



Fish Passage Center Weekly Report #06 - 4

March 31, 2006

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Summary of Events:

Water Supply: Precipitation throughout the Columbia Basin has varied between 64% and 120% of average at individual sub-basins over March. Precipitation above The Dalles over March has been 89% of average. Over the entire water year, precipitation has been above average at all list locations.

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

Location	Water Year 2006		Water Year 2006	
	March 1-27		October 1, 2005 to March 27, 2006	
	Observed (inches)	% Average	Observed (inches)	% Average
Columbia Above Coulee	1.21	78	15.49	110
SNAKE RIVER Above Ice Harbor	1.55	108	12.88	128
Columbia Above The Dalles	1.48	89	15.74	112
Kootenai	1.17	76	16.75	117
Clark Fork	1.02	97	10.67	121
Flathead	1.06	74	14.68	123
Pend Oreille/Spokane	2.38	98	22.68	114
Central Washington	0.46	64	7.51	129
SNAKE RIVER Plain	1.17	119	7.75	130
Salmon/Boise/ Payette	2.04	120	17.56	140
Clearwater	2.56	105	19.98	109
SW Washington Cascades/Cowlitz	4.19	68	56.41	107
Willamette Valley	4.84	87	51.71	116

Snowpack within the Columbia Basin is above average. Average snowpack in the Columbia River for basins above the Snake River confluence is 107% of average, for Snake River Basins the average snowpack is 124% of average, and for lower Columbia Basins between McNary and Bonneville Dam average snowpack is 127% of average.

Table 2 displays the February Final, March Final, and April Early runoff volume forecasts for multiple reservoirs. Water Supply Forecasts dropped slightly between the forecasts; however, the current forecasts are very near or slightly above average. The April Early forecast at The Dalles between January and July is 105000 Kaf (98% of average).

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

Location	February Final		March Final		April Early	
	% Average (1971- 2000)	Probable Runoff Volume (Kaf)	% Average (1971- 2000)	Probable Runoff Volume (Kaf)	% Average (1971- 2000)	Probable Runoff Volume (Kaf)
The Dalles (Jan-July)	103	111000	100	107000	98	105000
Grand Coulee (Jan-July)	100	62700	98	61900	96	60600
Libby Res. Inflow, MT (Jan-July)	101	6380	98	6200	95	6020
Hungry Horse Res. Inflow, MT (Jan-July)	106	2350	106	2360	103	2290
Lower Granite Res. Inflow (Apr- July)	115	24800	109	23400	114	24500
Brownlee Res. Inflow (Apr-July)	127	8010	110	6940	110	6970
Dworshak Res. Inflow (Apr-July)	103	2730	99	2620	100	2650

Grand Coulee Reservoir is at 1255.1 feet (3-30-06) and has refilled 1.7 feet over the last week. Currently, Grand Coulee is being operated to target its "shifted" flood control elevation, as it has been agreed at the TMT level to shift a portion of system flood control at Dworshak to Grand Coulee. The end of March shifted flood control elevation at Grand Coulee is 1263.6 feet; the interpolated Biological Opinion April 10th shifted elevation (between end of March and April 15th flood control) is 1248.4 feet.

The Libby Reservoir is currently at elevation 2404.4 feet (3-30-06) and drafted 1.6 feet last week. Outflows have ranged between 7.1 and 9.2 Kcfs over the last week. Both the end of March and interpolated Biological Opinion April 10th flood control elevations at Libby are 2404.1 feet

Hungry Horse is currently at an elevation of 3526.4 feet (3-30-06) and drafted 0.4 feet last week. Outflows at Hungry Horse have been 1.9 Kcfs over the last week. The end of March flood control elevation at Hungry Horse is 3526.2 feet, the interpolated Biological Opinion April 10th elevation is 3523.5 feet.

Dworshak is currently at an elevation of 1532.2 feet (3-30-06) and refilled 1.1 feet last week; outflows at Dworshak have increased to 10 Kcfs over the last two days. Dworshak is being operated to shift a portion of its system flood control to Grand Coulee; therefore Dworshak is being operated to target its local flood control elevations. The end of March local flood control elevation at Dworshak is 1532.4 feet; the interpolated Biological Opinion April 10th local flood control elevation is 1538.3 feet.

The Brownlee Reservoir was at an elevation of 2029.5 feet on March 30th, 2006 (refilled 3.3 feet last week). The end of March Flood control elevation at Brownlee is 2036.5 feet; the interpolated Biological Opinion April 10th local flood control elevation is 2033.1 feet.

Spill: Spill operations for fish passage at Lower Granite, Little Goose. Lower Monumental and Ice Harbor dams are scheduled to begin on April 3, in accordance with the December 29, 2005 District Court Order and Opinion. The salmon management agencies and tribes have requested that these projects' forebays be drafted to their minimum operating pool elevations (MOP), as required by the Biological Opinion coincident with the April 3, 2006 beginning of spill. Spill for fish passage is scheduled to begin on April 10 at Lower Columbia River projects. No spill has occurred in the past week, with the exception of 1.3 kcfs daily average spill for attraction flow for adult fishway passage at Bonneville Dam.

Smolt Monitoring: Catch of spring migrants increased rapidly this past week as early spring Chinook hatchery releases passed tributary traps and hatchery steelhead were collected at Lower Granite Dam. At the Imnaha Trap, a large number of mostly clipped yearling Chinook were captured during the past week. On March 25 they captured 3,720 yearling Chinook. The peak in capture coincided with a small spike in flows in the Imnaha River, where flows rose from 300 cfs on March 24 to 1,000 cfs on the 25th, as measured at the USGS gage near Imnaha, OR. The hatchery fish were likely releases from the Imnaha Acclimation Pond, which began volitional releases March 21. Similarly, at the Grande Ronde Trap, they collected relatively large numbers of yearling Chinook over the past week, with the peak of 840 fish captured on March 26. There too, the increased catch coincided with a rapid increase in flows from 2,500 cfs on March 24, to over 5,000 cfs on March 26. These Chinook were mostly adipose clipped fish and are likely from Looking Glass Hatchery releases, both on-site releases and releases at acclimation sites on Catherine Creek and on the Grande Ronde River.

At Lower Granite Dam yearling Chinook indices began increased steadily over the first five days of sampling. These early migrants are a mixed group, made up of hatchery and wild spring Chinook, as well as a number of holdover fall

Chinook. Based on PIT-tag data, these early wild marks come from early spring marking in the Grande Ronde River, as well as fish marked last fall in the Lostine River and at Lolo Creek, in the Clearwater River basin. The hatchery spring Chinook likely come from Grande Ronde and Imnaha River releases. The holdover fall Chinook, again based on PIT-tag detections, appear to be mostly Clearwater River fish; of the 13 PIT-tags detected to date 12 were late season hatchery releases at Big Canyon Creek Acclimation Pond (release dates between June 23 and July 8, 2005), and a single wild fish marked in the Clearwater River in early July.

Steelhead indices at Lower Granite increased rapidly the first few days of sampling, with about 9 out of 10 fish fin-clipped. The hatchery fish are likely mostly fish from releases in Hells Canyon, which began on March 20. Of the five PIT-tagged wild steelhead juveniles detected this year at Lower Granite Dam, three were marked at the Imnaha River Trap this spring. Typically the Imnaha River wild marks are some of the earliest migrants seen at Lower Granite Dam each year. All fish collected at Lower Granite Dam will be bypassed back to river until transportation operations begin April 20.

