



*Fish Passage Center*

# Weekly Report #04 - 1

March 12, 2004

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**PLEASE NOTE:**

The Fish Passage Center Weekly Report is available on Friday of each week by 4:00 p.m. on our internet homepage at [www.fpc.org](http://www.fpc.org). If you can get the information from the website, you will get your information sooner and help us utilize our resources more efficiently by saving postage and paper costs. We can also send you the report via email. Reduced use of paper also helps the environment. Please let us know if you want to be taken off the weekly report mailing list or if you would rather receive the report by email rather than traditional mail. You can email us at [fpc\\_staff@fpc.org](mailto:fpc_staff@fpc.org). Thanks!

**Summary of Events:**

Precipitation throughout the Columbia Basin has been generally above average over the first portion of March. Of the sites in Table 1, nine 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		Water Year 2004	
	March 1-8		October 1, 2003 to	
	Observed (inches)	% Average	Observed (inches)	% Average
Columbia Above Coulee	0.65	140	12.53	97
Snake River Above Ice Harbor	0.37	87	8.75	97
Columbia Above The Dalles	0.61	123	12.77	99
Kootenai	0.59	128	13.12	99
Clark Fork	0.37	119	7.10	88
Flathead	0.72	172	10.46	95
Pend Oreille/Spokane	0.75	105	17.41	96
Central Washington	0.22	104	4.98	94
Snake River Plain	0.12	42	4.58	87
Salmon/Boise/Payette	0.36	71	10.47	92
Clearwater	1.15	159	17.43	105
SW Washington Cascades/Cowlitz	1.89	104	45.56	94
Willamette Valley	1.12	68	40.58	100

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 93% of average, for Snake River Basins the average snowpack is 105% of average, and for lower Columbia Basins between McNary and Bonneville Dam average snowpack is 126% 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**

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 11th at an elevation of 1258.5 feet, this elevation is 17.3 feet below its standard BIOP required April 10th elevation (1275.8 feet) and 13.7 feet below the April 10th elevation (1272.2 feet) if a flood control swap occurs between Grand Coulee and Dworshak. To achieve the April 10th elevation under standard flood control (no swap), Grand Coulee will have to refill more than 1.2 million acre-feet of water in less than one month. Reaching the April 10 flood control elevations ensures a high probability of both meeting spring flow objectives and refill by June 30.

The Libby Reservoir is also currently well below its flood control elevations. Libby ended March 11th at an elevation of 2398.9 feet, 44.1 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 3512.1 feet, which is 25.1 feet below its estimated April 10th BIOP elevation. Hungry Horse also continues to draft to meet Columbia Falls minimum flows.

The Dworshak reservoir is currently at an elevation of 1510.7 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 past nine days, Dworshak has been able to refill slightly as project outflows were reduced to the minimum. Previous to this point (last two weeks of February), the COE increased outflows at Dworshak in anticipation of having too much water to reach the flood control elevations in late March and early April. In less than one month, Dworshak will have to refill 24.8 feet to reach its system flood control point or refill 43.7 feet to reach its local flood control elevation if a shift occurs between Dworshak and Grand Coulee.

The Brownlee Reservoir was at an elevation of 2045.1 on March 11th. Out of all the major storage projects within the Columbia Hydroystem, Brownlee is the closest to its April 10th elevation (2055.1 feet).

**Spill:** The Spring Creek Hatchery released 3.68 million juvenile tule fall chinook on March 1, 2004. In order to facilitate the passage of these fish past the Bonneville project spill was provided for four days beginning on March 3, 2004 and continuing through March 6, 2004. Spill averaged approximately 50 Kcfs per day during this period. Total dissolved gas levels did not exceed water quality standards during this period.

**Smolt Monitoring:** Sampling of juvenile migrant salmonids has begun at several sites in March. The Imnaha Trap, operated by the Nez Perce Tribe, began operating on February 26, 2004. The Lewiston Trap located on the Snake River just above the confluence with the Clearwater River and the Whitebird Trap located on the Salmon River in Idaho, both operated by Idaho Department of Fish and Game, began operations March on March 7 with the first sample counted on March 8. The Grande Ronde Trap, located on the Grande Ronde River in Eastern Oregon, and operated by Oregon Department of Fish and Wildlife, also began operations on March 9.

