



Fish Passage Center

Weekly Report #05 - 4

April 1, 2005

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Summary of Events:

Water Supply: Precipitation throughout the Columbia Basin has been near or above average in March. Of the sites in Table 1, all recorded precipitation was greater than 84% of average over March, with most recording above average precipitation. Over the entire water year, precipitation remains below 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 2005 March 1-28		Water Year 2005 October 1, 2004 to March 28, 2005	
	Observed (inches)	% Average	Observed (inches)	% Average
	Columbia Above Coulee	1.89	117	11.46
SNAKE RIVER Above Ice Harbor	1.60	107	7.87	78
Columbia Above The Dalles	1.86	107	10.55	75
Kootenai	1.81	113	11.23	78
Clark Fork	1.35	125	5.27	59
Flathead	2.55	173	10.69	89
Pend Oreille/Spokane	3.13	125	15.75	79
Central Washington	0.63	84	3.51	60
SNAKE RIVER Plain	0.93	92	5.10	85
Salmon/Boise/Payette	1.84	105	7.98	63
Clearwater	2.73	108	13.21	72
SW Washington Cascades/Cowlitz	6.06	95	32.43	61
Willamette Valley	5.62	97	25.14	56

Recent storms have increased snowpack within the Columbia Basin, however snow pack continues to be well below average. Average snowpack in the Columbia River for basins above the Snake River confluence is 51% of average (up 9% since 3-21-05), for Snake River Basins the average snowpack is 68% of average (up 12% since 3-21-05), and for lower Columbia Basins between McNary and Bonneville Dam average snowpack is 27% of average (up 8% since 3-21-05).

Water Supply Forecasts have increased somewhat in response to late March precipitation, increasing between three and eight percent of average between the March Final and the April Early-Bird Forecasts. Table 2 displays the March Final and the April Early-Bird runoff volume forecasts for multiple reservoirs along with runoff volumes that actually occurred in 2001 for comparison. All forecasts are currently above the actual runoff volumes recorded in 2001.

Table 2. March Final and the April Early-Bird Runoff Volume Forecasts for various reservoirs within the Columbia and Snake River Basins along with 2001 actual runoff volumes over the same periods.

Location	March Final		April Early-Bird		Actual 2001
	% Average (1971-2000)	Probable Runoff Volume (Kaf)	% Average (1971-2000)	Probable Runoff Volume (Kaf)	Actual Runoff Volume (Kaf)
The Dalles (Jan-July)	66	70700	70	75100	58200
Grand Coulee (Jan-July)	80	50500	85	53700	37400
Libby Res. Inflow, MT (Jan-July)	77	4860	84	5270	3341
Hungry Horse Res. Inflow, MT (Jan-July)	67	1480	72	1600	1300
Lower Granite Res. Inflow (Apr- July)	46	9960	53	11500	10300
Brownlee Res. Inflow (Apr-July)	28	1740	36	2300	1970*
Dworshak Res. Inflow (Apr-July)	56	1470	59	1550	1470

Grand Coulee Reservoir is currently at an elevation of 1255.9 feet (March 31st 2005 midnight) as anticipated for drum gate maintenance.

The Libby Reservoir is currently well below its flood control elevations. Libby ended March 31st at an elevation of 2413.2 feet, 28.8 feet below its end of March Flood Control elevation of 2442 feet. Libby continues to release its minimum project outflow of 4.0 Kcfs.

The Hungry Horse Reservoir is currently at an elevation of 3548.6 feet, which was 7.0 feet below its end of March Flood Control elevation of 3555.6 feet. Hungry Horse has been releasing between 0.6 and 1.0 Kcfs over the past week.

The Dworshak reservoir is currently at an elevation of 1578.5. Dworshak was 9.0 feet below its end of March System Flood Control elevation of 1587.5 feet, however as a result of relatively high inflows did manage to refill 6.6 feet in the last week.

The Brownlee Reservoir was at an elevation of 2075.2 on March 31st, 2005. Out of all the major storage projects within the Columbia Hydroystem, Brownlee is the closest to its end of March Flood Control elevation (2077 feet).

Spill: The only spill that occurred in the system over the past week was at Bonneville Dam. This spill is part of adult attraction passage enhancement. In spite of the fact that projects are not spilling water, total dissolved gas levels throughout the hydrosystem are elevated. This is likely a result of physical and biological processes. Gas bubble trauma monitoring is scheduled to start in the Lower Columbia on April 11. Due to projected low flows no spill is planned at the Snake River transportation collector projects. Consequently, GBT monitoring is not planned at these projects.

Smolt Monitoring: Monitoring began at Lower Granite Dam this past week. With recent rains throughout the Snake River Basin yearling chinook are being captured in relatively large numbers at most Snake River Basin SMP traps. Small but increasing numbers of other species such as coho and steelhead are beginning to show up at dams where sampling is occurring. Sampling will begin at all other SMP dams this coming week.

At the Salmon River Trap there were nearly 3,700 yearling chinook captured on March 28. The trap catch has been predominantly hatchery origin fish and the numbers have increased with recent hatchery releases as well as with increases in flows. Flows in the Salmon River rose from 4,000 cfs on March 26 to 7,200 cfs on March 29 at the USGS gage at White Bird. Similar increases in flow were seen in the Grande Ronde and Imnaha rivers during this past week. The Imnaha Trap was not fished March 28 and 29 due to high flows and debris, while the Grande Ronde Trap experienced increased catch of yearling chinook and unfortunately some fish mortality during the freshet as debris caused equipment malfunction.

At the Snake River Trap at Lewiston, the catch has been limited due to low flows. And while the tributaries saw significant increases in discharge, it did not translate into high flows in the

Snake River above Lewiston. At the Anatone gage flows were still below normal despite the recent rains. As a result trap catch has still been low. But catch did increase this week. Unlike other traps the Lewiston Trap captured more steelhead than yearling chinook. Most of the steelhead captured there this past week were hatchery origin.

Sampling began March 26 at Lower Granite Dam in the Lower Snake River. The passage indices have been low this first week of sampling. Similar to the Snake River Trap steelhead have predominated in the catch this past week, with a few yearling chinook and sockeye also in the sample. Most of the yearling chinook appear to be holdovers both spring and fall chinook. One radio-tagged yearling fall chinook tagged by USGS over the winter above the dam, was captured in the sample.

At Bonneville Dam the catch was predominantly fry this past week. Subyearling chinook fry and coho fry were captured in large numbers this week. Likely these fish came from nearby tributaries, flushed out by recent high flows due to locally heavy rains. Subyearling indices reached 15,000 March 31 with nearly all of those fish unclipped fry. Smaller numbers of coho in the sample were all unclipped up until March 31, with 20% to 50% of those fish unbuttoned sack-fry. The few clipped coho that began arriving on March 31 are likely releases from Klickitat River and Umatilla River hatchery releases the past two weeks. Small numbers of yearling chinook continue to pass the project this last week again, predominantly hatchery origin fish likely from Klickitat River and Umatilla River hatchery releases.

