9	105.9	107.8	24	103.8	104.0	104.3	24	102.2	102.6	102.8	24

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

Date	<u>Rock Island</u>			#	<u>Rock I. Tlwr</u>			#	<u>Wanapum</u>			#	<u>Wanapum Tlwr</u>			#	<u>Priest Rapids</u>			#
	<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>		
	Avg	Avg	High		Avg	Avg	High		Avg	Avg	High		Avg	Avg	High		Avg	Avg	High	
8/27	106.0	106.5	106.9	24	106.3	106.7	106.9	24	103.7	104.3	105.3	24	104.1	104.4	104.8	24	104.2	104.9	105.2	24
8/28	106.2	106.5	106.9	24	106.5	106.8	107.2	24	102.8	104.0	105.6	24	104.1	104.6	105.0	24	103.5	104.0	104.2	24
8/29	106.0	106.3	106.6	24	106.3	106.7	106.9	24	102.0	103.3	104.0	24	104.0	104.6	105.4	24	102.8	103.1	103.8	24
8/30	105.4	105.8	106.2	24	105.5	106.0	106.3	24	102.6	103.6	104.6	24	103.1	103.4	104.0	24	101.8	102.0	102.3	24
8/31	104.9	105.4	105.9	24	105.5	105.8	106.2	24	101.0	102.7	103.2	24	103.0	103.5	104.0	24	101.3	101.7	101.9	24
9/1	103.7	104.7	105.1	24	104.8	105.1	105.5	24	102.4	102.6	102.7	24	103.7	104.5	109.4	24	101.3	101.7	101.8	24
9/2	102.5	103.5	103.7	24	103.7	104.0	104.3	24	102.0	103.3	105.1	24	102.8	103.3	104.1	24	101.6	102.3	102.8	24
9/3	103.2	103.7	104.0	24	103.9	104.2	104.6	24	104.5	106.0	107.2	24	104.4	105.1	105.5	24	103.0	103.3	104.0	24
9/4	103.5	103.8	104.0	24	104.0	104.3	104.7	24	102.9	103.6	104.0	24	104.8	105.5	106.7	24	103.2	103.5	103.9	24
9/5	102.1	102.4	102.9	24	102.5	102.9	103.4	24	100.8	101.4	101.7	24	103.2	103.8	105.0	24	101.4	101.8	102.7	24
9/6	102.4	103.3	103.9	24	102.7	103.5	104.2	24	100.2	101.1	102.2	24	102.5	103.2	104.2	24	100.3	100.5	100.8	24
9/7	103.0	103.2	103.5	24	103.3	103.7	103.9	24	102.1	102.9	103.4	24	103.5	104.0	104.4	24	101.5	102.1	102.5	24
9/8	102.5	102.7	103.0	24	102.9	103.1	103.5	24	101.7	103.0	103.8	24	103.3	103.7	104.1	24	102.3	102.5	102.7	24
9/9	102.6	103.0	103.6	24	103.0	103.3	103.9	24	---	---	---	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	Priest R. Dnst				Pasco				Dworshak				Clwrtr-Peck				Anatone			
	24 h		12 h		#	24 h		12 h		#	24 h		12 h		#	24 h		12 h		#
	Avg	Avg	High	hr		Avg	Avg	High	hr		Avg	Avg	High	hr		Avg	Avg	High	hr	
8/27	104.8	105.2	105.5	24	102.5	103.5	104.0	24	97.9	98.3	98.5	23	100.1	101.5	102.7	23	97.6	98.8	100.0	24
8/28	104.3	104.7	105.2	24	103.0	103.3	103.7	24	98.6	98.8	99.1	24	99.8	100.4	101.1	23	97.7	98.2	98.7	24
8/29	104.1	104.5	104.8	24	102.2	102.7	103.2	24	98.5	98.7	99.0	24	100.1	101.3	102.4	24	98.1	99.2	100.1	24
8/30	103.1	103.3	103.5	24	101.2	101.6	102.0	24	98.2	98.5	99.0	24	99.9	101.1	102.5	24	98.0	98.7	99.3	24
8/31	102.7	102.9	103.1	24	100.6	101.1	101.3	24	97.8	98.0	98.3	24	99.5	100.6	101.9	23	98.2	99.0	99.7	24
9/1	102.9	103.1	103.5	24	100.8	101.6	102.1	24	97.8	98.0	98.3	24	99.5	100.3	101.9	23	98.0	98.2	99.6	16
9/2	103.4	104.2	104.8	24	101.2	101.9	102.2	24	97.6	98.0	98.2	24	98.0	98.0	98.9	10	---	---	---	0
9/3	104.6	105.1	105.5	24	102.4	103.1	103.6	24	98.1	98.6	98.9	24	---	---	---	0	---	---	---	0
9/4	104.5	104.9	105.2	24	103.2	103.8	104.4	24	98.6	98.9	99.3	24	---	---	---	0	---	---	---	0
9/5	103.0	103.4	103.6	24	101.2	101.7	102.6	24	98.0	98.2	98.4	24	---	---	---	0	---	---	---	0
9/6	102.7	103.4	103.9	24	100.3	101.2	101.6	24	98.1	98.7	99.0	24	---	---	---	0	---	---	---	0
9/7	103.6	104.2	104.8	24	101.5	101.7	102.0	24	98.9	99.2	99.6	24	---	---	---	0	---	---	---	0
9/8	104.3	104.4	105.0	24	101.1	101.6	101.9	24	101.0	103.1	105.8	24	---	---	---	0	---	---	---	0
9/9	---	---	---	0	101.8	102.3	102.7	24	99.5	100.7	104.1	24	---	---	---	0	---	---	---	0

