

## Fish Passage Center

## Weekly Report #02 - 29

October 4, 2002

2501 SW First Ave., Suite 230 Portland, OR 97201-4752 phone: 503/230-4582 fax: 503/230-7559

**Water:** River flows within the Columbia Basin are low. Over the last two weeks, flows have averaged 20 Kcfs in the lower Snake River (Lower Granite outflows), 85 Kcfs in the middle Columbia River (Priest Rapids outflows), and 105 Kcfs in the lower Columbia River (McNary outflows).

Storage reservoirs along the Columbia and Snake Rivers have either been holding steady or drafting.

Grand Coulee has remained relatively steady over the last two weeks; reservoir elevations have ranged between 1286.4 feet (9-20-02) and 1287.8 feet (10-3-02). Total outflows over the past two weeks have averaged 78.1 Kcfs.

The Libby Reservoir has drafted 1.0 foot over the past two weeks (9-20-02 to 10-3-02); reservoir elevations have ranged from 2441.3 to 2440.3 feet. Outflows have been steady at 6.0 Kcfs over the past two weeks.

The Dworshak Reservoir drafted only 0.7 feet over the last two weeks (9-20-02 to 10-3-02). Total outflows are now at the minimum project discharge of 1.4 Kcfs. Dworshak is currently at an elevation of 1518.4 feet.

Over the past six days, the Brownlee Reservoir has drafted 4.4 feet, beginning the week at 2045.3 and ending the week at 2040.9 feet. During the week, outflows have varied between 12.3 and 19.4 Kcfs.

The Hungry Horse Reservoir elevation has remained steady over the last two weeks at 3539.5 feet. Total outflows at Hungry Horse have ranged between 4.0 and 1.8 Kcfs over the last two weeks (9-20-02 to 10-3-02).

As of October  $3^{rd}$ , 2002, the entire Upper Snake River system is at 11% of capacity. Individually, American Falls is at 3% of capacity, Palisades is at 7% of capacity and Jackson Lake is at 27% of capacity.

The Boise and Payette River systems are currently (10-3-02) at 21% and 52% of capacity, respectively. Within these basins, the Cascade Reservoir is at 57% of full and Anderson Ranch is at 27% of full.

Smolt Monitoring: This past week there were increased numbers of subyearling chinook being captured at all SMP sites except Bonneville Dam, where the average index stayed the same as last week. In the Lower Snake River, at Lower Granite the average daily index of subyearling chinook was 780 this week compared to 530 last week. At other Snake River dams the numbers of subyearlings were up as well; at Little Goose and Lower Monumental the average daily indices at the sites were 112 and 47 respectively up from 9 and 38 the previous week.

In the lower Columbia, the passage index increased at McNary from 540 per day last week to 670 per day this week. At Bonneville Dam subyearling chinook numbers were identical the past two weeks, with an average daily index of 165 both weeks.

Adult Fish Passage: At Bonneville Dam, counts of adult fall chinook ranged between 5,384 fish per day at the beginning of the report week (9/20) to about 1,000 fish per day at the end of the report week (10/3), with the cumulative count through October 3 at 461,479. This year's count of adult fall chinook was about 1.2 and 2.4 times greater than the respective year 2001 and 10-year average. At The Dalles, about 235,000 Upriver Bright (URB) fall chinook have been counted with near 130,300 now past McNary Dam. Passage of fall chinook at Ice Harbor Dam ranged from about 600 to 150 per day for the past two weeks with the total through October 3 of 14,341. This year's count is about 1.2 times and 3.4 times greater than the respective 2001 and 10-year average. At Priest Rapids Dam, about 21,500 adult fall chinook were counted through October 3. A large percentage of the wild component of the upriver run will be destined for the Hanford Reach area (below Priest Rapids Dam) of the Mid-Columbia River. To-date this season's run of tule (record run) and upriver bright stocks of adult fall chinook counted past Bonneville Dam remained strong throughout the passage season. The fall chinook counts remained well above the 10-year average similar to the performance of the spring and summer races of chinook.

The number of jack fall chinook counted past Bonneville Dam exceeds the 10-year average to date (See Table). Upstream at Ice Harbor Dam, the jack count of fall chinook is greater than double the 10-year average while the count of fall chinook "jacks" at Priest Rapids Dam was about 92% of the 10-year average.

Steelhead passage at Bonneville Dam ranged from a high count of 6,290 to a low count of 1,923 through the past two weeks with the total counted now at 463,346 through October 3. This total is 75% and 181% of the respective 2001 and 10-year average counts to date. Estimated wild steelhead in the passage total was near 139,000 (based on visual missing adipose fin on the steelhead). To date, about 74.4% of the adult steelhead counted past Bonneville Dam has been counted upstream past The Dalles Dam. Daily counts ranged between 3,500 and 10,200 for the past two weeks at The Dalles. Numbers of adult steelhead counted into the Snake River and past Ice Harbor Dam ranged between 2,300 and 5,800 with the cumulative count exceeding 151,000 through October 3. In the Mid-Columbia, steelhead counts at Priest Rapids Dam ranged from 69-1,000 per day and totaled greater than 15,400 through October 3. The passage of steelhead into the Snake and Mid-Columbia Rivers was about 1.9 and 1.6 times greater than the respective 10-year averages to date. Overall, this season's run of steelhead has been very strong into the Snake (2<sup>nd</sup> only to last year's record run). The 2-ocean component of the steelhead run has shown great adult returns from the 2000 migration season both to the Snake and upper Mid-Columbia rivers.

