



Fish Passage Center Weekly Report #06 - 1

March 10, 2006

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Summary of Events:

Water Supply: Precipitation throughout the Columbia Basin has varied between 32% and 167% of average at individual sub-basins over the first portion of March. Precipitation above The Dalles over the first portion of March has been 95% of average. Over the entire water year, precipitation has been above average.

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

Location	Water Year 2006 March 1-6		Water Year 2006 October 1, 2005 to March 6, 2006	
	Observed (inches)	% Average	Observed (inches)	% Average
Columbia Above Coulee	0.34	98	14.61	114
Snake River Above Ice Harbor	0.40	125	11.79	132
Columbia Above The Dalles	0.35	95	14.65	115
Kootenai	0.37	107	15.95	121
Clark Fork	0.32	138	9.95	124
Flathead	0.26	84	13.92	128
Pend Oreille/Spokane	0.46	86	20.77	116
Central Washington	0.05	32	7.09	135
Snake River Plain	0.20	93	6.83	131
Salmon/Boise/Payette	0.63	167	16.32	146
Clearwater	0.80	147	18.36	112
SW Washington Cascades/Cowlitz	0.68	49	52.39	110
Willamette Valley	0.61	49	47.21	118

Snowpack within the Columbia Basin is above average. Average snowpack in the Columbia River for basins above the Snake River confluence is 110% of average, for Snake River Basins the average snowpack is 122% of average, and for lower Columbia Basins between McNary and Bonneville Dam average snowpack is 124% of average.

Table 2 displays the February Final and March Final runoff volume forecasts for multiple reservoirs. Water Supply Forecasts dropped slightly between the February Final and March Final forecasts; however, the current forecasts are very near or slightly above average. The current forecast at The Dalles between January and July is 107000 Kaf (100% of average).

Table 2. February Final and March Final Runoff Volume Forecasts for various reservoirs within the Columbia and Snake River Basins.

Location	February Final		March Final	
	% Average (1971- 2000)	Probable Runoff Volume (Kaf)	% Average (1971- 2000)	Probable Runoff Volume (Kaf)
The Dalles (Jan-July)	103	111000	100	107000
Grand Coulee (Jan-July)	100	62700	98	61900
Libby Res. Inflow, MT (Jan-July)	101	6380	98	6200
Hungry Horse Res. Inflow, MT (Jan-July)	106	2350	106	2360
Lower Granite Res. Inflow (Apr- July)	115	24800	109	23400
Brownlee Res. Inflow (Apr-July)	127	8010	110	6940
Dworshak Res. Inflow (Apr-July)	103	2730	99	2620

Grand Coulee Reservoir is at 1252.0 feet (3-9-06), the Libby Reservoir is at elevation 2410.3 feet, Hungry Horse is at an elevation of 3528.3 feet, Dworshak is at an elevation of 1528.1 feet, and Brownlee Reservoir is at an elevation of 2042.5 feet.

Spill: No planned spill occurred in the hydrosystem over the past two weeks. Some unplanned spill occurred at Ice Harbor Dam during the past week and at McNary Dam on March 1, 2006. The spill at Ice Harbor Dam was part of a study to determine fish survival associated with deflector passage at different tailwater elevations.

A System Operational Request was submitted by state, tribal and federal fish managers requesting spill for the Spring Creek Hatchery release. The request was denied and the corner collector was operated without spill. The release of 7.6 million juvenile tule fall Chinook began on March 2, 2006. The corner collector operated from 0700 hours on Friday March 3, 2006 through 1100 hours on Tuesday March 7, 2006.

Smolt Monitoring: Sampling began at Bonneville Dam on March 1, in anticipation of arrival of subyearling chinook salmon released from Spring Creek Hatchery. Based on the sampling data the fish began arriving on March 3, with the peak number passing on March 5, with the passage index reaching 370,000. The numbers declined quickly after that date, with the index for March 10 down to 2,300.

Smolt Monitoring traps began sampling this past week, with small numbers of juvenile salmonids captured at all traps. The Imnaha Trap, located at river mile seven on the Imnaha River, operated by the Nez Perce Tribe, began sampling March 1. The Grande Ronde Trap, operated by the Oregon Department of Fish and Wildlife, located at river mile two in the Grande Ronde River, began sampling March 5, as did the Lewiston and Salmon River traps. The Salmon River Trap, operated by Idaho Department of Fish and Game, is located at river mile 103 on the Salmon River near White Bird. While the Lewiston Trap, also operated by IDFG, is located on the Snake River, at the head of Lower Granite Reservoir, at river mile 225.