Hatchery Releases - Releases of juvenile salmonids from Columbia River Basin hatcheries above Bonneville Dam are estimated near 83.8 million for the 2005 migration season. Supplemental and planned releases completed during the fall 2004 season are considered to be 2005 migrants. The Zone Release Report below summarizes "planned" hatchery releases from State, federal or Tribal hatcheries or acclimation ponds for this year's migration. These totals will be updated after release from the hatcheries and finalized through the year.

Hatchery Zone Release Report

	Thursday 31-Mar-2005			
	Snake River	Mid-Columbia	Lower Columbia	Total Release
Fall Chinook	4,840,000	12,656,000	21,886,441	39,382,441
Spring Chinook	9,029,934	4,679,961	5,038,495	18,748,390
Summer Chinook	2,347,530	3,466,500		5,814,030
Coho	825,000	2,449,119	5,149,974	8,424,093
Sockeye	210,716	240,459		451,175
Summer Steelhead	9,120,524	1,240,151	522,500	10,883,175
Winter Steelhead			118,300	118,300
Total	26,373,704	24,732,190	32,715,710	83,821,604

Rain throughout the Region gave a boost to some of the rivers and streams where yearling and subyearling fish have been released from Hatcheries and Acclimation Ponds in the Columbia River basin. The spring migration is comprised mainly of yearling Chinook, Coho, Sockeye and Steelhead.

Hatchery releases initiated or completed during the past two weeks accounted for about 12.8 million fish liberated in the Columbia/Snake River basin. For the upcoming two weeks, about 18.7 million fish will be released from hatcheries, either directly into the streams or else released volitionally through time. See the Hatchery Release Summary Tables for details.

Snake River - About 2.0 million spring/summer Chinook were released mainly in the Clearwater River basin during the 2004 summer through December timeframe. Yearling chinook from the acclimation ponds located in the Grande Ronde River at Lostine R, Catherine Creek, and upper Grande Ronde began their volitional releases as well as volitional release from Rapid River Hatchery that will be ongoing for the next few weeks. The direct release of yearling spring/summer Chinook from McCall Hatchery was completed, as were several releases in the Clearwater River basin.

Yearling Coho salmon will be released in the Clearwater River basin with hatchery production releases to be about 825,000 for the 2005 season. Greater than 460,000 of the projected total has been released in the Clearwater River basin to date.

The projected release of hatchery Steelhead is about 9.1 million for the Snake River basin. B-Run Steelhead are released in the Clearwater

River basin exclusively with most other River basins having A-Run Steelhead. Steelhead releases are completed in the Hells Canyon area with releases ongoing or completed in the Little Salmon River. Generally, most Steelhead releases are scheduled for April through mid-May.

Mid-Columbia - The CleElum tribal facility began volitional release of about 825,000 yearling spring Chinook mid-March and will continue the release through early May or until the fish emigrate from the facilities. Spring Chinook were released from Ringold Hatchery pond by Friday March 18th. Most State, Tribal and Federal hatcheries will begin releasing their yearling spring Chinook in the upper Mid-Columbia from mid to late April.

About 2.4 million yearling Coho salmon will be released in the Wenatchee River basin, Methow River basin and the Yakima River basin, mostly from Tribal acclimation facilities. The majority of these Coho will be in-river by late April. Steelhead releases are tentatively scheduled for April through mid-May with no Steelhead released in the Mid-Columbia River to date.

Lower Columbia - Yearling fall Chinook and Coho salmon were released in late February in the Umatilla River with additional Coho were in March from Reith Bridge, near Pendleton, OR. About 800,000 yearling spring Chinook were released during the past two weeks from Imeques Pond, about 80 river miles from the mouth of the Umatilla River. All yearling Chinook and Coho have been planted in the Umatilla River. Yearling spring Chinook were released from Klickitat Hatchery on March 1-11 (600,000 total) with Warm Springs NFH beginning their volitional release in the Deschutes River basin from mid-March through early April. Volitional release of spring Chinook will be initiated in the Hood River during the upcoming week as well.

About 2.5 million yearling Coho salmon from Washougal Hatchery were trucked to and released at several sites in the Klickitat River during the week of March 21-25. The majority of Steelhead are projected for release in April to early May into various rivers and tributaries.

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, in this case, April and May, 2005. In the Snake River basin, juvenile sockeye were released in Redfish, Alturas, and Pettit lakes last fall and will also begin their migration in the spring, usually late April and May from the lakes. My understanding is that there will be a release of sockeye from the Canada fisheries in the Okanogan River basin above Lake Osoyoos.

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. The Bonneville Dam counts from January through March 14 are listed in a small table below the normal Adult Table.

For the month of March (through 3/29), passage of adult spring Chinook has not yet broken into double figures with 23 adult Chinook counted from the 15th through the 29th of March. The 2005 count of 23 adult Chinook compares to 376 in 2004 and 2,127 for the 10-year average.

Regarding adult fish facilities at Bonneville Dam, the water supply to the main entrance gates and fish ladders have been operating at full criteria since March 1st. The New Powerhouse is primarily operated with flows shifted to the Old Powerhouse when flow is in excess of powerhouse capacity. Overall, passage conditions for adult fish at Bonneville should have been excellent for the month of March.

Marine Mammals have been observed in the vicinity of the fish ladders and main entrances.

Adult Steelhead continue moving through the hydro system to reach their tributaries and spawning sites. The majority of these fish counted this winter and spring have over-wintered in the pools (2004) and complete their trip to the spawning grounds in March through early May the following year (2005). Counts at Lower Granite total 3,158 for the season, presently less than the 2004 and 10-year average to date.

