



Fish Passage Center

Weekly Report #03 - 5

April 18, 2003

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Summary of Events:

Water Supply: The Columbia Basin snowpack above The Dalles increased from 74% of average on March 1st to 86% on April 1st. The snowpack above Grand Coulee increased 13% between March 1st and April 1st to 85% of average and snowpacks above Ice Harbor increased 14% to 94% of average over the same period.

Most Columbia Basin watersheds have continued to receive significant precipitation through the mid-point of April (Table 1). Central Washington received 197% of average precipitation through April 1-14. For the water year, precipitation in most basins has been near normal.

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

Location	April 1-14, 2003		Cumulative October, 1 2002 to April 14, 2003	
	Observed (inches)	% Average	Observed (inches)	% Average
Columbia Above Coulee	1.0	131	13.7	91
Snake River Above Ice Harbor	0.7	108	10.4	95
Columbia Above The Dalles	0.9	120	14.2	94
Kootenai	1.00	122	13.2	86
Clark Fork	0.8	145	9.5	100
Flathead	1.1	144	11.7	90
Pend Oreille/Spokane	1.2	118	21.4	101
Central Washington	0.6	197	7.4	119
Snake River Plain	0.6	126	4.6	69
Clearwater	1.1	87	22.0	111
SW Washington Cascades/Cowlitz	2.9	115	50.2	90
Willamette Valley	3.5	155	45.1	95

Table 2 displays the February, March, and April Final runoff volume forecasts for multiple reservoirs. Generally, runoff forecasts have remained relatively consistent between the February and March Final Forecasts, however, as result of the higher than average precipitation in March, the April Final Forecast shows increased runoff volumes throughout all basins listed. Many basins have increased in excess of 10% of average between the March and April Final Forecasts; the Clearwater Basin increased 20%.

Table 2. February, March, and April 2003 Final Runoff Volume Forecasts for various reservoirs within the Columbia and Snake River Basins.

Location	February Final		March Final		April Final	
	% 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)	70	75600	70	74900	79	85300
Grand Coulee (Jan-July)	76	48100	74	46300	84	52900
Libby Res. Inflow, MT (Jan-July)	75	4730	70	4440	79	4960
Hungry Horse Res. Inflow, MT (Jan-July)	69	1530	66	1470	81	1800
Lower Granite Res. Inflow (Apr-July)	68	14700	68	14700	79	17100
Brownlee Res. Inflow (Apr-July)	55	3490	49	3100	53	3370
Dworshak Res. Inflow (Apr-July)	65	1730	70	1860	90	2390

Based on the April Final Forecasts, the following Biological Opinion actions will be targeted in the spring of 2003:

- Lower Granite: The Spring Flow Objective will be 89.1 Kcfs between April 3rd and June 20th.
- McNary: The Spring Flow Objective will be 220 Kcfs between April 10th and June 30th.
- Priest Rapids: The Spring Flow Objective will be 135 Kcfs between April 10th and June 30th.

On April 17, two separate SORs, SOR 2003-7 and SOR 2003-8 were submitted to the action agencies for fish protection operations. SOR 2003-7 asked for the Biological Opinion flow objective of 135 Kcfs to be met at Priest Rapids from April 24th through the end of June, reflecting improved water supply. SOR 2003-7 was accepted by the action agencies.

SOR 2003-8 is based upon survey reports that juvenile fall chinook stranding and entrapment is increased below Priest Rapids Dam. The SOR requests that flow fluctuations be limited relative to the 24 hour flow average. The action agencies maintain that Grant County PUD is the responsible party and Grant County PUD has maintained that federal flow control is responsible. No indication of compromise between Grant County PUD and the action agencies on implementation of SOR 2003-8 has been indicated up to this point.

Table 3 displays the April 30th Flood Control Targets along with actual reservoir elevations recorded on April 17th, 2003 for Libby, Hungry Horse, Grand Coulee, Brownlee, and Dworshak.

Table 3. April Flood Control Targets along with actual reservoir elevations recorded on April 17, 2003 for Libby, Hungry Horse, Grand Coulee, Brownlee, and Dworshak.