Adult Fish Passage - At Bonneville and upstream dams, calendar dates when official counting of adult fish will be initiated varies among the sites. Lower Granite Dam began reporting counts on March 1, Bonneville Dam on March 15th, and at the remaining mainstem COE projects, counting will begin on April 1. The PUD dams in the Mid-Columbia River normally begin counting adult fish close to April 15 with Wells Dam starting on May 1.

At Bonneville Dam, counts of spring Chinook were non-existent through March 3rd, 2006. Two PIT-tagged adult spring Chinook have been detected passing Bonneville Dam (2-21-06 and 2-22-06).

As noted at the upriver sites, adult steelhead are beginning to move through the hydro system to reach their tributaries and spawning sites. The majority of these fish have over-wintered in the pools and will complete their trip to the spawning grounds in March through early May. Counts at Lower Granite reached 412 adult steelhead on March 5, 2006 and have been above 100 per day during all of the past week. The total steelhead passing Lower Granite Dam from March 1st has been 1269 adult steelhead.

Hatchery Releases: The hatchery release report will be available for next week's report. Presently the database has not been updated. We can report however that 7.6 million juvenile tule fall Chinook were released on March 2nd from Spring Creek National Fish Hatchery.

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
02/24/06	110.5	0.0	110.0	0.0	114.0	0.0	116.2	0.0	120.1	0.0	134.6	0.0	131.7	0.0
02/25/06	105.7	0.0	104.0	0.0	99.0	0.0	97.7	0.0	101.3	0.0	119.3	0.0	119.7	0.0
02/26/06	81.4	0.0	76.6	0.0	79.2	0.0	82.1	0.0	84.5	0.0	88.8	0.0	91.4	0.0
02/27/06	108.5	0.0	105.8	0.0	104.9	0.0	102.8	0.0	103.4	0.0	92.4	0.0	92.7	0.0
02/28/06	98.9	0.0	108.0	0.0	113.5	0.0	116.0	0.0	120.1	0.0	120.0	0.0	117.0	0.0
03/01/06	79.6	0.0	75.7	0.0	77.4	0.0	75.4	0.0	76.7	0.0	117.3	0.0	122.5	0.0
03/02/06	111.2	0.0	109.5	0.0	101.4	0.0	101.0	0.0	100.8	0.0	88.1	0.0	88.5	0.0
03/03/06	113.8	0.0	122.7	0.0	121.0	0.0	121.7	0.0	121.7	0.0	105.9	0.0	101.1	0.0
03/04/06	90.8	0.0	89.0	0.0	94.3	0.0	97.5	0.0	98.7	0.0	105.2	0.0	103.6	0.0
03/05/06	57.7	0.0	56.8	0.0	55.6	0.0	56.7	0.0	59.7	0.0	79.3	0.0	89.3	0.0
03/06/06	89.6	0.0	94.6	0.0	99.1	0.0	100.2	0.0	99.7	0.0	92.5	0.0	86.6	0.0
03/07/06	78.7	0.0	82.4	0.0	87.6	0.0	89.3	0.0	91.3	0.0	111.3	0.0	111.9	0.0
03/08/06	114.1	0.0	104.7	0.0	101.3	0.0	97.7	0.0	95.7	0.0	98.9	0.0	103.5	0.0
03/09/06	105.6	0.0	110.6	0.0	111.1	0.0	111.3	0.0	111.8	0.0	101.1	0.1	98.6	0.0

