

Fish Passage Center

Weekly Report #08 - 32

October 31, 2008

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Summary of Events:

This is the final weekly report for the 2008 season.

Water Supply: Precipitation throughout the Columbia Basin has varied between 46% and 135% of average at individual sub-basins over the beginning of Water Year 2009 (October 1-27). Precipitation above The Dalles has been 84% of average over the beginning of Water Year 2009.

Table 1. Summary of October 1-27 precipitation and cumulative precipitation with respect to average (1971-2000), at select locations within the Columbia and Snake River Basins.

	Water Ye Octobe		October	tear 2009 1, 2008 to 27, 2008
Location	Observed (inches)	% Average	Observed (inches)	% Average
Columbia Above Coulee	1.59	99	1.59	99
Snake River Above Ice Harbor	0.75	72	0.75	72
Columbia Above The Dalles	1.21	84	1.21	84
Kootenai	1.66	103	1.66	103
Clark Fork	0.65	64	0.65	64
Flathead	0.96	65	0.96	65
Pend Oreille/ Spokane	0.94	50	0.94	50
Central Washington	0.26	48	0.26	48
Snake River Plain	1.01	135	1.01	135
Salmon/Boise/ Payette	0.5	46	0.5	46
Clearwater	1.0	53	1.0	53
SW Washington Cascades/Cowlitz	3.0	62	3.0	62
Willamette Valley	2.64	71	2.64	71

Grand Coulee is currently at 1288.2 feet (10-30-08) and refilled 0.2 feet last week. Outflows have ranged between 66.6 and 73.0 Kcfs over the last week. Inflows last week have ranged between 34.3 Kcfs and 85.3 Kcfs.

The Libby Reservoir is currently (10-30-08) at an elevation of 2441.0 feet, holding steady last week. Inflows at Libby have ranged between 2.1 Kcfs and 6.2 Kcfs over the last week. Outflows at Libby are currently 4.5 Kcfs.

Hungry Horse is currently at an elevation of 3528.9 feet (10-30-08), and has drafted 1.1 feet last week. Outflows at Hungry Horse have ranged between at 2.2-2.4 Kcfs; inflows have ranged between 0.5 Kcfs and 1.4 Kcfs last week.

Albeni Falls is at an elevation of 2052.5 feet (10-30-08) and has drafted 1.6 feet last week. Outflows at Albeni Falls are currently 22 Kcfs. The COE plans to draft to elevation 2051-2051.5 feet by approximately November 8th.

Dworshak is currently (10-30-08) at 1518.6 feet and has drafted 0.5 feet last week. Outflows at Dworshak are 1.6-2.7 Kcfs. Inflows have ranged between 1.0 and 1.3 Kcfs last week.

The Brownlee Reservoir is at an elevation of 2051.1 feet (10-30-08), and has refilled 2.1 feet last week. Outflows at Brownlee Dam have been 6.4 to 11.2 Kcfs over the last week. Inflows at Brownlee Dam have been 9.1 to 11.6 Kcfs over the last week.

Fall chinook spawning outflows began below Hells Canyon Dam on October 13th, 2008. Outflows from Hells Canyon Dam have been 9.0-9.2 Kcfs between October 13-30, 2008.

Smolt Monitoring:

Sampling continued at Lower Granite, Little Goose and Bonneville dams through October 31. Subvearling Chinook are the primary salmonid species collected in the past two weeks. Small numbers of sockeye (possibly kokanee) fry have been collected at Lower Granite Dam over the past month. The small size suggests these fish may have been flushed from Dworshak Reservoir. At Lower Granite Dam in the Snake River the daily passage indices for subvearling Chinook continue to remain relatively high for this time of year. The index averaged just under 200 per day the past two weeks compared to 300 per day the previous two weeks. PIT-tag data suggest that hatchery origin fish predominate—especially releases from Big Canyon Creek. There were over 420 detections of Big Canyon Creek releases since October 15. In addition small numbers of wild subvearling Chinook marked in the Clearwater River continue to pass the project. An unusual PIT-tag group has been showing up in the bypass at Lower Granite Dam over the past few weeks. Since the 1st of October 100 PIT-tagged yearling fall Chinook released at Lyons Ferry Hatchery on April 9 of 2008 have been detected in the bypass at Lower Granite. Based on tag information these fish apparently migrated out to below Bonneville Dam. They then returned to the Snake River beginning in September. These fish passed through the adult ladder at Lower Granite Dam and now are falling back through the bypass.

At the lower Columbia River Bonneville is the only SMP site still monitoring. At that site indices for subyearling Chinook averaged about 125 per day 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. All scheduled releases of juvenile salmonids to this zone for 2008 have been completed.

Mid-Columbia Zone: The Mid-Columbia Zone encompasses the area of the Columbia River and its tributaries from McNary Dam to Chief Joseph Dam. On October 29th, approximately 200,000 juvenile sockeye were released into Lake Wenatchee. Although these sockeye juveniles were released this year, they are not expected to out-migrate until spring of 2009. This was the last scheduled release of juvenile salmonids to this zone for 2008. All other releases to this zone have been completed.

Lower Columbia Zone: The Lower Columbia Zone is defined as the Columbia River and its tributaries from Bonneville Dam to McNary Dam. All scheduled releases of juvenile salmonids to this zone for 2008 have been completed.