With the new PIT-tag detection system at Ice Harbor Dam, it interesting to note that a number of holdover fall Chinook have been detected at that site. Detections of the holdover fish began in early March. Late season 2005 releases from the Big Canyon Creek Acclimation Pond predominated, with 26 total detections to date; there were 8 wild fall Chinook detections from Clearwater River marking; and 2 detections from Snake River wild fish marking. In addition 2 fall Chinook marked in November at Lower Granite Forebay were also detected.

At Bonneville Dam yearling and subyearling Chinook indices are now roughly equal, with daily values in the hundreds. Most of the yearling Chinook were fin clipped hatchery origin fish. A few holdover fall Chinook continue to show up in the sample each day. Subyearling Chinook collections were split between clipped and unclipped fish. In addition almost all the unclipped subs continue to be classified as "fry"-- meaning fish under 60mm.

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, 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.

Currently, adult counts at Bonneville Dam are updated through March 29th, 2006. Between March 15th and 29th, twelve spring chinook adults had passed Bonneville Dam; this compares to 23 spring Chinook adults over the same period last year and 2114 over the same period on a ten year average. Daily steelhead passage numbers at Bonneville Dam have ranged between 13 and 40 over the last week.

At upriver sites, adult steelhead continue to move through the hydro system to reach their tributaries and spawning sites. The majority of these fish have over-wintered in the pools and will complete their trip to the spawning grounds in March through early May. Counts at Lower Granite have ranged between 91 and 130 adult steelhead last week, although passage numbers were only available for four days last week. The total steelhead passing Lower Granite Dam from January 1st has been 2945 adult steelhead.

Hatchery:

Snake River: Releases of yearling Chinook from McCall Hatchery at the Knox Bridge site have been completed for the season. Lookingglass Hatchery releases at Lostine Acclimation Pond have also been completed, while volitional releases at Imnaha Acclimation Pond began March 21 and will continue to mid-April. Lookingglass Hatchery also released at the Grande Ronde Acclimation facility as well as on-site releases from the hatchery. Dworshak and Kooskia NFHs began releases of their yearling spring Chinook during this week. Rapid River Hatchery began volitional releases on site beginning in mid-March and those will continue through mid-April.

Volitional release of the Tucannon R yearling Chinook began on 3/15 and should continue for about a month. The Clearwater Hatchery releases of yearling Chinook are ongoing and should be completed over the upcoming two weeks. Trucking of steelhead from Niagara Springs H. to Hells Canyon began on March 20 and were completed on March 29, while steelhead releases into the Little Salmon River were scheduled to be completed today.

Mid-Columbia - Volitional releases of yearling spring Chinook commenced mid-March in the Yakama River at Clark Flat, Easton, and Jack Creek ponds and volitional release of these fish will continue through mid-May. The upper Mid-Columbia spring Chinook and steelhead will be released from Federal and State hatcheries in mid-April through mid-May, normally coinciding with the spill program.

Lower Columbia - Yearling Chinook releases from Warm Springs NFH in to Deschutes River basin are ongoing this week and will continue from this hatchery through late April. About 2.7 million yearling coho from Washougal H were released during this week in the Klickitat River. In addition, Round Butte Hatchery began releases of summer steelhead below Pelton Ladder on March 28. Oak Springs Hatchery released nearly 8,000 winter steelhead in the Hood River on March 29.

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
03/17/06	102.7	0.0	103.7	0.0	100.1	0.0	93.4	0.1	93.8	0.0	78.8	0.0	83.4	0.0
03/18/06	73.0	0.0	76.8	0.0	80.0	0.0	84.5	0.0	88.3	0.0	90.7	0.0	85.8	0.0
03/19/06	54.5	0.0	59.4	0.0	65.6	0.0	69.1	0.0	71.1	0.0	81.5	0.0	82.9	0.0
03/20/06	120.0	0.0	117.6	0.0	111.3	6.6	105.7	0.0	103.1	0.0	98.1	1.1	97.3	0.0
03/21/06	79.1	0.0	86.4	0.0	94.5	0.0	98.0	0.0	102.8	0.0	120.7	0.1	122.2	0.0
03/22/06	93.8	0.0	89.5	0.0	87.7	0.0	88.2	0.0	89.7	0.0	101.0	0.0	102.3	0.0
03/23/06	74.1	0.0	77.9	0.0	81.3	0.0	85.3	0.0	87.5	0.0	87.5	0.0	88.2	0.0
03/24/06	99.3	0.0	99.0	0.0	99.5	0.0	95.0	0.0	96.5	0.0	94.7	0.0	90.9	0.0
03/25/06	76.0	0.0	81.0	0.0	80.0	0.0	81.8	0.0	84.0	0.0	86.8	0.0	83.3	0.0
03/26/06	29.0	0.0	34.9	0.0	53.0	0.0	61.6	0.0	65.2	0.0	88.1	0.0	89.3	0.0
03/27/06	78.3	0.0	76.8	0.0	62.9	0.0	57.9	0.0	58.6	0.0	77.5	0.0	83.2	0.0
03/28/06	71.7	0.0	69.4	0.0	74.3	0.0	78.5	0.0	80.3	0.0	77.0	0.0	72.6	0.0
03/29/06	112.4	0.0	110.9	0.0	106.7	0.0	100.7	0.0	100.5	0.0	83.3	0.0	82.0	0.0
03/30/06	74.6	0.0	79.7	0.0	88.2	0.0	91.7	0.0	97.4	0.0	106.0	0.0	101.9	1.2

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
03/17/06	1.8	0.0	27.8	33.8	47.9	0.0	34.5	0.0	31.7	0.0	30.6	3.3
03/18/06	1.9	0.0	28.7	35.6	45.2	0.0	57.8	0.0	61.2	0.0	64.8	3.3
03/19/06	1.9	0.0	27.8	35.6	49.0	0.0	41.5	0.0	42.8	0.0	40.4	0.0
03/20/06	1.9	0.0	28.1	35.5	43.9	0.0	40.6	0.0	40.2	0.0	36.2	4.1
03/21/06	1.5	0.0	27.7	34.1	51.1	0.0	64.8	0.0	71.5	0.0	74.9	3.6
03/22/06	1.5	0.0	26.9	33.1	38.3	0.0	30.6	0.0	26.2	0.9	23.7	0.0
03/23/06	1.5	0.0	27.2	33.8	47.7	0.0	43.0	0.0	44.0	0.0	42.9	0.0
03/24/06	1.7	0.0	27.3	33.0	46.9	0.0	49.3	0.0	52.7	0.0	51.9	0.0
03/25/06	2.4	0.0	30.0	33.3	48.6	0.0	49.6	0.0	52.0	0.0	51.4	0.0
03/26/06	2.4	0.0	37.6	37.2	54.3	0.0	51.7	0.0	51.3	0.0	50.9	0.0
03/27/06	3.5	0.0	38.3	36.1	65.1	0.0	67.4	0.0	72.3	0.0	70.9	0.0
03/28/06	9.3	0.0	34.7	34.5	66.1	0.0	65.3	0.0	67.9	0.0	68.5	0.0
03/29/06	10.1	0.0	35.3	36.2	63.2	0.0	66.2	0.0	69.5	0.0	66.3	0.0
03/30/06	9.9	---	---	---	63.7	0.0	65.5	0.0	71.4	0.0	71.0	0.0