Numbers of adult coho stayed relatively steady throughout the past 2-weeks with counts between 1,000 and 2,000 per day and the cumulative count at Bonneville Dam

now up to 54,400. Nearly 6,400 of the Bonneville coho have moved upstream past The Dalles Dam to date. A large percent of coho passing above Bonneville Dam remain in the Bonneville pool area and enter tributaries and hatcheries in this section of river. The Umatilla, Yakima, upper Mid-Columbia and Snake rivers have small coho runs that are now returning to those river systems.

**Hatchery Releases:** All hatchery releases for the 2002 fish migration season are completed. The FPC will be updating and finalizing hatchery release groups during the next few months.

			Daily Ave	rage Flo	ow and	Spill (ii	n kcfs)	at Mid-	Columbia	Project	S			
	Gr	and	Chi	ef			Ro	cky	Ro	ck			Pr	iest
	Co	ulee	Jose	eph	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
09/20/02	95.2	0.1	94.4	0.0	94.2	1.6	91.9	1.3	95.6	0.0	96.9	4.2	96.6	1.1
09/21/02	81.2	0.1	76.3	0.0	81.0	0.5	85.3	0.0	88.4	0.0	97.0	2.0	100.0	1.2
09/22/02	63.9	0.1	68.8	0.0	73.5	0.0	71.5	0.0	73.5	0.0	82.3	2.0	84.0	1.0
09/23/02	95.7	0.1	100.8	0.0	100.2	0.0	97.8	0.0	99.1	0.0	91.7	1.6	91.2	0.9
09/24/02	106.8	0.1	100.4	0.0	101.4	0.0	97.8	0.0	99.5	0.0	99.9	1.3	99.5	1.0
09/25/02	92.9	0.1	93.0	0.0	97.0	0.0	95.0	0.0	96.6	0.0	104.4	1.9	107.9	0.9
09/26/02	76.9	0.1	80.6	0.0	85.1	0.0	87.6	0.0	90.3	0.0	97.1	1.8	99.6	0.9
09/27/02	62.8	0.1	64.1	0.0	61.6	0.0	57.5	0.0	58.8	0.0	64.4	1.5	66.6	0.9
09/28/02	66.7	0.1	62.8	0.0	65.2	0.0	62.9	0.0	64.7	0.0	59.0	1.8	56.4	0.8
09/29/02	45.2	0.1	43.6	0.0	43.3	0.0	41.8	0.0	41.1	0.0	54.9	1.8	55.9	1.0
09/30/02	79.8	0.1	80.0	0.0	85.7	0.0	84.3	0.0	86.1	0.0	74.1	1.7	68.8	0.9
10/01/02	78.6	0.0	81.0	0.0	80.9	0.0	78.6	0.0	80.0	0.0	87.5	1.9	90.3	1.0
10/02/02	77.0	0.0	78.3	0.0	79.5	0.0	81.5	0.0	83.5	0.0	86.7	1.8	88.4	0.9
10/03/02	71.1	0.0	73.1	0.0	73.9	0.0	73.5	0.0	75.3	0.0	83.8	1.5	84.2	0.9

		Daily	Average	Flow and	l Spill (i	n kcfs	at Sna	ke Bas	in Project	ts		
				Hells	Lo	wer	Li	ttle	Lov	ver	I	ce
	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
09/20/02	1.6	0.0	10.7	12.6	20.1	0.0	20.8	0.0	21.8	0.0	21.2	0.0
09/21/02	1.6	0.0	10.4	10.7	19.0	0.0	17.5	0.0	17.2	0.0	16.1	0.0
09/22/02	1.6	0.0	10.3	11.2	16.6	0.0	16.4	0.0	17.2	0.0	16.0	0.0
09/23/02	1.6	0.0	10.9	14.1	17.8	0.0	18.6	0.0	19.2	0.0	18.4	0.0
09/24/02	1.5	0.0	10.7	15.7	19.8	0.0	17.6	0.0	19.4	0.0	18.5	0.0
09/25/02	1.5	0.0	10.4	15.0	21.2	0.0	23.0	0.0	24.6	0.0	24.3	0.0
09/26/02	1.5	0.0	10.5	12.4	20.0	0.0	18.2	0.0	17.8	0.0	15.8	0.0
09/27/02	1.5	0.0	10.9	14.6	17.9	0.0	18.2	0.0	18.0	0.0	16.7	0.0
09/28/02	1.5	0.0	11.0	15.9	19.7	0.0	19.4	0.0	20.7	0.0	19.8	0.0
09/29/02	1.5	0.0	10.0	13.3	20.3	0.0	19.8	0.0	20.8	0.0	18.9	0.0
09/30/02	1.5	0.0	11.3	19.7	19.5	0.0	19.3	0.0	18.7	0.0	17.5	0.0
10/01/02	1.5	0.0	10.2	14.3	24.1	0.0	23.9	0.0	25.7	0.0	25.3	0.0
10/02/02	1.5	0.0	10.6	12.5	19.5	0.0	18.6	0.0	18.8	0.0	18.3	0.0
10/03/02	1.5	0.0			19.5	0.0	19.8	0.0	20.7	0.0	19.8	0.0