Adult Fish Passage:

Daily counts of adult fall Chinook ranged from 91 to 232. The 2008 Bonneville Dam adult fall Chinook count of 314,391 is about 1.98 times greater than the 2007 and is approximately 88.5% of the 10 year average. The fall Chinook jack count of 39,233 is about 74.6% of the 2007 count and is about 96.6% of the 10 year average. The adult fall Chinook count total at The Dalles Dam is 170,863, about 54.3% of the Bonneville passage total to date. The 2008 Lower Granite Dam (LGR) adult fall Chinook count of 16,420 is about 1.64 times greater than the 2007 count of 9,962 and is about 1.95 times greater than the 10 year average count of 8,427. This year's LGR adult fall Chinook count of 16,420 is the largest historically recorded count. The previous high record of 14,960 of adult fall Chinook count at Lower Granite occurred in 2004. This year's count is about 1.10 times greater than the 2004 count.

As of October 30th, 355,490 steelhead had passed Bonneville Dam. The 2008 count is 1.11 times greater than the 2007 count of 320,138 and 1.04 times greater than the 10 year average of 340,423. The

2008 wild steelhead count at Bonneville Dam was 104,836 fish. The daily steelhead counts at The Dalles Dam ranged between 161 and 341 for the week with a cumulative count of 277,538. About 78% of the steelhead counted at Bonneville Dam had passed The Dalles Dam. The majority of the 221,039 steelhead at McNary Dam have moved up into the Snake River with the cumulative count at Ice Harbor now at 171,663 for the season. The 2008 count Lower Granite Dam steelhead count of 165,038 was 1.11 times greater than the 2007 count and 1.17 times greater than the 10 year average. The cumulative count at Priest Rapids Dam was at 16,512 steelhead for the season.

The summer steelhead run is delineated according to dates of passage past Bonneville Dam and is made up of two components. A-run steelhead pass Bonneville Dam from the first of June through August 25th and B-run steelhead pass Bonneville from August 26th through October. The 2008 B-run adult steelhead began August 26th at Bonneville Dam and was 132,136 as of October 30th. The 2008 B-run steelhead count is 1.48 times greater than the 2007 count of 89,229 and is 1.04 times greater than the 10-year average of 127,206.

The coho salmon count at Bonneville Dam was 134,228 adults and 10,445 jacks as of October 30th. To date, the 2008 Bonneville coho adult count is about 1.50 times greater than the 2007 count of 89,244 and is about 1.31 times greater than the 10 year average of 102,257. The 2008 Bonneville coho jack count of 10,445 is about 2.62 times greater than the 2007 count of 3,990 and is about 1.67 times greater than the 10 year average count of 6,250.

	Grand Chief					Ro	cky	Ro	ck			Priest		
	Co	ulee	Jose	ph	We	ells	Re	ach	Isla	nd	Wan	apum	Ra	pids
Date	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill
10/16/2008	93.6	0.0	93.0	0.0	92.7	1.4	93.3	5.7	95.2	0.0	95.1	2.1	90.0	1.0
10/17/2008	48.0	0.0	57.3	0.0	64.3	0.0	70.2	0.0	75.0	0.0	94.3	4.0	96.5	1.0
10/18/2008	42.9	0.0	35.0	0.0	38.6	0.0	37.2	0.0	37.5	0.0	60.7	1.2	59.3	0.9
10/19/2008	50.7	0.0	48.9	0.0	44.8	0.0	42.1	0.0	44.1	0.0	38.0	1.2	45.8	0.7
10/20/2008	61.0	0.0	66.4	0.0	70.3	0.0	73.4	0.0	75.0	0.0	84.3	1.3	74.2	0.5
10/21/2008	69.9	0.0	66.0	0.0	71.7	0.0	74.2	0.0	73.3	0.0	76.9	1.1	71.8	8.0
10/22/2008	74.0	0.0	73.7	0.0	69.1	0.0	63.3	0.0	63.5	0.0	76.3	1.0	76.0	8.0
10/23/2008	63.8	0.0	66.0	0.0	69.4	0.0	70.3	0.0	70.6	0.0	69.0	1.2	67.3	0.5
10/24/2008	65.6	0.0	63.9	0.0	71.7	0.0	73.5	0.0	74.8	0.0	74.9	1.3	74.2	0.7
10/25/2008	34.3	0.0	41.3	0.0	47.2	0.0	53.9	0.0	55.1	0.0	55.6	1.4	53.3	0.3
10/26/2008	49.2	0.0	40.4	0.0	47.1	0.0	42.2	0.0	44.2	0.0	61.3	1.2	53.7	0.7
10/27/2008	83.5	0.0	85.3	0.0	72.0	0.0	67.2	0.0	66.6	0.0	68.4	1.0	69.6	0.6
10/28/2008	85.3	0.0	84.9	0.0	86.6	0.0	87.5	0.0	88.7	0.0	69.1	1.5	69.4	0.3
10/29/2008	75.2	0.0	74.3	0.0	76.5	0.0	75.9	0.0	75.8	0.0	84.7	1.7	74.4	0.6