Reservoir	Actual Elevation April 17 th , 2003	April 30 th , 2003 Flood Control Target
Libby	2405.9	2449.8
Hungry Horse	3516.0	3537.3
Grand Coulee	1282.2	1283.3
Brownlee	2070.3	2077.0
Dworshak	1573.9	1541.9

The Libby Reservoir is currently at an elevation of 2405.9 feet, 43.9 feet below its April 30th Flood Control Target (Table 3). Libby has been operating to a minimum discharge of 4.0 Kcfs, and has refilled approximately one foot over the last week.

The Hungry Horse Reservoir is currently at an elevation of 3516.0 feet, 21.3 feet below its April 30th Flood Control Target (Table 3). Hungry Horse continues to operate to meet the Columbia Falls Minimum discharge, which is currently 3,372 cfs, and has refilled four feet in the last week.

The Dworshak reservoir is currently at an elevation of 1573.9 feet, 23.0 feet above its end of April Flood control Target. Dworshak continues to release approximately 16 kcfs of water (9.5 Kcfs through the powerhouse and the rest spill).

The Grand Coulee Reservoir ended April 17th at an elevation of 1282.2 feet, 1.1 feet below its April 30th flood control elevation.

The Brownlee Reservoir was at an elevation of 2070.3 on April 17th, 6.7 feet below its April 30th Flood Control Target (Table 3).

The USBR reservoir systems along the Boise, Payette, and Upper Snake Basins are currently 55% (+3% from last week), 68% (+1% from last week), and 60% (+2% from last week) of capacity.

Spill: Dworshak Dam is being operated to meet its flood control elevation. The project is operating at full powerhouse and is spilling to the 110% TDG gas cap. Biological Opinion spill is occurring at the Snake River projects. Spill at Lower Granite, Little Goose, Lower Monumental and Ice Harbor dams averaged 39, 27%, 27% and 42% of average daily flow, respectively. The relative survival of juvenile salmonids under spill for operation of the Removable Spillway Weir is being tested against survival under operations of spill to the gas cap at Lower Granite Dam. Spill at Lower Monumental Dam has been decreased to determine if observations observed in the physical models could be verified as impacting juvenile survival. A modified spill schedule is also being tested at Ice Harbor Dam.

Spill at the lower Columbia projects was initiated on April 14. At John Day Dam the relative smolt survival under alternating spill levels of 45%

versus 60% will be tested. At Bonneville Dam juvenile survival and adult passage will be evaluated under a 75 Kcfs cap and daytime spill to the gas cap.

Monitoring for signs of gas bubble trauma (GBT) has not sampled any fish with signs of GBT in their fins. Total dissolved gas levels remain below the gas waiver limits.

Smolt Monitoring: The Snake River monitoring sites recorded large increases in the passage of yearling chinook and steelhead this past week. The tributary traps continue to capture relatively large numbers of yearling chinook and increasing numbers of steelhead. In the mid-Columbia the collection of yearling chinook is increasing rapidly, while in the Lower Columbia the numbers of yearling chinook are continuing to increase steadily.

The White Bird Trap collected an average of 1,200 yearling chinook per day this week compared to 1,480 per day last week. Steelhead numbers were steady with the average daily collection this week at 29 identical to last week. At the Imnaha Trap the average daily catch of yearling chinook this week was 1,134 compared to 2,122 last week. The numbers of steelhead increased rapidly this week corresponding with the recent releases of over 200,000 hatchery fish in Little and Big Sheep basins this past week. The average daily collection was 580 per day this week versus 20 per day last week. Numbers of yearling chinook captured at the Grande Ronde trap decreased again this past week with a daily average of 196 compared to 339 last week. At the Lewiston Trap the collection of yearling chinook and steelhead increased with the average daily collection of chinook at 93 while steelhead averaged 104 per day.

At Lower Granite Dam the average daily passage index for both yearling chinook and steelhead increased rapidly this past week. The yearling chinook index averaged 20,800 this week compared to 8,400 last week while the steelhead average daily passage index increased from 3,400 last week to 9,200 this week. Small numbers of sockeye and subyearling chinook were also captured this past week. At Little Goose Dam and Lower Monumental dams both saw large increases

in yearling chinook and steelhead indices. At Little Goose the index for yearling chinook averaged 4,800 while at Lower Monumental it was 7,000. The index for steelhead at Little Goose averaged approximately 2,300 and at Lower Monumental it was 1,360. The larger passage indices of yearling chinook at Lower Monumental (compared to Little Goose) of yearling chinook likely represent releases of 650,000 yearling fall chinook from Lyons Ferry Hatchery.

