Fish Passage Center

Weekly Report #04 - 2

March 19, 2004

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Summary of Events:

- **Winter operations at Grand Coulee have drafted the reservoir 16.4 feet below the April 10, BIOP reservoir elevation, making it unlikely that the BIOP reservoir elevation and spring migration flow objectives will be met.**

- **Libby, Hungry Horse, and Dworshak reservoirs are below the BIOP flood control elevations. Libby is 44 feet below its estimated April 10 elevation. Hungry Horse is 25 feet below its estimated April 10 elevation.**

- **Next week the USFWS Entiat River trap sample data will be reported in the weekly report.**

Water Supply: Precipitation throughout the Columbia Basin has been generally below average over the first portion of March. Of the sites in Table 1 only one of thirteen sites recorded precipitation that was greater than average. Over the entire water year, precipitation has been nearly 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 2004 March 1-15		Water Year 2004 October 1, 2003 to March 15, 2004	
	Observed (inches)	% Average	Observed (inches)	% Average
Columbia Above Coulee	0.80	92	12.68	95
Snake River Above Ice Harbor	0.40	50	8.78	93
Columbia Above The Dalles	0.70	75	12.86	97
Kootenai	0.66	77	13.20	97
Clark Fork	0.46	78	7.18	86
Flathead	0.81	102	10.54	93
Pend Oreille/Spokane	0.78	58	17.44	93
Central Washington	0.22	55	4.98	91
Snake River Plain	0.13	23	4.59	83
Salmon/Boise/ Payette	0.37	39	10.48	89
Clearwater	1.30	96	17.58	102
SW Washington Cascades/Cowlitz	1.99	58	45.66	92
Willamette Valley	1.13	37	40.59	97

Snowpack within the Columbia Basin is also near or above average. Average snowpack in the Columbia River for basins above the Snake River confluence is 89% of average, for Snake River Basins the average snowpack is 98% of average, and for lower Columbia Basins between McNary and Bonneville Dam average snowpack is 110% of average.

Water Supply Forecasts have generally decreased over the winter months. The current forecast at The Dalles between January and July is 87% of average. Table 2 displays the February Final and March Final runoff volume forecasts for multiple reservoirs.

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)	93	100000	87	92900
Grand Coulee (Jan-July)	95	59800	88	55600
Libby Res. Inflow, MT (Jan-July)	95	6000	90	5700
Hungry Horse Res. Inflow, MT (Jan-July)	96	2130	87	1930
Lower Granite Res. Inflow (Apr- July)	97	20800	93	20000
Brownlee Res. Inflow (Apr-July)	71	4510	72	4530
Dworshak Res. Inflow (Apr-July)	112	2970	100	2640

Grand Coulee Reservoir is currently drafted well below its flood control elevations. Grand Coulee ended March 17th at an elevation of 1259.4 feet, this elevation is 16.4 feet below the BIOP required April 10th elevation (1275.8 feet) and 12.8 feet below the April 10th elevation (1272.2 feet) if a flood control swap occurs between Grand Coulee and Dworshak. It appears unlikely that Grand Coulee will reach its standard April 10th BIOP elevation in 2004.

The Libby Reservoir is also currently well below its flood control elevations. Libby ended March 17th at an elevation of 2398.6 feet, 44.4 feet below its estimated April 10th elevation of 2443 feet. Libby continues to draft water to meet its minimum project outflow of 4.0 Kcfs.

The Hungry Horse Reservoir is currently at an elevation of 3511.8 feet, which is 25.4 feet below its estimated April 10th BIOP elevation. Hungry Horse continues to draft slightly to meet Columbia Falls minimum flows.

The Dworshak reservoir is currently at an elevation of 1514.0 feet. Dworshak is also well below its April 10th elevations of 1535.5 feet (system FC) and 1554.1 feet (local FC, elevation if shift occurs with Grand Coulee). Over the first part of March, Dworshak has been able to refill slightly as project outflows were reduced to the minimum.

The Brownlee Reservoir was at an elevation of 2049.7 on March 17th. Out of all the major storage projects within the Columbia Hydroystem, Brownlee is the closest to its April 10th elevation (2055.1 feet).

Smolt Monitoring: At the Snake River Basin traps the numbers of yearling chinook being captured are still quite low. At the Whitebird Trap a weekly high of 295 yearling chinook were collected on March 17. The trap also has seen an increase in the proportion of fish captured that were clipped hatchery fish. It is likely that these fish are an early representation of the 2.8 million Rapid River hatchery fish released volitionally beginning on March 15. Only a few fish have been fish captured thus far at the Lewiston Trap. Numbers of yearling chinook at the Grande Ronde Trap have ranged from 7 to 17 fish, while the number increased to the 100 - 150 fish range at the Imnaha Trap.

Sampling began on March 3 at Bonneville Dam shortly after the first Spring Creek Hatchery release on March 1. A second release of 3.65 million subyearling fall chinook from Spring Creek Hatchery occurred on March 10, with numbers peaking significantly in the sample ending on the morning of March 13. The numbers have decreased steadily from that point, and are averaging about 4,000 subyearling chinook per day.