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

Date	McNary		John Day		The Dalles		Bonneville		PH1	PH2
	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill		
03/17/06	124.7	0.0	129.2	0.0	134.1	0.0	155.5	1.3	62.7	85.6
03/18/06	139.1	0.0	120.5	0.0	120.7	0.0	124.8	1.3	36.0	81.6
03/19/06	144.5	0.0	136.8	0.0	135.9	0.0	145.3	1.3	53.4	84.7
03/20/06	109.9	0.0	146.7	0.1	151.0	0.0	159.9	1.3	65.3	87.4
03/21/06	162.9	0.0	140.6	0.0	139.3	0.0	150.8	1.3	55.5	88.1
03/22/06	182.3	0.0	173.6	0.0	173.1	0.0	178.3	1.2	73.2	97.9
03/23/06	132.5	0.0	164.9	0.0	164.0	0.0	169.1	1.4	71.2	90.5
03/24/06	106.5	0.0	103.8	0.0	105.8	0.0	115.3	1.3	31.5	76.3
03/25/06	126.3	0.0	124.8	0.0	128.9	0.0	144.9	1.3	53.0	84.5
03/26/06	130.9	0.0	129.4	0.0	129.1	0.0	136.3	1.3	44.6	84.7
03/27/06	158.9	0.0	166.2	0.0	166.9	0.0	166.0	1.4	67.7	90.8
03/28/06	156.0	0.0	174.0	0.0	181.9	0.0	194.2	1.4	83.3	103.1
03/29/06	153.1	0.0	157.1	0.0	156.5	0.0	169.7	1.3	68.0	93.9
03/30/06	163.2	0.0	176.7	0.0	179.4	0.0	179.0	1.4	71.5	99.7

HATCHERY RELEASE LAST TWO WEEKS

Hatchery Release Summary

From: 3/17/2006 to 03/30/06

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SP	2006	41,000	03-29-06	04-05-06	Crooked R Acclim Pond	S Fk Clearwater River
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SP	2006	42,000	03-27-06	04-07-06	Red River	S Fk Clearwater River
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SP	2006	82,000	03-23-06	04-14-06	Powell Acclim Pond	Lochsa River
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SP	2006	138,000	03-29-06	04-05-06	Crooked R Acclim Pond	S Fk Clearwater River
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SP	2006	342,000	03-23-06	04-06-06	Powell Acclim Pond	Lochsa River
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SP	2006	381,000	03-27-06	04-07-06	Red River	S Fk Clearwater River
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SP	2006	571,000	03-29-06	04-05-06	Crooked R Acclim Pond	S Fk Clearwater River
Idaho Dept. of Fish and Game	McCall Hatchery	CH1	SU	2006	1,096,000	03-20-06	03-24-06	Knox Bridge	Salmon River (ID)
Idaho Dept. of Fish and Game	Niagara Springs	ST	SU	2006	175,000	03-29-06	03-31-06	Little Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Game	Niagara Springs	ST	SU	2006	525,000	03-20-06	03-29-06	Hells Canyon Dam	Snake River
Idaho Dept. of Fish and Game	Pahsimeroi Hatchery	CH1	SU	2006	1,074,000	03-15-06	03-28-06	Pahsimeroi River	Pahsimeroi River
Idaho Dept. of Fish and Game	Rapid River Hatchery	CH1	SP	2006	2,635,000	03-13-06	04-21-06	Rapid River	Little Salmon River
Idaho Dept. of Fish and Game Total					7,102,000				
Nez Perce Tribe	Eagle Creek NFH	CO	UN	2006	238,912	03-07-06	03-31-06	Potlatch River	Clearwater River M F
Nez Perce Tribe	Eagle Creek NFH	CO	UN	2006	267,088	03-10-06	03-31-06	Lapwai Creek	Clearwater River M F
Nez Perce Tribe	Hagerman NFH	ST	SU	2006	160,000	03-27-06	04-05-06	Hazard Creek/Little Salmon R	Little Salmon River
Nez Perce Tribe	Lookingglass Hatchery	CH1	SP	2006	41,160	03-10-06	03-20-06	Lostine Accim Pond	Wallowa River
Nez Perce Tribe	Lookingglass Hatchery	CH1	SP	2006	66,230	03-10-06	03-20-06	Lostine Accim Pond	Wallowa River
Nez Perce Tribe	Lookingglass Hatchery	CH1	SP	2006	135,800	03-28-06	04-17-06	Lostine Accim Pond	Wallowa River
Nez Perce Tribe Total					909,190				
Oregon Dept. of Fish and Wildlife	Lookingglass Hatchery	CH1	SP	2006	300	03-27-06	04-12-06	Grande Ronde Acclim Pond	Grande Ronde River
Oregon Dept. of Fish and Wildlife	Lookingglass Hatchery	CH1	SP	2006	63,864	03-21-06	04-14-06	Imnaha Acclim Pond	Imnaha River
Oregon Dept. of Fish and Wildlife	Lookingglass Hatchery	CH1	SP	2006	64,105	03-21-06	04-14-06	Imnaha Acclim Pond	Imnaha River
Oregon Dept. of Fish and Wildlife	Lookingglass Hatchery	CH1	SP	2006	64,167	03-21-06	04-14-06	Imnaha Acclim Pond	Imnaha River
Oregon Dept. of Fish and Wildlife	Lookingglass Hatchery	CH1	SP	2006	64,357	03-21-06	04-14-06	Imnaha Acclim Pond	Imnaha River
Oregon Dept. of Fish and Wildlife	Lookingglass Hatchery	CH1	SP	2006	64,404	03-21-06	04-14-06	Imnaha Acclim Pond	Imnaha River
Oregon Dept. of Fish and Wildlife	Lookingglass Hatchery	CH1	SP	2006	110,000	03-17-06	04-05-06	Lookingglass Hatchery	Grande Ronde River
Oregon Dept. of Fish and Wildlife	Round Butte Hatchery	ST	SU	2006	162,000	03-28-06	04-06-06	Bel. Pelton Ladder	Deschutes River
Oregon Dept. of Fish and Wildlife Total					593,197				
U.S. Fish and Wildlife Service	Dworshak NFH	CH1	SP	2006	1,010,000	03-21-06	04-09-06	Dworshak Hatchery	Clearwater River M F
U.S. Fish and Wildlife Service	Kooskia NFH	CH1	SP	2006	630,000	03-24-06	04-04-06	Clear Creek	Clearwater River M F
U.S. Fish and Wildlife Service	Warm Springs NFH	CH1	SP	2006	568,250	03-30-06	04-26-06	Warm Springs Hatchery	Deschutes River
U.S. Fish and Wildlife Service Total					2,208,250				
Umatilla Tribe	Little White Salmon NFH	CH1	SP	2006	250,000	03-28-06	03-29-06	Walla Walla River	Walla Walla River
Umatilla Tribe	Lookingglass Hatchery	CH1	SP	2006	18,700	03-27-06	04-12-06	Grande Ronde Acclim Pond	Grande Ronde River
Umatilla Tribe	Lookingglass Hatchery	CH1	SP	2006	23,300	03-27-06	04-12-06	Catherine Cr Acclim Pond	Grande Ronde River
Umatilla Tribe Total					292,000				
Warm Springs Tribe	Oak Springs Hatchery	ST	WI	2006	7,875	03-29-06	03-29-06	E Fk Irrig Dist Sand Trap	Hood River
Warm Springs Tribe Total					7,875				
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	CH1	SP	2006	65,000	03-15-06	04-18-06	Curl Lake Acclim Pond	Tucannon River
Washington Dept. of Fish and Wildlife	Washougal Hatchery	CO		2006	2,700,000	03-27-06	03-29-06	Klickitat River	Klickitat River
Washington Dept. of Fish and Wildlife Total					2,765,000				
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2006	231,551	03-15-06	05-14-06	Jack Creek Acclim Pond	Yakama River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2006	273,636	03-15-06	05-14-06	Easton Pond	Yakama River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2006	280,667	03-15-06	05-14-06	Clark Flat Acclim Pond	Yakama River
Yakama Tribe	Winthrop NFH	CO		2006	245,241	03-19-06	04-30-06	Winthrop Hatchery	Methow River
Yakama Tribe Total					1,031,095				
Grand Total					14,908,607				