Daily Average F	Flow and Sp	oill (in	kcfs) a	at Snake	Basin Pr	oiects
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		_		Hells	Lower		Li	ttle	Lov	ver	Ice		
	Dwo	rshak	Brownlee	Canyon	Gra	nite	Go	ose	Monum	ental	Ha	rbor	
Date	Flow	Spill	Inflow	Outflow	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	
10/16/2008	1.6	0.0	12.6	9.1	17.4	0.0	16.5	0.0	16.3	0.0	15.6	0.0	
10/17/2008	1.6	0.0	11.9	9.0	18.4	0.0	17.5	0.0	17.8	0.0	18.1	0.0	
10/18/2008	1.6	0.0	11.5	9.0	17.8	0.0	13.6	0.0	12.4	0.0	11.9	0.0	
10/19/2008	1.6	0.0	11.7	9.1	20.6	0.0	20.7	0.0	21.8	0.0	22.3	0.0	
10/20/2008	1.6	0.0	11.6	9.1	19.6	0.0	18.8	0.0	20.5	0.0	21.4	0.0	
10/21/2008	1.6	0.0	10.8	9.1	24.5	0.0	27.5	0.0	28.5	0.0	28.9	0.0	
10/22/2008	1.6	0.0	10.8	9.1	18.6	0.0	26.6	0.0	25.1	0.0	26.8	0.0	
10/23/2008	1.6	0.0	10.5	9.0	18.8	0.0	16.9	0.0	21.9	0.0	21.2	0.0	
10/24/2008	1.6	0.0	11.6	9.0	19.2	0.0	20.1	0.0	22.3	0.0	20.9	0.0	
10/25/2008	1.6	0.0	9.1	9.1	17.4	0.0	15.6	0.0	14.0	5.3	15.3	0.0	
10/26/2008	1.6	0.0	11.0	9.1	16.5	0.0	15.8	0.0	11.7	6.1	14.0	0.0	
10/27/2008	1.6	0.0	11.0	9.1	16.2	0.0	14.0	0.0	11.8	6.2	15.5	0.0	
10/28/2008	1.6	0.0	10.5	9.0	15.8	0.0	14.8	0.0	11.9	6.2	18.5	0.0	
10/29/2008	1.6	0.0			15.5	0.0	15.4	0.0	11.9	6.2	14.8	0.0	

Daily Average F	low and Spill (in kcfs) at Lower	Columbia Projects
McNany	John Day	The Dalles	Ronnovillo

	IVIC	Nary	Jonn L	Jay	ine D	alles		В	onneville	
Date	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	PH1	PH2
10/16/2008	86.6	0.0	89.4	0.7	87.0	0.0	96.7	1.2	20.1	68.2
10/17/2008	109.5	0.0	102.1	0.7	104.3	0.0	107.6	1.2	28.1	71.1
10/18/2008	90.7	0.0	92.4	0.7	94.4	0.0	102.4	1.2	23.0	71.0
10/19/2008	76.2	0.0	79.9	0.7	82.9	0.0	95.3	1.2	18.0	68.9
10/20/2008	96.0	0.0	88.3	0.6	89.8	0.0	97.5	1.2	38.0	51.1
10/21/2008	105.9	0.0	111.6	0.7	113.0	0.0	116.7	1.2	46.6	61.6
10/22/2008	100.3	0.0	106.0	0.7	109.0	0.0	125.2	1.2	58.6	58.2
10/23/2008	90.4	0.0	93.4	0.7	95.0	0.0	100.4	1.3	14.4	77.6
10/24/2008	85.9	0.0	87.2	8.0	89.6	0.0	97.0	1.2	2.7	85.9
10/25/2008	83.1	0.0	78.6	0.7	79.7	0.0	87.4	1.2	1.9	77.1
10/26/2008	68.8	0.0	70.8	0.7	72.2	0.0	83.9	1.2	0.0	75.5
10/27/2008	81.7	0.0	93.3	8.0	97.6	0.0	105.0	1.2	17.9	78.7
10/28/2008	89.9	0.0	89.6	0.7	96.5	0.0	99.8	1.1	12.0	79.4
10/29/2008	86.0	0.0	90.7	0.7	90.4	0.0	99.6	1.2	9.3	81.9

Hatchery Releases Last Two Weeks

		Hatchery Releas	se Sun	nmary					
	From:	10/17/2008	3	to	10/30/08				
Agency Washington Dept. of Fish and	Hatchery Eastbank	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite Lake	RelRiver Wenatchee
Wildlife Washington Dept. of Fish and	Hatchery	SO	UN	2009	200,000	10-29-08	10-29-08	Wenatchee	River
Wildlife Total					200,000				
Grand Total					200,000				