Hatchery Releases - The scheduled release of juvenile salmonids from Columbia River Basin hatcheries above Bonneville Dam for the 2004 migration season is estimated near 81.8 million. The Zone Release Report below summarizes "planned" hatchery releases from State, federal or Tribal hatcheries or acclimation ponds for the 2004 Migration Season. These release totals will be updated throughout the juvenile migration season. The Weekly Report will provide a summary of hatchery fish released during the previous 2-weeks as well as a summary for the upcoming 2-weeks from the various hatcheries in the Columbia Basin.

About 316, juvenile sockeye were released from net pens into Lake Wenatchee last summer and fall. The majority of these fish over-winter in the lake and begin migration from the lake and to the ocean the next spring (2004). In the Snake River basin, approximately 62k juvenile sockeye were released in Redfish, Alturas, and Pettit lakes last fall and will migrate from the lakes in late April and May.

Hatchery Zone Report for 2004 Migration Year.

	March 19, 2004			
	Snake River	Mid-Columbia	Lower Columbia	Total Release
Fall Chinook	2,610,000	12,430,000	21,730,094	36,770,094
Spring Chinook	10,469,142	3,910,579	5,250,398	19,630,119
Summer Chinook	2,401,322	3,324,000		5,725,322
Coho	1,199,433	1,141,000	5,924,000	8,264,433
Sockeye	62,000	315,790		377,790
Summer Steelhead	9,276,500	1,251,000	457,600	10,985,100
Winter Steelhead			90,000	90,000
Total	26,018,397	22,372,369	33,452,092	81,842,858

About 10 million fish were released from hatcheries during the first two weeks in March; most releases were from hatcheries located in the lower Columbia River. Spring Creek NFH released about 3.65 million subyearling fall chinook on 3/1, and 3.65 million on 3/10. In addition, about 1 million yearling fall chinook, spring chinook and coho were released from Umatilla River acclimation ponds beginning March 1 and ending March 11 (short-term volitional releases). Nearly 610,000 yearling chinook were released from Klickitat H. during the first week in March.

In the Snake River basin, volitional releases of yearling spring/summer chinook were initiated from Rapid River H (2.7 million), from Curl Lake in the Tucannon River, and from Lostine River, Catherine Creek, and Grande Ronde acclimation ponds. Direct stream releases were completed in the Little Salmon River and below Hells Canyon Dam, with Johnson Creek summer chinook releases to be completed on March 19.

In the Yakima River basin, volitional releases of spring chinook were initiated from Clark Flat, Jack Creek, and Easton Ponds. About 838k will be released from the 3 ponds during the upcoming 2 months.

About 550k juvenile coho salmon were released in Lapwai Creek and Potlatch River by March 12th.

For the upcoming two weeks, volitional releases of yearling salmon will be ongoing from hatcheries listed above and initiated at Lookingglass Hatchery for a small release of 53k. Summer chinook from McCall Hatchery will be trucked and released into the South Fork. Salmon this next week. The volitional release of coho salmon from Pendleton Pond will also be completed by the end of next week.

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 15, and at the remaining mainstem COE projects, counting will begin on April 1st. The PUD dams in the Mid-Columbia River normally begin counting adult fish approximately April 15, with Wells Dam starting on May 1. The Bonneville Dam counts from January through March 9 are tabulated below the Cumulative Adult Passage Table.

For the initial 3 count days, March 15 - 17, passage of adult spring chinook at Bonneville Dam has been very low with 67 tallied to date. This compares to the 10-year average of 244 and the 2003 count of 2,512. To date, few 5-year old fish have arrived at the project. 5 year old fish generally make up the early portion of the spring chinook migration. Unlike 2003, returns from the 4-year old chinook component of the run are projected to be the main contributors for the upper river spring chinook in 2004.

Returns of adult steelhead (205) at Bonneville Dam appear to be near the 2003 total and about double the 10-year average. At Lower Granite Dam, 2,317 adult steelhead have been tallied, slightly above the 10-year average, but significantly less than the 2003 count at the project. Note that these steelhead are fish that have overwintered in the Snake or Columbia River below Lower Granite Dam and begin their migration in the late winter/early spring to spawning areas in the rivers and tributaries above the dam.

Daily Average Flow and Spill (in kcfs) at Mid-Columbia Projects

	Grand Coulee		Chief Joseph		Wells		Rocky Reach		Rock Island		Wanapum		Priest Rapids	
Date	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill
03/05/04	69.4	0.0	76.4	0.0	77.6	0.0	80.2	0.0	85.4	0.0	100.4	0.0	104.3	0.0
03/06/04	53.3	0.0	54.7	0.0	53.8	0.0	56.9	0.0	58.5	0.0	75.6	0.0	72.0	0.0
03/07/04	39.7	0.0	41.6	0.0	41.1	0.0	44.4	0.0	45.9	0.0	69.3	0.0	72.0	0.0
03/08/04	74.5	0.0	71.4	0.0	70.9	0.0	70.7	0.0	72.5	0.0	72.2	0.0	72.0	0.0
03/09/04	78.8	0.0	79.0	0.0	79.4	0.0	80.6	0.0	85.2	0.0	71.6	0.0	72.2	0.0
03/10/04	79.7	0.0	80.7	0.0	84.1	0.0	84.8	0.0	89.5	0.0	87.2	0.0	83.1	0.0
03/11/04	63.5	0.0	68.1	0.0	69.9	0.0	69.6	0.0	73.5	0.0	82.0	0.0	82.4	0.0
03/12/04	61.3	0.0	67.1	0.0	66.9	0.0	68.3	0.0	72.5	0.0	74.0	0.0	71.6	0.0
03/13/04	49.6	0.0	49.0	0.0	52.6	0.0	52.0	0.0	56.1	0.0	65.2	0.0	71.4	0.0
03/14/04	35.5	0.0	41.2	0.0	39.4	0.0	38.1	0.0	40.4	0.0	61.6	0.0	71.5	0.0
03/15/04	66.4	0.0	60.4	0.0	64.4	0.0	68.8	0.1	73.3	0.0	86.5	1.6	71.4	0.0
03/16/04	73.7	0.0	72.3	0.0	73.5	0.0	73.6	0.0	76.9	0.0	73.1	0.0	71.7	0.0
03/17/04	82.7	0.0	83.8	0.0	82.4	0.0	83.6	0.0	87.5	0.0	63.8	0.0	72.1	0.0
03/18/04	78.9	0.0	80.1	0.0	80.3	0.0	76.9	0.0	82.5	0.0	85.3	0.0	72.0	0.0