HATCHERY RELEASE NEXT TWO WEEKS

Hatchery Release Summary

From: **3/31/2006** to **4/13/2006**

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SP	2006	41,000	03-29-06	04-05-06	Crooked R Acclim Pond	S Fk Clearwater River
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SP	2006	42,000	03-27-06	04-07-06	Red River	S Fk Clearwater River
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SP	2006	82,000	03-23-06	04-14-06	Powell Acclim Pond	Lochsa River
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SP	2006	138,000	03-29-06	04-05-06	Crooked R Acclim Pond	S Fk Clearwater River
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SP	2006	342,000	03-23-06	04-06-06	Powell Acclim Pond	Lochsa River
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SP	2006	381,000	03-27-06	04-07-06	Red River	S Fk Clearwater River
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SP	2006	571,000	03-29-06	04-05-06	Crooked R Acclim Pond	S Fk Clearwater River
Idaho Dept. of Fish and Game	Clearwater Hatchery	ST	SU	2006	20,000	04-12-06	04-21-06	Crooked R Acclim Pond	S Fk Clearwater River
Idaho Dept. of Fish and Game	Clearwater Hatchery	ST	SU	2006	57,000	04-12-06	04-21-06	Crooked R Acclim Pond	S Fk Clearwater River
Idaho Dept. of Fish and Game	Clearwater Hatchery	ST	SU	2006	63,000	04-12-06	04-21-06	Crooked R Acclim Pond	S Fk Clearwater River
Idaho Dept. of Fish and Game	Clearwater Hatchery	ST	SU	2006	84,000	04-12-06	04-21-06	Crooked R Acclim Pond	S Fk Clearwater River
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2006	31,000	04-10-06	04-11-06	Squaw Cr Acclim Pond	Salmon River (ID)
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2006	60,000	04-10-06	04-11-06	Squaw Cr Acclim Pond	Salmon River (ID)
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2006	102,000	04-12-06	04-14-06	Salmon River (ID)	Salmon River (ID)
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2006	110,000	04-12-06	04-14-06	Salmon River (ID)	Salmon River (ID)
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2006	248,000	04-11-06	04-14-06	Little Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Game	Niagara Springs	ST	SU	2006	170,000	03-31-06	04-24-06	Little Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Game	Niagara Springs	ST	SU	2006	175,000	03-29-06	03-31-06	Little Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Game	Niagara Springs	ST	SU	2006	830,000	04-05-06	04-21-06	Pahsimeroi River	Pahsimeroi River
Idaho Dept. of Fish and Game	Rapid River Hatchery	CH1	SP	2006	2,635,000	03-13-06	04-21-06	Rapid River	Little Salmon River
Idaho Dept. of Fish and Game	Sawtooth Hatchery	CH1	SP	2006	1,554,000	04-03-06	04-21-06	Sawtooth Hatchery	Salmon River (ID)
Idaho Dept. of Fish and Game Total					7,736,000				
Nez Perce Tribe	Clearwater Hatchery	CH1	SP	2006	317,000	04-03-06	04-07-06	Meadow Creek - SELW	Selway River
Nez Perce Tribe	Dworshak NFH	ST	SU	2006	100,000	04-10-06	04-14-06	American River	S Fk Clearwater River
Nez Perce Tribe	Dworshak NFH	ST	SU	2006	100,000	04-10-06	04-14-06	Newsome Creek	S Fk Clearwater River
Nez Perce Tribe	Eagle Creek NFH	CO	UN	2006	238,912	03-07-06	03-31-06	Potlatch River	Clearwater River M F
Nez Perce Tribe	Eagle Creek NFH	CO	UN	2006	267,088	03-10-06	03-31-06	Lapwai Creek	Clearwater River M F
Nez Perce Tribe	Hagerman NFH	ST	SU	2006	42,000	04-05-06	04-05-06	Hazard Creek/Little Salmon R	Little Salmon River
Nez Perce Tribe	Hagerman NFH	ST	SU	2006	160,000	03-27-06	04-05-06	Hazard Creek/Little Salmon R	Little Salmon River
Nez Perce Tribe	Irrigon Hatchery Complex	ST	SU	2006	162,000	04-11-06	04-13-06	Big Sheep Creek	Imnaha River
Nez Perce Tribe	Irrigon Hatchery Complex	ST	SU	2006	162,000	04-11-06	05-02-06	L Sheep Acclim Pond	Imnaha River
Nez Perce Tribe	Lookingglass Hatchery	CH1	SP	2006	135,800	03-28-06	04-17-06	Lostine Accim Pond	Wallowa River
Nez Perce Tribe	Lyons Ferry Hatchery	CH1	FA	2006	130,000	04-13-06	04-14-06	Big Canyon(Clearwater R)	Clearwater River M F
Nez Perce Tribe	Lyons Ferry Hatchery	CH1	FA	2006	150,000	04-10-06	04-10-06	Cpt John Acclim Pond	Snake River
Nez Perce Tribe	Lyons Ferry Hatchery	CH1	FA	2006	150,000	04-11-06	04-12-06	Pittsburg Landing Acclim Pond	Snake River
Nez Perce Tribe Total					2,114,800				
Oregon Dept. of Fish and Wildlife	Irrigon Hatchery Complex	ST	SU	2006	95,000	04-12-06	04-13-06	Big Canyon Acclim.Pd	Grande Ronde River
Oregon Dept. of Fish and Wildlife	Irrigon Hatchery Complex	ST	SU	2006	95,000	04-13-06	04-14-06	Big Canyon Acclim.Pd	Grande Ronde River
Oregon Dept. of Fish and Wildlife	Irrigon Hatchery Complex	ST	SU	2006	421,000	04-09-06	04-11-06	Wallowa Acclim Pond	Wallowa River
Oregon Dept. of Fish and Wildlife	Lookingglass Hatchery	CH1	SP	2006	300	03-27-06	04-12-06	Grande Ronde Acclim	Grande Ronde River
Oregon Dept. of Fish and Wildlife	Lookingglass Hatchery	CH1	SP	2006	63,864	03-21-06	04-14-06	Imnaha Acclim Pond	Imnaha River
Oregon Dept. of Fish and Wildlife	Lookingglass Hatchery	CH1	SP	2006	64,105	03-21-06	04-14-06	Imnaha Acclim Pond	Imnaha River
Oregon Dept. of Fish and Wildlife	Lookingglass Hatchery	CH1	SP	2006	64,167	03-21-06	04-14-06	Imnaha Acclim Pond	Imnaha River
Oregon Dept. of Fish and Wildlife	Lookingglass Hatchery	CH1	SP	2006	64,357	03-21-06	04-14-06	Imnaha Acclim Pond	Imnaha River
Oregon Dept. of Fish and Wildlife	Lookingglass Hatchery	CH1	SP	2006	64,404	03-21-06	04-14-06	Imnaha Acclim Pond	Imnaha River
Oregon Dept. of Fish and Wildlife	Lookingglass Hatchery	CH1	SP	2006	110,000	03-17-06	04-05-06	Lookingglass Hatchery	Grande Ronde River
Oregon Dept. of Fish and Wildlife	Lookingglass Hatchery	CH1	SP	2006	120,000	04-03-06	04-03-06	Imnaha Acclim Pond	Imnaha River
Oregon Dept. of Fish and Wildlife	Round Butte Hatchery	ST	SU	2006	162,000	03-28-06	04-06-06	Bel. Pelton Ladder	Deschutes River
Oregon Dept. of Fish and Wildlife Total					1,324,197				

