



Fish Passage Center Weekly Report #06 - 2

March 17, 2006

1827 NE 44th Ave., Suite 240
Portland, OR 97213
phone: 503/230-4099
fax: 503/230-7559

GOOD BYE and GOOD LUCK FISH PASSAGE CENTER 1982 - 2006

Water Supply: Precipitation throughout the Columbia Basin has varied between 30% and 121% of average at individual sub-basins over the first two weeks of March. Precipitation above The Dalles over the first half of March has been 90% of average. Over the entire water year, precipitation has been above average at all list locations.

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 1-13		Water Year 2006 October 1, 2005 to March 13, 2006	
	Observed (inches)	% Average	Observed (inches)	% Average
	Columbia Above Coulee	0.62	83	14.90
Snake River Above Ice Harbor	0.70	101	12.03	129
Columbia Above The Dalles	0.72	90	14.98	114
Kootenai	0.62	83	16.20	119
Clark Fork	0.54	107	10.19	123
Flathead	0.45	66	14.08	125
Pend Oreille/Spokane	1.11	95	21.42	115
Central Washington	0.10	30	7.15	132
Snake River Plain	0.34	72	6.93	127
Salmon/Boise/Payette	0.98	121	16.50	142
Clearwater	1.29	110	18.70	110
SW Washington Cascades/Cowlitz	2.77	93	54.99	111
Willamette Valley	2.66	99	49.53	119

Snowpack within the Columbia Basin is above average. Average snowpack in the Columbia River for basins above the Snake River confluence is 108% of average, for Snake River Basins the average snowpack is 120% 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
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 1252.9 feet (3-16-06), the Libby Reservoir is at elevation 2408.4 feet, Hungry Horse is at an elevation of 3527.6 feet, Dworshak is at an elevation of 1528.7 feet, and Brownlee Reservoir is at an elevation of 2035.8 feet.

Smolt Monitoring: Sampling began at Bonneville Dam on March 1, in anticipation of arrival of subyearling Chinook salmon released from Spring Creek Hatchery. Passage indices for subyearling Chinook have continued to decline over the past week to under 1,000 per day compared to the maximum index of 387,000 reported on March 5 as the peak of the Spring Creek release passed the project. Yearling chinook indices have now surpassed those of subyearling chinook, with indices reaching 7,000 on March 13. Almost all of the yearling Chinook were fin clipped hatchery origin fish, likely releases from Klickitat Hatchery that began on March 6. Passage indices at Bonneville Dam for 2006 were adjusted this past week to include additional expansion for fish passing through the corner collector during the Spring Creek release. Due to the small volume of spill passing via the Corner Collector (5 Kcfs) the adjustment to the index, which assumes 1 to 1 passage of fish to water volume, did not alter the indices significantly. This adjustment will continue to be included in all future calculations of the index when the corner collector is operated.

Small numbers of juvenile salmonids continue to be captured at all the SMP 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, is 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 near April 15 with Wells Dam starting on May 1.

At Bonneville Dam, one spring Chinook had passed as of March 11th, 2006. Daily steelhead passage numbers at Bonneville Dam were 38 and 16 fish on March 10th and 11th, 2006.

At upriver sites, adult steelhead continue 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 have ranged between 24 and 104 adult steelhead between March 10th and March 15th, 2006. The total steelhead passing Lower Granite Dam from January 1st has been 1716 adult steelhead.

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
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
03/10/06	100.0	0.0	103.4	0.0	107.0	0.0	107.7	0.0	106.8	0.0	112.9	0.0	112.3	0.0
03/11/06	78.1	0.0	82.4	0.0	82.8	0.0	84.2	0.0	86.4	0.0	98.8	0.0	103.2	0.0
03/12/06	40.1	0.0	41.9	0.0	52.4	0.0	54.9	0.0	57.1	0.0	91.0	0.0	89.3	0.0
03/13/06	105.6	0.0	103.8	0.0	95.4	0.0	93.4	0.0	92.4	0.0	67.9	0.0	78.0	0.0
03/14/06	98.4	0.0	101.2	0.0	99.3	0.0	99.8	0.0	100.4	0.0	100.3	0.0	90.9	0.0
03/15/06	68.1	0.0	76.6	0.0	84.8	0.0	86.5	0.0	86.9	0.0	99.3	0.0	102.4	0.0
03/16/06	82.2	0.0	75.3	0.0	73.9	0.0	75.5	0.0	76.9	0.0	95.8	0.0	94.0	0.0