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

	Dworshak		Brownlee	Hells Canyon	Lower Granite		Little Goose		Lower Monumental		Ice Harbor	
Date	Flow	Spill	Inflow	Outflow	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill
03/05/04	1.6	0.0	15.5	21.1	34.6	0.0	34.8	0.0	37.6	0.0	37.4	0.0
03/06/04	1.6	0.0	14.8	15.7	31.1	0.0	31.0	0.0	32.5	0.0	31.2	0.0
03/07/04	1.6	0.0	13.4	12.9	29.2	0.0	26.8	0.0	27.8	0.0	26.5	0.0
03/08/04	1.6	0.0	15.1	19.5	30.0	0.0	32.4	0.0	33.9	0.0	33.7	0.0
03/09/04	1.6	0.0	16.0	17.2	32.3	0.0	31.1	0.0	32.9	0.0	31.3	0.0
03/10/04	1.6	0.0	18.1	22.8	29.9	0.0	29.2	0.0	31.8	0.0	29.6	0.0
03/11/04	1.6	0.1	18.3	19.5	40.1	0.0	38.9	0.0	41.7	0.0	39.8	0.2
03/12/04	1.6	0.0	18.4	16.5	37.1	0.0	38.5	0.0	42.4	0.0	41.0	0.0
03/13/04	1.6	0.0	18.7	16.1	37.6	0.0	36.4	0.0	38.9	0.0	38.1	0.0
03/14/04	1.6	0.0	19.0	8.7	31.4	0.0	31.4	0.0	31.5	0.0	29.9	0.0
03/15/04	1.6	0.0	20.5	17.5	44.2	0.0	46.6	0.0	50.4	0.0	48.8	0.0
03/16/04	1.5	0.0	19.9	20.3	37.3	0.0	42.1	0.0	46.1	0.0	43.1	0.1
03/17/04	1.6	0.0	20.1	21.5	40.9	0.0	34.3	0.0	36.4	0.0	32.9	0.5
03/18/04	1.6	0.0	---	---	42.2	0.0	43.7	0.0	48.6	0.0	49.4	1.2

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

	McNary		John Day		The Dalles			Bonneville		
Date	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	PH1	PH2
03/05/04	128.3	0.0	130.2	0.0	144.1	0.0	166.9	50.0	25.0	85.0
03/06/04	122.0	0.0	136.1	0.0	136.8	0.0	169.9	42.0	37.1	83.9
03/07/04	100.3	0.0	93.9	0.0	99.8	0.0	121.3	2.1	32.7	80.3
03/08/04	117.8	0.0	120.4	0.0	122.6	0.0	123.3	2.1	36.2	78.8
03/09/04	109.3	0.0	113.6	0.0	120.1	0.0	124.1	2.1	31.1	84.9
03/10/04	112.2	0.0	114.9	0.0	121.0	0.0	135.5	2.2	44.7	82.3
03/11/04	124.2	0.0	135.5	0.0	136.5	0.0	144.4	2.2	50.6	83.4
03/12/04	117.3	0.0	121.1	0.0	129.8	0.0	133.2	2.2	40.5	79.5
03/13/04	114.4	0.0	122.2	0.0	131.9	0.0	144.8	2.2	47.8	83.2
03/14/04	98.7	0.0	99.7	0.0	97.7	0.0	129.7	2.2	34.4	81.6
03/15/04	134.2	0.0	138.2	0.0	144.9	0.0	136.2	2.2	37.9	86.1
03/16/04	131.7	0.0	155.1	0.0	158.8	0.0	170.1	2.2	68.7	92.3
03/17/04	106.4	0.0	117.5	0.0	123.2	0.0	130.2	2.2	38.6	82.4
03/18/04	201.8	0.0	130.3	0.0	141.9	0.0	153.2	2.2	55.1	88.9