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

Date	Clwrtr-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		#
	Avg	Avg	High	hr		Avg	Avg	High	hr		Avg	Avg	High	hr		Avg	Avg	High	hr	
8/27	102.0	104.0	105.4	23	99.2	99.9	100.2	24	112.1	112.4	113.2	24	106.3	106.4	106.7	24	106.4	106.7	107.0	24
8/28	100.9	101.8	102.4	23	100.5	101.1	102.1	24	111.4	111.7	112.1	24	106.4	106.5	106.8	24	106.5	106.9	107.3	24
8/29	101.8	103.6	104.8	24	102.1	102.3	102.6	24	111.7	112.0	112.4	24	106.2	106.4	106.6	24	106.4	106.8	107.1	24
8/30	101.5	103.1	104.4	24	100.9	101.4	101.7	24	111.5	111.8	112.1	24	106.1	106.5	106.9	24	106.5	106.8	107.0	24
8/31	101.1	102.6	103.8	24	99.8	100.0	100.3	24	111.8	112.0	112.2	24	105.3	105.5	106.1	24	105.8	106.0	106.1	24
9/1	101.0	102.1	103.3	23	99.0	99.0	99.8	12	100.4	101.7	111.1	24	104.8	105.1	105.4	24	104.3	104.8	105.9	24
9/2	99.7	99.7	102.6	12	---	---	---	0	98.8	99.5	99.9	24	104.1	104.6	105.0	24	103.1	103.6	104.0	24
9/3	---	---	---	0	---	---	---	0	99.8	100.3	100.7	24	104.1	104.3	104.6	24	103.2	103.7	104.1	24
9/4	---	---	---	0	---	---	---	0	99.3	99.6	99.9	24	104.6	104.8	105.0	24	102.7	103.1	103.8	24
9/5	---	---	---	0	---	---	---	0	98.1	98.3	98.7	24	104.2	104.4	104.8	24	102.4	102.7	103.0	24
9/6	---	---	---	0	---	---	---	0	98.7	99.3	99.5	24	103.4	103.7	104.0	24	101.9	102.4	102.7	24
9/7	---	---	---	0	---	---	---	0	99.8	100.2	100.4	24	103.8	104.0	104.6	24	101.9	102.4	102.7	24
9/8	---	---	---	0	---	---	---	0	100.0	100.2	100.3	24	103.1	103.1	103.7	11	101.0	101.6	102.1	24
9/9	---	---	---	0	---	---	---	0	99.4	99.8	100.5	24	---	---	---	0	100.2	100.9	101.3	24