HATCHERY RELEASE NEXT TWO WEEKS (con't)

Hatchery Release Summary

From: 3/31/2006 **to** 4/13/2006

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
U.S. Fish and Wildlife Service	Dworshak NFH	CH1	SP	2006	1,010,000	03-21-06	04-09-06	Dworshak Hatchery	Clearwater River M F
U.S. Fish and Wildlife Service	Dworshak NFH	ST	SU	2006	300,000	04-10-06	04-14-06	Clear Creek	Clearwater River M F
U.S. Fish and Wildlife Service	Dworshak NFH	ST	SU	2006	300,000	04-10-06	04-14-06	S Fk Clearwater River	Clearwater River M F
U.S. Fish and Wildlife Service	Entiat Hatchery	CH1	SP	2006	330,000	04-10-06	04-10-06	Entiat Hatchery	Entiat River
U.S. Fish and Wildlife Service	Hagerman NFH	ST	SU	2006	98,000	04-07-06	04-12-06	Little Salmon River	Salmon River (ID)
U.S. Fish and Wildlife Service	Kooskia NFH	CH1	SP	2006	630,000	03-24-06	04-04-06	Clear Creek	Clearwater River M F
U.S. Fish and Wildlife Service	Little White Salmon NFH	CH1	SP	2006	750,000	04-13-06	04-13-06	Little White Salmon River	Little White Salmon
U.S. Fish and Wildlife Service	Warm Springs NFH	CH1	SP	2006	568,250	03-30-06	04-26-06	Warm Springs Hatchery	Deschutes River
U.S. Fish and Wildlife Service Total					3,986,250				
Umatilla Tribe	Lookingglass Hatchery	CH1	SP	2006	18,700	03-27-06	04-12-06	Grande Ronde Acclim P	Grande Ronde River
Umatilla Tribe	Lookingglass Hatchery	CH1	SP	2006	23,300	03-27-06	04-12-06	Catherine Cr Acclim P	Grande Ronde River
Umatilla Tribe Total					42,000				
Warm Springs Tribe	Oak Springs Hatchery	ST	SU	2006	17,062	04-05-06	04-05-06	Blackberry Acclim Pond	Hood River
Warm Springs Tribe Total					17,062				
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	CH1	FA	2006	450,000	04-05-06	04-10-06	Lyons Ferry Hatchery	Snake River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	CH1	SP	2006	65,000	03-15-06	04-18-06	Curl Lake Acclim Pond	Tucannon River
Washington Dept. of Fish and Wildlife	Ringold Springs Hatchery	CH1	SP	2006	480,000	04-10-06	04-30-06	Ringold Springs Hatchery	Mid-Columbia River
Washington Dept. of Fish and Wildlife	Ringold Springs Hatchery	ST	SU	2006	280,000	04-10-06	04-30-06	Ringold Springs Hatchery	Mid-Columbia River
Washington Dept. of Fish and Wildlife	Tucannon Hatchery	CH1	SP	2006	199,800	04-03-06	04-23-06	Curl Lake Acclim Pond	Tucannon River
Washington Dept. of Fish and Wildlife	Tucannon Hatchery	ST	SU	2006	65,000	04-03-06	04-30-06	Tucannon River	Tucannon River
Washington Dept. of Fish and Wildlife Total					1,539,800				
Yakama Tribe	Cascade Hatchery	CO		2006	70,000	04-06-06	04-06-06	Winthrop Hatchery	Methow River
Yakama Tribe	Cascade Hatchery	CO		2006	74,000	04-06-06	04-06-06	Coulter Creek	Wenatchee River
Yakama Tribe	Cascade Hatchery	CO		2006	74,000	04-06-06	04-06-06	Nason Creek	Wenatchee River
Yakama Tribe	Cascade Hatchery	CO		2006	140,000	04-06-06	04-06-06	Wells Hatchery	Mid-Columbia River
Yakama Tribe	Cascade Hatchery	CO		2006	330,000	04-06-06	04-06-06	Icicle Creek	Wenatchee River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2006	231,551	03-15-06	05-14-06	Jack Creek Acclim Pond	Yakama River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2006	273,636	03-15-06	05-14-06	Easton Pond	Yakama River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2006	280,667	03-15-06	05-14-06	Clark Flat Acclim Pond	Yakama River
Yakama Tribe	Eagle Creek NFH	CO		2006	97,484	04-03-06	04-03-06	Lost Creek Acclim Pond	Yakama River
Yakama Tribe	Eagle Creek NFH	CO		2006	97,484	04-03-06	04-03-06	Stiles Pond	Yakama River
Yakama Tribe	Eagle Creek NFH	CO		2006	97,484	04-03-06	04-03-06	Yakama River	Yakama River
Yakama Tribe	Eagle Creek NFH	CO		2006	97,484	04-03-06	04-03-06	Yakama River	Yakama River
Yakama Tribe	Eagle Creek NFH	CO	UN	2006	68,000	03-31-06	04-07-06	Prosser Acclim Pond	Yakama River
Yakama Tribe	Eagle Creek NFH	CO	UN	2006	389,440	03-31-06	04-07-06	Naches River	Yakama River
Yakama Tribe	Prosser Acclim. Pond	CO		2006	18,750	04-06-06	04-06-06	Lost Creek Acclim Pond	Yakama River
Yakama Tribe	Prosser Acclim. Pond	CO		2006	18,750	04-06-06	04-06-06	Yakama River	Yakama River
Yakama Tribe	Prosser Acclim. Pond	CO		2006	18,750	04-06-06	04-06-06	Yakama River	Yakama River
Yakama Tribe	Prosser Acclim. Pond	CO		2006	69,630	04-06-06	04-06-06	Prosser Acclim Pond	Yakama River
Yakama Tribe	Prosser Acclim. Pond	CO	NO	2006	18,750	04-06-06	04-06-06	Stiles Pond	Yakama River
Yakama Tribe	Washougal Hatchery	CO	NO	2006	40,000	04-03-06	04-03-06	Yakama River	Yakama River
Yakama Tribe	Washougal Hatchery	CO	NO	2006	50,000	04-03-06	04-03-06	Lost Creek Acclim Pond	Yakama River
Yakama Tribe	Washougal Hatchery	CO	NO	2006	50,000	04-03-06	04-03-06	Stiles Pond	Yakama River
Yakama Tribe	Washougal Hatchery	CO	NO	2006	50,000	04-03-06	04-03-06	Yakama River	Yakama River
Yakama Tribe	Willard Hatchery	CO		2006	33,000	04-06-06	04-06-06	Nason Creek	Wenatchee River
Yakama Tribe	Willard Hatchery	CO		2006	67,000	04-06-06	04-06-06	Coulter Creek	Wenatchee River
Yakama Tribe	Willard Hatchery	CO		2006	401,000	04-06-06	04-06-06	Icicle Creek	Wenatchee River
Yakama Tribe	Winthrop NFH	CO		2006	40,000	04-06-06	04-06-06	Winthrop Hatchery	Methow River
Yakama Tribe	Winthrop NFH	CO		2006	190,000	04-06-06	04-06-06	Winthrop Hatchery	Methow River
Yakama Tribe	Winthrop NFH	CO		2006	245,241	03-19-06	04-30-06	Winthrop Hatchery	Methow River
Yakama Tribe Total					3,632,101				
Grand Total					20,392,210				