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

Hatchery Releases Next Two Weeks

There are no Hatchery Releases scheduled for the next 2 weeks

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

	Hung	ry H. I	<u>Dnst</u>		Boun	dary			Grand	d Coul	<u>ee</u>		Grane	d C. T	<u>wr</u>		Chief	Jose	<u>ph</u>	
	<u>24 h</u>	12 h		<u>#</u>	<u>24 h</u>	<u>12 h</u>		<u>#</u>	<u>24 h</u>	<u>12 h</u>		<u>#</u>	<u>24 h</u>	<u>12 h</u>		<u>#</u>	<u>24 h</u>	<u>12 h</u>		<u>#</u>
	<u>Avg</u>	Avg	<u>High</u>	<u>hr</u>	<u>Avg</u>	Avg	<u>High</u>	<u>hr</u>	<u>Avg</u>	Avg	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	Avg	<u>High</u>	<u>hr</u>
10/17	97	98	98	24	102	102	103	21	99	99	100	24	97	97	98	21				0
10/18	98	98	98	24	102	102	103	23	99	99	100	24	97	98	100	23				0
10/19	97	97	98	24	101	102	103	23	99	99	99	24	97	98	100	23				0
10/20	98	98	98	24	102	102	103	24	99	99	100	24	97	98	100	24				0
10/21	97	97	98	24	101	101	102	23	98	98	99	24	96	97	98	23				0
10/22	96	96	97	24	100	101	102	23	97	98	98	24	96	97	98	23				0
10/23	97	98	98	24	101	102	103	23	98	99	99	24	97	97	99	23				0
10/24	98	98	98	24	101	101	102	22	98	98	99	24	97	97	98	22				0
10/25	97	98	98	24	101	101	103	21	98	98	99	24	97	97	98	21				0
10/26	96	96	97	24	100	100	101	23	97	97	98	24	96	97	98	23				0
10/27	96	96	97	24	100	101	101	23	98	98	98	24	97	97	98	23				0
10/28	97	97	97	24	100	101	101	17	98	98	98	24	97	97	97	17				0
10/29	98	98	98	24	101	101	102	22	99	99	99	24	98	98	99	22				0
10/30				0				0				0				0				0

Total Dissolved Gas Saturation Data at Mid Columbia River Sites

	Chief J. Dnst Wells							Wells Dwnstrm					Rocky Reach				Rocky R. Tlwr			
	<u>24 h</u>	12 h		<u>#</u>	<u>24 h</u>	12 h		<u>#</u>	<u>24 h</u>	<u>12 h</u>		#	<u>24 h</u>	12 h		#	<u>24 h</u>	12 h		#
<u>Date</u>	<u>Avg</u>	Avg	<u>High</u>	<u>hr</u>	<u>Avg</u>	Avg	<u>High</u>	<u>hr</u>	<u>Avg</u>	Avg	<u>High</u>	<u>hr</u>	<u>Avg</u>	Avg	<u>High</u>	<u>hr</u>	<u>Avg</u>	Avg	<u>High</u>	<u>hr</u>
10/17				0				0				0				0				0
10/18				0				0				0				0				0
10/19				0				0				0				0				0
10/20				0				0				0				0				0
10/21				0				0				0				0				0
10/22				0				0				0				0				0
10/23				0				0				0				0				0
10/24				0				0				0				0				0
10/25				0				0				0				0				0
10/26				0				0				0				0				0
10/27				0				0				0				0				0
10/28				0				0				0				0				0
10/29				0				0				0				0				0
10/30				0				0				0				0				0

Total Dissolved Gas Saturation at Mid Columbia River Sites

	Rock Island				Rock I. Tlwr				Wana	pum		Wanapum Tlwr			<u>Tlwr</u>	Priest Rapids				
	<u>24 h</u>	12 h		<u>#</u>	<u>24 h</u>	12 h		<u>#</u>	<u>24 h</u>	12 h		<u>#</u>	<u>24 h</u>	12 h		#	<u>24 h</u>	12 h		<u>#</u>
<u>Date</u>	<u>Avg</u>	Avg	<u>High</u>	<u>hr</u>	<u>Avg</u>	Avg	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>
10/17	99	99	100	24	99	100	100	24	97	97	98	24	100	100	101	24	99	100	100	24
10/18	99	99	100	24	100	100	100	24	97	97	98	24	99	100	100	24	100	101	102	24
10/19	99	99	99	24	99	99	100	24	97	97	97	2	99	99	100	2	98	98	98	2
10/20	99	100	100	24	100	100	100	24	97	98	99	19	100	100	101	18	99	99	99	19
10/21	98	98	99	24	98	98	99	24	97	97	97	24	98	99	100	24	97	98	98	24
10/22	98	98	99	24	98	98	99	24	96	97	98	19	98	99	99	24	98	99	99	24
10/23	99	99	99	24	99	99	99	24	98	98	98	24	99	99	100	24	99	99	100	24
10/24	99	99	99	24	99	99	99	24	96	96	97	24	98	99	99	24	99	99	100	24
10/25	98	99	99	24	99	99	99	24	97	97	98	24	98	99	99	24	98	98	99	24
10/26	98	98	98	24	98	98	98	24	95	96	96	24	98	98	99	24	98	98	98	24
10/27	98	98	98	24	98	98	99	24	96	97	98	24	98	98	99	24	98	98	99	24
10/28	98	99	99	24	99	99	99	24	96	97	98	24	98	99	99	24	98	99	99	24
10/29	99	99	99	9	99	99	99	9	96	97	98	24	99	99	99	24	99	99	100	24
10/30				0				0				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 Si	iver Sites	Snake Ri	and :	lumbia	l ower C	at	Data	ıration	Sati	Gas)issolved	Total
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	Pries	t R. D	<u>nst</u>		Pasco	<u>2</u>			<u>Dwor</u>	<u>shak</u>			Clrwt	r-Pecl	<u>k</u>		Anate	<u>one</u>		
	<u>24 h</u>	<u>12 h</u>		<u>#</u>	<u>24 h</u>	<u>12 h</u>		<u>#</u>	<u>24 h</u>	<u>12 h</u>		<u>#</u>	<u>24 h</u>	<u>12 h</u>		<u>#</u>	<u>24 h</u>	<u>12 h</u>		<u>#</u>
<u>Date</u>	<u>Avg</u>	Avg	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	Avg	<u>High</u>	<u>hr</u>
10/17	101	102	103	24				0	104	104	105	24				0				0
10/18	102	102	102	24				0	102	103	103	24				0				0
10/19	101	101	101	2				0	101	102	102	24				0				0
10/20	100	101	102	18				0	102	102	102	24				0				0
10/21	99	100	100	24				0	100	100	101	24				0				0
10/22	100	100	101	24				0	100	101	101	24				0				0
10/23	100	101	101	24				0	101	102	102	24				0				0
10/24	100	101	101	24				0	101	101	102	24				0				0
10/25	100	100	100	24				0	102	102	102	24				0				0
10/26	100	100	101	24				0	102	102	103	24				0				0
10/27	100	100	101	24				0	102	102	103	24				0				0
10/28	100	100	100	24				0	100	101	101	24				0				0
10/29	100	101	101	24				0	100	100	100	24				0				0
10/30				0				0				0				0				0