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

Date	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		#
	Avg	Avg	High	hr		Avg	Avg	High	hr		Avg	Avg	High	hr		Avg	Avg	High	hr	
8/27	103.3	103.7	104.0	24	112.6	113.1	113.5	24	106.7	106.9	107.1	24	110.2	110.9	111.6	24	---	---	---	0
8/28	105.0	105.5	105.8	24	112.2	112.5	112.7	24	107.6	108.4	109.2	24	110.1	110.6	111.2	24	---	---	---	0
8/29	104.2	104.4	104.9	24	112.1	112.3	112.7	24	108.6	109.0	109.5	24	110.0	110.7	111.5	24	---	---	---	0
8/30	103.3	103.5	103.8	24	111.9	112.3	112.4	24	107.4	107.8	108.3	24	109.3	109.7	109.9	24	---	---	---	0
8/31	102.6	102.8	103.2	24	111.9	112.3	112.6	24	105.8	106.0	106.5	24	109.1	109.3	109.8	24	---	---	---	0
9/1	102.1	102.6	103.0	24	102.9	103.9	109.7	24	104.7	105.0	105.4	24	105.5	106.3	109.6	24	---	---	---	0
9/2	101.3	101.5	101.9	24	101.7	102.3	102.6	24	103.7	103.9	104.1	24	104.2	104.7	105.3	24	---	---	---	0
9/3	102.0	102.1	102.2	24	101.9	102.4	103.1	24	103.9	104.2	104.4	24	104.6	105.2	105.8	24	---	---	---	0
9/4	101.5	101.7	101.9	24	101.1	101.7	102.3	24	104.1	104.2	104.5	24	104.6	105.4	106.5	24	---	---	---	0
9/5	101.0	101.1	101.2	24	100.7	101.1	101.5	24	103.6	103.7	103.9	24	103.7	104.1	105.2	24	---	---	---	0
9/6	100.9	101.1	101.3	24	100.9	101.5	102.0	24	103.5	103.7	103.9	24	103.7	104.2	105.0	24	---	---	---	0
9/7	101.4	101.6	101.7	24	102.0	102.6	105.1	24	103.7	103.8	104.0	24	103.5	103.8	104.6	24	---	---	---	0
9/8	101.4	101.6	101.7	24	101.9	102.3	104.0	24	102.7	103.0	103.4	24	102.8	103.3	103.8	24	---	---	---	0
9/9	101.1	101.1	101.4	10	101.4	101.8	102.6	24	101.3	101.4	102.0	13	101.5	101.9	102.7	24	---	---	---	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>	#					
	Avg	Avg		High	hr		Avg	Avg		High	hr		Avg	Avg		High	hr	Avg	AVG	High
8/27	103.5	103.9	104.2	24	113.0	113.3	113.7	24	101.0	101.6	101.9	24	113.4	114.0	114.3	24	103.5	103.7	104.2	24
8/28	105.0	105.3	105.5	24	113.5	113.9	114.0	24	101.7	102.0	102.1	24	112.9	113.3	113.6	24	104.6	105.5	105.7	24
8/29	104.1	104.6	105.3	24	111.8	112.1	112.3	24	101.4	101.5	101.7	24	112.1	112.5	113.0	24	104.7	105.0	105.7	24
8/30	102.4	102.7	103.0	24	110.7	111.0	111.3	24	100.9	101.1	101.2	24	112.4	112.9	113.3	24	103.0	103.3	103.7	24
8/31	101.6	101.8	102.0	24	111.3	111.7	111.9	24	100.4	100.7	100.9	24	111.7	112.1	112.4	24	103.2	103.5	103.8	24
9/1	101.5	101.7	102.0	24	102.8	104.6	111.8	24	100.6	100.7	100.9	24	102.7	103.3	105.6	24	103.5	103.7	103.7	24
9/2	100.6	100.8	102.3	24	100.5	101.0	101.3	24	100.9	101.8	102.1	24	102.0	102.8	105.7	24	103.4	103.8	104.2	24
9/3	101.5	101.7	102.4	24	101.0	101.3	101.6	24	101.7	101.8	102.0	24	102.5	103.3	104.2	24	101.2	101.5	101.9	24
9/4	100.9	101.0	101.1	24	100.8	101.2	101.5	24	101.2	101.4	101.6	24	102.6	102.8	103.0	24	100.8	101.1	101.5	24
9/5	100.9	101.0	101.1	24	100.1	100.5	100.8	24	100.3	100.5	100.7	24	102.1	102.3	102.6	24	99.9	100.0	100.1	24
9/6	101.0	101.3	101.9	24	100.6	101.2	101.5	24	100.2	100.4	100.5	24	102.4	103.0	103.4	24	99.7	100.2	100.5	24
9/7	102.2	102.5	102.8	24	101.6	101.9	102.1	24	100.6	100.7	100.9	24	101.5	102.0	102.5	24	100.6	100.9	101.1	24
9/8	102.4	102.8	103.0	24	101.6	101.9	102.2	24	100.5	100.5	100.7	24	102.5	102.8	103.1	24	100.6	100.8	101.1	24
9/9	100.9	101.2	101.7	24	100.5	100.9	101.1	24	100.0	100.2	100.4	24	102.0	102.4	102.5	24	99.7	99.9	100.1	24