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
3/17	---	---	---	0	105	105	106	24	103	103	103	24	102	103	105	24	---	---	---	0
3/18	---	---	---	0	105	106	106	24	102	102	103	24	102	103	104	24	---	---	---	0
3/19	---	---	---	0	104	105	105	24	102	103	103	24	102	103	104	24	---	---	---	0
3/20	---	---	---	0	105	106	106	24	103	104	104	24	103	103	105	24	103	103	103	9
3/21	---	---	---	0	104	104	105	24	103	104	104	24	103	103	105	24	102	103	103	24
3/22	---	---	---	0	103	103	103	24	102	102	103	24	102	102	104	24	102	102	102	24
3/23	---	---	---	0	103	104	105	21	102	103	103	21	102	102	104	20	102	102	102	24
3/24	---	---	---	0	104	104	106	24	104	104	104	24	103	103	105	24	103	103	103	24
3/25	---	---	---	0	104	105	106	24	104	105	105	24	104	104	105	24	103	104	104	23
3/26	---	---	---	0	104	105	106	24	103	103	104	24	102	103	104	24	102	103	103	24
3/27	---	---	---	0	104	106	107	24	104	104	105	24	104	105	107	24	103	104	104	24
3/28	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/29	---	---	---	0	106	107	109	24	105	105	106	24	104	104	106	24	104	104	105	24
3/30	---	---	---	0	106	107	108	24	104	105	105	24	104	104	106	24	104	105	105	23

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
3/17	---	---	---	0	---	---	---	0	---	---	---	0	98	98	98	24	98	98	98	24
3/18	---	---	---	0	---	---	---	0	---	---	---	0	98	98	98	24	98	98	98	24
3/19	---	---	---	0	---	---	---	0	---	---	---	0	98	98	98	24	98	98	98	24
3/20	103	103	104	8	---	---	---	0	---	---	---	0	98	98	98	24	98	98	98	24
3/21	103	104	105	24	---	---	---	0	---	---	---	0	98	98	98	24	98	98	98	24
3/22	103	103	104	24	---	---	---	0	---	---	---	0	98	98	98	24	98	98	98	24
3/23	103	103	104	24	---	---	---	0	---	---	---	0	98	98	98	24	98	98	98	24
3/24	103	104	105	20	---	---	---	0	---	---	---	0	98	98	98	24	98	98	98	24
3/25	105	105	106	23	---	---	---	0	---	---	---	0	98	98	98	24	98	98	99	24
3/26	104	104	105	24	---	---	---	0	---	---	---	0	98	98	98	24	98	98	98	24
3/27	104	105	106	24	---	---	---	0	---	---	---	0	98	98	98	24	98	98	98	24
3/28	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/29	104	105	105	24	---	---	---	0	---	---	---	0	98	98	98	24	98	98	98	24
3/30	105	105	106	24	---	---	---	0	---	---	---	0	98	98	98	24	98	98	98	24

Total Dissolved Gas Saturation at Mid Columbia River Sites

Date	<u>Rock Island</u>			<u>Rock I. Tlwr</u>			<u>Wanapum</u>			<u>Wanapum Tlwr</u>			<u>Priest Rapids</u>							
	<u>24 h</u>	<u>12 h</u>	#	<u>24 h</u>	<u>12 h</u>	#	<u>24 h</u>	<u>12 h</u>	#	<u>24 h</u>	<u>12 h</u>	#	<u>24 h</u>	<u>12 h</u>	#	<u>24 h</u>	<u>12 h</u>	#		
	Avg	Avg		High	Avg		Avg	High		Avg	Avg		High	Avg		Avg	High		Avg	Avg
3/17	98	98	98	24	99	99	99	24	---	---	---	0	---	---	---	0	---	---	---	0
3/18	98	98	98	24	99	99	99	24	---	---	---	0	---	---	---	0	---	---	---	0
3/19	98	98	98	24	99	99	99	24	---	---	---	0	---	---	---	0	---	---	---	0
3/20	98	98	98	24	99	99	99	24	---	---	---	0	---	---	---	0	---	---	---	0
3/21	98	98	98	24	99	99	99	24	---	---	---	0	---	---	---	0	---	---	---	0
3/22	98	98	98	24	99	99	99	24	---	---	---	0	---	---	---	0	---	---	---	0
3/23	98	98	98	24	99	99	99	24	---	---	---	0	---	---	---	0	---	---	---	0
3/24	98	98	98	24	99	99	99	24	---	---	---	0	---	---	---	0	---	---	---	0
3/25	98	98	98	24	99	99	99	24	---	---	---	0	---	---	---	0	---	---	---	0
3/26	98	98	98	24	99	99	99	24	---	---	---	0	---	---	---	0	---	---	---	0
3/27	98	98	98	24	99	99	99	24	---	---	---	0	---	---	---	0	---	---	---	0
3/28	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/29	98	98	98	24	99	99	99	24	---	---	---	0	---	---	---	0	---	---	---	0
3/30	98	98	98	24	99	99	99	24	---	---	---	0	---	---	---	0	---	---	---	0