At the Snake River Basin traps the numbers of yearling chinook being captured are still quite low ranging from 0 to 2 fish at the Whitebird Trap, with no fish captured thus far at the Lewiston Trap. Numbers of yearling chinook at the Grande Ronde Trap have ranged from 1 to 11 fish, while the number increased to 72 fish at the Imnaha Trap.

Sampling began on March 3 at Bonneville Dam shortly after the first Spring Creek Hatchery release on March 1 of 3.68 million subyearling fall chinook. Numbers increased steadily for the first four days and began to decrease on the sixth day after the release. A second release of 3.65 million subyearling fall chinook from Spring Creek Hatchery occurred on March 10, with numbers increasing significantly in the sample ending on the morning of March 12. The USFWS split the first release from Spring Creek Hatchery into these two groups in order to conduct a study of passage through spill versus passage through the corner collector.

**Hatchery Releases** - The scheduled release of juvenile salmonids from Columbia River Basin hatcheries above Bonneville Dam for the 2004 migration season is estimated near 81.9 million. Supplemental and planned releases completed during the fall 2003 season are primarily considered as 2004 migrants. The Zone Release Report below summarizes "planned" hatchery releases from State, federal or Tribal hatcheries or acclimation ponds for the 2004 Migration Season.

These totals will be updated after actual release from the hatcheries. These planned releases will be modified to reflect the actual release throughout the year. For the Weekly Report, a summary of the previous 2-weeks as well as a summary of the upcoming 2-weeks of releases from hatcheries are given.

Juvenile sockeye were released from net pens into Lake Wenatchee last summer and fall; the majority of these fish reside in the lake and then migrate from the lake and to the ocean the next spring (2004). In the Snake River basin, juvenile sockeye were released in Redfish, Alturas, and Pettit lakes last fall and normally begin their migration in late April and May from the lakes.

	Friday 05-Sep-2003			
	Snake River	Mid-Columbia	Lower Columbia	Total Release
Fall Chinook	2610000	12430000	21739475	36779475
Spring Chinook	10469142	3910579	5251666	19631387
Summer Chinook	2401322	3324000		5725322
Coho	1199433	1141000	5924000	8264433
Sockeye	62000	315790		377790
Summer Steelhead	9276500	1251000	457600	10985100
Winter Steelhead			90000	90000
Total	26018397	22372369	33462741	81853507

For the first two weeks of March, about 10 million fish were released from hatcheries; 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. Also, about 1 million yearling fall chinook, spring chinook and coho were released from Umatilla River acclimation ponds beginning March 8 (mostly volitional releases). Nearly 610,000 yearling chinook were released from Klickitat H. during the first week in March.

From Columbia basin hatcheries, most yearling chinook will be released in March and April with steelhead releases normally spanning April and up to mid-May. Yearling coho releases are completed from March through mid-May in the Basin. Except for the subyearling fall chinook

released from Spring Creek H during the March/April timeframe, subyearling summer and fall chinook are released from late May through early July.

**Adult Fish Passage** - At Bonneville and up-stream 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 will begin March 15, 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. During the winter season, some fish counting occurs at selected COE dams to assess winter steelhead passage at Bonneville Dam for example or in past years, assess movement of Bulltrout during winter months at a couple of Snake River projects. The Bonneville Dam counts from January through March 9 are listed in a small table below the Adult Table. Through March 9 there have been only 65 adult spring chinook tallied at Bonneville Dam with steelhead totaling 1,181.

Based on estimates made by the Technical Advisory Committee for US & Oregon this winter, the upriver component of the spring chinook run for 2004 is expected to be near 360,700.