	Daily A	verage	Flow and	Spill (ir	ı kcfs) a	at Lowe	er Colu	mbia Pr	ojects	
	McI	Nary	John I	Day	The D	alles		В	onneville	
Date	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	PH1	PH2
09/20/02	117.9	0.0	115.4	0.0	119.7	0.0	120.2	2.1	12.7	98.7
09/21/02	113.4	0.0	109.7	0.0	110.9	0.0	117.3	2.1	10.4	98.1
09/22/02	100.1	0.0	98.1	0.0	101.9	0.0	100.8	2.1	9.3	82.7
09/23/02	123.0	0.0	131.9	0.0	135.4	0.0	138.3	2.1	16.2	113.0
09/24/02	104.8	0.0	100.2	0.0	105.8	0.0	111.7	2.1	1.4	101.5
09/25/02	120.1	0.0	119.7	0.0	121.0	0.0	115.5	2.1	6.5	100.2
09/26/02	116.3	0.0	118.4	0.0	123.5	0.0	126.4	2.1	8.7	109.0
09/27/02	120.8	0.0	117.8	0.0	124.8	0.0	122.5	2.1	0.7	113.0
09/28/02	75.6	0.0	76.2	0.0	79.5	0.0	95.9	2.1	0.0	87.1
09/29/02	75.9	0.0	62.2	0.0	71.8	0.0	92.2	2.1	0.0	83.4
09/30/02	91.3	0.0	97.8	0.0	101.4	0.0	88.7	1.9	0.0	79.9
10/01/02	97.6	0.0	87.7	0.0	88.3	0.0	86.5	1.9	0.0	77.7
10/02/02	103.9	0.0	87.7	0.0	91.5	0.0	90.9	1.9	0.0	82.2
10/03/02	201.8	0.0	97.0	0.0	99.7	0.0	92.4	1.9	0.0	83.7

# 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>		Gran	d C. T	<u>lwr</u>		Chief	Jose	<u>ph</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>	<u>Avq</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>												
9/20	102	103	103	24	103	104	105	24	105	105	105	24	104	104	107	24	103	103	103	23
9/21	101	101	102	24	102	103	103	24	104	104	104	24	103	103	105	24	102	102	103	23
9/22	100	100	101	24	104	105	119	24	103	104	104	24	103	104	105	24	102	103	103	24
9/23	100	101	101	24	126	128	129	24	104	104	104	24	103	103	106	24	103	103	104	23
9/24	100	101	101	24	125	128	128	24	104	104	104	24	103	103	105	24	103	103	104	23
9/25	100	100	101	24	114	124	126	24	103	103	104	24	102	103	105	24	103	103	104	23
9/26	100	100	101	24	103	104	104	24	104	104	104	24	103	103	106	24	102	103	103	23
9/27	101	101	102	24	103	103	103	24	103	103	103	24	103	103	106	24	102	103	103	23
9/28	100	101	101	24	103	103	104	24	103	103	103	24	102	103	107	24	102	103	103	23
9/29	100	101	101	24	103	103	104	24	103	103	104	24	103	105	108	24	103	103	103	23
9/30	99	99	100	24	102	102	102	24	102	102	103	24	102	102	105	15	101	102	102	23
10/1	98	99	99	24	101	101	101	24	101	101	102	24				0	100	101	101	23
10/2	98	99	100	14	101	102	102	24	101	101	101	5				0	100	100	100	7
10/3				0	102	102	102	24	101	101	101	21				0	101	102	102	23

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

	Chief	J. Dr	st		Wells	<u>.</u>			Wells	Dwns	strm_		Rock	y Rea	<u>ch</u>		Rock	y R. T	<u>lwr</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>	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>	<u>Avg</u>	Avg	<u>High</u>	<u>hr</u>
9/20	)			0				0				0				0				0
9/21				0				0				0				0				0
9/22	?			0				0				0				0				0
9/23	}			0				0				0				0				0
9/24	·			0				0				0				0				0
9/25	;			0				0				0				0				0
9/26	;			0				0				0				0				0
9/27	<i>'</i>			0				0				0				0				0
9/28	}			0				0				0				0				0
9/29	)			0				0				0				0				0
9/30	)			0				0				0				0				0
10/1				0				0				0				0				0
10/2	2			0				0				0				0				0
10/3	}			0				0				0				0				0