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

Date	Dworshak		Hells Brownle Canyon		Lower Granite		Little Goose		Lower Monumental		Ice Harbor	
	Flow	Spill	Inflow	Outflow	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill
02/24/06	2.4	0.0	23.0	25.7	37.7	0.0	39.6	0.0	43.3	0.0	41.1	0.0
02/25/06	2.4	0.0	22.2	26.1	35.4	0.0	28.1	0.0	27.1	0.0	26.5	0.0
02/26/06	2.5	0.0	23.6	27.4	35.7	0.0	31.4	0.0	32.8	0.0	31.0	0.0
02/27/06	5.1	0.0	23.0	25.2	38.2	0.0	37.6	0.0	39.6	0.0	40.4	0.0
02/28/06	5.7	0.0	30.5	29.6	39.9	0.0	40.4	0.0	43.7	0.0	40.6	0.0
03/01/06	3.2	0.0	38.6	29.7	51.3	0.0	46.4	0.0	47.5	0.0	50.4	5.2
03/02/06	2.3	0.0	33.9	15.4	43.4	0.0	45.7	0.0	49.5	0.0	45.9	2.2
03/03/06	2.3	0.0	36.0	29.1	36.4	0.0	37.4	0.0	39.2	0.0	41.5	0.0
03/04/06	2.3	0.0	32.6	30.1	48.5	0.0	47.2	0.0	50.1	0.0	45.3	0.0
03/05/06	2.3	0.0	36.2	30.1	45.0	0.0	44.3	0.0	46.0	0.0	44.1	4.8
03/06/06	4.2	0.0	30.9	30.2	52.1	0.0	54.5	0.0	60.6	0.0	62.1	4.3
03/07/06	4.7	0.0	35.1	30.0	48.9	0.0	48.0	0.0	49.0	0.0	46.9	3.5
03/08/06	4.7	0.0	35.2	33.5	52.5	0.0	57.1	0.0	61.6	0.0	62.5	3.1
03/09/06	4.5	0.2	34.6	36.4	53.5	0.0	51.1	0.0	50.8	0.0	51.6	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		
02/24/06	179.8	0.0	179.0	0.0	181.4	0.0	192.7	0.6	85.1	104.5
02/25/06	156.0	0.0	165.9	0.0	168.5	0.0	188.2	0.9	83.1	100.2
02/26/06	123.6	0.0	120.1	0.0	119.7	0.0	142.6	1.2	55.2	80.4
02/27/06	151.7	0.0	155.3	0.0	154.7	0.0	162.5	1.2	62.9	92.5
02/28/06	147.1	0.0	177.3	0.0	176.4	0.0	172.7	1.2	72.4	92.7
03/01/06	184.4	13.6	194.3	0.0	195.3	0.0	200.3	1.3	89.2	103.5
03/02/06	142.8	0.0	158.4	0.0	159.6	0.0	170.2	1.4	73.0	89.6
03/03/06	142.8	0.0	140.7	0.0	141.0	0.0	148.4	1.5	60.2	76.9
03/04/06	128.4	0.0	113.6	0.0	115.7	0.0	128.6	1.4	36.1	79.9
03/05/06	134.3	0.0	133.2	0.0	135.7	0.0	145.4	1.4	51.9	80.8
03/06/06	155.5	0.0	162.8	0.0	161.3	0.0	168.6	1.3	64.8	91.3
03/07/06	157.9	0.0	173.2	0.0	174.3	0.0	185.8	1.3	77.1	98.8
03/08/06	165.0	0.0	157.5	0.0	156.9	0.0	178.7	1.3	75.6	95.6
03/09/06	167.0	0.0	179.7	0.0	178.5	0.0	183.8	1.4	73.4	102.7

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>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>					
	<u>Avg</u>	<u>Avg</u>		#	<u>Avg</u>		<u>Avg</u>	#		<u>Avg</u>	<u>Avg</u>		#	<u>Avg</u>			<u>Avg</u>	#	<u>Avg</u>	<u>Avg</u>
2/24	---	---	---	0	100	100	100	11	102	102	102	15	101	101	103	11	---	---	---	0
2/25	---	---	---	0	---	---	---	0	102	102	102	4	---	---	---	0	---	---	---	0
2/26	---	---	---	0	---	---	---	0	102	102	103	3	---	---	---	0	---	---	---	0
2/27	---	---	---	0	103	103	104	24	104	104	105	24	104	105	106	24	---	---	---	0
2/28	---	---	---	0	103	104	104	24	104	105	105	24	104	105	106	24	---	---	---	0
3/1	---	---	---	0	102	102	103	24	103	103	103	24	103	104	106	24	---	---	---	0
3/2	---	---	---	0	102	102	102	24	103	103	103	24	102	103	105	23	---	---	---	0
3/3	---	---	---	0	103	103	104	24	103	103	104	24	102	103	104	23	---	---	---	0
3/4	---	---	---	0	102	103	104	23	103	103	104	24	102	103	104	23	---	---	---	0
3/5	---	---	---	0	102	103	104	24	102	103	103	24	102	103	104	23	---	---	---	0
3/6	---	---	---	0	103	103	104	24	103	103	104	24	103	104	106	24	---	---	---	0
3/7	---	---	---	0	102	103	104	24	103	103	103	24	102	103	103	24	---	---	---	0
3/8	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/9	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0