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

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

Date	<u>Priest R. Dnst</u>			<u>Pasco</u>			<u>Dworshak</u>			<u>Clrwtr-Peck</u>			<u>Anatone</u>			#				
	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>					
	<u>Avg</u>	<u>Avg</u>		<u>hr</u>	<u>Avg</u>	<u>Avg</u>		<u>hr</u>	<u>Avg</u>	<u>Avg</u>		<u>hr</u>	<u>Avg</u>	<u>Avg</u>			<u>hr</u>	<u>Avg</u>	<u>Avg</u>	
3/17	---	---	---	0	---	---	---	0	98	99	99	24	---	---	---	0	---	---	---	0
3/18	---	---	---	0	---	---	---	0	97	98	99	24	---	---	---	0	---	---	---	0
3/19	---	---	---	0	---	---	---	0	97	98	99	24	---	---	---	0	---	---	---	0
3/20	---	---	---	0	---	---	---	0	98	99	100	24	---	---	---	0	---	---	---	0
3/21	---	---	---	0	---	---	---	0	102	103	104	24	---	---	---	0	103	103	105	6
3/22	---	---	---	0	---	---	---	0	103	104	107	24	105	105	106	12	104	104	105	24
3/23	---	---	---	0	---	---	---	0	103	104	105	24	103	104	105	24	104	104	105	21
3/24	---	---	---	0	106	106	108	11	103	104	105	24	102	103	104	24	104	105	105	24
3/25	---	---	---	0	105	105	105	24	99	99	100	24	100	100	101	24	103	104	104	24
3/26	---	---	---	0	102	103	104	24	97	98	98	24	98	99	100	24	102	104	104	24
3/27	---	---	---	0	104	105	106	24	97	98	99	24	99	100	102	24	105	106	106	21
3/28	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/29	---	---	---	0	105	106	106	24	96	97	97	24	98	98	99	24	103	103	104	24
3/30	---	---	---	0	105	106	106	24	95	96	96	24	98	99	99	24	104	104	105	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>High</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>					
	<u>Avg</u>	<u>Avg</u>		<u>hr</u>	<u>Avg</u>	<u>Avg</u>		<u>hr</u>	<u>Avg</u>	<u>Avg</u>		<u>hr</u>	<u>Avg</u>	<u>Avg</u>			<u>hr</u>	<u>Avg</u>	<u>Avg</u>	
3/17	---	---	---	0	103	103	104	24	103	103	103	24	---	---	---	0	---	---	---	0
3/18	---	---	---	0	102	103	103	24	102	102	103	24	---	---	---	0	---	---	---	0
3/19	---	---	---	0	103	103	104	24	102	103	103	24	---	---	---	0	---	---	---	0
3/20	---	---	---	0	104	104	104	24	104	104	107	24	---	---	---	0	---	---	---	0
3/21	---	---	---	0	103	104	104	24	103	104	104	24	---	---	---	0	---	---	---	0
3/22	105	105	108	10	102	102	103	24	102	102	102	24	---	---	---	0	---	---	---	0
3/23	102	104	106	24	103	104	104	24	103	103	104	24	104	104	113	9	106	106	113	10
3/24	102	104	106	24	104	104	104	24	104	104	104	24	104	104	105	24	103	103	104	24
3/25	100	101	102	24	104	105	105	24	104	104	105	24	105	105	105	24	104	105	105	24
3/26	99	101	102	24	103	103	104	24	102	103	104	24	103	103	104	24	102	102	104	24
3/27	101	102	103	24	103	104	104	24	103	103	104	24	103	104	104	24	103	103	104	24
3/28	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/29	99	100	101	24	103	103	103	24	102	103	103	24	104	104	105	24	103	104	106	24
3/30	100	101	102	24	103	104	104	24	103	104	104	23	103	104	105	24	103	103	104	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>High</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>					
	<u>Avg</u>	<u>Avg</u>		<u>hr</u>	<u>Avg</u>	<u>Avg</u>		<u>hr</u>	<u>Avg</u>	<u>Avg</u>		<u>hr</u>	<u>Avg</u>	<u>Avg</u>			<u>hr</u>	<u>Avg</u>	<u>Avg</u>	
3/17	---	---	---	0	---	---	---	0	100	101	101	24	103	106	110	24	103	103	106	21
3/18	---	---	---	0	---	---	---	0	100	100	100	24	102	104	108	24	102	103	103	24
3/19	---	---	---	0	---	---	---	0	100	101	102	24	101	101	101	24	103	104	106	24
3/20	---	---	---	0	---	---	---	0	102	102	102	24	105	108	110	24	105	107	114	24
3/21	---	---	---	0	---	---	---	0	102	102	102	24	104	105	108	24	104	104	105	24
3/22	---	---	---	0	---	---	---	0	101	101	101	24	102	102	103	24	104	104	107	24
3/23	103	103	105	14	103	103	104	12	102	102	102	24	102	102	103	24	104	104	105	24
3/24	103	104	104	23	103	104	104	23	102	103	103	24	100	102	104	24	104	105	105	24
3/25	104	105	105	24	105	106	111	24	104	104	104	24	100	100	101	24	105	105	106	24
3/26	103	103	104	24	103	103	104	24	102	103	103	24	100	100	101	24	103	103	104	24
3/27	103	104	104	24	103	104	104	24	104	104	105	24	101	102	103	24	104	104	105	24
3/28	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/29	104	104	105	24	104	104	104	24	105	105	105	24	103	104	104	24	104	104	104	24
3/30	103	103	104	24	103	103	104	24	104	104	104	24	104	104	104	16	104	106	107	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>24 h</u>		<u>12 h</u>		#	<u>24h</u>		<u>12h</u>		#	<u>24h</u>		<u>12h</u>		#
	Avg	Avg	High	hr		Avg	Avg	High	hr		Avg	Avg	High	hr		Avg	Avg	High	hr	
3/17	102	103	103	24	103	103	103	24	102	103	103	24	102	102	102	24	102	102	103	24
3/18	102	102	103	24	102	103	103	24	102	102	102	24	101	102	102	24	102	102	103	24
3/19	102	102	103	24	102	102	103	24	102	103	104	24	101	102	102	24	102	103	103	24
3/20	104	105	105	24	104	104	105	24	104	105	105	24	103	104	104	24	104	104	105	24
3/21	104	104	104	24	104	104	105	24	104	105	105	24	103	103	104	24	104	104	104	24
3/22	103	104	104	24	104	104	105	24	103	104	104	24	102	103	103	24	103	103	104	24
3/23	104	105	105	23	105	105	105	24	104	105	105	24	103	104	104	24	104	104	104	24
3/24	104	105	105	24	105	105	106	24	105	105	105	24	104	104	104	24	104	105	105	24
3/25	105	106	106	24	106	106	107	24	105	105	106	24	104	105	105	24	105	105	106	24
3/26	103	103	104	24	104	104	105	24	104	104	104	24	103	103	103	24	103	103	104	24
3/27	104	104	104	24	105	105	106	24	105	106	106	24	104	105	105	24	105	106	106	24
3/28	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/29	104	104	105	24	105	105	105	24	106	106	106	23	105	105	106	24	105	105	106	24
3/30	105	105	106	24	105	105	105	24	105	106	106	24	105	106	106	24	105	105	106	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/Washougal</u>				<u>Cascade Island</u>			
	<u>24 h</u>		<u>12 h</u>		#	<u>24 h</u>		<u>12 h</u>		#	<u>24h</u>		<u>12h</u>		#	<u>24h</u>		<u>12h</u>		#
	Avg	Avg	High	hr		Avg	Avg	High	hr		Avg	Avg	High	hr		Avg	Avg	High	hr	
3/17	102	102	102	24	102	102	103	24	103	103	103	24	103	104	104	24	---	---	---	0
3/18	102	102	102	24	102	102	102	24	102	102	103	24	103	103	104	24	---	---	---	0
3/19	102	102	103	24	102	103	103	24	103	104	104	24	104	105	106	24	---	---	---	0
3/20	103	104	104	24	104	104	104	24	104	104	105	24	105	106	107	24	---	---	---	0
3/21	103	103	103	24	103	104	104	24	104	104	104	24	104	104	105	24	110	110	111	14
3/22	102	103	103	24	103	103	103	24	103	103	104	24	103	104	105	24	110	111	111	17
3/23	103	104	104	24	104	104	104	24	104	105	105	24	104	104	105	24	111	111	111	17
3/24	104	104	105	24	104	104	104	24	105	105	106	24	105	105	106	24	111	112	117	17
3/25	104	105	105	24	105	105	105	24	105	106	107	24	105	106	106	24	113	114	116	17
3/26	103	103	103	24	103	103	104	24	104	104	105	24	104	105	106	24	114	114	117	17
3/27	104	105	106	24	104	105	106	24	105	105	105	24	104	105	106	24	113	114	116	17
3/28	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/29	104	105	105	24	105	105	106	24	105	105	106	24	105	105	106	24	112	113	116	17
3/30	104	105	105	24	104	104	105	24	105	105	105	24	105	106	107	24	116	117	120	16