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
03/18/05	90.3	0.0	91.2	0.0	98.9	0.0	102.5	0.3	106.4	0.0	112.1	0.0	100.0	0.0
03/19/05	86.9	0.0	89.4	0.0	96.7	0.0	98.3	0.0	100.9	0.0	99.2	0.0	90.0	0.0
03/20/05	64.8	0.0	68.1	0.0	74.3	0.0	72.9	0.0	76.0	0.0	102.8	0.0	105.1	0.0
03/21/05	109.1	0.0	114.9	0.0	105.3	0.0	103.9	0.0	105.8	0.0	102.5	0.0	99.5	0.0
03/22/05	110.0	0.0	109.8	0.0	115.1	0.0	111.8	0.0	113.7	0.2	112.5	0.0	108.1	0.0
03/23/05	102.7	0.0	103.8	0.0	108.2	0.0	106.8	0.0	109.0	1.7	114.2	0.0	113.7	0.0
03/24/05	95.0	0.0	99.7	0.0	103.5	0.0	101.8	0.0	103.5	0.7	109.0	0.0	113.9	0.0
03/25/05	69.4	0.0	69.1	0.0	73.8	0.0	73.4	0.0	75.8	0.0	103.8	0.0	101.9	0.0
03/26/05	62.0	0.0	66.2	0.0	68.6	0.0	67.2	0.0	69.1	0.0	85.4	0.0	77.4	0.0
03/27/05	42.4	0.0	39.6	0.0	49.1	0.0	51.5	0.0	54.2	0.0	71.7	0.0	70.0	0.0
03/28/05	93.3	0.0	89.1	0.0	77.6	0.0	72.7	0.0	74.4	0.0	58.6	0.0	69.7	0.0
03/29/05	76.2	0.0	81.4	0.0	86.0	0.0	84.8	0.0	85.3	0.0	80.8	0.0	69.1	0.0
03/30/05	105.1	0.0	102.7	0.0	106.5	0.0	102.1	0.0	104.4	0.0	85.3	0.0	82.7	0.0
03/31/05	101.7	0.0	101.8	0.0	104.1	0.0	104.4	0.0	107.8	0.0	111.8	0.0	111.8	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
03/18/05	1.6	0.0	10.0	11.2	26.0	0.0	25.0	0.0	24.9	0.0	27.4	0.0
03/19/05	1.6	0.0	11.6	10.7	22.7	0.0	23.4	0.0	19.8	0.0	18.2	0.0
03/20/05	1.6	0.0	10.2	12.4	26.2	0.0	26.2	0.0	25.0	0.0	23.5	0.0
03/21/05	1.6	0.0	11.9	12.7	22.3	0.0	23.9	0.0	24.9	0.0	23.8	0.0
03/22/05	1.6	0.0	10.5	11.4	22.6	0.0	24.0	0.0	25.8	0.0	27.7	0.0
03/23/05	1.6	0.0	13.0	11.7	25.6	0.0	27.3	0.0	26.2	0.0	25.8	0.0
03/24/05	1.6	0.0	11.7	12.5	20.1	0.0	21.6	0.0	21.9	0.0	21.6	0.0
03/25/05	1.6	0.0	11.4	12.5	21.8	0.0	17.1	0.0	16.6	0.0	16.2	0.0
03/26/05	1.6	0.0	11.8	12.7	24.3	0.0	24.7	0.0	25.4	0.0	24.9	0.0
03/27/05	1.6	0.0	13.2	11.7	25.0	0.0	25.9	0.0	26.6	0.0	26.5	0.0
03/28/05	1.6	0.0	17.7	13.6	34.7	0.0	39.7	0.0	41.4	0.0	44.1	0.0
03/29/05	1.6	0.0	21.5	19.6	48.0	0.0	53.1	0.0	59.1	0.0	56.7	0.0
03/30/05	1.6	0.0	19.4	19.6	43.5	0.0	43.7	0.0	48.3	0.0	49.9	0.0
03/31/05	1.5	0.2	---	---	41.6	0.0	41.2	0.0	39.0	0.0	35.6	0.2

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

Date	McNary		John Day		The Dalles		Bonneville			
	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	PH1	PH2
03/18/05	139.1	0.0	156.1	0.0	154.8	0.0	126.8	1.4	9.4	109.9
03/19/05	133.6	0.0	131.8	0.0	134.1	0.0	139.4	1.2	22.2	109.5
03/20/05	105.8	0.0	107.6	0.0	112.9	0.0	124.5	1.3	9.5	107.2
03/21/05	133.0	0.0	135.3	0.0	133.4	0.0	137.4	1.3	15.9	113.6
03/22/05	132.1	0.0	136.9	0.0	136.8	0.0	134.3	1.4	16.9	109.6
03/23/05	141.1	0.0	141.7	0.0	141.9	0.0	144.9	1.4	28.9	108.1
03/24/05	126.9	0.3	130.3	0.0	131.8	0.0	132.3	1.3	19.8	104.7
03/25/05	121.3	0.0	126.1	0.0	130.0	0.0	135.2	1.3	15.0	112.4
03/26/05	115.9	0.0	112.3	0.0	111.7	0.0	118.3	1.4	0.0	110.4
03/27/05	95.0	0.0	91.1	0.0	93.2	0.0	111.8	1.4	1.1	102.8
03/28/05	116.5	0.0	114.4	0.0	120.8	0.0	143.2	1.4	28.4	106.9
03/29/05	132.8	0.0	143.5	0.0	145.4	0.0	149.2	1.5	40.7	100.6
03/30/05	131.8	0.0	135.4	0.0	163.2	0.0	149.6	1.4	34.0	107.8
03/31/05	167.5	0.0	162.0	0.0	---	---	170.6	1.4	49.5	113.3