Total Dissolved Gas Saturation Data at Snake River Sites

	Clrwt	r-Lew	<u>iston</u>		Lowe	r Grar	<u>nite</u>		L. Gra	nite T	lwr		Little	Goos	<u>e</u>		L. Go	ose T	<u>wr</u>	
	<u>24 h</u>	12 h		#	<u>24 h</u>	12 h		#	<u>24 h</u>	12 h		#	<u>24 h</u>	12 h		<u>#</u>	<u>24 h</u>	12 h		<u>#</u>
<u>Date</u>	<u>Avg</u>	Avg	<u>High</u>	<u>hr</u>	<u>Avg</u>	Avg	<u>High</u>	<u>hr</u>	<u>Avg</u>	Avg	<u>High</u>	<u>hr</u>	Avg	Avg	<u>High</u>	<u>hr</u>	<u>Avg</u>	Avg	<u>High</u>	<u>hr</u>
10/17				0				0	97	97	98	24				0	95	96	96	16
10/18				0				0	97	97	97	24				0	95	96	96	24
10/19				0				0	97	98	99	24				0	95	95	96	12
10/20				0				0	98	98	99	24				0	95	95	96	18
10/21				0				0	97	97	97	24				0				0
10/22				0				0	97	97	98	24				0	95	95	96	2
10/23				0				0	97	98	98	24				0	95	95	96	9
10/24				0				0	97	98	98	24				0	95	95	95	1
10/25				0				0	97	97	98	24				0				0
10/26				0				0	97	97	97	24				0				0
10/27				0				0	97	97	98	24				0	95	95	96	8
10/28				0				0	97	98	98	24				0	95	95	95	8
10/29				0				0	98	98	99	24				0	96	96	96	23
10/30				0				0				0				0				0

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

	Lowe	<u>er Mon</u>	<u>ı.</u>		<u>L. Mo</u>	n. Tlw	<u>/r</u>		Ice H	<u>arbor</u>			Ice Ha	arbor	<u>Tlwr</u>		<u>McNa</u>	<u>ıry-Or</u>	<u>egon</u>	
	<u>24 h</u>	12 h		#	<u>24 h</u>	12 h		<u>#</u>	<u>24 h</u>	12 h		#	<u>24 h</u>	12 h		<u>#</u>	<u>24 h</u>	12 h		<u>#</u>
<u>Date</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	Avg	<u>High</u>	<u>hr</u>	<u>Avg</u>	Avg	<u>High</u>	<u>hr</u>
10/1	7			0	96	96	96	22				0	97	98	99	24				0
10/1	8			0	96	96	96	24				0	98	98	98	24				0
10/1	9			0	95	96	96	23				0	98	98	99	24				0
10/2	0			0	96	96	96	23				0	97	98	98	24				0
10/2	1			0	95	95	95	1				0	96	96	96	24				0
10/2	2			0	95	95	96	12				0	96	96	97	23				0
10/2	3			0	96	96	97	24				0	97	97	98	24				0
10/2	4			0	95	96	96	22				0	96	97	98	24				0
10/2	5			0	106	111	111	21				0	95	95	96	8				0
10/2	ô			0	111	112	113	24				0				0				0
10/2	7			0	111	112	114	24				0				0				0
10/2	8			0	111	111	111	24				0	96	96	97	24				0
10/2	9			0	111	111	112	24				0	97	97	98	24				0
10/3	0			0				0				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 River Sites

	McNa	ry-Wa	ash_		McNa	ry Tlv	<u>vr</u>		John	Day			<u>John</u>	Day T	lwr		The [Dalles		
	<u>24 h</u>	12 h		#	<u>24 h</u>	12 h		<u>#</u>	<u>24h</u>	<u>12h</u>		<u>#</u>	<u>24h</u>	<u>12h</u>		<u>#</u>	<u>24h</u>	<u>12h</u>		<u>#</u>
<u>Date</u>	<u>Avg</u>	Avg	<u>High</u>	<u>hr</u>	<u>Avg</u>	Avg	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>AVG</u>	<u>High</u>	<u>hr</u>
10/17				0	99	100	100	24				0	99	99	100	24				0
10/18				0	100	100	100	24				0	99	100	100	24				0
10/19				0	99	100	100	24				0	99	99	99	24				0
10/20				0	99	100	100	24				0	98	99	99	24				0
10/21				0	98	98	98	24				0	97	97	98	24				0
10/22				0	98	99	99	24				0	98	99	99	24				0
10/23				0	98	99	99	24				0	98	98	99	24				0
10/24				0	98	98	99	24				0	99	99	100	24				0
10/25				0	98	98	98	24				0	99	99	100	24				0
10/26				0	97	98	98	24				0	99	100	100	24				0
10/27				0	98	98	98	24				0	99	100	101	24				0
10/28				0	98	98	98	24				0	99	99	100	24				0
10/29				0	99	99	99	24				0	99	99	99	24				0
10/30				0				0				0				0				0