### 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>	#					
	Avg	Avg		High	hr		Avg	Avg		High	hr		Avg	Avg		High	hr	Avg	AVG	High
8/27	111.6	111.9	112.2	24	105.1	105.3	105.4	24	114.4	114.9	115.7	24	112.4	114.4	115.3	24	112.6	112.7	112.9	24
8/28	111.7	112.0	112.6	24	105.3	105.4	105.4	24	115.3	115.9	116.3	24	113.6	114.4	114.9	24	112.6	112.8	113.0	24
8/29	111.6	111.9	112.2	24	103.7	103.9	104.6	24	114.2	114.8	115.8	24	111.8	112.7	113.1	24	112.2	112.3	112.5	24
8/30	110.7	111.3	111.5	24	103.8	103.9	104.1	24	114.2	115.1	116.1	24	112.8	113.6	114.2	24	112.6	112.9	113.8	24
8/31	109.2	109.7	109.9	24	102.9	103.0	103.3	24	112.4	113.6	115.2	24	111.8	112.4	113.5	24	114.0	115.1	115.2	24
9/1	105.7	107.0	110.0	24	102.0	102.2	102.5	24	104.5	107.7	111.2	24	109.8	110.8	111.9	24	111.3	112.8	116.1	24
9/2	104.6	105.2	105.5	24	102.7	103.2	103.4	24	103.6	104.3	105.1	24	104.1	104.9	107.6	24	112.1	113.9	117.1	24
9/3	103.1	103.6	103.8	24	103.4	103.8	104.1	24	104.5	105.2	106.3	24	103.0	103.8	104.3	24	111.8	113.0	115.8	24
9/4	102.7	103.0	103.2	24	103.4	103.7	103.9	24	102.1	103.1	103.3	24	103.2	103.5	103.9	24	112.5	115.1	118.2	24
9/5	102.4	102.8	103.3	24	101.2	101.6	102.2	24	101.4	102.2	103.1	24	102.6	102.9	103.1	24	112.3	114.3	117.6	24
9/6	102.5	103.2	103.7	24	100.7	101.1	101.2	24	102.0	102.7	103.4	24	102.6	103.6	104.1	24	114.0	117.3	122.0	24
9/7	102.1	102.5	103.2	24	101.0	101.1	101.2	24	102.9	103.8	104.1	24	103.2	103.4	103.6	24	114.1	118.0	123.2	24
9/8	102.2	102.5	103.1	24	100.4	100.4	100.5	24	103.1	103.7	104.4	24	102.5	102.8	102.9	24	111.4	113.5	116.7	24
9/9	101.4	101.6	101.9	24	99.8	100.0	100.3	24	102.5	102.7	103.0	24	101.5	101.8	102.4	24	112.2	114.0	116.6	24



Two-Week Summary of Passage Indices

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)
08/27/2010	---	---	---	---	0	0	0	0	0	0	0
08/28/2010	---	---	---	---	0	2	2	0	0	---	0
08/29/2010	---	---	---	---	0	2	0	0	0	0	0
08/30/2010	---	---	---	---	0	0	0	0	0	0	0
08/31/2010	---	---	---	---	0	0	0	0	0	0	0
09/01/2010	---	---	---	---	0	0	0	---	0	0	0
09/02/2010	---	---	---	---	0	0	0	---	0	0	0
09/03/2010	---	---	---	---	0	0	0	---	0	0	0
09/04/2010	---	---	---	---	0	0	0	---	0	0	0
09/05/2010	---	---	---	---	0	0	0	---	0	0	0
09/06/2010	---	---	---	---	0	0	0	---	0	0	0
09/07/2010	---	---	---	---	0	0	0	---	0	0	0
09/08/2010	---	---	---	---	0	0	0	---	0	0	0
09/09/2010	---	---	---	---	0	0	0	---	0	0	0
09/10/2010	---	---	---	---	---	---	---	---	---	---	---
<b>Total:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>2</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>14</b>	<b>14</b>	<b>14</b>	<b>5</b>	<b>14</b>	<b>13</b>	<b>14</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>56,130</b>	<b>80,004</b>	<b>27,916</b>	<b>7,995</b>	<b>2,452,571</b>	<b>1,260,528</b>	<b>452,093</b>	<b>11,800</b>	<b>2,093,842</b>	<b>1,034,554</b>	<b>2,302,148</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)
08/27/2010	---	---	---	---	418	210	89	24	9,506	1,559	2,714
08/28/2010	---	---	---	---	232	131	37	27	12,626	---	726
08/29/2010	---	---	---	---	182	64	26	16	7,822	3,795	589
08/30/2010	---	---	---	---	157	156	9	28	7,617	2,184	629
08/31/2010	---	---	---	---	172	133	8	67	22,676	3,321	403
09/01/2010	---	---	---	---	248	54	24	---	7,726	3,507	886
09/02/2010	---	---	---	---	235	23	43	---	4,755	3,597	1,109
09/03/2010	---	---	---	---	244	24	33	---	3,265	3,585	1,506
09/04/2010	---	---	---	---	283	30	25	---	2,200	3,465	1,493
09/05/2010	---	---	---	---	158	32	11	---	810	3,406	2,352
09/06/2010	---	---	---	---	59	12	14	---	1,470	3,071	1,265
09/07/2010	---	---	---	---	61	10	11	---	3,920	822	1,002
09/08/2010	---	---	---	---	50	20	12	---	2,600	814	707
09/09/2010	---	---	---	---	90	21	13	---	2,210	566	1,398
09/10/2010	---	---	---	---	---	---	---	---	---	---	---
<b>Total:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2,589</b>	<b>920</b>	<b>355</b>	<b>162</b>	<b>89,203</b>	<b>33,692</b>	<b>16,779</b>
<b># Days:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>5</b>	<b>14</b>	<b>13</b>	<b>14</b>
<b>Average:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>185</b>	<b>66</b>	<b>25</b>	<b>32</b>	<b>6,372</b>	<b>2,592</b>	<b>1,199</b>
<b>YTD</b>	<b>0</b>	<b>42</b>	<b>28</b>	<b>1,275</b>	<b>1,025,424</b>	<b>1,308,113</b>	<b>770,694</b>	<b>23,361</b>	<b>3,894,430</b>	<b>2,238,914</b>	<b>5,105,767</b>