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>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>					
	<u>Avg</u>	<u>Avg</u>		#	<u>Avg</u>		<u>Avg</u>	#		<u>Avg</u>	<u>Avg</u>		#	<u>Avg</u>			<u>Avg</u>	#	<u>Avg</u>	<u>Avg</u>
2/24	---	---	---	0	---	---	---	0	---	---	---	0	98	98	98	12	98	98	98	12
2/25	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
2/26	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
2/27	---	---	---	0	---	---	---	0	---	---	---	0	98	98	98	24	98	99	99	24
2/28	---	---	---	0	---	---	---	0	---	---	---	0	98	98	98	24	98	99	99	24
3/1	---	---	---	0	---	---	---	0	---	---	---	0	98	98	98	24	98	98	98	24
3/2	---	---	---	0	---	---	---	0	---	---	---	0	98	98	98	24	98	98	98	24
3/3	---	---	---	0	---	---	---	0	---	---	---	0	98	98	98	24	98	98	98	24
3/4	---	---	---	0	---	---	---	0	---	---	---	0	98	98	98	24	98	98	98	24
3/5	---	---	---	0	---	---	---	0	---	---	---	0	98	98	98	24	98	98	98	24
3/6	---	---	---	0	---	---	---	0	---	---	---	0	98	98	98	24	98	98	98	24
3/7	---	---	---	0	---	---	---	0	---	---	---	0	98	98	98	24	98	98	98	24
3/8	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/9	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0

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>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>					
	<u>Avg</u>	<u>Avg</u>		#	<u>Avg</u>		<u>Avg</u>	#		<u>Avg</u>	<u>Avg</u>		#	<u>Avg</u>			<u>Avg</u>	#	<u>Avg</u>	<u>Avg</u>
2/24	98	98	98	12	99	99	99	12	---	---	---	0	---	---	---	0	---	---	---	0
2/25	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
2/26	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
2/27	98	98	98	24	99	99	99	24	---	---	---	0	---	---	---	0	---	---	---	0
2/28	98	98	98	24	99	99	99	24	---	---	---	0	---	---	---	0	---	---	---	0
3/1	98	98	98	24	99	99	99	24	---	---	---	0	---	---	---	0	---	---	---	0
3/2	98	98	98	24	99	99	99	24	---	---	---	0	---	---	---	0	---	---	---	0
3/3	98	98	98	24	99	99	99	24	---	---	---	0	---	---	---	0	---	---	---	0
3/4	98	98	98	24	99	99	99	24	---	---	---	0	---	---	---	0	---	---	---	0
3/5	98	98	98	24	99	99	99	24	---	---	---	0	---	---	---	0	---	---	---	0
3/6	98	98	98	24	99	99	99	24	---	---	---	0	---	---	---	0	---	---	---	0
3/7	98	98	98	24	99	99	99	24	---	---	---	0	---	---	---	0	---	---	---	0
3/8	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/9	---	---	---	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 Sites

Date	<u>Priest R. Dnst</u>			#	<u>Pasco</u>			#	<u>Dworshak</u>			#	<u>Clrwtr-Peck</u>			#	<u>Anatone</u>			#
	<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>		
	Avg	Avg	High		Avg	Avg	High		Avg	Avg	High		Avg	Avg	High		Avg	Avg	High	
2/24	---	---	---	0	---	---	---	0	96	96	97	16	---	---	---	0	---	---	---	0
2/25	---	---	---	0	---	---	---	0	96	96	96	3	---	---	---	0	---	---	---	0
2/26	---	---	---	0	---	---	---	0	97	97	97	10	---	---	---	0	---	---	---	0
2/27	---	---	---	0	---	---	---	0	97	97	99	24	---	---	---	0	---	---	---	0
2/28	---	---	---	0	---	---	---	0	96	97	97	21	---	---	---	0	---	---	---	0
3/1	---	---	---	0	---	---	---	0	97	98	100	18	---	---	---	0	---	---	---	0
3/2	---	---	---	0	---	---	---	0	97	97	98	24	---	---	---	0	---	---	---	0
3/3	---	---	---	0	---	---	---	0	98	98	99	24	---	---	---	0	---	---	---	0
3/4	---	---	---	0	---	---	---	0	97	98	99	24	---	---	---	0	---	---	---	0
3/5	---	---	---	0	---	---	---	0	97	97	98	24	---	---	---	0	---	---	---	0
3/6	---	---	---	0	---	---	---	0	96	97	98	24	---	---	---	0	---	---	---	0
3/7	---	---	---	0	---	---	---	0	95	95	96	16	---	---	---	0	---	---	---	0
3/8	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/9	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0