Rock Island Dam has reported small numbers of yearling chinook and steelhead to date, with an index of 647 yearling chinook on April 17 the highest total to date. There have been steady but small numbers of sockeye collected with only a few coho and steelhead collected to date.

In the Lower Columbia, at McNary, where sampling is carried out every other day, in conjunction with NMFS transportation study that begins April 20, the passage index for yearling chinook increased from 800 last week to 5,300 this week. Steelhead indices remained relatively steady and low, at 860 this week compared to 850 average daily index last week. The daily average index for subyearling chinook dropped to 1,200 per day this week compared to near 2,000 last week. At John Day Dam the average daily index for yearling chinook remained relatively steady with 2,100 this week compared to 1,500 last week. Steelhead indices were also up slightly, with an average of 750 this week versus 640 last week. Small numbers of subyearling chinook, sockeye, and coho smolts have been reported this past week. At Bonneville Dam, the average daily index for yearling chinook was up, at 9,300 this week compared to 2,500 last week. The steady increase to 18,000 on April 17th may be an indication that the release of 1.7 million yearling chinook from Carson National Fish Hatchery that started on April 16, had begun to reach the project. The steelhead index averaged 930 this week compared to 850 last week. The indices for coho were up again this week with an average index of 1,200 compared to 500 per day last week. Subyearling chinook numbers spiked at 560,000 on April 16 after the release of 4 million subs, on April 14, from Spring Creek Hatchery. Low numbers of sockeye were also reported in the sample this past week.

Hatchery Releases - The preliminary hatchery release schedules for the three Columbia River Basin Zones are updated daily or weekly throughout the migration season. The FPC hatchery release numbers can be obtained from the FPC website. Approximately 30.5 million juvenile salmonids were released or were initiated during the past two weeks, with 16 million fish scheduled for release in the upcoming two weeks.

Snake River - About 27.9 million smolts will be released from State, Federal, and Tribal hatcheries and acclimation ponds during the 2003 migration year. Approximately 10.5 million yearling spring chinook have been released into the Salmon River basin, into Rapid River and Little Salmon River, below Hells Canyon Dam, the Clearwater River basin, from acclimation ponds in the Grande Ronde River and Imnaha basin, and into the Tucannon River from the Curl Lake acclimation pond. Another 2.3 million yearling summer chinook were released into Pahsimeroi River, Johnson Creek, and into the South Fork Salmon River. About 500,000 yearling fall chinook were released from acclimation ponds in the Snake and Clearwater River basins with an on-site release from Lyons Ferry Hatchery of 518,436 yearling fall chinook.

During fall 2002, about 140,000 sockeye were released in the upper Salmon River basin lakes.

About 550,000 yearling coho salmon were released in early March into Lapwai Creek and Potlatch River with another 700,000 to be released in the Clearwater River basin.

Releases of juvenile steelhead (9.7 million) will occur mainly from mid-April through mid-May, with these fish released throughout the Snake, Salmon, Clearwater, Imnaha, Grande Ronde, and Tucannon River basins. Many of the hatcheries have begun releasing steelhead and they should continue at an accelerated rate during the next 3-weeks.

Mid-Columbia River - About 22.2 million yearling and subyearling salmon species will be released in the Mid-Columbia during the 03 migration year. Volitional release of yearling spring chinook are on-going from the acclimation ponds in

the Yakima River basin with greater than 50% of the fish already exited from the ponds and migrating downstream. Releases of yearling chinook were completed at several hatcheries this week and should be completed during the next two weeks.

Subyearling fall chinook will be released later in the season, normally late May or June. About 209,000 sockeye were released last fall into Lake Wenatchee; there will be no sockeye releases made into the Okanogan River basin this year.

About 1.9 million coho are scheduled for release in this Zone. The yearling coho are normally released from early to mid-April through mid-May.

Approximately 1.3 million juvenile steelhead will be released from mid-April through early May.

Lower Columbia River - The Lower Columbia River Zone is scheduled to release about 37 million salmon and steelhead for the 2003 migration. The majority of fish released in this Reach is comprised of subyearling fall chinook, many from Spring Creek National Fish Hatchery. About 7.6 million subyearling fall chinook were released on March 8 with another 4.1 million released on April 10.