HATCHERY RELEASE LAST TWO WEEKS

Hatchery Release Summary

From: **3/18/2005** to **03/31/05**

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2005	90,000	03-14-05	04-01-05	Little Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2005	100,000	03-14-05	04-01-05	Squaw Cr Acclim Pond	Salmon River (ID)
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2005	215,000	03-17-05	04-05-05	Little Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Game	McCall Hatchery	CH1	SU	2005	1,047,530	03-18-05	03-21-05	Knox Bridge	Salmon River (ID)
Idaho Dept. of Fish and Game	Niagara Springs	ST	SU	2005	445,000	03-24-05	03-31-05	Hazard Creek/Little Salmon R	Little Salmon River
Idaho Dept. of Fish and Game	Niagara Springs	ST	SU	2005	526,024	03-14-05	03-24-05	Hells Canyon Dam	Snake River
Idaho Dept. of Fish and Game	Rapid River Hatchery	CH1	SP	2005	2,760,000	03-14-05	04-22-05	Rapid River Hatchery	Little Salmon River
Idaho Dept. of Fish and Game Total					5,183,554				
Nez Perce Tribe	Hagerman NFH	ST	SU	2005	40,000	03-28-05	04-11-05	Hazard Creek/Little Salmon R	Little Salmon River
Nez Perce Tribe	Hagerman NFH	ST	SU	2005	160,000	03-28-05	04-11-05	Little Salmon River	Salmon River (ID)
Nez Perce Tribe	Lookingglass Hatchery	CH1	SP	2005	69,200	03-28-05	04-14-05	Lostine Accim Pond	Wallowa River
Nez Perce Tribe	Lookingglass Hatchery	CH1	SP	2005	95,400	03-11-05	03-20-05	Lostine Accim Pond	Wallowa River
Nez Perce Tribe Total					364,600				
Oregon Dept. of Fish and Wildlife	Lookingglass Hatchery	CH1	SP	2005	437,000	03-26-05	04-15-05	Imnaha Acclim Pond	Imnaha River
Oregon Dept. of Fish and Wildlife Total					437,000				
U.S. Fish and Wildlife Service	Hagerman NFH	ST	SU	2005	100,000	03-28-05	04-11-05	Little Salmon River	Salmon River (ID)
U.S. Fish and Wildlife Service	Kooskia NFH	CH1	SP	2005	620,000	03-21-05	04-04-05	Kooskia Hatchery	Clearwater River M F
U.S. Fish and Wildlife Service	Warm Springs NFH	CH1	SP	2005	739,000	03-16-05	04-13-05	Warm Springs Hatchery	Deschutes River
U.S. Fish and Wildlife Service Total					1,459,000				
Umatilla Tribe	Cascade Hatchery	CO	UN	2005	797,883	03-14-05	03-21-05	Pendelton Acclim Pond	Umatilla River
Umatilla Tribe	Lookingglass Hatchery	CH1	SP	2005	1,000	03-24-05	04-14-05	Grande Ronde Acclim Pond	Grande Ronde River
Umatilla Tribe	Lookingglass Hatchery	CH1	SP	2005	98,023	03-18-05	03-29-05	Lookingglass Hatchery	Grande Ronde River
Umatilla Tribe	Lookingglass Hatchery	CH1	SP	2005	104,300	03-24-05	04-14-05	Grande Ronde Acclim Pond	Grande Ronde River
Umatilla Tribe	Lookingglass Hatchery	CH1	SP	2005	130,900	03-14-05	03-27-05	Catherine Cr Acclim Pond	Grande Ronde River
Umatilla Tribe Total					1,132,106				
Warm Springs Tribe	Oak Springs Hatchery	ST	SU	2005	45,000	03-24-05	05-04-05	Blackberry Acclim Pond	Hood River
Warm Springs Tribe	Round Butte Hatchery	CH1	SP	2005	44,500	03-28-05	05-04-05	Jones Creek Acclim Pond	Hood River
Warm Springs Tribe	Round Butte Hatchery	CH1	SP	2005	46,500	03-28-05	05-04-05	Blackberry Acclim Pond	Hood River
Warm Springs Tribe Total					136,000				
Washington Dept. of Fish and Wildlife	Eastbank Hatchery	ST	SU	2005	124,000	03-21-05	05-20-05	Above Rock Island Dam	Mid-Columbia River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	CH1	FA	2005	450,000	03-25-05	04-01-05	Lyons Ferry Hatchery	Snake River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2005	160,000	03-25-05	03-31-05	Cottonwood Acclim Pond	Grande Ronde River
Washington Dept. of Fish and Wildlife	Washougal Hatchery	CO	NO	2005	2,499,530	03-21-05	03-25-05	Klickitat River	Klickitat River
Washington Dept. of Fish and Wildlife Total					3,233,530				
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2005	268,170	03-09-05	05-16-05	Easton Pond	Yakama River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2005	273,870	03-09-05	05-16-05	Clark Flat Acclim Pond	Yakama River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2005	284,016	03-09-05	05-16-05	Jack Creek Acclim Pond	Yakama River
Yakama Tribe Total					826,056				
Grand Total					12,771,846				