Two-Week Summary of Passage Indices

COMBINED COHO											
Date	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (INDEX)	LGS (INDEX)	LMN (INDEX)	RIS (INDEX)	MCN (INDEX)	JDA (INDEX)	BO2 (INDEX)
08/27/2010 *	---	---	---	---	0	2	0	0	0	0	0
08/28/2010 *	---	---	---	---	0	0	0	0	0	---	14
08/29/2010	---	---	---	---	0	2	0	0	0	0	0
08/30/2010	---	---	---	---	4	0	0	0	0	0	0
08/31/2010	---	---	---	---	0	1	0	0	0	0	0
09/01/2010 *	---	---	---	---	0	0	0	---	0	0	0
09/02/2010	---	---	---	---	1	0	0	---	0	0	0
09/03/2010 *	---	---	---	---	0	0	0	---	0	25	0
09/04/2010 *	---	---	---	---	0	0	0	---	0	0	0
09/05/2010 *	---	---	---	---	0	0	0	---	0	0	0
09/06/2010	---	---	---	---	1	1	0	---	0	0	0
09/07/2010	---	---	---	---	0	1	0	---	0	0	19
09/08/2010 *	---	---	---	---	0	0	0	---	0	0	0
09/09/2010	---	---	---	---	1	0	0	---	0	0	0
09/10/2010	---	---	---	---	---	---	---	---	---	---	---
<b>Total:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>25</b>	<b>33</b>
<b># Days:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>5</b>	<b>14</b>	<b>13</b>	<b>14</b>
<b>Average:</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>0</b>	<b>2</b>	<b>2</b>
<b>YTD</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>104</b>	<b>40,182</b>	<b>53,913</b>	<b>13,604</b>	<b>41,441</b>	<b>85,780</b>	<b>111,181</b>	<b>524,797</b>

COMBINED STEELHEAD											
Date	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (INDEX)	LGS (INDEX)	LMN (INDEX)	RIS (INDEX)	MCN (INDEX)	JDA (INDEX)	BO2 (INDEX)
08/27/2010 *	---	---	---	---	0	2	0	0	0	0	0
08/28/2010 *	---	---	---	---	0	0	0	0	0	---	0
08/29/2010	---	---	---	---	0	0	0	0	0	0	0
08/30/2010	---	---	---	---	0	0	0	1	0	0	0
08/31/2010	---	---	---	---	0	0	0	1	0	0	0
09/01/2010 *	---	---	---	---	0	0	0	---	0	0	0
09/02/2010	---	---	---	---	0	0	0	---	0	0	0
09/03/2010 *	---	---	---	---	0	1	0	---	0	0	0
09/04/2010 *	---	---	---	---	1	0	0	---	0	0	0
09/05/2010 *	---	---	---	---	0	1	0	---	0	0	0
09/06/2010	---	---	---	---	0	0	0	---	0	0	0
09/07/2010	---	---	---	---	1	0	0	---	0	0	0
09/08/2010 *	---	---	---	---	0	1	0	---	0	0	0
09/09/2010	---	---	---	---	0	0	0	---	0	0	0
09/10/2010	---	---	---	---	---	---	---	---	---	---	---
<b>Total:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>5</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b># Days:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>5</b>	<b>14</b>	<b>13</b>	<b>14</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>4,385</b>	<b>27,688</b>	<b>4,051</b>	<b>11,795</b>	<b>2,045,801</b>	<b>1,594,184</b>	<b>427,856</b>	<b>17,309</b>	<b>448,224</b>	<b>594,822</b>	<b>942,451</b>