Total Dissolved	Gas Saturation	Data at Lower	r Columbia	River Sites
i utai Dissuiveu	Gas Saturation	i Dala al Luwei	Columbia	rivei oiles

	The D	<u>Dalles</u>	<u>Dnst</u>		<u>Bonn</u>	<u>eville</u>			Warre	<u>endale</u>	_		<u>Cama</u>	ıs\Wa	<u>shougal</u>	_	<u>Casc</u>	<u>ade Is</u>	<u>land</u>	
	<u>24 h</u>	12 h		#	<u>24 h</u>	12 h		<u>#</u>	<u>24h</u>	<u>12h</u>		<u>#</u>	<u>24h</u>	<u>12h</u>		<u>#</u>	<u>24h</u>	<u>12h</u>		<u>#</u>
<u>Date</u>	<u>Avg</u>	Avg	<u>High</u>	<u>hr</u>	<u>Avg</u>	Avg	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>
10/17	100	101	101	24				0	103	103	104	24				0	116	119	121	24
10/18	101	101	101	24				0	102	102	103	24				0	115	119	121	24
10/19	100	101	101	24				0	102	103	104	24				0	115	118	121	24
10/20	99	101	101	24				0	102	102	103	24				0	115	118	122	24
10/21	97	97	98	24				0	100	101	101	24				0	116	117	120	14
10/22	98	98	99	24				0	101	101	102	24				0				0
10/23	100	100	100	24				0	101	101	102	24				0				0
10/24	100	100	100	24				0	100	100	101	24				0				0
10/25	100	100	100	24				0	100	101	102	24				0				0
10/26	100	100	101	24				0	100	100	101	24				0				0
10/27	100	100	101	24				0	101	101	102	24				0				0
10/28	99	100	100	24				0	101	102	103	24				0				0
10/29	101	101	101	24				0	102	103	103	24				0				0
10/30				0				0				0				0				0

Two-Week Summary of Passage Indices

Source: Fish Passage Center Updated: 10/31/2008 8:35

Two-Week Summary of Passage Indices

* One or more of the sites on this date had an incomplete or biased sample.

See Sampling Comments: http://www.fpc.org/currentDaily/smpcomments.htm

For clip information see: http://www.fpc.org/CurrentDaily/catch.htm
For sockeye and yearling chinook (Snake only) race information see: http://www.fpc.org/smoltqueries/currentsmpsubmitdata.asp

				COMB	INED YEA	RLING CHI	NOOK				
	WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date	(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
10/17/2008					0	0					0
10/18/2008					0	0					0
10/19/2008					0	0					0
10/20/2008					0	0					0
10/21/2008					0	2					0
10/22/2008					0	0					0
10/23/2008					1	0					0
10/24/2008					1	2					0
10/25/2008					1	0					0
10/26/2008					0	0					0
10/27/2008					0	0					0
10/28/2008					1	0					0
10/29/2008					1	0					0
10/30/2008					0	0					0
10/31/2008											
Total:	0	0	0	0	5	4	0	0	0	0	0
# Days:	0	0	0	0	14	14	0	0	0	0	14
Average:	0	0	0	0	0	0	0	0	0	0	0
YTD	56,037	78,597	19,672	13,632	3,584,888	2,743,420	1,971,520	22,434	1,360,627	1,694,104	1,291,085

				COMBIN	ED SUBYE	ARLING C	HINOOK				
	WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date	(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
10/17/2008					105	50					170
10/18/2008					287	76					164
10/19/2008					293	88	-				151
10/20/2008					175	77					81
10/21/2008					160	194					107
10/22/2008					193	582					168
10/23/2008					217	539					241
10/24/2008					199	534					157
10/25/2008					226	188					96
10/26/2008					178	116					63
10/27/2008					116	95					88
10/28/2008					148	59					142
10/29/2008					175	52					74
10/30/2008					138	62					45
10/31/2008											
Total:	0	0	0	0	2,610	2,712	0	0	0	0	1,747
# Days:	0	0	0	0	14	14	0	0	0	0	14
Average:	0	0	0	0	186	194	0	0	0	0	125
YTD	0	0	2	119	754,346	1,138,070	332,381	16,069	2,410,658	1,780,674	3,769,220