HATCHERY RELEASE NEXT TWO WEEKS

Hatchery Release Summary

From: 4/1/2005 to 4/14/2005

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SP	2005	400,000	04-06-05	04-11-05	Red River Acclim Pond	S Fk Clearwater River
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SP	2005	700,000	04-01-05	04-04-05	Crooked R Acclim Pond	S Fk Clearwater River
Idaho Dept. of Fish and Game	Clearwater Hatchery	ST	SU	2005	100,000	04-14-05	04-16-05	Red River Acclim Pond	S Fk Clearwater River
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2005	90,000	03-14-05	04-01-05	Little Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2005	100,000	03-14-05	04-01-05	Squaw Cr Acclim Pond	Salmon River (ID)
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2005	130,000	04-11-05	04-15-05	Salmon River (ID)	Salmon River (ID)
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2005	215,000	03-17-05	04-05-05	Little Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2005	220,000	04-13-05	04-16-05	Salmon River (ID)	Salmon River (ID)
Idaho Dept. of Fish and Game	Niagara Springs	ST	SU	2005	830,000	04-02-05	04-08-05	Pahsimeroi Hatchery	Pahsimeroi River
Idaho Dept. of Fish and Game	Pahsimeroi Hatchery	CH1	SU	2005	975,000	04-01-05	04-14-05	Pahsimeroi Hatchery	Pahsimeroi River
Idaho Dept. of Fish and Game	Rapid River Hatchery	CH1	SP	2005	2,760,000	03-14-05	04-22-05	Rapid River Hatchery	Little Salmon River
Idaho Dept. of Fish and Game	Sawtooth Hatchery	CH1	SP	2005	135,000	04-01-05	04-06-05	Sawtooth Hatchery	Salmon River (ID)
Idaho Dept. of Fish and Game Total					6,655,000				
Nez Perce Tribe	Clearwater Hatchery	ST	SU	2005	150,000	04-13-05	04-22-05	Red River Acclim Pond	S Fk Clearwater River
Nez Perce Tribe	Dworshak NFH	ST	SU	2005	100,000	04-11-05	04-15-05	American River	S Fk Clearwater River
Nez Perce Tribe	Dworshak NFH	ST	SU	2005	100,000	04-11-05	04-15-05	Newsome Creek	S Fk Clearwater River
Nez Perce Tribe	Hagerman NFH	ST	SU	2005	40,000	03-28-05	04-11-05	Hazard Creek/Little Salmon R	Little Salmon River
Nez Perce Tribe	Hagerman NFH	ST	SU	2005	160,000	03-28-05	04-11-05	Little Salmon River	Salmon River (ID)
Nez Perce Tribe	Lookingglass Hatchery	CH1	SP	2005	69,200	03-28-05	04-14-05	Lostine Accim Pond	Wallowa River
Nez Perce Tribe	Lyons Ferry Hatchery	CH1	FA	2005	140,000	04-01-05	04-10-05	Big Canyon (Clearwater R)	Clearwater River M F
Nez Perce Tribe	Lyons Ferry Hatchery	CH1	FA	2005	150,000	04-01-05	04-10-05	Pittsburg Landing Acclim Pond	Snake River
Nez Perce Tribe Total					909,200				
Oregon Dept. of Fish and Wildlife	Irrigon Hatchery Complex	ST	SU	2005	90,000	04-11-05	04-15-05	Big Canyon Acclim.Pd (Grande Ronde)	Grande Ronde River
Oregon Dept. of Fish and Wildlife	Irrigon Hatchery Complex	ST	SU	2005	160,000	04-11-05	04-15-05	Big Sheep Creek	Imnaha River
Oregon Dept. of Fish and Wildlife	Irrigon Hatchery Complex	ST	SU	2005	160,000	04-11-05	05-03-05	L Sheep Acclim Pond	Imnaha River
Oregon Dept. of Fish and Wildlife	Irrigon Hatchery Complex	ST	SU	2005	402,000	04-11-05	04-13-05	Wallowa Acclim Pond	Wallowa River
Oregon Dept. of Fish and Wildlife	Lookingglass Hatchery	CH1	SP	2005	437,000	03-26-05	04-15-05	Imnaha Acclim Pond	Imnaha River
Oregon Dept. of Fish and Wildlife	Round Butte Hatchery	CH1	SP	2005	320,000	04-01-05	04-15-05	Bel. Pelton Ladder	Deschutes River
Oregon Dept. of Fish and Wildlife	Round Butte Hatchery	ST	SU	2005	160,000	04-01-05	04-08-05	Bel. Pelton Ladder	Deschutes River
Oregon Dept. of Fish and Wildlife Total					1,729,000				
U.S. Fish and Wildlife Service	Dworshak NFH	CH1	SP	2005	1,070,000	04-01-05	04-08-05	Dworshak Hatchery	Clearwater River M F
U.S. Fish and Wildlife Service	Dworshak NFH	ST	SU	2005	300,000	04-11-05	04-15-05	Clear Creek	Clearwater River M F
U.S. Fish and Wildlife Service	Dworshak NFH	ST	SU	2005	300,000	04-11-05	04-15-05	Redhouse (Sfk ClearH20 R)	S Fk Clearwater River
U.S. Fish and Wildlife Service	Hagerman NFH	ST	SU	2005	100,000	03-28-05	04-11-05	Little Salmon River	Salmon River (ID)
U.S. Fish and Wildlife Service	Hagerman NFH	ST	SU	2005	750,000	04-13-05	05-03-05	Sawtooth Hatchery	Salmon River (ID)
U.S. Fish and Wildlife Service	Kooskia NFH	CH1	SP	2005	620,000	03-21-05	04-04-05	Kooskia Hatchery	Clearwater River M F
U.S. Fish and Wildlife Service	Little White Salmon NFH	CH1	SP	2005	750,000	04-14-05	04-14-05	Little White Salmon Hatchery	Little White Salmon River
U.S. Fish and Wildlife Service	Warm Springs NFH	CH1	SP	2005	739,000	03-16-05	04-13-05	Warm Springs Hatchery	Deschutes River
U.S. Fish and Wildlife Service Total					4,629,000				
Umatilla Tribe	Little White Salmon NFH	CH1	SP	2005	250,000	04-05-05	04-06-05	Walla Walla River	Walla Walla River
Umatilla Tribe	Lookingglass Hatchery	CH1	SP	2005	1,000	03-24-05	04-14-05	Grande Ronde Acclim Pond	Grande Ronde River
Umatilla Tribe	Lookingglass Hatchery	CH1	SP	2005	59,100	04-04-05	04-14-05	Catherine Cr Acclim Pond	Grande Ronde River
Umatilla Tribe	Lookingglass Hatchery	CH1	SP	2005	104,300	03-24-05	04-14-05	Grande Ronde Acclim Pond	Grande Ronde River
Umatilla Tribe Total					414,400				
Warm Springs Tribe	Oak Springs Hatchery	ST	SU	2005	45,000	03-24-05	05-04-05	Blackberry Acclim Pond	Hood River
Warm Springs Tribe	Oak Springs Hatchery	ST	WI	2005	39,500	04-08-05	05-02-05	E Fk Irrig Dist Sand Trap	Hood River
Warm Springs Tribe	Oak Springs Hatchery	ST	WI	2005	39,800	04-07-05	05-04-05	Parkdale Acclim Pond	Hood River
Warm Springs Tribe	Round Butte Hatchery	CH1	SP	2005	29,800	04-01-05	04-29-05	Parkdale Acclim Pond	Hood River
Warm Springs Tribe	Round Butte Hatchery	CH1	SP	2005	44,500	03-28-05	05-04-05	Jones Creek Acclim Pond	Hood River
Warm Springs Tribe	Round Butte Hatchery	CH1	SP	2005	46,500	03-28-05	05-04-05	Blackberry Acclim Pond	Hood River
Warm Springs Tribe Total					245,100				

HATCHERY RELEASE NEXT TWO WEEKS

From: 4/1/2005 to 4/14/2005

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
Washington Dept. of Fish and Wildlife	COOP	CH1	SP	2005	27,668	04-02-05	04-02-05	O'Reilly Pond	Methow River
Washington Dept. of Fish and Wildlife	Eastbank Hatchery	CH1	SU	2005	210,000	04-01-05	05-12-05	Turtle Rock Hatchery	Mid-Columbia River
Washington Dept. of Fish and Wildlife	Eastbank Hatchery	ST	SU	2005	124,000	03-21-05	05-20-05	Above Rock Island Dam	Mid-Columbia River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	CH1	FA	2005	450,000	03-25-05	04-01-05	Lyons Ferry Hatchery	Snake River
Washington Dept. of Fish and Wildlife	Methow Hatchery	CH1	SP	2005	50,833	04-13-05	04-13-05	Twisp Acclim Pond	Methow River
Washington Dept. of Fish and Wildlife	Methow Hatchery	CH1	SP	2005	69,882	04-14-05	04-14-05	Methow Hatchery	Methow River
Washington Dept. of Fish and Wildlife	Methow Hatchery	CH1	SP	2005	75,714	04-13-05	04-13-05	Twisp River	Methow River
Washington Dept. of Fish and Wildlife	Methow Hatchery	CH1	SP	2005	130,308	04-14-05	04-30-05	Chewuch Acclim Pond	Methow River
Washington Dept. of Fish and Wildlife	Ringold Springs Hatchery	ST	SU	2005	104,000	04-04-05	04-15-05	Ringold Springs Hatchery	Mid-Columbia River
Washington Dept. of Fish and Wildlife	Skamania Hatchery	ST	WI	2005	17,500	04-11-05	04-15-05	Salmon Creek (WA)	Columbia River
Washington Dept. of Fish and Wildlife	Tucannon Hatchery	CH1	SP	2005	65,000	04-01-05	04-20-05	Curl Lake Acclim Pond	Tucannon River
Washington Dept. of Fish and Wildlife	Tucannon Hatchery	CH1	SP	2005	125,000	04-01-05	04-20-05	Curl Lake Acclim Pond	Tucannon River
Washington Dept. of Fish and Wildlife	Wells Hatchery	ST	SU	2005	84,000	04-04-05	06-03-05	Twisp River	Methow River
Washington Dept. of Fish and Wildlife Total					1,533,905				
Yakama Tribe	Cascade Hatchery	CO	UN	2005	350,000	04-04-05	04-15-05	Lost Creek Acclim Pond	Yakama River
Yakama Tribe	Cascade Hatchery	CO	UN	2005	350,000	04-04-05	04-15-05	Yakama River	Yakama River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2005	268,170	03-09-05	05-16-05	Easton Pond	Yakama River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2005	273,870	03-09-05	05-16-05	Clark Flat Acclim Pond	Yakama River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2005	284,016	03-09-05	05-16-05	Jack Creek Acclim Pond	Yakama River
Yakama Tribe	Eagle Creek NFH	CO	UN	2005	250,000	04-04-05	04-15-05	Stiles Pond	Yakama River
Yakama Tribe	Eagle Creek NFH	CO	UN	2005	250,000	04-04-05	04-15-05	Yakama River	Yakama River
Yakama Tribe	Prosser Acclim. Pond	CH0	FA	2005	415,000	04-11-05	05-10-05	Prosser Acclim Pond	Yakama River
Yakama Tribe	Yakama Hatchery	CH0	FA	2005	41,000	04-11-05	04-20-05	Marion Drain	Yakama River
Yakama Tribe	Yakama Hatchery	CH0	FA	2005	150,000	04-11-05	05-20-05	Union Gap (Yakama R)	Yakama River
Yakama Tribe Total					2,632,056				
Grand Total					18,747,661				