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

Date	Dworshak		Hells Canyon		Lower Granite		Little Goose		Lower Monumental		Ice Harbor	
	Flow	Spill	Inflow	Outflow	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill
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
03/10/06	2.3	0.0	34.4	37.0	51.6	0.0	53.6	0.0	55.0	0.0	52.8	0.0
03/11/06	2.3	0.0	32.1	37.0	48.4	0.0	47.1	0.0	51.3	0.0	53.5	0.0
03/12/06	2.3	0.0	30.7	37.0	49.7	0.0	49.7	0.0	50.8	0.0	50.1	0.0
03/13/06	4.0	0.0	30.7	36.9	49.3	0.0	49.2	0.0	48.6	0.0	42.9	3.3
03/14/06	4.5	0.0	29.1	36.7	51.5	0.0	52.9	0.0	56.0	0.0	59.3	4.1
03/15/06	4.5	0.0	29.8	36.5	51.7	0.0	68.3	0.0	76.2	0.0	74.9	3.6
03/16/06	4.3	0.0	---	---	46.4	0.0	45.3	0.0	---	---	43.5	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		
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
03/10/06	167.0	0.0	179.4	0.0	179.2	0.0	184.0	1.4	74.4	102.0
03/11/06	168.6	0.0	173.7	0.0	173.9	0.0	183.3	1.3	77.5	98.5
03/12/06	167.1	0.0	156.0	0.0	155.2	0.0	169.8	1.3	71.6	90.7
03/13/06	122.5	0.0	150.6	0.0	154.9	0.0	168.2	1.3	70.5	90.1
03/14/06	131.7	0.0	133.8	0.0	134.0	0.0	151.2	1.4	58.7	84.8
03/15/06	150.2	0.0	175.1	0.0	173.5	0.0	188.5	1.4	77.7	103.3
03/16/06	180.0	0.0	174.1	0.0	175.9	0.0	176.3	1.3	75.1	94.0

Hatchery Release Summary

From: 3/3/2006 **to** 03/16/06

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
									South Fork Salmon River
Idaho Dept. of Fish and Game	McCall Hatchery	CH1	SP	2006	90,500	03-13-06	03-16-06	Johnson Cr Idaho	River
Idaho Dept. of Fish and Game	Pahsimeroi Hatchery	CH1	SP	2006	1,074,000	03-15-06	03-28-06	Pahsimeroi River	Pahsimeroi River
Idaho Dept. of Fish and Game	Rapid River Hatchery	CH1	SP	2006	500,000	03-14-06	03-17-06	Hells Canyon Dam	Snake River
Idaho Dept. of Fish and Game	Rapid River Hatchery	CH1	SP	2006	2,635,000	03-13-06	04-21-06	Rapid River	Little Salmon River
Idaho Dept. of Fish and Game									
Total					4,299,500				
Yakama Tribe	Klickitat Hatchery	CH1	SP	2006	77,968	03-06-06	03-10-06	Klickitat Hatchery	Klickitat River
Yakama Tribe	Klickitat Hatchery	CH1	SP	2006	81,328	03-06-06	03-10-06	Klickitat Hatchery	Klickitat River
Yakama Tribe	Klickitat Hatchery	CH1	SP	2006	161,932	03-06-06	03-10-06	Klickitat Hatchery	Klickitat River
Yakama Tribe	Klickitat Hatchery	CH1	SP	2006	286,672	03-06-06	03-10-06	Klickitat Hatchery	Klickitat River
Yakama Tribe Total					607,900				
Grand Total					4,907,400				