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

	Rock	Islan	<u>d</u>		Rock	I. TIW	<u>'r</u>		<b>Wana</b>	pum			Wana	pum '	<u>Tlwr</u>		<b>Pries</b>	t Rapi	<u>ds</u>	
	<u>24 h</u>	12 h	i	<u>#</u>	<u>24 h</u>	<u>12 h</u>		<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>	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>
9/20				0				0	102	103	103	24	102	102	102	17	102	102	103	24
9/21				0				0	101	102	103	24	101	101	102	14	102	102	104	24
9/22				0				0	102	102	103	24	102	102	102	14	102	102	103	24
9/23				0				0				0				0				0
9/24				0				0	102	103	104	24	103	103	104	3	103	103	104	24
9/25				0				0	102	103	104	24	103	103	108	6	102	103	104	24
9/26				0				0	103	103	103	24	103	103	104	8	103	103	104	24
9/27				0				0	102	102	103	24	103	103	104	12	103	103	103	24
9/28				0				0	101	102	102	**	103	103	103	**	103	103	104	24
9/29				0				0				0				0				0
9/30				0				0				0				0				0
10/1				0				0				0				0				0
10/2				0				0				0				0				0
10/3				0				0				0				0				0

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

	<b>Pries</b>	t R. D	nst		Pasco	<u>)</u>			Dwor	<u>shak</u>			Clrwt	r-Pecl	<u> </u>		Anato	one		
	<u>24 h</u>	12 h		#	<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>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>	Avg	Avg	<u>High</u>	<u>hr</u>
9/20	102	102	103	24	100	100	101	24	105	106	107	24	102	103	105	24				0
9/21	102	103	103	24	99	99	100	24	104	105	106	24	101	103	106	24				0
9/22	102	102	103	24	99	100	100	24	104	105	107	24				0				0
9/23				0	100	101	102	24	105	105	107	24	102	105	107	24				0
9/24	103	103	104	24	100	101	102	24	106	107	109	24	103	105	107	24				0
9/25	103	103	104	24	100	100	101	24	105	106	108	24	102	104	107	24				0
9/26	103	104	105	24	101	101	101	24	105	106	107	24	103	105	107	24				0
9/27	103	103	104	24	100	100	101	24	105	106	107	24	103	104	106	24				0
9/28	102	103	103	24	100	100	101	24	106	107	108	24	102	104	107	24				0
9/29				0	99	99	100	24	105	106	106	24	102	103	104	24				0
9/30				0	98	98	99	23	105	106	108	24	102	103	105	24				0
10/1				0	97	97	97	21	106	107	108	21	102	103	104	21				0
10/2				0	98	98	98	5	105	105	105	5	100	100	100	5				0
10/3				0	99	99	99	24	107	108	109	21	102	104	105	21				0

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

	Clrwt	r-Lew	<u>iston</u>		Lowe	r Grar	<u>ite</u>		L. Gr	anite 1	<u> Iwr</u>		Little	Goos	<u>e</u>		L. Go	ose T	lwr	
	<u>24 h</u>	12 h		#	<u>24 h</u>	12 h		<u>#</u>	<u>24 h</u>	<u>12 h</u>		<u>#</u>	<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>	<u>Avg</u>	Avg	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>
9/20	101	103	105	24	100	100	101	24				0	97	97	97	24	97	97	98	24
9/21	100	103	106	24	98	99	100	24				0	96	97	97	24	96	97	97	24
9/22	101	104	106	24	100	102	106	24	99	99	99	9	96	97	97	24	96	97	97	24
9/23	102	105	107	24	100	101	102	24	98	98	100	24	97	97	98	24	98	99	102	16
9/24	102	104	106	24	99	99	101	24	97	98	99	24	98	98	99	24	97	97	98	8
9/25	101	104	106	24	97	97	98	24	96	96	97	24	97	98	98	24	97	98	98	24
9/26	102	104	106	24	98	99	99	24	97	98	99	24	99	100	101	24	99	99	100	24
9/27	101	103	105	24	98	98	99	24	97	98	99	24	98	98	99	24	99	99	99	24
9/28	102	104	107	24	99	100	101	24	96	97	97	24	98	99	99	24	98	99	99	24
9/29	100	101	102	24	99	99	100	24	97	97	97	24	99	100	101	24	98	99	99	24
9/30	101	103	104	24	97	97	97	24	97	97	97	24	96	96	97	24	97	97	97	24
10/1	101	103	105	21	96	96	97	21	96	96	97	21	95	95	96	16	96	96	96	21
10/2	99	99	99	5	95	95	95	5	96	96	96	5				0	95	95	95	5
10/3	101	102	103	21	96	96	97	21	96	96	97	21	95	95	95	5	96	96	98	21

Total Dissolved Gas	Saturation Data a	t Snake and Lowe	r Columbia River Sites
TOTAL DISSUIVED GAS	Saturation Data a	i Shake and Lowe	Columbia River Sites