## Two-Week Summary of Passage Indices

Date	COMBINED SOCKEYE											
	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (INDEX)	LGS (INDEX)	LMN (INDEX)	RIS (INDEX)	MCN (INDEX)	JDA (INDEX)	BO2 (INDEX)	
08/27/2010	*	---	---	---	---	0	0	0	0	10	0	0
08/28/2010	*	---	---	---	---	2	0	0	0	0	---	0
08/29/2010		---	---	---	---	0	0	0	0	0	29	0
08/30/2010		---	---	---	---	0	0	0	0	0	0	0
08/31/2010		---	---	---	---	0	3	0	0	0	0	0
09/01/2010	*	---	---	---	---	0	0	0	---	0	0	0
09/02/2010		---	---	---	---	1	0	0	---	0	0	0
09/03/2010	*	---	---	---	---	2	1	0	---	0	0	0
09/04/2010	*	---	---	---	---	0	0	0	---	0	0	0
09/05/2010	*	---	---	---	---	0	1	0	---	0	0	0
09/06/2010		---	---	---	---	1	0	0	---	0	0	0
09/07/2010		---	---	---	---	0	0	0	---	0	0	0
09/08/2010	*	---	---	---	---	0	0	0	---	0	0	0
09/09/2010		---	---	---	---	2	0	0	---	10	0	0
09/10/2010		---	---	---	---	---	---	---	---	---	---	---
<hr/>												
<b>Total:</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>20</b>	<b>29</b>	<b>0</b>
<b># Days:</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>5</b>	<b>14</b>	<b>13</b>	<b>14</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>1</b>	<b>2</b>	<b>0</b>
<b>YTD</b>		<b>80</b>	<b>0</b>	<b>0</b>	<b>188</b>	<b>8,776</b>	<b>12,826</b>	<b>2,204</b>	<b>36,508</b>	<b>1,469,160</b>	<b>656,084</b>	<b>803,520</b>

\* 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, and sockeye. Two classes of fish counts are shown in these tables: collection counts, which account for sample rates but are not adjusted for flow; and passage indices, 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.

### 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  
 $\text{Passage Index} = \text{Collection Counts} / \{ \text{Powerhouse Flow} / (\text{Powerhouse Flow} + \text{Spill}) \}$
- LGS (Index) = Little Goose Bypass Collection System : Passage Index Counts  
 $\text{Passage Index} = \text{Collection Counts} / \{ \text{Powerhouse Flow} / (\text{Powerhouse Flow} + \text{Spill}) \}$
- LMN (Index) = Lower Monumental Dam Bypass Collection System : Passage Index Counts  
 $\text{Passage Index} = \text{Collection Counts} / \{ \text{Powerhouse Flow} / (\text{Powerhouse Flow} + \text{Spill}) \}$
- RIS (Index) = Rock Island Dam Second Powerhouse Bypass Trap : Passage Index Counts  
 $\text{Passage Index} = \text{Collection Counts} / \{ \text{Powerhouse 2 Flow} / (\text{Powerhouse 1 \& 2 Flow} + \text{Spill}) \}$
- MCN (Index) = McNary Dam Bypass Collection System : Passage Index Counts  
 $\text{Passage Index} = \text{Collection Counts} / \{ \text{Powerhouse Flow} / (\text{Powerhouse Flow} + \text{Spill}) \}$
- JDA (Index) = John Day Dam Bypass Collection System : Passage Index Counts  
 $\text{Passage Index} = \text{Collection Counts} / \{ \text{Powerhouse Flow} / (\text{Powerhouse Flow} + \text{Spill}) \}$
- BO2 (Index) = Bonneville Dam Second Powerhouse Bypass Collection System : Passage Index Counts  
 $\text{Passage Index} = \text{Collection Counts} / \{ \text{Powerhouse 2 Flow} / (\text{Powerhouse 1 \& 2 Flow} + \text{Spill}) \}$

JDA and BO2 data collected for the FPC by Pacific States Marine Fisheries Commission.  
 RIS data collected for the FPC by Chelan Co. PUD/Washington Dept. of Fish and Wildlife.  
 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.

### Two Week Transportation Summary

Source: Fish Passage Center

Updated:

9/10/10 10:43 AM

		08/27/10	TO	09/10/10				
		Species						
Site	Data	CH0	CH1	CO	ST	SO	Grand Total	
<b>LGR</b>	Sum of NumberCollected	1,919			5	2	7	1,933
	Sum of NumberBarged	0			0	0	0	0
	Sum of NumberBypassed	57			0	0	0	57
	Sum of Numbertrucked	1,841			5	2	6	1,854
	Sum of SampleMorts	21			0	0	1	22
	Sum of FacilityMorts	0			0	0	0	0
	Sum of ResearchMorts	0			0	0	0	0
	Sum of TotalProjectMorts	21			0	0	1	22
<b>LGS</b>	Sum of NumberCollected	669		2	5	4	4	684
	Sum of NumberBarged	0		0	0	0	0	0
	Sum of NumberBypassed	0		0	0	0	0	0
	Sum of Numbertrucked	653		2	5	4	4	668
	Sum of SampleMorts	15		0	0	0	0	15
	Sum of FacilityMorts	1		0	0	0	0	1
	Sum of ResearchMorts	0		0	0	0	0	0
	Sum of TotalProjectMorts	16		0	0	0	0	16
<b>LMN</b>	Sum of NumberCollected	259		1				260
	Sum of NumberBarged	0		0				0
	Sum of NumberBypassed	21		0				21
	Sum of Numbertrucked	229		1				230
	Sum of SampleMorts	9		0				9
	Sum of FacilityMorts	0		0				0
	Sum of ResearchMorts	0		0				0
	Sum of TotalProjectMorts	9		0				9
<b>MCN</b>	Sum of NumberCollected	57,930					15	57,945
	Sum of NumberBarged	0					0	0
	Sum of NumberBypassed	6,381					0	6,381
	Sum of Numbertrucked	51,230					15	51,245
	Sum of SampleMorts	49					0	49
	Sum of FacilityMorts	270					0	270
	Sum of ResearchMorts	0					0	0
	Sum of TotalProjectMorts	319					0	319
Total Sum of NumberCollected		60,777		3	10	6	26	60,822
Total Sum of NumberBarged		0		0	0	0	0	0
Total Sum of NumberBypassed		6,459		0	0	0	0	6,459
Total Sum of Numbertrucked		53,953		3	10	6	25	53,997
Total Sum of SampleMorts		94		0	0	0	1	95
Total Sum of FacilityMorts		271		0	0	0	0	271
Total Sum of ResearchMorts		0		0	0	0	0	0
Total Sum of TotalProjectMorts		365		0	0	0	1	366

### YTD Transportation Summary

Source: Fish Passage Center

Updated:

9/10/10 10:43 AM

TO: 09/10/10

		Species					
Site	Data	CH0	CH1	CO	SO	ST	Grand Total
<b>LGR</b>	Sum of NumberCollected	612,098	1,622,345	28,358	5,798	1,358,154	3,626,753
	Sum of NumberBarged	605,631	1,428,784	28,337	5,772	1,309,483	3,378,007
	Sum of NumberBypassed	757	191,860	0	10	48,344	240,971
	Sum of NumberTrucked	4,409	1	10	10	6	4,436
	Sum of SampleMorts	261	54	1	1	19	336
	Sum of FacilityMorts	1,040	1,231	10	5	285	2,571
	Sum of ResearchMorts	0	415	0	0	17	432
	Sum of TotalProjectMorts	1,301	1,700	11	6	321	3,339
<b>LGS</b>	Sum of NumberCollected	860,468	873,202	36,910	8,878	1,085,613	2,865,071
	Sum of NumberBarged	849,625	791,515	36,896	8,872	1,025,889	2,712,797
	Sum of NumberBypassed	68	81,373	0	0	59,473	140,914
	Sum of NumberTrucked	4,870	8	12	4	12	4,906
	Sum of SampleMorts	246	30	2	1	10	289
	Sum of FacilityMorts	5,659	276	0	1	229	6,165
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	5,905	306	2	2	239	6,454
<b>LMN</b>	Sum of NumberCollected	509,523	305,752	8,789	1,525	239,911	1,065,500
	Sum of NumberBarged	507,240	304,265	8,789	1,421	234,687	1,056,402
	Sum of NumberBypassed	586	1,473	0	0	5,000	7,059
	Sum of NumberTrucked	1,034	2	0	0	1	1,037
	Sum of SampleMorts	64	9	0	1	10	84
	Sum of FacilityMorts	618	201	0	3	314	1,136
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	682	210	0	4	324	1,220
<b>MCN</b>	Sum of NumberCollected	1,938,823	1,224,094	47,445	848,915	260,030	4,319,307
	Sum of NumberBarged	299,909	173	70	190	86	300,428
	Sum of NumberBypassed	1,496,969	1,222,563	47,275	847,904	259,728	3,874,439
	Sum of NumberTrucked	134,406	0	40	75	0	134,521
	Sum of SampleMorts	529	121	5	96	17	768
	Sum of FacilityMorts	6,960	1,237	55	650	199	9,101
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	7,489	1,358	60	746	216	9,869
Total Sum of NumberCollected		3,920,912	4,025,393	121,502	865,116	2,943,708	11,876,631
Total Sum of NumberBarged		2,262,405	2,524,737	74,092	16,255	2,570,145	7,447,634
Total Sum of NumberBypassed		1,498,380	1,497,269	47,275	847,914	372,545	4,263,383
Total Sum of NumberTrucked		144,719	11	62	89	19	144,900
Total Sum of SampleMorts		1,100	214	8	99	56	1,477
Total Sum of FacilityMorts		14,277	2,945	65	659	1,027	18,973
Total Sum of ResearchMorts		0	415	0	0	17	432
Total Sum of TotalProjectMorts		15,377	3,574	73	758	1,100	20,882