**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
02/26/04	101.6	0.0	101.9	0.0	104.9	0.0	104.1	0.0	106.5	0.0	100.4	0.0	98.1	0.0
02/27/04	71.8	0.0	75.3	0.0	77.1	0.0	80.2	0.0	85.1	0.0	89.5	0.0	87.9	0.0
02/28/04	64.0	0.0	66.9	0.0	65.3	0.0	68.1	0.0	70.4	0.0	71.5	0.0	73.3	0.0
03/01/04	56.8	0.0	60.0	0.0	61.2	0.0	61.8	0.0	64.3	0.0	72.8	0.0	72.1	0.0
03/02/04	76.2	0.0	74.6	0.0	79.1	0.0	78.5	0.0	81.4	0.0	87.8	0.0	86.9	0.0
03/03/04	100.7	0.0	102.8	0.0	99.4	6.2	100.8	0.0	103.1	0.0	95.9	0.0	92.2	0.0
03/04/04	99.2	0.0	99.1	0.0	100.9	0.0	99.8	0.0	99.8	0.0	99.7	0.0	101.0	0.0
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

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

Date	Dworshak		Hells Brownlee Canyon		Lower Granite		Little Goose		Lower Monumental		Ice Harbor	
	Flow	Spill	Inflow	Outflow	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill
02/26/04	4.9	0.0	17.5	17.2	34.3	0.0	32.1	0.0	34.3	0.0	32.7	0.0
02/27/04	4.9	0.0	18.9	17.5	37.6	0.0	38.3	0.0	42.2	0.0	40.9	0.0
02/28/04	4.9	0.0	17.0	13.4	37.0	0.0	36.3	0.0	39.9	0.0	37.5	0.0
03/01/04	4.9	0.0	18.7	11.2	27.5	0.0	26.5	0.0	27.9	0.0	28.4	0.0
03/02/04	4.8	0.0	17.8	17.7	35.8	0.0	35.7	0.0	36.4	0.0	33.3	0.0
03/03/04	1.6	0.0	17.6	21.6	30.0	0.0	31.0	0.0	35.0	0.0	34.4	0.0
03/04/04	1.6	0.0	15.4	19.5	34.4	0.0	33.8	0.0	34.9	0.0	33.1	0.0
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	---	---	40.1	0.0	38.9	0.0	41.7	0.0	39.8	0.2

**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		
02/26/04	99.4	0.0	102.9	0.0	105.6	0.0	127.1	0.0	42.0	78.0
02/27/04	147.1	0.0	154.7	0.0	158.5	0.0	150.4	0.0	54.8	89.2
02/28/04	110.3	0.0	110.1	0.0	118.0	0.0	135.2	0.0	46.0	82.0
03/01/04	103.7	0.0	108.0	0.0	111.4	0.0	126.5	0.0	35.1	84.9
03/02/04	141.9	0.0	139.1	0.0	141.0	0.0	142.3	9.9	39.3	85.7
03/03/04	119.3	0.0	134.5	0.0	144.5	0.0	171.9	50.1	26.4	88.6
03/04/04	125.3	0.0	119.4	0.0	121.7	0.0	155.3	50.3	15.9	82.1
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	201.8	0.0	135.5	0.0	136.5	0.0	144.4	2.2	50.6	83.4

### HATCHERY RELEASE LAST TWO WEEKS

Hatchery Release Summary

From: 2/27/2004 to 3/11/2004

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
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
<b>Nez Perce Tribe Total</b>					<b>550,000</b>				
Oregon Dept. of Fish and Wildlife	Cascade Hatchery	CO	UN	2004	750,000	03-08-04	03-26-04	Pendelton Acclim Pond	Umatilla River
<b>Oregon Dept. of Fish and Wildlife Total</b>					<b>750,000</b>				
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	Spring Creek NFH	CH0	FA	2004	3,677,307	03-01-04	03-01-04	Spring Creek Hatchery	L Col R (D/s McN Dam)
<b>U.S. Fish and Wildlife Service Total</b>					<b>7,331,475</b>				
Umatilla Tribe	Bonneville Hatchery	CH1	FA	2004	250,000	03-08-04	03-26-04	Thornhollow Acclim Pond	Umatilla River
Umatilla Tribe	Umatilla Hatchery	CH1	SP	2004	494,516	03-08-04	03-26-04	Imeques Acclim Pond	Umatilla River
<b>Umatilla Tribe Total</b>					<b>744,516</b>				
Washington Dept. of Fish and Wildlife	Klickitat Hatchery	CH1	SP	2004	609,800	03-01-04	03-05-04	Klickitat Hatchery	Klickitat River
<b>Washington Dept. of Fish and Wildlife Total</b>					<b>609,800</b>				
<b>Grand Total</b>					<b>9,985,791</b>				