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>24 h</u>	<u>12 h</u>	#		
	Avg	Avg		High	Avg		Avg	High		Avg	Avg		High	Avg		Avg	High		Avg	Avg
3/18	---	---	---	0	105	105	107	24	105	106	106	24	104	105	106	24	---	---	---	0
3/19	---	---	---	0	105	106	106	24	106	106	106	24	105	105	107	24	---	---	---	0
3/20	---	---	---	0	103	103	104	24	106	106	106	24	105	106	108	24	---	---	---	0
3/21	---	---	---	0	103	104	105	24	104	104	105	24	104	104	106	24	---	---	---	0
3/22	---	---	---	0	103	105	105	24	105	105	106	24	104	105	105	24	---	---	---	0
3/23	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/24	---	---	---	0	103	104	104	24	104	104	105	24	103	104	105	24	---	---	---	0
3/25	---	---	---	0	102	103	103	24	104	104	105	24	103	103	104	24	---	---	---	0
3/26	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/27	---	---	---	0	103	104	105	24	106	106	106	24	105	107	108	24	---	---	---	0
3/28	---	---	---	0	105	106	106	24	106	106	107	24	105	105	106	24	---	---	---	0
3/29	---	---	---	0	104	105	106	24	106	106	107	24	105	105	105	24	---	---	---	0
3/30	---	---	---	0	103	104	106	24	104	104	105	24	103	104	105	24	---	---	---	0
3/31	---	---	---	0	103	104	105	24	104	104	104	24	103	104	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>24 h</u>	<u>12 h</u>	#		
	Avg	Avg		High	Avg		Avg	High		Avg	Avg		High	Avg		Avg	High		Avg	Avg
3/18	---	---	---	0	---	---	---	0	---	---	---	0	107	110	111	24	108	110	111	24
3/19	---	---	---	0	---	---	---	0	---	---	---	0	109	109	110	24	108	109	110	24
3/20	---	---	---	0	---	---	---	0	---	---	---	0	107	108	109	24	108	108	108	24
3/21	---	---	---	0	---	---	---	0	---	---	---	0	104	104	105	24	104	104	105	24
3/22	---	---	---	0	---	---	---	0	---	---	---	0	104	105	105	24	104	105	105	24
3/23	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/24	---	---	---	0	---	---	---	0	---	---	---	0	103	103	104	24	104	104	104	24
3/25	---	---	---	0	---	---	---	0	---	---	---	0	103	103	103	24	103	103	103	24
3/26	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/27	---	---	---	0	---	---	---	0	---	---	---	0	106	107	107	24	106	106	106	24
3/28	---	---	---	0	---	---	---	0	---	---	---	0	107	107	107	24	106	107	107	24
3/29	---	---	---	0	---	---	---	0	---	---	---	0	106	106	106	24	106	106	106	24
3/30	---	---	---	0	---	---	---	0	---	---	---	0	103	103	104	24	103	103	104	24
3/31	---	---	---	0	104	104	104	14	104	104	104	14	102	103	103	24	102	102	103	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>24 h</u>	<u>12 h</u>	#		
	Avg	Avg		High	Avg		Avg	High		Avg	Avg		High	Avg		Avg	High		Avg	Avg
3/18	105	106	108	24	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/19	108	109	109	24	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/20	106	107	107	24	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/21	104	105	106	24	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/22	104	104	105	24	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/23	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/24	103	103	104	24	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/25	103	103	103	24	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/26	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/27	105	105	106	24	106	106	107	13	---	---	---	0	---	---	---	0	---	---	---	0
3/28	105	106	106	24	106	107	107	24	---	---	---	0	---	---	---	0	---	---	---	0
3/29	105	105	106	24	106	106	107	24	---	---	---	0	---	---	---	0	---	---	---	0
3/30	103	103	104	24	104	104	105	24	---	---	---	0	---	---	---	0	---	---	---	0
3/31	103	103	104	24	104	104	105	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>Clrwtr-Peck</u>			#	<u>Anatone</u>			#
	<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>		
	Avg	Avg	High		Avg	Avg	High		Avg	Avg	High		Avg	Avg	High		Avg	Avg	High	
3/18	---	---	---	0	---	---	---	0	104	104	105	19	---	---	---	0	---	---	---	0
3/19	---	---	---	0	---	---	---	0	105	106	108	24	---	---	---	0	---	---	---	0
3/20	---	---	---	0	---	---	---	0	105	105	106	24	---	---	---	0	---	---	---	0
3/21	---	---	---	0	---	---	---	0	103	104	105	24	---	---	---	0	---	---	---	0
3/22	---	---	---	0	---	---	---	0	104	105	106	24	---	---	---	0	---	---	---	0
3/23	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/24	---	---	---	0	---	---	---	0	104	104	105	24	103	103	105	9	103	103	106	6
3/25	---	---	---	0	---	---	---	0	103	103	104	24	101	101	102	24	102	102	103	24
3/26	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/27	---	---	---	0	---	---	---	0	104	105	105	24	101	101	102	24	102	103	104	24
3/28	---	---	---	0	---	---	---	0	104	105	106	24	101	101	102	24	101	101	101	24
3/29	---	---	---	0	---	---	---	0	104	105	105	23	100	101	101	23	101	101	102	24
3/30	---	---	---	0	---	---	---	0	102	103	103	21	99	100	100	21	101	101	102	24
3/31	---	---	---	0	104	104	106	10	104	106	114	24	98	99	100	24	101	102	103	24