				00		- 30									, a					
	Lowe	<u>r Mon</u>	<u>.</u>		L. Mo	n. Tlv	<u>/r</u>		Ice H	<u>arbor</u>			Ice H	<u>arbor</u>	<u>Tlwr</u>		<u>McNa</u>	ry-Or	<u>egon</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>	<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>	<u>Avg</u>	Avg	<u>High</u>	<u>hr</u>
9/20	98	98	99	24	98	98	100	24	98	99	100	24	99	99	100	24	98	99	100	24
9/21	97	98	99	24	97	97	100	24	98	99	100	24	98	99	100	24	98	99	100	24
9/22	97	98	99	24	97	98	101	24	97	98	98	24	98	99	100	24	98	99	101	24
9/23	98	98	99	24	97	98	100	24	98	98	99	24	99	100	101	24	100	102	104	24
9/24	98	99	101	24	98	99	101	24	99	99	101	24	99	100	101	24	100	102	102	24
9/25	97	98	99	24	97	98	99	24	98	98	99	24	99	99	100	24	101	102	104	24
9/26	98	99	99	24	98	98	99	24	99	99	99	24	100	100	101	24	101	102	104	24
9/27	97	97	98	24	98	98	98	24	98	98	99	24	99	100	100	24	101	101	103	24
9/28	97	97	99	24	97	98	98	24	98	98	99	24	99	100	100	24	102	104	104	24
9/29	97	98	99	24	98	98	101	24	98	98	100	24	99	100	100	24	100	100	102	24
9/30	96	96	96	24	97	97	97	24	97	97	97	24	98	99	100	24	98	99	99	24
10/1	95	96	96	20	96	96	99	21	96	96	97	21	97	98	98	21	98	99	100	21
10/2	95	95	96	5	97	97	99	5	95	95	96	5	97	97	98	5	97	97	97	5
10/3	96	96	96	21	97	97	101	21	96	96	97	24	98	98	98	24	98	99	100	23

## 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	<u>ısh</u>		McNa	ry Tlv	<u>/r</u>		John	Day			<u>John</u>	Day 1	<u>lwr</u>		The [	<u>Dalles</u>		
	<u>24 h</u>	12 h		<u>#</u>	<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>	<u>Avg</u>	<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>
9/20	100	100	101	24	99	99	99	24	99	99	100	23	98	99	101	24	99	99	99	23
9/21	99	100	101	24	98	99	99	24	98	99	99	23	98	98	98	24	98	98	99	22
9/22	100	100	102	24	98	99	99	24	98	99	100	24	98	98	98	24	98	98	99	23
9/23	100	100	101	24	99	100	100	24	98	99	100	23	98	98	99	24	99	99	99	22
9/24	102	102	104	24	100	100	101	24	99	99	100	23	99	99	100	24	99	99	100	21
9/25	100	101	102	24	100	100	100	24	100	101	102	23	99	101	105	24	99	99	99	21
9/26	102	102	103	24	101	101	101	24	100	100	101	23	100	100	102	24	100	100	100	22
9/27	101	101	102	24	100	100	101	24	99	99	99	11	100	100	101	13	99	99	100	23
9/28	101	101	101	24	100	101	101	24				0				0	99	99	100	21
9/29	101	102	102	24	100	100	101	24				0				0	99	99	100	22
9/30	99	99	99	24	98	99	99	24				0				0	98	98	99	22
10/1	97	98	98	21	98	98	98	21				0				0	97	98	98	19
10/2	97	97	98	5	97	97	97	5				0				0	97	97	98	7
10/3	98	98	99	23	98	98	98	21				0				0	98	98	99	23

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

	The Dalles Dns				Bonn	eville			Warre	endale	<u> </u>		Cama	as\Wa	shugal	
	<u>24 h</u>	12 h		#	<u>24 h</u>	12 h		#	<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>
9/20	99	99	100	24	99	99	99	21	101	101	102	23	100	101	101	24
9/21	99	99	99	24	99	99	100	21	100	101	102	23	100	100	101	24
9/22	99	99	99	24	99	99	99	23	100	101	102	24	99	100	100	24
9/23	99	99	100	24	99	99	100	23	100	101	101	23	100	101	101	24
9/24	99	100	100	24	99	100	100	23	101	101	102	23	100	101	102	24
9/25	99	99	100	24	100	100	100	22	101	101	102	23	101	101	102	24
9/26	100	100	101	24	100	100	100	18	102	102	102	23	101	102	102	24
9/27	100	100	100	24	100	100	100	16	101	101	102	23	101	101	102	24
9/28	100	101	101	24	100	100	100	21	101	102	103	23	100	101	101	24
9/29	100	101	101	24	100	100	100	5	100	100	101	23	100	100	101	24
9/30	99	99	99	24	99	99	99	13	99	100	100	23	99	99	99	24
10/1	98	99	99	24	98	98	99	23	99	100	100	23	98	98	98	12
10/2	99	99	99	8	98	98	98	7	99	99	99	7				0
10/3	99	99	100	24	99	99	100	23	100	101	101	23				0

### **Two-Week Summary of Passage Indices**

\* See sampling comments <a href="http://www.fpc.org/currentDaily/smpcomments.htm">http://www.fpc.org/currentDaily/smpcomments.htm</a> this means that one or more of the sites on this date had an incomplete or biased sample.