Cumulative Adult Passage at Mainstem Dams Through: 09/09

DAM	EndDa	Spring Chinook						Summer Chinook					
		2010		2009		10-Yr Avg.		2010		2009		10-Yr Avg.	
		Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack
BON	09/09	244384	12612	114525	66631	167834	17301	97604	15603	81936	37416	82525	13362
TDA	09/09	189839	11546	93908	53646	121486	13792	81292	12528	79916	27878	72634	10423
JDA	09/09	179446	11794	76806	49733	101283	12037	70955	12475	65989	33147	66361	11207
MCN	09/09	153246	9178	70413	43328	93119	11340	66526	8063	57137	21182	62804	9141
IHR	09/09	101188	6047	55435	28223	64058	7222	29583	3503	23856	9400	15236	3378
LMN	09/08	97334	5898	66931	20009	63381	6004	35097	4362	23353	11733	15714	2947
LGS	09/09	92985	5461	52642	24331	58937	6617	32410	3968	20340	11207	12950	3477
LGR	09/09	94203	6409	49667	31064	59309	8137	28778	5294	14482	16367	12293	4233
PRD	09/08	30539	932	13469	2910	19097	834	49265	1217	49417	2117	55919	2554
RIS	09/08	29684	1513	12634	6003	15841	1581	47220	4018	44295	7727	52600	6133
RRH	09/08	8660	523	6090	1086	6208	510	34173	1724	34961	5231	40122	4303
WEL	09/08	7555	661	6307	1867	4866	487	26538	1856	25725	3800	29472	2340
WFA	08/21	64291	1679	25795	2719	-	-	-	-	-	-	-	-

EndDate	DAM	Fall Chinook					
		2010		2009		10-Yr Avg.	
		Adult	Jack	Adult	Jack	Adult	Jack
9/9	BON	248116	26554	198356	67831	209921	23093
9/9	TDA	114527	15993	102746	45712	91277	14100
9/9	JDA	77403	12417	72022	36337	57036	10974
9/9	MCN	47987	6342	47908	26603	35600	7000
9/9	IHR	17147	2896	12692	16108	5728	2590
9/8	LMN	11062	2607	9675	12420	4165	1908
9/9	LGS	10181	1808	9513	7858	3544	1228
9/9	LGR	7780	2173	5196	8283	2481	1274
9/8	PRD	5170	1129	12150	1652	9900	1802
9/8	RIS	2482	1112	4230	1618	3707	1019
9/8	RRH	2021	609	3019	1012	2815	731
9/8	WEL	1068	467	1301	790	1307	479
8/21	WFA	30	4	127	47	-	-

DAM	Coho						Sockeye			Steelhead			
	2010		2009		10-Yr Avg.		2010	2009	10-Yr Avg.	2010	2009	10-Yr Avg.	Wild 2010
	Adult	Jack	Adult	Jack	Adult	Jack							
BON	27465	1765	82107	3798	45606	2438	386521	177822	94584	358188	532155	322160	141126
TDA	7801	740	15834	3812	7255	1025	325131	155590	80569	228006	312158	168439	91796
JDA	3816	485	9509	2258	4252	760	324124	157400	86665	163165	301682	129764	64969
MCN	1499	177	4088	1010	1285	204	278807	121673	69739	130307	173280	85696	49220
IHR	102	2	220	49	64	3	1302	867	175	82821	115012	49091	25130
LMN	6	0	89	3	19	1	1654	1163	220	68178	92500	40410	23684
LGS	40	4	50	18	9	1	1655	1065	197	49853	72133	30151	17391
LGR	0	0	3	1	0	0	2186	1217	242	53638	60775	29019	19575
PRD	7	1	953	84	158	15	357058	153466	88592	19273	25512	11390	0
RIS	1	1	366	243	47	21	338298	162825	85461	15259	22062	9625	7511
RRH	1	0	14	32	1	0	295617	133094	64320	11431	15561	6897	4976
WEL	2	0	0	0	0	0	291286	134913	65153	6918	10621	4532	3037
WFA	45	62	10	4	-	-	0	0	-	28799	17142	-	-

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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BON counts from January 1, 2010 to March 14, 2010 (historical counts begin March 15):

Year	Chinook Adult	Chinook Jack	Steelhead	Wild Steelhead
2009	39	0	2,318	657
2008	19	-1	321	109