Total Dissolved Gas Saturation Data at Snake River Sites

Date	<u>Clrwtr-Lewiston</u>			#	<u>Lower Granite</u>			#	<u>L. Granite Tlwr</u>			#	<u>Little Goose</u>			#	<u>L. Goose Tlwr</u>			#
	<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>		
	Avg	Avg	High		Avg	Avg	High		Avg	Avg	High		Avg	Avg	High		Avg	Avg	High	
3/18	---	---	---	0	105	105	105	24	104	105	105	24	---	---	---	0	---	---	---	0
3/19	---	---	---	0	105	105	106	24	105	105	105	24	---	---	---	0	---	---	---	0
3/20	---	---	---	0	105	106	108	24	104	104	105	24	---	---	---	0	---	---	---	0
3/21	---	---	---	0	103	103	104	24	102	103	103	24	---	---	---	0	---	---	---	0
3/22	---	---	---	0	104	105	105	24	103	104	104	24	---	---	---	0	---	---	---	0
3/23	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/24	102	102	103	11	102	103	103	24	101	101	102	24	---	---	---	0	---	---	---	0
3/25	100	102	103	24	101	102	102	24	101	101	101	24	104	105	108	14	---	---	---	0
3/26	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/27	101	102	103	24	103	103	103	24	103	103	103	24	105	105	105	24	---	---	---	0
3/28	100	101	102	24	103	103	103	24	103	103	103	24	104	105	105	24	103	103	104	9
3/29	100	101	102	23	102	102	102	24	102	102	103	24	103	104	104	24	103	103	104	24
3/30	99	100	101	21	100	100	100	24	100	100	100	24	101	101	102	24	100	101	101	24
3/31	101	103	104	24	100	101	101	24	100	100	101	24	100	101	101	24	100	101	101	24

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

Date	<u>Lower Mon.</u>			#	<u>L. Mon. Tlwr</u>			#	<u>Ice Harbor</u>			#	<u>Ice Harbor Tlwr</u>			#	<u>McNary-Oregon</u>			#
	<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>		
	Avg	Avg	High		Avg	Avg	High		Avg	Avg	High		Avg	Avg	High		Avg	Avg	High	
3/18	---	---	---	0	---	---	---	0	108	108	109	24	108	109	109	24	106	107	108	24
3/19	---	---	---	0	---	---	---	0	109	109	110	24	109	109	110	24	106	107	107	24
3/20	---	---	---	0	---	---	---	0	108	108	109	24	108	109	109	24	105	105	106	24
3/21	---	---	---	0	---	---	---	0	106	106	107	24	106	107	107	23	103	104	105	24
3/22	---	---	---	0	---	---	---	0	107	108	108	24	107	108	108	24	104	105	105	24
3/23	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/24	---	---	---	0	---	---	---	0	106	106	107	24	106	107	107	24	103	103	104	24
3/25	---	---	---	0	---	---	---	0	106	106	107	24	107	108	109	24	105	106	108	20
3/26	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/27	---	---	---	0	---	---	---	0	107	107	108	24	108	108	108	24	106	107	108	24
3/28	105	105	106	13	105	105	106	12	107	107	107	24	107	108	109	24	105	105	106	24
3/29	104	105	105	24	104	105	106	24	106	107	107	24	106	107	107	24	105	105	106	24
3/30	101	102	103	24	102	102	104	24	103	103	105	24	103	103	104	24	102	103	103	24
3/31	101	101	102	24	101	101	102	24	103	103	104	24	103	104	106	24	102	103	104	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
3/18	106	106	106	24	105	106	106	24	---	---	---	0	---	---	---	0	---	---	---	0
3/19	106	107	107	24	106	106	107	24	---	---	---	0	---	---	---	0	---	---	---	0
3/20	105	105	106	24	105	105	106	24	---	---	---	0	---	---	---	0	---	---	---	0
3/21	103	103	103	24	104	104	104	24	---	---	---	0	---	---	---	0	---	---	---	0
3/22	104	104	105	24	105	105	105	24	106	106	106	11	105	105	106	9	---	---	---	0
3/23	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/24	103	103	103	24	103	103	104	24	104	104	105	24	104	104	104	24	104	104	104	24
3/25	103	103	104	24	104	104	104	24	104	104	104	24	104	104	105	24	103	103	103	6
3/26	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/27	105	105	106	24	106	106	106	24	106	107	107	24	107	107	108	24	---	---	---	0
3/28	105	105	105	24	106	106	106	24	105	106	107	24	105	106	107	24	106	106	106	14
3/29	105	105	106	24	105	106	106	24	104	105	106	24	104	105	107	24	105	105	106	24
3/30	102	103	104	24	102	102	103	24	102	102	103	24	102	102	103	24	102	103	103	24
3/31	102	103	104	24	102	103	104	24	103	103	104	24	103	103	103	24	103	103	104	24

Total Dissolved Gas Saturation Data at Lower Columbia River Sites

Date	<u>The Dalles Dnst</u>			<u>Bonneville</u>			<u>Warrendale</u>			<u>CamasWashugal</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>				
	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
3/18	---	---	---	0	105	106	106	24	106	106	107	24	106	107	108	23
3/19	---	---	---	0	106	106	106	24	107	107	107	22	106	106	107	23
3/20	---	---	---	0	105	105	105	24	105	106	106	24	105	105	106	23
3/21	---	---	---	0	104	104	105	24	105	105	105	24	104	105	106	23
3/22	---	---	---	0	104	105	105	24	105	105	105	24	104	104	105	23
3/23	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/24	104	104	105	23	103	104	104	24	104	105	105	24	104	104	105	23
3/25	103	104	104	23	104	104	104	24	105	105	105	24	105	106	106	23
3/26	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/27	106	106	106	23	105	105	105	24	105	106	106	24	105	105	106	19
3/28	105	105	106	23	105	105	105	24	105	106	106	24	104	105	105	23
3/29	104	105	105	23	103	104	104	24	104	105	105	24	104	104	105	23
3/30	102	102	103	23	102	102	102	24	103	103	104	24	102	103	104	23
3/31	102	103	104	23	102	103	104	24	104	104	105	24	103	104	105	23