### HATCHERY RELEASE NEXT TWO WEEKS

Hatchery Release Summary

From: 3/12/2004 to 3/25/2004

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
<b>Idaho Dept. of Fish and Game Total</b>					<b>800,000</b>				
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
<b>Nez Perce Tribe Total</b>					<b>778,000</b>				
Oregon Dept. of Fish and Wildlife	Cascade Hatchery	CO	UN	2004	750,000	03-08-04	03-26-04	Pendelton Acclim Pond	Umatilla River
<b>Oregon Dept. of Fish and Wildlife Total</b>					<b>750,000</b>				
Umatilla Tribe	Bonneville Hatchery	CH1	FA	2004	250,000	03-08-04	03-26-04	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	494,516	03-08-04	03-26-04	Imeques Acclim Pond	Umatilla River
<b>Umatilla Tribe Total</b>					<b>906,516</b>				
<b>Grand Total</b>					<b>3,234,516</b>				

## 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>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>		
	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High		
2/27	---	---	---	0	102	102	103	24	100	101	101	24	101	101	105	23	---	---	---	0
2/28	---	---	---	0	101	101	102	12	100	100	100	24	100	100	103	11	---	---	---	0
2/29	---	---	---	0	---	---	---	0	100	100	100	24	---	---	---	0	---	---	---	0
3/1	---	---	---	0	102	103	103	24	100	101	101	24	101	101	105	23	---	---	---	0
3/2	---	---	---	0	102	102	103	24	100	100	100	24	100	101	102	23	---	---	---	0
3/3	---	---	---	0	102	102	103	24	100	101	101	24	100	101	103	21	---	---	---	0
3/4	---	---	---	0	102	103	103	24	101	101	101	24	99	99	100	23	---	---	---	0
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	96	23	---	---	---	0
3/9	---	---	---	0	102	102	103	24	100	100	101	24	96	96	96	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

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>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>		
	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High		
2/27	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
2/28	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
2/29	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/1	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/2	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/3	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/4	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
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

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>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>		
	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High		
2/27	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
2/28	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
2/29	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/1	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/2	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/3	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/4	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
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

## 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	Priest R. Dnst			#	Pasco			#	Dworshak			#	Clrwtr-Peck			#	Anatone			#
	24 h Avg	12 h Avg	High		24 h Avg	12 h Avg	High		24 h Avg	12 h Avg	High		24 h Avg	12 h Avg	High		24 h Avg	12 h Avg	High	
2/27	---	---	---	0	---	---	---	0	96	97	97	24	---	---	---	0	---	---	---	0
2/28	---	---	---	0	---	---	---	0	96	96	96	24	---	---	---	0	---	---	---	0
2/29	---	---	---	0	---	---	---	0	96	96	97	24	---	---	---	0	---	---	---	0
3/1	---	---	---	0	---	---	---	0	96	97	98	24	---	---	---	0	---	---	---	0
3/2	---	---	---	0	---	---	---	0	96	97	97	24	---	---	---	0	---	---	---	0
3/3	---	---	---	0	---	---	---	0	102	103	104	24	---	---	---	0	---	---	---	0
3/4	---	---	---	0	---	---	---	0	103	103	104	24	---	---	---	0	---	---	---	0
3/5	---	---	---	0	---	---	---	0	103	103	104	24	---	---	---	0	---	---	---	0
3/6	---	---	---	0	---	---	---	0	103	104	104	24	---	---	---	0	---	---	---	0
3/7	---	---	---	0	---	---	---	0	102	102	103	24	---	---	---	0	---	---	---	0
3/8	---	---	---	0	---	---	---	0	102	103	104	24	---	---	---	0	---	---	---	0
3/9	---	---	---	0	---	---	---	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