Hatchery Release Summary

From: 3/17/2006 **to** 3/30/2006

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SP	2006	41,000	03-29-06	04-05-06	Crooked R Acclim Pond	S Fk Clearwater River
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SP	2006	42,000	03-27-06	04-07-06	Red River	S Fk Clearwater River
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SP	2006	82,000	03-23-06	04-14-06	Powell Acclim Pond	Lochsa River
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SP	2006	138,000	03-29-06	04-05-06	Crooked R Acclim Pond	S Fk Clearwater River
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SP	2006	342,000	03-23-06	04-06-06	Powell Acclim Pond	Lochsa River
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SP	2006	342,000	03-23-06	04-06-06	Powell Acclim Pond	Lochsa River
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SP	2006	381,000	03-27-06	04-07-06	Red River	S Fk Clearwater River
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SP	2006	571,000	03-29-06	04-05-06	Crooked R Acclim Pond	S Fk Clearwater River
Idaho Dept. of Fish and Game	Dworshak NFH	CH1	SP	2006	1,010,000	03-21-06	04-09-06	N Fk Clearwater River	Clearwater River M F
Idaho Dept. of Fish and Game	Hagerman NFH	ST		2006	160,000	03-27-06	04-05-06	Hazard Creek/Little Salmon R	Little Salmon River
Idaho Dept. of Fish and Game	Kooskia NFH	CH1	SP	2006	630,000	03-24-06	04-04-06	Clear Creek	Clearwater River M F
Idaho Dept. of Fish and Game	McCall Hatchery	CH1	SP	2006	1,096,000	03-20-06	03-24-06	Knox Bridge	Salmon River (ID)
Idaho Dept. of Fish and Game	Niagara Springs	ST		2006	175,000	03-29-06	03-31-06	Little Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Game	Niagara Springs	ST		2006	525,000	03-20-06	03-29-06	Hells Canyon Dam	Snake River
Idaho Dept. of Fish and Game	Pahsimeroi Hatchery	CH1	SP	2006	1,074,000	03-15-06	03-28-06	Pahsimeroi River	Pahsimeroi River
Idaho Dept. of Fish and Game	Rapid River Hatchery	CH1	SP	2006	500,000	03-14-06	03-17-06	Hells Canyon Dam	Snake River
Idaho Dept. of Fish and Game	Rapid River Hatchery	CH1	SP	2006	2,635,000	03-13-06	04-21-06	Rapid River	Little Salmon River
Idaho Dept. of Fish and Game					9,744,000				
Total									
Grand Total					9,744,000				

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

Total Dissolved Gas Saturation Data at Upper Columbia River Sites

Date	<u>Hungry H. Dnst</u>			<u>Boundary</u>			<u>Grand Coulee</u>				<u>Grand C. Tlwr</u>				<u>Chief Joseph</u>					
	<u>24 h</u>		<u>12 h</u>	#	<u>24 h</u>		<u>12 h</u>	#	<u>24 h</u>		<u>12 h</u>	#	<u>24 h</u>		<u>12 h</u>	#	<u>24 h</u>		<u>12 h</u>	#
	<u>Avg</u>	<u>Avg</u>	<u>High</u>		<u>Avg</u>	<u>Avg</u>	<u>High</u>		<u>Avg</u>	<u>Avg</u>	<u>High</u>		<u>Avg</u>	<u>Avg</u>	<u>High</u>		<u>Avg</u>	<u>Avg</u>	<u>High</u>	
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
3/10	---	---	---	0	104	104	105	24	104	104	104	24	103	103	104	24	---	---	---	0
3/11	---	---	---	0	103	104	105	24	103	103	103	24	103	103	103	24	---	---	---	0
3/12	---	---	---	0	103	104	105	24	102	102	103	24	102	103	104	24	---	---	---	0
3/13	---	---	---	0	103	104	105	24	102	103	103	24	102	103	104	24	---	---	---	0
3/14	---	---	---	0	105	105	106	24	103	103	103	24	102	103	105	24	---	---	---	0
3/15	---	---	---	0	104	105	105	24	102	103	103	24	102	102	104	24	---	---	---	0
3/16	---	---	---	0	104	105	105	24	103	103	103	24	102	103	104	24	---	---	---	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>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>Avg</u>	<u>Avg</u>	<u>High</u>		<u>Avg</u>	<u>Avg</u>	<u>High</u>		<u>Avg</u>	<u>Avg</u>	<u>High</u>		<u>Avg</u>	<u>Avg</u>	<u>High</u>		<u>Avg</u>	<u>Avg</u>	<u>High</u>	
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
3/10	---	---	---	0	---	---	---	0	---	---	---	0	98	98	98	24	98	99	99	24
3/11	---	---	---	0	---	---	---	0	---	---	---	0	98	98	98	24	98	98	98	24
3/12	---	---	---	0	---	---	---	0	---	---	---	0	98	98	98	24	98	98	98	24
3/13	---	---	---	0	---	---	---	0	---	---	---	0	98	98	98	24	98	98	98	24
3/14	---	---	---	0	---	---	---	0	---	---	---	0	98	98	98	24	98	98	98	24
3/15	---	---	---	0	---	---	---	0	---	---	---	0	98	98	98	24	98	98	98	24
3/16	---	---	---	0	---	---	---	0	---	---	---	0	98	98	98	24	98	98	98	24