For clip information see: Daily Catch Report

For sockeye and yearling chinook (Snake only) race information see: Current Passage Index Query

If the text appears garbled, please hit the refresh button on your browser

NOTE for 2002 Lower Monumental Data: Due to the non-standard operation of Lower Monumental this year, the passage index reliability is in question and is being looked into.

#### COMBINED YEARLING CHINOOK

	WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date	(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
09/20/2002					0	0	1		0		0
09/21/2002					0	0	0		0		0
09/22/2002					0	0	0		0		0
09/23/2002					0	0	1		0		0
09/24/2002 *					0	0	0		0		0
09/25/2002					0	0	0		0		0
09/26/2002					0	0	0		0		0
09/27/2002 *					0	0	1		0		0
09/28/2002 *					0	0	4		0		0
09/29/2002					0	0	1		0		0
09/30/2002					0	1	0		0		0
10/01/2002					0	0	0		0		0
10/02/2002 *					0	1	0		0		0
10/03/2002 *					0	0	0		0		0
Total:	0	0	0	0	0	2	8	0	0	0	0
# Days:	0	0	0	0	14	14	14	0	14	0	14
Average:	0	0	0	0	0	0	1	0	0	0	0
YTD	38,199	29,095	8,013	7,847	2,459,180	2,843,815	2,221,937	28,982	3,519,412	2,104,938	3,328,091

#### COMBINED SUBYEARLING CHINOOK

	WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date	(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
09/20/2002					756	10	16		350		159
09/21/2002					820	3	20		450		148
09/22/2002					464	8	26		615		206
09/23/2002					428	12	12		405		176
09/24/2002 *					368	8	20		695		198
09/25/2002					432	8	48		680		104
09/26/2002					432	12	125		587		164
09/27/2002 *					760	11	95		580		155
09/28/2002 *					816	41	47		760		334
09/29/2002					636	190	43		380		148
09/30/2002					776	157	27		780		123
10/01/2002					796	190	67		540		135
10/02/2002 *					788	111	38		1,020		119
10/03/2002 *					900	86	15		693		139
Total:	0	0	0	0	9,172	847	599	0	8,535	0	2,308
# Days:	0	0	0	0	14	14	14	0	14	0	14
Average:	0	0	0	0	655	61	43	0	610	0	165
YTD	0	4	<b>2</b> 6	3,488	740,031	333,616	305,507	25,466	8,350,296	3,465,726	6,995,586

### Two-Week Summary of Passage Indices

CON		

	WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date	(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)						
09/20/2002					0	0	0		0		0
09/21/2002					0	0	0		0		0
09/22/2002					0	1	0		0		0
09/23/2002					0	2	0		0		0
09/24/2002 *					0	1	0		0		0
09/25/2002					0	1	0		0		4
09/26/2002					0	5	0		0		0
09/27/2002 *					0	1	0		0		0
09/28/2002 *					0	2	1		0		0
09/29/2002					0	1	0		0		0
09/30/2002					0	0	0		0		0
10/01/2002					0	0	0		0		0
10/02/2002 *					0	1	0		0		0
10/03/2002 *					0	0	0		0		0
Total:	0	0	0	0	0	15	1	0	0	0	4
# Days:	0	0	0	0	14	14	14	0	14	0	14
Average:	0	0	0	0	0	1	0	0	0	0	0
YTD	0	0	0	101	124,060	104,566	66,186	86,227	201,998	315,280	2,331,577

#### **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)
09/20/2002					0	0	8		0		0
09/21/2002					0	0	5		0		0
09/22/2002					0	0	8		0		0
09/23/2002					0	0	4		0		0
09/24/2002 *					4	0	10		5		0
09/25/2002					0	2	18		0		0
09/26/2002					0	1	41		0		0
09/27/2002 *					4	0	26		0		0
09/28/2002 *					0	0	25		0		0
09/29/2002					0	6	16		0		0
09/30/2002					0	2	29		0		0
10/01/2002					0	3	29		0		0
10/02/2002 *					0	0	15		0		0
10/03/2002 *					4	0	14		0		0
Total:	0	0	0	0	12	14	248	0	5	0	0
# Days:	0	0	0	0	14	14	14	0	14	0	14
Average:	0	0	0	0	1	1	18	0	0	0	0
YTD	2,833	32,043	3,494	11,810	2,603,047	2,273,405	1,794,906	28,714	794,536	545,814	1,455,004

<sup>\*</sup> See sampling comments http://www.fpc.org/currentDaily/smpcomments.htm

These data are preliminary and have been derived from various sources. For verification and/or origin of these data, contact the operators of the Fish Passage Data System at (503) 230-4099.

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.