HATCHERY RELEASE LAST TWO WEEKS

Hatchery Release Summary

From: 3/5/2004 to 3/18/2004

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
Idaho Dept. of Fish and Game	Rapid River Hatchery	CH1	SP	2004	300,000	03-18-04	03-18-04	Little Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Game	Rapid River Hatchery	CH1	SP	2004	500,000	03-15-04	03-17-04	Hells Canyon Dam	Snake River
Idaho Dept. of Fish and Game	Rapid River Hatchery	CH1	SP	2004	2,763,500	03-15-04	04-23-04	Rapid River Hatchery	Little Salmon River
Idaho Dept. of Fish and Game Total					**3,563,500**				
Nez Perce Tribe	Eagle Creek NFH	CO	UN	2004	275,000	03-01-04	03-12-04	Lapwai Creek	Clearwater River M F
Nez Perce Tribe	Eagle Creek NFH	CO	UN	2004	275,000	03-01-04	03-12-04	Potlatch River	Clearwater River M F
Nez Perce Tribe	Lookingglass Hatchery	CH1	SP	2004	116,000	03-12-04	03-21-04	Lostine Accim Pond	Wallowa River
Nez Perce Tribe	McCall Hatchery	CH1	SU	2004	112,000	03-15-04	03-19-04	Johnson Cr Idaho	South Fork Salmon River
Nez Perce Tribe Total					**778,000**				
Oregon Dept. of Fish and Wildlife	Cascade Hatchery	CO	UN	2004	750,000	03-08-04	03-26-04	Pendelton Acclim Pond	Umatilla River
Oregon Dept. of Fish and Wildlife Total					**750,000**				
U.S. Fish and Wildlife Service	Spring Creek NFH	CH0	FA	2004	3,654,168	03-10-04	03-10-04	Spring Creek Hatchery	L Col R (D/s McN Dam)
U.S. Fish and Wildlife Service Total					**3,654,168**				
Umatilla Tribe	Bonneville Hatchery	CH1	FA	2004	240,619	03-03-04	03-11-04	Thornhollow Acclim Pond	Umatilla River
Umatilla Tribe	Lookingglass Hatchery	CH1	SP	2004	70,000	03-15-04	03-22-04	Grande Ronde Acclim Pond	Grande Ronde River
Umatilla Tribe	Lookingglass Hatchery	CH1	SP	2004	92,000	03-15-04	03-21-04	Catherine Cr Acclim Pond	Grande Ronde River
Umatilla Tribe	Umatilla Hatchery	CH1	SP	2004	493,248	03-01-04	03-08-04	Imeques Acclim Pond	Umatilla River
Umatilla Tribe Total					**895,867**				
Washington Dept. of Fish and Wildlife	Klickitat Hatchery	CH1	SP	2004	609,800	03-01-04	03-05-04	Klickitat Hatchery	Klickitat River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	CH1	SP	2004	45,000	03-15-04	04-18-04	Curl Lake Acclim Pond	Tucannon River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	CH1	SP	2004	125,000	03-15-04	04-18-04	Curl Lake Acclim Pond	Tucannon River
Washington Dept. of Fish and Wildlife Total					**779,800**				
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2004	267,000	03-15-04	05-15-04	Clark Flat Acclim Pond	Yakama River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2004	280,000	03-15-04	05-15-04	Jack Creek Acclim Pond	Yakama River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2004	291,400	03-15-04	05-15-04	Easton Pond	Yakama River
Yakama Tribe Total					838,400				
Grand Total					**11,259,735**				

HATCHERY RELEASE NEXT TWO WEEKS

Hatchery Release Summary

From: 3/19/2004 to 4/1/2004

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
Idaho Dept. of Fish and Game	McCall Hatchery	CH1	SU	2004	1,089,000	03-22-04	03-26-04	Knox Bridge	Salmon River (ID)
Idaho Dept. of Fish and Game	Rapid River Hatchery	CH1	SP	2004	2,763,500	03-15-04	04-23-04	Rapid River Hatchery	Little Salmon River
Idaho Dept. of Fish and Game Total					**3,852,500**				
Nez Perce Tribe	Lookingglass Hatchery	CH1	SP	2004	116,000	03-12-04	03-21-04	Lostine Accim Pond	Wallowa River
Nez Perce Tribe	McCall Hatchery	CH1	SU	2004	112,000	03-15-04	03-19-04	Johnson Cr Idaho	South Fork Salmon Rive
Nez Perce Tribe Total					**228,000**				
Oregon Dept. of Fish and Wildlife	Cascade Hatchery	CO	UN	2004	750,000	03-08-04	03-26-04	Pendelton Acclim Pond	Umatilla River
Oregon Dept. of Fish and Wildlife Total					**750,000**				
Umatilla Tribe	Lookingglass Hatchery	CH1	SP	2004	70,000	03-15-04	03-22-04	Grande Ronde Acclim Pond	Grande Ronde River
Umatilla Tribe	Lookingglass Hatchery	CH1	SP	2004	92,000	03-15-04	03-21-04	Catherine Cr Acclim Pond	Grande Ronde River
Umatilla Tribe Total					**162,000**				
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	CH1	SP	2004	45,000	03-15-04	04-18-04	Curl Lake Acclim Pond	Tucannon River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	CH1	SP	2004	125,000	03-15-04	04-18-04	Curl Lake Acclim Pond	Tucannon River
Washington Dept. of Fish and Wildlife Total					**170,000**				
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2004	267,000	03-15-04	05-15-04	Clark Flat Acclim Pond	Yakama River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2004	280,000	03-15-04	05-15-04	Jack Creek Acclim Pond	Yakama River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2004	291,400	03-15-04	05-15-04	Easton Pond	Yakama River
Yakama Tribe Total					**838,400**				
Grand Total					**6,000,900**				