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

Date	Clrwtr-Lewiston			#	Lower Granite			#	L. Granite Tlwr			#	Little Goose			#	L. Goose Tlwr			#
	24 h Avg	12 h Avg	High		24 h Avg	12 h Avg	High		24 h Avg	12 h Avg	High		24 h Avg	12 h Avg	High		24 h Avg	12 h Avg	High	
2/27	---	---	---	0	102	102	102	24	102	102	103	24	---	---	---	0	---	---	---	0
2/28	---	---	---	0	101	101	101	24	101	101	101	24	---	---	---	0	---	---	---	0
2/29	---	---	---	0	101	101	102	24	101	101	101	24	---	---	---	0	---	---	---	0
3/1	---	---	---	0	101	101	101	24	101	101	102	24	---	---	---	0	---	---	---	0
3/2	---	---	---	0	100	100	101	24	100	101	101	24	---	---	---	0	---	---	---	0
3/3	---	---	---	0	100	101	101	22	100	101	101	22	---	---	---	0	---	---	---	0
3/4	---	---	---	0	101	102	102	23	101	101	102	23	---	---	---	0	---	---	---	0
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

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

Date	Lower Mon.			#	L. Mon. Tlwr			#	Ice Harbor			#	Ice Harbor Tlwr			#	McNary-Oregon			#
	24 h Avg	12 h Avg	High		24 h Avg	12 h Avg	High		24 h Avg	12 h Avg	High		24 h Avg	12 h Avg	High		24 h Avg	12 h Avg	High	
2/27	---	---	---	0	---	---	---	0	101	101	102	24	101	101	103	24	102	102	102	24
2/28	---	---	---	0	---	---	---	0	101	101	101	24	100	101	101	24	102	103	104	24
2/29	---	---	---	0	---	---	---	0	101	102	102	24	101	101	102	24	102	103	104	24
3/1	---	---	---	0	---	---	---	0	102	102	103	24	102	102	103	24	102	102	103	24
3/2	---	---	---	0	---	---	---	0	101	102	102	24	102	102	102	24	102	102	102	24
3/3	---	---	---	0	---	---	---	0	102	103	103	24	102	103	103	24	102	102	103	24
3/4	---	---	---	0	---	---	---	0	103	103	104	24	103	104	104	24	103	103	103	24
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



## 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>
	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>AVG</u>	<u>High</u>	<u>hr</u>
2/27	102	102	103	24	101	102	102	24	---	---	---	0	---	---	---	0	---	---	---	0
2/28	102	102	102	24	101	101	101	24	---	---	---	0	---	---	---	0	---	---	---	0
2/29	102	103	103	24	101	102	102	24	---	---	---	0	---	---	---	0	---	---	---	0
3/1	102	103	103	24	101	102	102	24	---	---	---	0	---	---	---	0	---	---	---	0
3/2	102	102	102	24	101	102	102	24	---	---	---	0	---	---	---	0	---	---	---	0
3/3	103	103	103	24	102	102	103	24	---	---	---	0	---	---	---	0	---	---	---	0
3/4	103	103	103	24	102	103	103	24	---	---	---	0	---	---	---	0	---	---	---	0
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

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

Date	<u>The Dalles Dnst</u>				<u>Bonneville</u>				<u>Warrendale</u>				<u>Camas\Washugal</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>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>
2/27	---	---	---	0	103	103	103	24	102	103	103	24	103	103	103	23
2/28	---	---	---	0	102	102	103	24	102	102	103	24	103	103	104	23
2/29	---	---	---	0	103	103	104	24	103	103	104	24	104	105	105	23
3/1	---	---	---	0	103	104	104	24	103	103	104	24	104	105	106	23
3/2	---	---	---	0	103	103	103	6	104	104	105	24	104	105	106	23
3/3	---	---	---	0	103	104	104	24	105	105	106	24	104	104	105	23
3/4	---	---	---	0	103	103	104	6	105	105	105	24	104	105	105	23
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

## 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)
02/27/2004	---	26	---	---	---	---	---	---	---	---	---
02/28/2004	---	11	---	---	---	---	---	---	---	---	---
02/29/2004	---	7	---	---	---	---	---	---	---	---	---
03/01/2004	---	---	---	---	---	---	---	---	---	---	---
03/02/2004	---	8	---	---	---	---	---	---	---	---	---
03/03/2004 *	---	9	---	---	---	---	---	---	---	---	0
03/04/2004	---	4	---	---	---	---	---	---	---	---	0
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	---	7	---	---	---	---	---	---	---	1,264
<b>Total:</b>	<b>2</b>	<b>210</b>	<b>24</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4,303</b>
<b># Days:</b>	<b>5</b>	<b>13</b>	<b>5</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>10</b>
<b>Average:</b>	<b>0</b>	<b>16</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>430</b>
<b>YTD</b>	<b>2</b>	<b>213</b>	<b>24</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4,303</b>