### 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)
09/20/2002					4	1	1		15		0
09/21/2002					0	1	0		25		0
09/22/2002					0	1	2		0		0
09/23/2002					0	0	1		10		0
09/24/2002 *					8	0	0		20		0
09/25/2002					0	1	3		0		0
09/26/2002					0	1	5		0		0
09/27/2002 *					4	0	3		20		0
09/28/2002 *					8	3	4		0		0
09/29/2002					8	5	1		10		0
09/30/2002					0	1	1		0		0
10/01/2002					8	3	0		0		0
10/02/2002 *					12	0	2		0		0
10/03/2002 *					4	5	0		0		0
Total:	0	0	0	0	56	22	23	0	100	0	0
#Days:	0	0	0	0	14	14	14	0	14	0	14
Average:	0	0	0	0	4	2	2	0	7	0	0
YTD	18	0	0	261	77,666	66,643	39,009	20,629	1,410,348	934,115	848,197

#### **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)}

BO1 (Index) = Bonneville Dam First Powerhouse Bypass Collection System : Passage Index Counts

Passage Index = Collection Counts / {Powerhouse 1 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.

#### Cumulative Adult Passage at Mainstern Dams Through: 10/03

			Spring (	Chinook					Summer	Chinook					Fall Ch	inook		
	200	12	20	21	10-Yr	Avg.	20	02	20	01	10-Yr	Avg.	20	02	200	01	10-Yr	Avg.
DAM	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack
BON	268,813	6,477	391,367	14,172	104,143	5,654	127,436	7,952	76,156	14,723	26,786	4,828	461,479	37,364	386,876	67,540	196,454	31,177
TDA	181,176	3,870	303,912	9,953	68,558	3,895	113,069	5,743	71,462	10,926	22,478	3,504	235,051	30,060	170,361	45,234	106,497	20,708
JDA	139,887	2,403	264,177	6,208	58,196	3,052	105,354	5,615	64,186	10,049	20,885	3,005	156,071	26,304	115,719	35,192	79,749	15,977
MCN	129,357	3,872	258,689	6,683	54,462	2,970	109,937	6,818	67,914	9,600	21,443	2,927	130,285	21,899	99,236	29,833	64,535	13,536
IHR	85,207	1,826	171,173	3,026	32,988	1,807	26,607	2,437	15,270	2,397	5,356	857	14,341	5,221	11,968	8,245	4,203	2,320
LMN	76,304	1,537	180,787	1,784	32,792	1,811	23,743	1,686	19,287	1,612	5,597	792	13,982	4,502	11,760	6,509	3,435	1,978
LGS	77,232	1,815	174,823	2,990	31,528	1,921	20,844	2,253	15,929	2,803	5,147	995	11,662	2,982	8,636	5,178	2,247	1,223
LWG	75,025	2,132	171,958	3,135	30,329	1,865	22,159	1,953	13,735	3,804	5,072	1,094	10,992	3,533	6,937	6,010	1,857	1,213
PRD	34,083	196	50,379	987	14,082	343	96,326	1,455	53,170	3,207	18,552	1,069	21,478	1,987	20,574	5,757	14,680	2,192
RIS	24,017	827	39,785	1,761	10,725	505	86,825	4,762	48,844	13,086	16,340	3,328	12,130	937	8,478	4,591	4,650	1,478
RRH	9,999	161	15,895	543	3,314	135	73,104	2,807	39,174	5,548	9,858	1,394	8,325	992	7,090	3,077	3,005	1,105
WEL	7,587	39	9,989	892	1,799	176	62,597	414	33,244	4,882	6,718	1,165	3,849	178	3,928	1,852	1,228	455

			Co	ho				Sockeye			Steel	head	
	20	02	20	01	10-Yı	·Avg.			10-Yr			10-Yr	Wild
DAM	Adult	Jack	Adult	Jack	Adult	Jack	2002	2001	Avg.	2002	2001	Avg.	2002
BON	54,428	5,155	229,622	5,524	42,544	2,990	49,608	114,934	50,283	463,346	616,376	255,130	139,115
TDA	6,342	2,752	36,955	1,569	9,080	1,111	40,554	102,562	40,061	344,821	448,867	172,929	104,720
JDA	4,431	1,208	23,522	1,530	6,264	863	41,915	107,869	43,271	303,484	367,650	147,578	89,280
MCN	1,237	746	11,515	932	2,829	333	39,176	97,184	39,888	220,276	314,726	113,563	64,671
IHR	35	2	527	47	95	8	60	38	13	151,086	195,025	78,245	39,430
LMN	20	0	172	27	22	4	45	32	21	149,041	183,714	69,443	40,388
LGS	30	4	99	3	9	0	38	71	24	131,930	157,164	55,127	36,747
LWG	62	54	60	14	20	0	51	36	23	131,345	145,982	53,669	36,640
PRD	546	221	2,741	539	286	39	47,882	111,320	48,768	15,391	27,470	9,363	***
RIS	591	0	1,197	0	242	0	44,319	104,846	43,479	13,895	25,516	8,116	9,163
RRH	112	0	170	0	46	0	12,371	66,221	27,245	10,582	19,219	5,668	6,040
WEL	141	0	2	0	0	0	10,579	74,490	27,105	7,974	15,011	4,052	3,146

RIS, RRH are through 10/02; WEL is through 10/01.