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

	Hungry H. Dnst				Boundary				Grand Coulee				Grand C. Tlwr				Chief Joseph			
	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
3/5	---	---	---	0	102	103	104	20	101	101	102	24	99	100	100	23	---	---	---	0
3/6	---	---	---	0	101	101	102	24	100	100	100	24	97	98	98	23	---	---	---	0
3/7	---	---	---	0	100	100	101	24	99	100	100	24	97	97	97	23	---	---	---	0
3/8	---	---	---	0	100	101	102	24	99	99	100	21	96	96	97	23	---	---	---	0
3/9	---	---	---	0	102	102	103	24	100	100	101	24	96	96	97	23	---	---	---	0
3/10	---	---	---	0	101	102	102	24	99	100	100	24	96	96	96	21	---	---	---	0
3/11	---	---	---	0	102	102	103	24	100	100	101	24	96	96	97	21	---	---	---	0
3/12	---	---	---	0	102	103	103	24	101	101	102	24	96	97	97	23	---	---	---	0
3/13	---	---	---	0	101	102	102	24	100	100	100	24	98	100	104	18	---	---	---	0
3/14	---	---	---	0	102	103	103	24	101	101	101	24	102	103	105	23	---	---	---	0
3/15	---	---	---	0	101	101	102	12	100	101	101	24	100	100	102	11	---	---	---	0
3/16	---	---	---	0	101	101	102	8	101	101	101	24	99	99	100	7	---	---	---	0
3/17	---	---	---	0	102	102	102	4	102	102	102	24	100	100	100	3	---	---	---	0
3/18	---	---	---	0	103	103	103	4	103	103	103	24	100	100	101	3	---	---	---	0

Total Dissolved Gas Saturation Data at Mid Columbia River Sites

	Chief J. Dnst				Wells				Wells Dwnstrm				Rocky Reach				Rocky R. Tlwr			
	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
3/5	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/6	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/7	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/8	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/9	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/10	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/11	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/12	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/13	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/14	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/15	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/16	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/17	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/18	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0

Total Dissolved Gas Saturation at Mid Columbia River Sites

	Rock Island				Rock I. Tlwr				Wanapum				Wanapum Tlwr				Priest Rapids			
	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
3/5	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/6	---	---	---	0	---	---	---	0	102	102	102	23	101	102	102	23	101	101	102	23
3/7	---	---	---	0	---	---	---	0	101	102	102	23	101	101	102	23	101	102	102	23
3/8	---	---	---	0	---	---	---	0	101	102	102	23	102	102	103	23	102	102	103	23
3/9	---	---	---	0	---	---	---	0	102	103	104	23	103	103	104	23	103	103	104	23
3/10	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/11	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/12	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/13	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/14	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/15	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/16	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/17	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/18	---	---	---	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

	Priest R. Dnst				Pasco				Dworshak				Clrwtr-Peck				Anatone			
	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
3/5	---	---	---	0	---	---	---	0	103	103	104	24	---	---	---	0	---	---	---	0
3/6	101	101	102	23	---	---	---	0	103	104	104	24	---	---	---	0	---	---	---	0
3/7	101	102	102	23	---	---	---	0	102	102	103	24	---	---	---	0	---	---	---	0
3/8	102	102	103	23	---	---	---	0	102	103	104	24	---	---	---	0	---	---	---	0
3/9	103	103	104	23	---	---	---	0	105	106	106	24	---	---	---	0	---	---	---	0
3/10	---	---	---	0	---	---	---	0	105	106	107	24	---	---	---	0	---	---	---	0
3/11	---	---	---	0	---	---	---	0	106	107	107	24	---	---	---	0	---	---	---	0
3/12	---	---	---	0	---	---	---	0	106	107	108	24	---	---	---	0	---	---	---	0
3/13	---	---	---	0	---	---	---	0	106	106	108	24	---	---	---	0	---	---	---	0
3/14	---	---	---	0	---	---	---	0	106	107	108	24	---	---	---	0	---	---	---	0
3/15	---	---	---	0	---	---	---	0	105	106	108	24	---	---	---	0	---	---	---	0
3/16	---	---	---	0	---	---	---	0	103	104	105	24	---	---	---	0	---	---	---	0
3/17	---	---	---	0	---	---	---	0	104	104	105	23	---	---	---	0	---	---	---	0
3/18	---	---	---	0	---	---	---	0	104	105	106	24	---	---	---	0	---	---	---	0