Total Dissolved Gas Saturation Data at Snake River Sites

Date	<u>Clrwtr-Lewiston</u>			#	<u>Lower Granite</u>			#	<u>L. Granite Tlwr</u>			#	<u>Little Goose</u>			#	<u>L. Goose Tlwr</u>			#
	<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>		
	Avg	Avg	High		Avg	Avg	High		Avg	Avg	High		Avg	Avg	High		Avg	Avg	High	
2/24	---	---	---	0	101	101	101	16	100	100	101	16	---	---	---	0	---	---	---	0
2/25	---	---	---	0	101	101	101	3	100	100	101	3	---	---	---	0	---	---	---	0
2/26	---	---	---	0	101	101	102	3	101	101	101	3	---	---	---	0	---	---	---	0
2/27	---	---	---	0	103	104	104	24	103	103	104	24	---	---	---	0	---	---	---	0
2/28	---	---	---	0	103	104	105	24	103	103	104	24	---	---	---	0	---	---	---	0
3/1	---	---	---	0	102	103	103	24	101	102	102	24	---	---	---	0	---	---	---	0
3/2	---	---	---	0	103	103	103	24	102	103	106	24	---	---	---	0	---	---	---	0
3/3	---	---	---	0	103	103	103	24	102	103	104	24	---	---	---	0	---	---	---	0
3/4	---	---	---	0	101	102	102	24	101	101	102	24	---	---	---	0	---	---	---	0
3/5	---	---	---	0	101	102	102	24	100	101	101	24	---	---	---	0	---	---	---	0
3/6	---	---	---	0	102	102	102	24	101	101	102	24	---	---	---	0	---	---	---	0
3/7	---	---	---	0	101	102	102	24	101	101	102	24	---	---	---	0	---	---	---	0
3/8	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/9	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0

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

Date	<u>Lower Mon.</u>			#	<u>L. Mon. Tlwr</u>			#	<u>Ice Harbor</u>			#	<u>Ice Harbor Tlwr</u>			#	<u>McNary-Oregon</u>			#
	<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>		
	Avg	Avg	High		Avg	Avg	High		Avg	Avg	High		Avg	Avg	High		Avg	Avg	High	
2/24	---	---	---	0	---	---	---	0	99	99	99	16	99	99	99	16	100	100	101	16
2/25	---	---	---	0	---	---	---	0	99	99	99	3	98	98	99	3	100	100	100	3
2/26	---	---	---	0	---	---	---	0	100	100	100	3	100	100	100	3	101	101	101	3
2/27	---	---	---	0	---	---	---	0	102	102	103	24	101	101	102	24	103	103	103	24
2/28	---	---	---	0	---	---	---	0	102	103	103	24	101	102	103	24	103	103	104	24
3/1	---	---	---	0	---	---	---	0	101	101	101	24	103	106	109	24	101	102	102	24
3/2	---	---	---	0	---	---	---	0	101	101	101	24	102	103	107	24	102	102	102	24
3/3	---	---	---	0	---	---	---	0	102	102	102	24	101	102	102	24	102	102	103	24
3/4	---	---	---	0	---	---	---	0	101	101	102	24	101	101	102	24	102	102	103	24
3/5	---	---	---	0	---	---	---	0	101	101	102	24	103	106	108	24	103	103	103	24
3/6	---	---	---	0	---	---	---	0	102	102	102	24	103	105	108	23	102	103	103	24
3/7	---	---	---	0	---	---	---	0	101	101	101	24	103	105	108	24	101	102	102	24
3/8	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/9	---	---	---	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