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)
03/18/2005	0	0	0	0	---	---	---	---	---	---	0
03/19/2005	---	0	0	---	---	---	---	---	---	---	0
03/20/2005	---	0	0	---	---	---	---	---	---	---	0
03/21/2005	0	0	0	0	---	---	---	---	---	---	0
03/22/2005	0	0	0	0	---	---	---	---	---	---	0
03/23/2005	0	0	0	0	---	---	---	---	---	---	0
03/24/2005	0	0	0	0	---	---	---	---	---	---	0
03/25/2005	0	0	0	0	---	---	---	---	---	---	0
03/26/2005	---	0	0	---	30	---	---	---	---	---	0
03/27/2005	---	0	0	---	40	---	---	---	---	---	5
03/28/2005 *	0	---	0	0	40	---	---	---	---	---	0
03/29/2005 *	0	---	0	1	30	---	---	---	---	---	6
03/30/2005	0	---	0	0	30	---	---	---	---	---	0
03/31/2005	0	---	0	0	10	---	---	---	---	---	7
04/01/2005	---	---	---	---	0	---	---	---	---	---	0
<hr/>											
Total:	0	0	0	1	180	0	0	0	0	0	18
# Days:	10	10	14	10	7	0	0	0	0	0	15
Average:	0	0	0	0	26	0	0	0	0	0	1
YTD	0	0	0	1	180	0	0	0	0	0	18

* 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
 $\text{Passage Index} = \text{Collection Counts} / \{ \text{Powerhouse Flow} / (\text{Powerhouse Flow} + \text{Spill}) \}$
 - LGS (Index) = Little Goose Bypass Collection System : Passage Index Counts
 $\text{Passage Index} = \text{Collection Counts} / \{ \text{Powerhouse Flow} / (\text{Powerhouse Flow} + \text{Spill}) \}$
 - LMN (Index) = Lower Monumental Dam Bypass Collection System : Passage Index Counts
 $\text{Passage Index} = \text{Collection Counts} / \{ \text{Powerhouse Flow} / (\text{Powerhouse Flow} + \text{Spill}) \}$
 - RIS (Index) = Rock Island Dam Second Powerhouse Bypass Trap : Passage Index Counts
 $\text{Passage Index} = \text{Collection Counts} / \{ \text{Powerhouse 2 Flow} / (\text{Powerhouse 1 \& 2 Flow} + \text{Spill}) \}$
 - MCN (Index) = McNary Dam Bypass Collection System : Passage Index Counts
 $\text{Passage Index} = \text{Collection Counts} / \{ \text{Powerhouse Flow} / (\text{Powerhouse Flow} + \text{Spill}) \}$
 - JDA (Index) = John Day Dam Bypass Collection System : Passage Index Counts
 $\text{Passage Index} = \text{Collection Counts} / \{ \text{Powerhouse Flow} / (\text{Powerhouse Flow} + \text{Spill}) \}$
 - BO2 (Index) = Bonneville Dam Second Powerhouse Bypass Collection System : Passage Index Counts
 $\text{Passage Index} = \text{Collection Counts} / \{ \text{Powerhouse 2 Flow} / (\text{Powerhouse 1 \& 2 Flow} + \text{Spill}) \}$
 - BO1 (Index) = Bonneville Dam First Powerhouse Bypass Collection System : Passage Index Counts
 $\text{Passage Index} = \text{Collection Counts} / \{ \text{Powerhouse 1 Flow} / (\text{Powerhouse 1 \& 2 Flow} + \text{Spill}) \}$
- 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: 03/29

DAM	Spring Chinook						Summer Chinook						Fall Chinook					
	2005		2004		10-Yr Avg.		2005		2004		10-Yr Avg.		2005		2004		10-Yr Avg.	
	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack
BON	23	0	376	0	2,127	3	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	1	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
WFA	274	1	235	0	n/a	n/a	---	---	---	---	---	---	---	0	0	0	0	n/a

DAM	Coho						Sockeye			Steelhead			
	2005		2004		10-Yr Avg.		2005	2004	10-Yr Avg.	2005	2004	10-Yr Avg.	Wild 2005
	Adult	Jack	Adult	Jack	Adult	Jack							
BON	0	0	0	0	0	0	0	0	0	46	1,057	681	-34
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	3,158	4,398	3,477	794
PRD	0	0	0	0	0	0	0	0	0	0	0	0	n/a
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
WFA	0	0	0	0	n/a	n/a	0	0	n/a	3,663	8,849	n/a	n/a

BON is through 03/29; LGR is through 03/28.

WFA is through 03/30.

*PRD is not posting 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. Wild Steelhead are defined as unclipped fish.

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: 04/01/05

BON counts from January 1, 2005 to March 14, 2005 (our traditional counts begin March 15):

Chinook Adult	Chinook Jack	Steelhead	Wild Steelhead
15	0	256	-74

Two Week Transportation Summary

Source: Fish Passage Center

Updated:

4/1/05 10:23 AM

		03/19/05	TO	04/01/05	
		Species			
Site	Data	CH1	SO	ST	Grand Total
LGR	Sum of NumberCollected	1,710	180	2,250	4,140
	Sum of NumberBarged	0	0	0	0
	Sum of NumberBypassed	1	0	0	1
	Sum of Numbertrucked	1,242	175	1,698	3,115
	Sum of SampleMorts	1	2	0	3
	Sum of FacilityMorts	19	3	2	24
	Sum of ResearchMorts	0	0	0	0
	Sum of TotalProjectMorts	20	5	2	27
Total Sum of NumberCollected		1,710	180	2,250	4,140
Total Sum of NumberBarged		0	0	0	0
Total Sum of NumberBypassed		1	0	0	1
Total Sum of Numbertrucked		1,242	175	1,698	3,115
Total Sum of SampleMorts		1	2	0	3
Total Sum of FacilityMorts		19	3	2	24
Total Sum of ResearchMorts		0	0	0	0
Total Sum of TotalProjectMorts		20	5	2	27

YTD Transportation Summary

Source: Fish Passage Center

Updated:

4/1/05 10:23 AM

		TO:	04/01/05		
		Species			
Site	Data	CH1	SO	ST	Grand Total
LGR	Sum of NumberCollected	1,710	180	2,250	4,140
	Sum of NumberBarged	0	0	0	0
	Sum of NumberBypassed	1	0	0	1
	Sum of NumberTrucked	1,242	175	1,698	3,115
	Sum of SampleMorts	1	2	0	3
	Sum of FacilityMorts	19	3	2	24
	Sum of ResearchMorts	0	0	0	0
	Sum of TotalProjectMorts	20	5	2	27
Total Sum of NumberCollected		1,710	180	2,250	4,140
Total Sum of NumberBarged		0	0	0	0
Total Sum of NumberBypassed		1	0	0	1
Total Sum of NumberTrucked		1,242	175	1,698	3,115
Total Sum of SampleMorts		1	2	0	3
Total Sum of FacilityMorts		19	3	2	24
Total Sum of ResearchMorts		0	0	0	0
Total Sum of TotalProjectMorts		20	5	2	27