Total Dissolved Gas Saturation Data at Snake River Sites

	Clrwtr-Lewiston				Lower Granite				L. Granite Tlwr				Little Goose				L. Goose Tlwr			
	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
3/5	---	---	---	0	101	102	102	24	101	101	102	24	---	---	---	0	---	---	---	0
3/6	---	---	---	0	100	100	101	24	100	100	101	24	---	---	---	0	---	---	---	0
3/7	---	---	---	0	100	100	100	24	99	100	100	24	---	---	---	0	---	---	---	0
3/8	---	---	---	0	100	101	101	24	100	100	101	24	---	---	---	0	---	---	---	0
3/9	---	---	---	0	101	101	101	24	101	101	103	24	---	---	---	0	---	---	---	0
3/10	---	---	---	0	101	101	102	24	100	100	101	24	---	---	---	0	---	---	---	0
3/11	---	---	---	0	101	102	102	24	101	101	102	24	---	---	---	0	---	---	---	0
3/12	---	---	---	0	103	103	104	24	102	103	103	24	---	---	---	0	---	---	---	0
3/13	---	---	---	0	103	103	104	24	102	103	103	24	---	---	---	0	---	---	---	0
3/14	---	---	---	0	103	103	104	24	103	103	103	24	---	---	---	0	---	---	---	0
3/15	---	---	---	0	102	103	103	24	102	103	103	24	---	---	---	0	---	---	---	0
3/16	---	---	---	0	102	103	103	24	103	103	104	24	---	---	---	0	---	---	---	0
3/17	---	---	---	0	103	103	103	24	103	103	104	24	---	---	---	0	---	---	---	0
3/18	---	---	---	0	104	104	104	24	104	104	104	24	104	104	107	11	104	104	105	12

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

	Lower Mon.				L. Mon. Tlwr				Ice Harbor				Ice Harbor Tlwr				McNary-Oregon			
	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
3/5	---	---	---	0	---	---	---	0	103	104	104	24	103	103	104	24	102	103	103	24
3/6	---	---	---	0	---	---	---	0	101	102	102	24	102	102	102	24	101	101	101	24
3/7	---	---	---	0	---	---	---	0	101	101	102	24	102	102	102	24	101	101	102	24
3/8	---	---	---	0	---	---	---	0	103	104	106	24	102	103	104	20	101	102	103	24
3/9	---	---	---	0	---	---	---	0	103	103	104	24	103	103	104	24	102	102	102	24
3/10	---	---	---	0	---	---	---	0	103	104	106	24	102	103	103	24	102	104	106	24
3/11	---	---	---	0	---	---	---	0	104	105	106	24	104	104	105	20	104	105	106	24
3/12	---	---	---	0	---	---	---	0	104	104	104	24	104	104	104	24	105	105	106	24
3/13	---	---	---	0	---	---	---	0	103	104	105	24	103	103	103	24	105	106	107	24
3/14	---	---	---	0	---	---	---	0	103	103	104	24	103	103	104	24	105	105	106	24
3/15	---	---	---	0	---	---	---	0	102	103	103	24	102	102	103	16	105	105	106	24
3/16	---	---	---	0	---	---	---	0	103	103	104	24	103	103	104	24	105	106	106	24
3/17	---	---	---	0	---	---	---	0	103	104	104	24	104	104	105	16	105	106	107	24
3/18	---	---	---	0	---	---	---	0	104	105	105	24	105	106	108	24	106	107	108	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

	McNary-Wash				McNary Tlwr				John Day				John Day Tlwr				The Dalles			
	24 h	12 h		#	24 h	12 h		#	24h	12h		#	24h	12h		#	24h	12h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	AVG	High	hr
3/5	102	103	103	24	102	102	103	24	---	---	---	0	---	---	---	0	---	---	---	0
3/6	100	101	101	24	100	100	101	24	---	---	---	0	---	---	---	0	---	---	---	0
3/7	100	101	101	24	100	100	101	24	---	---	---	0	---	---	---	0	---	---	---	0
3/8	102	103	104	24	101	102	102	24	---	---	---	0	---	---	---	0	---	---	---	0
3/9	103	103	104	24	102	102	102	24	---	---	---	0	101	101	102	12	102	102	103	8
3/10	103	104	105	24	102	102	102	24	---	---	---	0	101	101	102	24	102	102	102	24
3/11	105	106	106	24	104	104	104	24	---	---	---	0	103	103	104	24	102	103	103	24
3/12	106	106	106	24	105	105	105	24	---	---	---	0	103	103	103	24	103	103	103	24
3/13	105	106	107	24	104	104	104	24	---	---	---	0	102	102	103	24	102	102	103	24
3/14	105	106	106	24	104	105	105	24	---	---	---	0	102	102	103	24	102	103	103	24
3/15	104	105	105	24	104	104	104	24	---	---	---	0	102	102	103	24	102	102	103	24
3/16	104	105	105	24	104	104	105	24	---	---	---	0	103	103	103	24	103	103	103	24
3/17	105	105	105	24	104	105	105	24	---	---	---	0	104	104	104	24	104	104	104	24
3/18	106	106	107	24	105	106	106	24	---	---	---	0	104	105	105	24	104	105	106	24

Total Dissolved Gas Saturation Data at Lower Columbia River Sites

	The Dalles Dnst				Bonneville				Warrendale				Camas\Washugal			
	24 h	12 h		#	24 h	12 h		#	24h	12h		#	24h	12h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
3/5	---	---	---	0	---	---	---	0	104	105	105	24	104	104	105	23
3/6	---	---	---	0	---	---	---	0	103	104	104	24	103	104	104	23
3/7	---	---	---	0	---	---	---	0	102	103	103	24	103	104	105	23
3/8	---	---	---	0	---	---	---	0	103	104	104	24	104	105	106	23
3/9	---	---	---	0	---	---	---	0	103	103	104	24	104	105	105	23
3/10	102	102	102	13	---	---	---	0	103	104	104	24	104	105	106	23
3/11	102	103	103	23	103	103	104	24	104	105	106	24	104	105	106	23
3/12	103	103	103	23	103	104	104	24	106	107	107	24	104	106	106	23
3/13	102	102	103	23	103	103	103	24	106	106	106	24	105	105	106	23
3/14	102	102	103	23	102	102	103	24	106	106	107	24	105	105	106	23
3/15	102	102	102	23	102	102	103	24	105	105	106	24	106	107	108	23
3/16	102	103	103	23	103	103	103	24	103	103	104	24	105	105	106	23
3/17	103	104	104	23	103	104	104	24	104	105	105	24	105	106	107	23
3/18	104	104	105	23	104	104	104	24	104	104	105	24	104	105	106	23