Two-Week Summary of Passage Indices

					COMBINE	ED COHO					
	WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date	(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)						
10/17/2008					0	0					0
10/18/2008					0	0					0
10/19/2008					0	0					0
10/20/2008					0	0		-	-		0
10/21/2008					0	0					0
10/22/2008					0	0					0
10/23/2008					0	1					0
10/24/2008					0	0					0
10/25/2008					0	0					0
10/26/2008					0	0					0
10/27/2008					0	0					0
10/28/2008					0	0					0
10/29/2008					0	0					0
10/30/2008					0	0					0
10/31/2008											
Total:	0	0	0	0	0	1	0	0	0	0	0
# Days:	0	0	0	0	14	14	0	0	0	0	14
Average:	0	0	0	0	0	0	0	0	0	0	0
YTD	0	0	0	326	109,022	166,111	142,692	52,278	169,484	362,537	358,756

				C	OMBINED :	STEEL HEA	,D				
	WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date	(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
10/17/2008					2	0					0
10/18/2008					1	0					0
10/19/2008					0	0					0
10/20/2008					0	1					0
10/21/2008					1	0					0
10/22/2008					0	0					0
10/23/2008					0	0					0
10/24/2008					0	0					0
10/25/2008					0	0					0
10/26/2008					0	0					0
10/27/2008					0	0					0
10/28/2008					0	0					0
10/29/2008					0	0					0
10/30/2008					2	0					0
10/31/2008											
Total:	0	0	0	0	6	1	0	0	0	0	0
# Days:	0	0	0	0	14	14	0	0	0	0	14
Average:	0	0	0	0	0	0	0	0	0	0	0
YTD	4,565	22,292	5,891	10,708	3,444,119	3,694,322	1,546,176	22,780	507,334	1,132,951	450,277

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)
10/17/2008					13	0					0
10/18/2008					10	1					0
10/19/2008					14	0					0
10/20/2008					22	2					0
10/21/2008					23	1					0
10/22/2008					7	2					0
10/23/2008					9	2					0
10/24/2008					12	6					0
10/25/2008					14	0					0
10/26/2008					21	0					0
10/27/2008					3	2					0
10/28/2008					16	0					0
10/29/2008					8	0					0
10/30/2008					8	1					0
10/31/2008											
Total:	0	0	0	0	180	17	0	0	0	0	0
# Days:	0	0	0	0	14	14	0	0	0	0	14
Average:	0	0	0	0	13	1	0	0	0	0	0
YTD	37	0	0	111	28,544	36,724	45,483	38,965	223,005	331,945	145,402

^{*} 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

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/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: 10/31/08 8:35 AM

10/17/08 TO 10/31/08 Species Site Data CH0 CH1 CO SO ST **Grand Total** LGR Sum of NumberCollected 2,610 2,801 Sum of NumberBarged Sum of NumberBypassed Sum of Numbertrucked 1,705 1,880 Sum of SampleMorts Sum of FacilityMorts Sum of ResearchMorts Sum of TotalProjectMorts LGS Sum of NumberCollected 2,712 2,735 Sum of NumberBarged Sum of NumberBypassed Sum of Numbertrucked 2,687 2,709 Sum of SampleMorts Sum of FacilityMorts Sum of ResearchMorts Sum of TotalProjectMorts 5,536 Total Sum of NumberCollected 5,322 Total Sum of NumberBarged Total Sum of NumberBypassed Total Sum of Numbertrucked 4,392 4,589 Total Sum of SampleMorts Total Sum of FacilityMorts Total Sum of ResearchMorts Total Sum of TotalProjectMorts

YTD Transportation Summary

Source: Fish Passage Center Updated: 10/31/08 8:35 AM

TO: 10/31/08

		Species	10/31/06				
Site	Data	CH0	CH1	CO	SO	ST	Grand Total
LGR	Sum of NumberCollected	434,211	2,398,662	68,833	14,270	2,165,444	5,081,420
	Sum of NumberBarged	401,738	1,966,900	66,905	12,865	1,786,609	4,235,017
	Sum of NumberBypassed	9,215	425,949	1,849	452	377,931	815,396
	Sum of NumberTrucked	15,738	29	33	765	34	16,599
	Sum of SampleMorts	572	154	2	150	52	930
	Sum of FacilityMorts	1,685	2,841	44	38	818	5,426
	Sum of ResearchMorts	5,263	2,789	0	0	0	8,052
	Sum of TotalProjectMorts	7,520	5,784	46	188	870	14,408
LGS	Sum of NumberCollected	752,783	1,706,954	95,880	21,941	2,309,437	4,886,995
	Sum of NumberBarged	728,067	1,314,157	93,092	21,716	1,590,212	3,747,244
	Sum of NumberBypassed	5,428	389,296	2,765	73	718,741	1,116,303
	Sum of NumberTrucked	17,275	8	18	114	12	17,427
	Sum of SampleMorts	237	40	1	9	14	301
	Sum of FacilityMorts	1,776	3,453	4	28	458	5,719
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	2,013	3,493	5	37	472	6,020
LMN	Sum of NumberCollected	242,135	1,216,522	83,198	28,107	957,130	2,527,092
	Sum of NumberBarged	237,235	276,438	9,246	10,128	230,248	763,295
	Sum of NumberBypassed	2,243	940,234	73,949	17,975	726,648	1,761,049
	Sum of NumberTrucked	2,182	4	0	3	5	2,194
	Sum of SampleMorts	97	39	0	0	22	158
	Sum of FacilityMorts	378	798	3	1	207	1,387
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	475	837	3	1	229	1,545
MCN	Sum of NumberCollected	1,184,811	752,385	78,675	102,310	276,935	2,395,116
	Sum of NumberBarged	349,594	164	50	120	55	
	Sum of NumberBypassed	750,490		78,558	102,005	276,615	
	Sum of NumberTrucked	75,708	11	5 3	36	0 25	,
	Sum of SampleMorts Sum of FacilityMorts	557 8,375	112 658	56	23 121	218	
	Sum of ResearchMorts	87	64	3	5	22	
	Sum of TotalProjectMorts	9,019	834	62	149	265	
	n of NumberCollected	2,613,940		326,586	166,628	5,708,946	
	n of NumberBarged	1,716,634	3,557,659	169,293	44,829	3,607,124	
	n of NumberBypassed n of NumberTrucked	767,376 110,903	2,506,855 52	157,121 56	120,505 918	2,099,935 51	5,651,792 111,980
	n of SampleMorts	1,463		6	182	113	
	n of FacilityMorts	12,214		107	188	1,701	
Total Sun	n of ResearchMorts	5,350	2,853	3	5	22	8,233
Total Sun	n of TotalProjectMorts	19,027	10,948	116	375	1,836	32,302