RIS, RRH, PRD and WEL data for the last week are from the PUDs.

These numbers were collected from the COEs Running Sums text files, except where otherwise noted.

Wild steelhead numbers are included in the total.

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:

10/4

<sup>\*\*</sup>PRD is not reporting WIId Steelhead numbers.

## **Two Week Transportation Summary**

09/21/02 TO 10/04/02

		Species			) <del>-1</del> 102			
Site	Data	CH0	CH1	СО	SO	ST	•	Grand Total
LGR	Sum of NumberCollected	8,592				32	8	8,632
	Sum of NumberBarged	0				0	0	0
	Sum of NumberBypassed	0				0	0	0
	Sum of Numbertrucked	8,554				29	8	8,591
	Sum of TotalProjectMortalities	38				3	0	41
LGS	Sum of NumberCollected	895		1	35	12	7	950
	Sum of NumberBarged	0		0	0	0	0	0
	Sum of NumberBypassed	0		0	0	0	0	0
	Sum of Numbertrucked	875		1	33	12	6	927
	Sum of TotalProjectMortalities	20		0	2	0	1	23
LMN	Sum of NumberCollected	701		5	7	4	141	858
	Sum of NumberBarged	0		0	0	0	0	0
	Sum of NumberBypassed	0		0	0	0	137	137
	Sum of Numbertrucked	643		5	7	4	0	659
	Sum of TotalProjectMortalities	58		0	0	0	4	62
MCN	Sum of NumberCollected	16,199	2	22		766	17	17,004
	Sum of NumberBarged	0		0		0	0	0
	Sum of NumberBypassed	0		0		0	0	0
	Sum of Numbertrucked	15,964	•	17		763	17	16,761
	Sum of TotalProjectMortalities	235		5		3	0	243
Total S	um of NumberCollected	26,387	4	28	42	814	173	27,444
Total S	um of NumberBarged	0		0	0	0	0	0
Total S	um of NumberBypassed	0		0	0	0	137	137
Total S	um of Numbertrucked	26,036	2	23	40	808	31	26,938
Total S	um of TotalProjectMortalities	351		5	2	6	5	369

## **YTD Transportation Summary**

TO: 10/04/02

		Species	10/0-/02				
Site	Data	CH0	CH1	CO	SO	ST	<b>Grand Total</b>
LGR	Sum of NumberCollected	609,570	1,535,659	80,770	51,517	1,698,897	3,976,413
	Sum of NumberBarged	567,550	1,483,798	80,608	49,501	1,627,988	3,809,445
	Sum of NumberBypassed	210	38,152	5	7	65,895	104,269
	Sum of NumberTrucked	34,105	9,851	32	456	3,539	47,983
	Sum of TotalProjectMortalities	7,747	3,858	125	1,553	1,255	14,538
LGS	Sum of NumberCollected	289,098	1,907,379	79,961	48,210	1,562,822	3,887,470
	Sum of NumberBarged	282,631	1,904,701	79,281	47,412	1,559,479	3,873,504
	Sum of NumberBypassed	0	0	0	0	0	0
	Sum of NumberTrucked	5,323	1,038	109	107	1,215	7,792
	Sum of TotalProjectMortalities	1,144	1,640	571	691	2,131	6,177
LMN	Sum of NumberCollected	304,863	2,214,716	63,080	38,588	1,753,781	4,375,028
	Sum of NumberBarged	266,730	2,122,021	60,932	37,468	1,713,937	4,201,088
	Sum of NumberBypassed	29,272	68,125	1,994	208	34,005	133,604
	Sum of NumberTrucked	6,251	20,208	94	27	356	26,936
	Sum of TotalProjectMortalities	2,610	4,362	60	885	5,483	13,400
MCN	Sum of NumberCollected	5,358,906	2,205,139	111,899	909,877	464,651	9,050,472
	Sum of NumberBarged	1,785,415	792	2,094	4,976	979	1,794,256
	Sum of NumberBypassed	3,281,193	2,203,310	109,765	902,707	463,340	6,960,315
	Sum of NumberTrucked	252,265	37	0	1,296	30	253,628
	Sum of TotalProjectMortalities	39,999	1,000	40	897	302	42,238
Total Sum of NumberCollected		6,562,437	7,862,893	335,710	1,048,192	5,480,151	21,289,383
Total Sum of NumberBarged		2,902,326	5,511,312	222,915	139,357	4,902,383	13,678,293
Total Sum of NumberBypassed		3,310,675	2,309,587	111,764	902,922	563,240	7,198,188
Total Sur	Sum of NumberTrucked 297,944 31,134 235 1,886 5,140		336,339				
Total Sur	Total Sum of TotalProjectMortalities		10,860	796	4,026	9,171	76,353