Two-Week Summary of Passage Indices

COMBINED YEARLING CHINOOK

Date	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (INDEX)	LGS (INDEX)	LMN (INDEX)	RIS (INDEX)	MCN (INDEX)	JDA (INDEX)	BO2 (INDEX)
03/05/2004	---	28	---	---	---	---	---	---	---	---	360
03/06/2004 *	---	10	---	---	---	---	---	---	---	---	0
03/07/2004	---	7	---	---	---	---	---	---	---	---	273
03/08/2004	0	5	0	0	---	---	---	---	---	---	904
03/09/2004	0	4	1	0	---	---	---	---	---	---	1,064
03/10/2004	0	19	5	0	---	---	---	---	---	---	29
03/11/2004	2	72	11	0	---	---	---	---	---	---	409
03/12/2004 *	0	104	7	1	---	---	---	---	---	---	1,264
03/13/2004	---	95	---	---	---	---	---	---	---	---	465
03/14/2004	---	157	---	---	---	---	---	---	---	---	239
03/15/2004	71	154	9	0	---	---	---	---	---	---	0
03/16/2004	112	117	8	1	---	---	---	---	---	---	0
03/17/2004	295	118	9	1	---	---	---	---	---	---	226
03/18/2004 *	231	---	17	2	---	---	---	---	---	---	240
03/19/2004	---	---	---	---	---	---	---	---	---	---	121
Total:	**711**	**890**	**67**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**5,594**
# Days:	**9**	**13**	**9**	**9**	**0**	**0**	**0**	**0**	**0**	**0**	**15**
Average:	**79**	**68**	**7**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**373**
YTD	**711**	**958**	**67**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**5,594**

COMBINED SUBYEARLING CHINOOK

Date	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (INDEX)	LGS (INDEX)	LMN (INDEX)	RIS (INDEX)	MCN (INDEX)	JDA (INDEX)	BO2 (INDEX)
03/05/2004	---	0	---	---	---	---	---	---	---	---	123,449
03/06/2004 *	---	1	---	---	---	---	---	---	---	---	26,524
03/07/2004	---	3	---	---	---	---	---	---	---	---	4,464
03/08/2004	0	4	0	1	---	---	---	---	---	---	6,740
03/09/2004	0	1	0	0	---	---	---	---	---	---	3,672
03/10/2004	0	0	0	0	---	---	---	---	---	---	1,326
03/11/2004	0	0	0	0	---	---	---	---	---	---	2,310
03/12/2004 *	0	0	0	0	---	---	---	---	---	---	50,260
03/13/2004	---	0	---	---	---	---	---	---	---	---	242,411
03/14/2004	---	0	---	---	---	---	---	---	---	---	52,319
03/15/2004	0	0	0	0	---	---	---	---	---	---	18,647
03/16/2004	0	0	0	0	---	---	---	---	---	---	7,230
03/17/2004	0	0	0	0	---	---	---	---	---	---	7,322
03/18/2004 *	0	---	0	0	---	---	---	---	---	---	4,644
03/19/2004	---	---	---	---	---	---	---	---	---	---	3,829
Total:	**0**	**9**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**555,147**
# Days:	**9**	**13**	**9**	**9**	**0**	**0**	**0**	**0**	**0**	**0**	**15**
Average:	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**37,010**
YTD	**0**	**18**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**754,595**

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 COHO

Date	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (INDEX)	LGS (INDEX)	LMN (INDEX)	RIS (INDEX)	MCN (INDEX)	JDA (INDEX)	BO2 (INDEX)
03/05/2004	---	0	---	---	---	---	---	---	---	---	258
03/06/2004 *	---	0	---	---	---	---	---	---	---	---	97
03/07/2004	---	0	---	---	---	---	---	---	---	---	0
03/08/2004	0	0	0	0	---	---	---	---	---	---	28
03/09/2004	0	0	0	0	---	---	---	---	---	---	15
03/10/2004	0	0	0	0	---	---	---	---	---	---	0
03/11/2004	0	0	0	0	---	---	---	---	---	---	63
03/12/2004 *	0	0	0	0	---	---	---	---	---	---	82
03/13/2004	---	0	---	---	---	---	---	---	---	---	78
03/14/2004	---	0	---	---	---	---	---	---	---	---	0
03/15/2004	0	0	0	0	---	---	---	---	---	---	141
03/16/2004	0	0	0	0	---	---	---	---	---	---	0
03/17/2004	0	0	0	0	---	---	---	---	---	---	52
03/18/2004 *	0	---	0	1	---	---	---	---	---	---	30
03/19/2004	---	---	---	---	---	---	---	---	---	---	35
Total:	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**879**
# Days:	**9**	**13**	**9**	**9**	**0**	**0**	**0**	**0**	**0**	**0**	**15**
Average:	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**59**
YTD	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**976**