About 607,000 yearling spring chinook were released into the Klickitat River on March 8 with the acclimation ponds in Umatilla River basin also releasing yearling fall and spring chinook in March and April. Warm Springs National Fish Hatchery completed the volitional release of yearling spring chinook this week and Round Butte Hatchery will begin releasing their spring chinook from the Pelton Ladder into the Deschutes River. Yearling spring chinook will be released into the Hood River from tribal acclimation facilities. Also the Federal hatcheries released yearling spring chinook into the Wind and Little White Salmon rivers this week.

About 2.5 million coho salmon were released in the Klickitat River in early April with another with another million scheduled for May. Willard Hatchery completed planting coho into the Little White Salmon River this week. Other coho have been released in the Umatilla River.

Winter and summer steelhead releases will begin during the next two weeks in April and be completed in May.

Adult Fish Passage - Most COE projects began counting adult fish on April 1 with the PUD facilities initiating counts on April 15. Counts officially started at Lower Granite Dam on March 1st with Bonneville Dam counts beginning March 15. Adult fish counts at Bonneville Dam recorded by video prior to March 14 are summarized below the Cumulative Adult Table, with adult chinook and steelhead counts exceeding 3,700 and 3,400, respectively.

During the past week, daily counts of adult spring chinook at Bonneville Dam ranged from a low of 2,123 on 4/17 to a high count of 7,996 on 4/15. Since March 15, the cumulative count of adult spring chinook was 81,959, about 2.8 times and 2.2 times greater than the respective 2002 and 10-year average counts through April 17. Based on PIT tagged spring chinook that have passed Bonneville Dam to date, the early portion of the run has been primarily comprised of the larger 5-year old chinook. During the past two weeks, passage of four-year old spring chinook has increased at Bonneville Dam. Based on sampling by CRITFC at Bonneville adult trapping facility, the percentage of 5-year old fish was about 66% of the sample during the week 15 sampling (April 8). This large number of returning 5-year old chinook has bolstered the numbers of spring chinook returning to the Columbia River to date.

Counts of adult spring chinook at The Dalles ranged from 2,320 to 5,147 with the average passage for the week of 4,017 per day. The cumulative count was 48,701, about 59.4% of the Bonneville count through April 17. Upstream at McNary Dam, about 23,500 were counted past the project through April 16 with about 16,500 counted into the Snake River. At Priest Rapids Dam, 1,467 adult spring chinook were tallied during the initial three days of counting (April 15-17). The McNary Dam counts (23,500) from March 1 through April 15 indicate that uncounted passage of spring chinook occurred at Priest Rapids Dam, prior to the beginning of counting at the project on April 15.

About 15,000 adult summer steelhead have been counted at Lower Granite Dam to date, and this total remained far above the 2002 and 10-year average for the spring migration. Steelhead that

over-wintered below Lower Granite or other dams should be completing migration to their spawning areas. Daily counts of steelhead averaged less than 100/day for the week.