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)
03/17/2006	0	0	0	0	---	---	---	---	---	---	0
03/18/2006	0	0	0	0	---	---	---	---	---	---	13
03/19/2006	0	0	0	0	---	---	---	---	---	---	0
03/20/2006	0	0	0	0	---	---	---	---	---	---	7
03/21/2006	0	0	0	0	---	---	---	---	---	---	0
03/22/2006	0	0	0	0	---	---	---	---	---	---	0
03/23/2006	0	0	0	0	---	---	---	---	---	---	7
03/24/2006	0	0	0	0	---	---	---	---	---	---	0
03/25/2006	0	0	0	0	---	---	---	---	---	---	6
03/26/2006	0	0	0	0	60	---	---	---	---	---	0
03/27/2006	0	0	0	0	30	---	---	---	---	---	0
03/28/2006	0	0	0	0	10	---	---	---	---	---	0
03/29/2006	0	0	0	0	10	---	---	---	---	---	0
03/30/2006	0	---	0	0	0	---	---	---	---	---	0
03/31/2006	---	---	---	---	---	---	---	---	---	---	---
Total:	0	0	0	0	110	0	0	0	0	0	33
# Days:	14	13	14	14	5	0	0	0	0	0	14
Average:	0	0	0	0	22	0	0	0	0	0	2
YTD	0	0	0	0	110	0	0	0	0	0	86

* 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
 $\text{Passage Index} = \text{Collection Counts} / \{ \text{Powerhouse 2 Flow} / (\text{Powerhouse 1 \& 2 Flow} + \text{Spill}) \}$

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.

Two Week Transportation Summary

Source: Fish Passage Center

Updated:

3/31/06 9:31 AM

		03/18/06		TO	03/31/06	
		Species				
Site	Data	CH1	SO	ST	Grand Total	
LGR	Sum of NumberCollected	1,300		110	6,670	8,080
	Sum of NumberBarged	0		0	0	0
	Sum of NumberBypassed	1,297		109	6,669	8,075
	Sum of Numbertrucked	0		0	0	0
	Sum of SampleMorts	3		1	1	5
	Sum of FacilityMorts	0		0	0	0
	Sum of ResearchMorts	0		0	0	0
	Sum of TotalProjectMorts	3		1	1	5
Total Sum of NumberCollected		1,300		110	6,670	8,080
Total Sum of NumberBarged		0		0	0	0
Total Sum of NumberBypassed		1,297		109	6,669	8,075
Total Sum of Numbertrucked		0		0	0	0
Total Sum of SampleMorts		3		1	1	5
Total Sum of FacilityMorts		0		0	0	0
Total Sum of ResearchMorts		0		0	0	0
Total Sum of TotalProjectMorts		3		1	1	5

YTD Transportation Summary

Source: Fish Passage Center

Updated:

3/31/06 9:31 AM

		TO:		03/31/06		
		Species				
Site	Data	CH1	SO	ST	Grand Total	
LGR	Sum of NumberCollected	1,300		110	6,670	8,080
	Sum of NumberBarged	0		0	0	0
	Sum of NumberBypassed	1,297		109	6,669	8,075
	Sum of NumberTrucked	0		0	0	0
	Sum of SampleMorts	3		1	1	5
	Sum of FacilityMorts	0		0	0	0
	Sum of ResearchMorts	0		0	0	0
	Sum of TotalProjectMorts	3		1	1	5
Total Sum of NumberCollected		1,300		110	6,670	8,080
Total Sum of NumberBarged		0		0	0	0
Total Sum of NumberBypassed		1,297		109	6,669	8,075
Total Sum of NumberTrucked		0		0	0	0
Total Sum of SampleMorts		3		1	1	5
Total Sum of FacilityMorts		0		0	0	0
Total Sum of ResearchMorts		0		0	0	0
Total Sum of TotalProjectMorts		3		1	1	5

Cumulative Adult Passage at Mainstem Dams Through: 03/30

DAM	EndDate	Spring Chinook						Summer Chinook						Fall Chinook					
		2006		2005		10-Yr Avg.		2006		2005		10-Yr Avg.		2006		2005		10-Yr Avg.	
		Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack
BON	3/29	12	0	23	0	2,114	3	0	0	0	0	0	0	0	0	0	0	0	0
TDA	3/29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JDA	3/29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MCN	3/29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IHR	3/29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LMN	3/29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LGS	3/29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LGR	3/28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PRD	3/29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RIS	3/29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RRH	3/29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WEL	3/29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WFA	3/29	21	0	270	1	n/a	n/a	---	---	---	---	---	---	0	0	0	0	n/a	n/a

DAM	Coho						Sockeye			Steelhead			
	2006		2005		10-Yr Avg.		10-Yr Avg.		10-Yr Avg.		Wild		
	Adult	Jack	Adult	Jack	Adult	Jack	2006	2005	Avg.	2006	2005	Avg.	2006
BON	0	0	0	0	0	0	0	0	0	299	37	656	40
TDA													
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	2,945	3,245	3503	613
LGR	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
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	4,517	3,517	n/a	n/a

BON and LGR have switched to video counts so the data is delayed.

*PRD is not posting wild steelhead numbers.

These numbers were collected from USACE, Grant PUD, Douglas PUD, Chelan PUD, ODFW and DART.

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: 03/31/06

BON counts from January 1, 2006 to March 14, 2006 (our traditional counts begin March 15):

Chinook Adult	Chinook Jack	Steelhead	Wild Steelhead
1	0	2,516	238

Run Year counts (June 1, 2005 to May 31, 2006) for Lower Granite:

Steelhead
0