Cumulative Adult Passage at Mainstem Dams Through: 10/30

		Spring Chinook						Summer Chinook					Fall Chinook						
		2008	3	200)7	10-Yr	Avg.	200	8	200	7	10-Y	r Avg.	200	08	200	7	10-Yr A	vg.
DAM	EndDate	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack
BON	10/30	125545	17552	67482	16860	151523	9831	78271	11621	47412	13539	71262	9127	314391	39233	158628	52587	355105	40627
TDA	10/30	95440	15801	53524	15567	106828	7522	65073	12206	40123	11318	61862	6875	170863	38282	93251	38306	188666	31002
JDA	10/30	81771	14925	44005	13864	89148	6122	63649	13680	35773	11582	57243	6930	136638	32174	73159	35849	139369	26916
MCN	10/30	68085	12133	39497	12393	82136	6227	54735	11239	32393	9386	55163	6274	101820	19918	57102	27930	108932	21288
IHR	10/28	53142	7757	28380	7371	54980	3897	23693	4964	7714	2523	11420	2100	21896	11531	13360	9725	12575	7544
LMN	10/30	54512	6885	28397	7102	52688	3599	27345	2890	11452	1419	11417	1651	20914	10454	16017	8817	11582	6602
LGS	10/29	50401	7805	23960	7227	50024	3685	21748	4811	7898	2861	9497	2073	18122	6018	10393	7992	9563	4942
LGR	10/29	50146	10946	22905	9085	50643	4197	22612	5072	7312	3285	9346	2279	16420	9997	9962	9654	8427	5957
PRD	10/26	12173	620	6708	489	17360	563	39305	3355	30644	1088	50486	2111	32170	14173	21909	4325	27628	3381
RIS	10/29	12490	1119	5572	2066	13979	962	38171	3096	28222	6200	47383	5323	8022	3662	3694	1655	9901	2176
RRH	10/29	4065	371	2424	920	5404	397	29675	2127	21657	5110	35386	3711	7250	3646	2885	1368	6281	1785
WEL	10/29	2708	426	2041	752	3980	281	21060	1373	13244	3573	25854	1953	3509	2408	1539	1006	3635	1054
WFA	10/24	14219	525	22818	280	-		0	0	0	0			2440	1048	156	18		-

			Coho)			5	ockeye	9	Steelhead				
	200	18	200	7	10-Yr	Avg.			10-Yr			10-Yr	Wild 2008	
DAM	Adult	Jack	Adult	Jack	Adult	Jack	2008	2007	Avg.	2008	2007	Avg.		
BON	134228	10445	89244	3990	102257	6250	213607	24376	58551	355490	320138	340423	104836	
TDA	37962	4695	30643	2086	29157	2319	177984	19124	49462	277538	241769	259494	78827	
JDA	39944	4920	32994	6207	25535	2984	193409	24277	54064	276864	226906	259234	82733	
MCN	18705	3038	20190	2365	13426	1153	146924	18175	45006	221039	208566	203343	58661	
IHR	2872	114	1970	154	1108	46	539	55	34	171663	152327	150864	41830	
LMN	4132	370	2078	139	1077	63	722	44	33	185806	153537	147624	48191	
LGS	3425	362	1930	178	895	34	594	37	37	167564	134060	135937	38900	
LGR	3405	1273	2394	251	1139	86	907	52	42	165038	145083	140937	41083	
PRD	5128	416	10226	768	3084	353	192217	24645	56270	16512	14948	14301	0	
RIS	6271	1604	15304	515	4859	26	193739	25122	52570	16166	13092	13561	6157	
RRH	2565	749	4043	91	984	0	161343	20683	36855	13253	9941	10483	4460	
WEL	723	5	1731	0	309	0	165334	22273	36826	8741	7233	7810	3445	
WFA	3591	2801	976	149		-	0	0		18698	19015		-	

BON and LGR have switched to video counts so the data is delayed.

*PRD is not posting 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.

Page last updated on: 10/31/08

BON counts from January 1, 2008 to March 14, 2008 (our traditional counts begin March 15):

Year	Chinook Adult	Chinook Jack	Steelhead	Wild Steelhead
2008	42	0	578	278
2007	22	0	1,677	517