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
04/04/03	72.9	0.0	76.2	0.0	81.3	0.0	81.2	0.0	88.2	0.0	101.7	0.0	105.6	0.0
04/05/03	65.5	0.0	65.1	0.0	67.7	0.0	67.0	0.0	69.4	0.0	69.5	0.0	73.0	0.0
04/06/03	61.2	0.0	63.0	0.0	62.2	2.5	56.6	0.0	61.2	0.0	63.3	0.0	73.1	0.0
04/07/03	95.5	0.0	99.0	0.0	105.3	2.2	109.3	2.0	115.4	0.0	113.6	5.5	100.8	0.0
04/08/03	95.4	0.0	92.6	0.0	95.4	0.0	93.8	0.0	97.8	0.0	109.5	0.0	118.4	0.0
04/09/03	100.4	0.0	99.6	0.0	102.1	0.0	99.8	0.0	104.4	0.0	104.3	0.0	91.9	0.0
04/10/03	100.8	0.0	101.3	0.0	103.6	0.0	105.0	0.0	108.7	0.0	106.6	0.0	105.9	0.0
04/11/03	89.3	0.0	92.8	0.0	96.8	0.0	96.1	0.0	101.1	0.0	108.6	0.0	113.1	0.0
04/12/03	83.0	0.0	80.8	0.0	84.3	6.3	80.8	0.0	87.2	0.0	91.3	0.0	91.0	0.0
04/13/03	50.4	0.0	57.3	0.0	67.7	5.1	69.0	0.0	71.7	0.0	84.2	0.0	84.9	0.0
04/14/03	100.6	0.0	100.8	0.0	101.2	6.9	95.3	0.0	100.4	0.0	94.9	0.0	97.7	0.0
04/15/03	113.0	0.0	116.4	0.0	115.9	8.9	112.2	0.0	119.2	0.0	113.7	0.0	107.1	0.0
04/16/03	126.1	0.0	122.9	0.0	127.0	7.8	127.1	0.0	133.3	0.0	137.0	0.0	134.0	0.0
04/17/03	109.9	0.0	112.2	0.0	120.5	9.1	122.4	0.0	116.3	24.8	143.9	0.0	148.3	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
04/04/03	15.9	6.4	16.2	17.7	70.8	20.4	68.5	0.0	69.1	0.0	62.6	0.1
04/05/03	16.1	6.5	14.7	17.4	68.7	20.1	77.8	9.9	82.5	0.0	84.9	0.0
04/06/03	16.1	6.5	14.8	17.4	66.8	19.4	75.6	18.5	85.7	0.0	80.9	0.0
04/07/03	16.0	6.4	14.3	17.3	62.5	20.0	60.5	19.2	63.6	6.4	63.2	0.0
04/08/03	16.1	6.5	14.3	16.4	61.3	20.7	58.2	20.6	60.1	29.6	58.3	0.0
04/09/03	16.3	6.7	14.5	17.9	61.3	20.7	53.4	18.4	53.8	26.3	49.7	8.5
04/10/03	16.1	6.5	13.8	17.4	60.0	26.3	61.1	18.5	60.6	29.7	65.7	49.7
04/11/03	15.9	6.3	14.9	17.6	64.6	19.8	62.2	21.0	60.3	31.4	64.0	49.8
04/12/03	15.9	6.4	14.3	14.6	68.5	20.2	67.1	20.9	66.2	30.1	72.3	55.7
04/13/03	16.0	6.3	16.0	11.2	73.9	20.2	74.0	20.9	73.2	28.6	77.1	52.7
04/14/03	16.0	6.2	15.9	15.6	82.3	25.5	79.6	20.0	77.8	27.4	81.7	56.4
04/15/03	16.1	6.3	16.4	18.5	82.2	20.5	82.8	18.8	83.7	29.1	87.1	62.5
04/16/03	16.1	6.3	15.7	18.4	75.4	15.0	75.8	18.5	74.5	29.4	80.7	53.7
04/17/03	15.8	6.0	---	---	73.8	20.3	70.8	18.6	70.6	31.8	76.3	56.0

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		
04/04/03	174.4	0.0	170.2	0.0	168.4	0.0	181.4	1.8	52.9	120.0
04/05/03	173.4	0.0	182.0	0.0	184.6	0.0	185.2	2.0	49.5	127.0
04/06/03	173.5	0.0	186.5	0.0	189.1	0.0	197.3	2.0	59.9	128.6
04/07/03	175.2	0.0	180.3	0.0	181.0	0.0	187.3	2.0	54.7	123.8
04/08/03	173.7	0.0	175.2	0.0	180.8	0.0	194.5	2.0	57.6	128.6
04/09/03	173.1	0.0	191.6	0.0	195.4	0.0	198.3	2.1	63.4	126.2
04/10/03	161.4	0.0	189.1	28.2	189.9	0.0	205.6	2.0	66.5	130.5
04/11/03	174.7	0.0	178.0	0.0	183.9	0.0	190.9	2.1	63.2	119.0
04/12/03	174.3	0.0	175.2	0.0	178.9	0.0	186.8	2.0	53.2	124.9
04/13/03	174.1	0.0	179.3	0.0	179.9	0.0	178.9	2.1	48.0	122.0
04/14/03	177.7	33.9	178.8	23.6	182.3	21.5	197.8	69.9	12.0	109.2
04/15/03	189.1	68.1	194.3	46.2	197.7	77.1	209.1	95.4	8.9	98.0
04/16/03	193.3	68.5	194.2	46.8	190.4	72.8	224.0	139.7	0.0	77.6
04/17/03	201.8	83.1	218.2	49.8	218.4	85.8	216.1	149.6	0.0	59.8

Gas Bubble Trauma Monitoring Results from Representative Sites on the Snake River and Columbia River