Total Dissolved Gas Saturation at Mid Columbia River Sites

Date	<u>Rock Island</u>			<u>Rock I. Tlwr</u>			<u>Wanapum</u>				<u>Wanapum Tlwr</u>				<u>Priest Rapids</u>					
	<u>24 h</u>		<u>12 h</u>	#	<u>24 h</u>		<u>12 h</u>	#	<u>24 h</u>		<u>12 h</u>	#	<u>24 h</u>		<u>12 h</u>	#	<u>24 h</u>		<u>12 h</u>	#
	<u>Avg</u>	<u>Avg</u>	<u>High</u>		<u>Avg</u>	<u>Avg</u>	<u>High</u>		<u>Avg</u>	<u>Avg</u>	<u>High</u>		<u>Avg</u>	<u>Avg</u>	<u>High</u>		<u>Avg</u>	<u>Avg</u>	<u>High</u>	
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
3/10	98	98	98	24	99	99	99	24	---	---	---	0	---	---	---	0	---	---	---	0
3/11	98	98	98	24	99	99	99	24	---	---	---	0	---	---	---	0	---	---	---	0
3/12	98	98	98	24	99	99	99	24	---	---	---	0	---	---	---	0	---	---	---	0
3/13	98	98	98	24	99	99	99	24	---	---	---	0	---	---	---	0	---	---	---	0
3/14	98	98	98	24	99	99	99	24	---	---	---	0	---	---	---	0	---	---	---	0
3/15	98	98	98	24	99	99	99	24	---	---	---	0	---	---	---	0	---	---	---	0
3/16	98	98	98	24	99	99	99	24	---	---	---	0	---	---	---	0	---	---	---	0

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

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

Date	<u>Priest R. Dnst</u>			<u>Pasco</u>			<u>Dworshak</u>			<u>Clrwrtr-Peck</u>			<u>Anatone</u>			#				
	<u>24 h</u>	<u>12 h</u>	High	<u>24 h</u>	<u>12 h</u>	High	<u>24 h</u>	<u>12 h</u>	High	<u>24 h</u>	<u>12 h</u>	High	<u>24 h</u>	<u>12 h</u>	High					
	Avg	Avg		Avg	Avg		Avg	Avg		Avg	Avg		Avg	Avg			Avg	Avg		
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
3/10	---	---	---	0	---	---	---	0	96	97	98	24	---	---	---	0	---	---	---	0
3/11	---	---	---	0	---	---	---	0	97	97	98	24	---	---	---	0	---	---	---	0
3/12	---	---	---	0	---	---	---	0	96	97	98	24	---	---	---	0	---	---	---	0
3/13	---	---	---	0	---	---	---	0	95	95	96	11	---	---	---	0	---	---	---	0
3/14	---	---	---	0	---	---	---	0	95	95	96	15	---	---	---	0	---	---	---	0
3/15	---	---	---	0	---	---	---	0	95	95	95	5	---	---	---	0	---	---	---	0
3/16	---	---	---	0	---	---	---	0	96	96	97	17	---	---	---	0	---	---	---	0

Total Dissolved Gas Saturation Data at Snake River Sites

Date	<u>Clrwrtr-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>	High	<u>24 h</u>	<u>12 h</u>	High	<u>24 h</u>	<u>12 h</u>	High	<u>24 h</u>	<u>12 h</u>	High	<u>24 h</u>	<u>12 h</u>	High					
	Avg	Avg		Avg	Avg		Avg	Avg		Avg	Avg		Avg	Avg			Avg	Avg		
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
3/10	---	---	---	0	102	102	103	24	102	102	102	24	---	---	---	0	---	---	---	0
3/11	---	---	---	0	101	102	102	24	101	101	102	24	---	---	---	0	---	---	---	0
3/12	---	---	---	0	100	101	101	24	100	101	102	24	---	---	---	0	---	---	---	0
3/13	---	---	---	0	100	101	101	24	100	101	101	24	---	---	---	0	---	---	---	0
3/14	---	---	---	0	102	102	102	24	102	102	103	24	---	---	---	0	---	---	---	0
3/15	---	---	---	0	102	102	102	24	101	102	102	24	---	---	---	0	---	---	---	0
3/16	---	---	---	0	103	103	104	24	103	103	103	24	---	---	---	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>	High	<u>24 h</u>	<u>12 h</u>	High	<u>24 h</u>	<u>12 h</u>	High	<u>24 h</u>	<u>12 h</u>	High	<u>24 h</u>	<u>12 h</u>	High					
	Avg	Avg		Avg	Avg		Avg	Avg		Avg	Avg		Avg	Avg			Avg	Avg		
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
3/10	---	---	---	0	---	---	---	0	102	102	102	23	102	102	103	20	103	103	104	20
3/11	---	---	---	0	---	---	---	0	101	101	102	24	102	102	103	24	102	102	102	24
3/12	---	---	---	0	---	---	---	0	100	100	101	24	101	101	101	24	101	101	102	24
3/13	---	---	---	0	---	---	---	0	100	101	101	24	103	106	111	24	102	103	104	23
3/14	---	---	---	0	---	---	---	0	101	101	102	24	103	105	109	24	102	103	104	24
3/15	---	---	---	0	---	---	---	0	100	101	101	24	103	104	108	24	102	103	103	24
3/16	---	---	---	0	---	---	---	0	101	101	101	24	101	101	101	23	102	103	103	24