COMBINED STEELHEAD

Date	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (INDEX)	LGS (INDEX)	LMN (INDEX)	RIS (INDEX)	MCN (INDEX)	JDA (INDEX)	BO2 (INDEX)
03/05/2004	---	0	---	---	---	---	---	---	---	---	0
03/06/2004 *	---	0	---	---	---	---	---	---	---	---	0
03/07/2004	---	0	---	---	---	---	---	---	---	---	0
03/08/2004	0	0	0	0	---	---	---	---	---	---	0
03/09/2004	0	0	0	0	---	---	---	---	---	---	0
03/10/2004	0	0	0	0	---	---	---	---	---	---	0
03/11/2004	0	3	0	0	---	---	---	---	---	---	16
03/12/2004 *	0	0	0	0	---	---	---	---	---	---	0
03/13/2004	---	3	---	---	---	---	---	---	---	---	0
03/14/2004	---	9	---	---	---	---	---	---	---	---	0
03/15/2004	0	7	1	1	---	---	---	---	---	---	0
03/16/2004	0	3	2	0	---	---	---	---	---	---	0
03/17/2004	1	0	0	2	---	---	---	---	---	---	0
03/18/2004 *	0	---	0	0	---	---	---	---	---	---	0
03/19/2004	---	---	---	---	---	---	---	---	---	---	52
Total:	**1**	**25**	**3**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**68**
# Days:	**9**	**13**	**9**	**9**	**0**	**0**	**0**	**0**	**0**	**0**	**15**
Average:	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**
YTD	**1**	**26**	**3**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**68**

* See sampling comments http://www.fpc.org/currentDaily/smpcomments.htm

Two-Week Summary of Passage Indices

COMBINED SOCKEYE

Date	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (INDEX)	LGS (INDEX)	LMN (INDEX)	RIS (INDEX)	MCN (INDEX)	JDA (INDEX)	BO2 (INDEX)
03/05/2004	---	0	---	---	---	---	---	---	---	---	0
03/06/2004 *	---	0	---	---	---	---	---	---	---	---	0
03/07/2004	---	0	---	---	---	---	---	---	---	---	0
03/08/2004	0	0	0	0	---	---	---	---	---	---	0
03/09/2004	0	0	0	0	---	---	---	---	---	---	0
03/10/2004	0	0	0	0	---	---	---	---	---	---	0
03/11/2004	0	0	0	0	---	---	---	---	---	---	0
03/12/2004 *	0	0	0	0	---	---	---	---	---	---	0
03/13/2004	---	0	---	---	---	---	---	---	---	---	0
03/14/2004	---	0	---	---	---	---	---	---	---	---	0
03/15/2004	0	0	0	0	---	---	---	---	---	---	0
03/16/2004	0	0	0	0	---	---	---	---	---	---	0
03/17/2004	0	0	0	0	---	---	---	---	---	---	0
03/18/2004 *	0	---	0	0	---	---	---	---	---	---	0
03/19/2004	---	---	---	---	---	---	---	---	---	---	0
Total:	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
# Days:	**9**	**13**	**9**	**9**	**0**	**0**	**0**	**0**	**0**	**0**	**15**
Average:	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
YTD	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

* 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.

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 Mainstem Dams Through: 03/17

	Spring Chinook						Summer Chinook						Fall Chinook					
	2004		2003		10-Yr Avg.		2004		2003		10-Yr Avg.		2004		2003		10-Yr Avg.	
DAM	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack
BON	67	0	2,512	1	244	0	0	0	0	0	0	0	0	0	0	0	0	0
TDA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JDA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MCN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IHR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LMN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LGS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LWG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PRD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RIS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RRH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Coho						Sockeye			Steelhead			
	2004		2003		10-Yr Avg.				10-Yr			10-Yr	Wild
DAM	Adult	Jack	Adult	Jack	Adult	Jack	2004	2003	Avg.	2004	2003	Avg.	2004
BON	0	0	0	0	0	0	0	0	0	205	226	126	8
TDA	0	0	0	0	0	0	0	0	0	0	0	0	0
JDA	0	0	0	0	0	0	0	0	0	0	0	0	0
MCN	0	0	0	0	0	0	0	0	0	0	0	0	0
IHR	0	0	0	0	0	0	0	0	0	0	0	0	0
LMN	0	0	0	0	0	0	0	0	0	0	0	0	0
LGS	0	0	0	0	0	0	0	0	0	0	0	0	0
LWG	0	0	0	0	0	0	0	0	0	2,317	10,105	2,095	501
PRD	0	0	0	0	0	0	0	0	0	0	0	0	0
RIS	0	0	0	0	0	0	0	0	0	0	0	0	0
RRH	0	0	0	0	0	0	0	0	0	0	0	0	0
WEL	0	0	0	0	0	0	0	0	0	0	0	0	0

Only LGR and BON (for traditional dates) is currently being reported by the COE.
BON and LGR are through 03/17.
**PRD is not reporting Wild Steelhead numbers.
These numbers were collected from the COE's 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: 03/19/04

BON counts from January 1, 2004 to March 14, 2004 (our traditional counts begin March 15)

Chinook Adult	Chinook Jack	Steelhead	Wild Steelhead
177	1	1,552	245