### 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)
02/27/2004	---	0	---	---	---	---	---	---	---	---	---
02/28/2004	---	0	---	---	---	---	---	---	---	---	---
02/29/2004	---	0	---	---	---	---	---	---	---	---	---
03/01/2004	---	---	---	---	---	---	---	---	---	---	---
03/02/2004	---	5	---	---	---	---	---	---	---	---	---
03/03/2004 *	---	3	---	---	---	---	---	---	---	---	20,825
03/04/2004	---	1	---	---	---	---	---	---	---	---	178,623
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	---	---	---	---	---	---	---	50,260
<b>Total:</b>	<b>0</b>	<b>18</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>418,193</b>
<b># Days:</b>	<b>5</b>	<b>13</b>	<b>5</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>10</b>
<b>Average:</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>41,819</b>
<b>YTD</b>	<b>0</b>	<b>18</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>418,193</b>

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)
02/27/2004	---	0	---	---	---	---	---	---	---	---	---
02/28/2004	---	0	---	---	---	---	---	---	---	---	---
02/29/2004	---	0	---	---	---	---	---	---	---	---	---
03/01/2004	---	---	---	---	---	---	---	---	---	---	---
03/02/2004	---	0	---	---	---	---	---	---	---	---	---
03/03/2004 *	---	0	---	---	---	---	---	---	---	---	0
03/04/2004	---	0	---	---	---	---	---	---	---	---	97
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	---	---	---	---	---	---	---	82
<b>Total:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>640</b>
<b># Days:</b>	<b>5</b>	<b>13</b>	<b>5</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>10</b>
<b>Average:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>64</b>
<b>YTD</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>640</b>

### 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)
02/27/2004	---	0	---	---	---	---	---	---	---	---	---
02/28/2004	---	0	---	---	---	---	---	---	---	---	---
02/29/2004	---	1	---	---	---	---	---	---	---	---	---
03/01/2004	---	---	---	---	---	---	---	---	---	---	---
03/02/2004	---	0	---	---	---	---	---	---	---	---	---
03/03/2004 *	---	0	---	---	---	---	---	---	---	---	0
03/04/2004	---	0	---	---	---	---	---	---	---	---	0
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
<b>Total:</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>16</b>
<b># Days:</b>	<b>5</b>	<b>13</b>	<b>5</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>10</b>
<b>Average:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>
<b>YTD</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>16</b>

\* See sampling comments

**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)
02/27/2004	---	0	---	---	---	---	---	---	---	---	---
02/28/2004	---	0	---	---	---	---	---	---	---	---	---
02/29/2004	---	0	---	---	---	---	---	---	---	---	---
03/01/2004	---	---	---	---	---	---	---	---	---	---	---
03/02/2004	---	0	---	---	---	---	---	---	---	---	---
03/03/2004 *	---	0	---	---	---	---	---	---	---	---	0
03/04/2004	---	0	---	---	---	---	---	---	---	---	0
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
<b>Total:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b># Days:</b>	<b>5</b>	<b>13</b>	<b>5</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>10</b>
<b>Average:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>YTD</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

**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: 03/11**

DAM	Spring Chinook						Summer Chinook						Fall Chinook					
	2004		2003		10-Yr Avg.		2004		2003		10-Yr Avg.		2004		2003		10-Yr Avg.	
	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack
BON	0	0	0	0	0	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

DAM	Coho					Sockeye			Steelhead				
	2004		2003		10-Yr Avg.		2004	2003	10-Yr Avg.	2004	2003	10-Yr Avg.	Wild 2003
	Adult	Jack	Adult	Jack	Adult	Jack							
BON	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
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	670	3,753	744	162	0
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 Lower Granite data (for traditional dates) is currently being reported by the COE.

LGR is through 03/10.

\*\*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: 03/12/04

BON counts from January 1, 2004 to March 09, 2004 (our traditional counts begin March 15)

Chinook Adult	Chinook Jack	Steelhead	Wild Steelhead
65	0	1,181	214