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	Avg	AVG	High	hr
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
3/10	103	103	103	18	103	103	103	24	103	104	104	24	103	103	103	24	103	104	104	24
3/11	102	102	103	24	102	102	102	24	103	103	103	24	102	102	102	24	102	103	103	24
3/12	100	101	101	24	101	101	101	24	102	102	102	24	101	101	101	24	102	102	102	24
3/13	101	102	102	24	101	102	102	24	102	102	103	24	101	102	102	24	102	102	103	24
3/14	102	102	102	24	102	102	103	24	102	103	103	24	102	102	102	24	103	103	103	24
3/15	102	102	102	24	102	102	102	24	102	102	102	24	101	101	102	24	102	102	102	24
3/16	103	103	103	24	103	103	104	24	102	103	103	24	102	102	102	24	102	103	103	24

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	Avg	Avg	High	hr
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
3/10	103	103	103	24	103	103	103	22	103	103	103	22	103	103	104	24	111	111	112	17
3/11	102	102	103	24	102	103	103	24	103	103	103	24	103	103	104	24	111	111	112	17
3/12	101	101	102	24	101	101	102	24	102	102	103	24	102	103	103	24	111	112	113	17
3/13	101	102	102	24	102	102	102	24	103	103	104	24	103	104	105	24	111	111	112	17
3/14	102	102	102	24	102	102	103	24	103	103	104	24	103	104	104	24	110	111	112	17
3/15	101	101	102	24	102	102	103	24	103	103	103	24	103	103	104	24	111	111	111	17
3/16	102	102	102	24	103	103	103	20	103	103	104	24	103	103	104	24	112	112	116	10

Two-Week Summary of Passage Indices

Date	COMBINED SOCKEYE										
	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (INDEX)	LGS (INDEX)	LMN (INDEX)	RIS (INDEX)	MCN (INDEX)	JDA (INDEX)	BO2 (INDEX)
03/03/2006	---	0	0	---	0	---	---	---	---	0	---
03/04/2006	---	0	0	---	0	---	---	---	---	0	---
03/05/2006	---	---	0	---	0	---	---	---	---	---	---
03/06/2006	---	0	---	---	---	---	---	---	---	---	0
03/07/2006	---	0	---	---	---	---	---	---	---	---	0
03/08/2006	---	0	---	---	---	---	---	---	---	---	0
03/09/2006	---	0	0	---	---	---	---	---	---	---	0
03/10/2006	0	0	0	0	---	---	---	---	---	---	0
03/11/2006	0	0	0	0	---	---	---	---	---	---	0
03/12/2006	0	---	0	0	---	---	---	---	---	---	0
03/13/2006	0	0	0	0	---	---	---	---	---	---	0
03/14/2006	0	0	0	0	---	---	---	---	---	---	0
03/15/2006	0	0	0	0	---	---	---	---	---	---	7
03/16/2006	0	0	0	0	---	---	---	---	---	---	18
03/17/2006	0	0	0	0	---	---	---	---	---	---	0
<hr/>											
Total:	0	0	0	0	0	0	0	0	0	0	25
# Days:	8	13	12	8	3	0	0	0	0	2	12
Average:	0	0	0	0	0	0	0	0	0	0	2
YTD	0	0	0	0	0	0	0	0	0	0	53

* 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.