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>#</u>	<u>24 h</u>	<u>12 h</u>	<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>					
	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	AVG	High	hr				
2/24	100	100	100	16	100	100	100	16	---	---	---	0	---	---	---	0	---	---	---	0
2/25	100	100	100	3	100	100	100	3	---	---	---	0	---	---	---	0	---	---	---	0
2/26	101	101	101	3	101	101	101	3	---	---	---	0	---	---	---	0	---	---	---	0
2/27	103	103	103	24	102	103	103	24	---	---	---	0	---	---	---	0	---	---	---	0
2/28	102	103	104	24	102	103	104	24	---	---	---	0	---	---	---	0	---	---	---	0
3/1	101	102	102	24	104	106	111	24	---	---	---	0	---	---	---	0	---	---	---	0
3/2	101	101	102	24	101	101	102	24	---	---	---	0	---	---	---	0	---	---	---	0
3/3	102	102	102	24	101	102	102	24	---	---	---	0	---	---	---	0	---	---	---	0
3/4	102	102	103	24	101	102	102	24	---	---	---	0	---	---	---	0	---	---	---	0
3/5	102	102	102	24	102	102	102	24	---	---	---	0	---	---	---	0	---	---	---	0
3/6	102	102	102	24	102	102	103	24	---	---	---	0	---	---	---	0	---	---	---	0
3/7	102	102	102	24	102	102	102	24	102	102	102	11	---	---	---	0	---	---	---	0
3/8	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/9	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0

Total Dissolved Gas Saturation Data at Lower Columbia River Sites

Date	<u>The Dalles Dnst</u>			<u>Bonneville</u>			<u>Warrendale</u>			<u>CamasWashougal</u>			<u>Cascade Island</u>							
	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<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>					
	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr				
2/24	---	---	---	0	100	100	100	16	100	101	101	16	---	---	---	0	---	---	---	0
2/25	---	---	---	0	100	100	100	3	100	100	100	3	---	---	---	0	---	---	---	0
2/26	---	---	---	0	101	101	101	3	101	101	101	3	---	---	---	0	---	---	---	0
2/27	---	---	---	0	102	102	103	24	102	103	103	24	102	103	103	14	---	---	---	0
2/28	---	---	---	0	102	103	103	24	102	103	104	24	102	103	103	24	112	112	125	12
3/1	---	---	---	0	102	103	103	24	103	103	104	24	103	104	104	24	112	112	113	17
3/2	---	---	---	0	102	102	103	24	103	103	103	24	103	104	104	24	112	112	115	17
3/3	---	---	---	0	102	103	103	24	104	105	105	24	103	104	105	24	113	113	114	17
3/4	---	---	---	0	102	103	103	24	106	107	108	24	105	106	107	24	112	112	115	17
3/5	---	---	---	0	103	103	103	24	106	107	107	24	105	105	106	24	112	113	115	17
3/6	---	---	---	0	103	103	103	24	105	106	107	24	105	105	106	24	111	112	113	17
3/7	---	---	---	0	102	102	102	24	103	103	104	24	104	104	105	24	110	111	111	17
3/8	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/9	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0

Two-Week Summary of Passage Indices

Date	COMBINED SOCKEYE									MCN (INDEX)	JDA (INDEX)	BO2 (INDEX)
	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (INDEX)	LGS (INDEX)	LMN (INDEX)	RIS (INDEX)				
02/24/2006	---	---	---	---	---	---	---	---	---	---	---	---
02/25/2006	---	---	---	---	---	---	---	---	---	---	---	---
02/26/2006	---	---	---	---	---	---	---	---	---	---	---	---
02/27/2006	---	---	---	---	---	---	---	---	---	---	---	---
02/28/2006	---	---	---	---	---	---	---	---	---	---	---	---
03/01/2006	---	---	---	---	---	---	---	---	---	---	---	---
03/02/2006	---	0	---	---	---	---	---	---	---	---	---	28
03/03/2006	---	0	---	---	---	---	---	---	---	---	---	0
03/04/2006	---	0	---	---	---	---	---	---	---	---	---	0
03/05/2006	---	0	---	---	---	---	---	---	---	---	---	0
03/06/2006	0	0	0	0	---	---	---	---	---	---	---	0
03/07/2006	0	0	0	0	---	---	---	---	---	---	---	0
03/08/2006	0	0	0	0	---	---	---	---	---	---	---	0
03/09/2006	0	---	0	0	---	---	---	---	---	---	---	0
03/10/2006	0	---	0	---	---	---	---	---	---	---	---	0
Total:	0	0	0	0	0	0	0	0	0	0	0	28
# Days:	5	7	5	4	0	0	0	0	0	0	0	9
Average:	0	0	0	0	0	0	0	0	0	0	0	3
YTD	0	0	0	0	0	0	0	0	0	0	0	28

* 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.