Site	Date	Species	Number of Fish	Number w GBT signs	Number w Fin Signs	% Fin GBT	% Severe Fin GBT	Number of Fish with Fin GBT Listed by Highest Rank				Fish with L. Line GBT	
								Rank 1	Rank 2	Rank 3	Rank 4	Num Fish	Avg. Rank
Lower Granite Dam													
	04/08/03	Yearling Chinook	41	0	0	0.00%	0.00%	0	0	0	0		
	04/08/03	Steelhead	59	0	0	0.00%	0.00%	0	0	0	0		
Little Goose Dam													
	04/09/03	Yearling Chinook	18	0	0	0.00%	0.00%	0	0	0	0		
	04/09/03	Steelhead	28	0	0	0.00%	0.00%	0	0	0	0		
	04/16/03	Yearling Chinook	75	0	0	0.00%	0.00%	0	0	0	0		
	04/16/03	Steelhead	25	0	0	0.00%	0.00%	0	0	0	0		
Lower Monumental Dam													
	04/14/03	Yearling Chinook	82	0	0	0.00%	0.00%	0	0	0	0		
	04/14/03	Steelhead	18	0	0	0.00%	0.00%	0	0	0	0		
McNary Dam													
	04/10/03	Yearling Chinook	67	0	0	0.00%	0.00%	0	0	0	0		
	04/10/03	Steelhead	33	0	0	0.00%	0.00%	0	0	0	0		
	04/14/03	Yearling Chinook	86	0	0	0.00%	0.00%	0	0	0	0		
	04/14/03	Steelhead	14	1	0	0.00%	0.00%	0	0	0	0		
Bonneville Dam													
	04/10/03	Yearling Chinook	81	0	0	0.00%	0.00%	0	0	0	0		
	04/10/03	Steelhead	25	0	0	0.00%	0.00%	0	0	0	0		
	04/14/03	Yearling Chinook	32	0	0	0.00%	0.00%	0	0	0	0		
	04/14/03	Steelhead	9	0	0	0.00%	0.00%	0	0	0	0		
Rock Island Dam													
	04/17/03	Yearling Chinook	50	1	1	2.00%	0.00%	1	0	0	0		
	04/17/03	Steelhead	50	2	2	4.00%	0.00%	2	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 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>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>#</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>#</u>
	<u>Avg</u>	<u>Avg</u>			<u>Avg</u>	<u>Avg</u>			<u>Avg</u>	<u>Avg</u>			<u>Avg</u>	<u>Avg</u>			<u>Avg</u>	<u>Avg</u>		
4/4	100	100	100	24	108	110	111	24	103	104	107	24	103	104	106	23	---	---	---	0
4/5	100	100	100	24	106	108	111	23	103	104	104	23	103	104	108	23	---	---	---	0
4/6	99	100	100	23	106	107	108	22	103	103	104	23	103	104	107	22	---	---	---	0
4/7	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
4/8	100	101	101	24	105	105	106	24	103	104	104	24	103	103	105	24	---	---	---	0
4/9	100	101	101	24	105	105	107	24	103	104	104	24	103	103	107	24	---	---	---	0
4/10	101	101	102	24	106	107	109	24	104	105	106	24	103	104	105	24	---	---	---	0
4/11	100	101	101	24	105	106	113	24	105	105	106	24	103	104	107	24	---	---	---	0
4/12	100	101	101	24	107	110	113	24	106	107	108	24	104	104	106	24	---	---	---	0
4/13	100	101	101	24	106	108	113	24	105	106	106	24	104	105	107	24	---	---	---	0
4/14	100	100	101	24	112	113	114	24	105	105	106	24	103	104	106	24	105	105	105	16
4/15	100	100	101	24	111	116	116	24	105	106	106	24	103	104	105	24	104	104	105	23
4/16	100	100	101	24	116	117	118	24	105	105	105	24	103	104	104	24	104	104	105	23
4/17	101	102	102	23	115	118	120	24	105	106	106	24	104	105	106	24	104	104	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>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>#</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>#</u>
	<u>Avg</u>	<u>Avg</u>			<u>Avg</u>	<u>Avg</u>			<u>Avg</u>	<u>Avg</u>			<u>Avg</u>	<u>Avg</u>			<u>Avg</u>	<u>Avg</u>		
4/4	104	105	108	22	104	104	104	20	104	104	104	20	104	104	104	22	104	104	104	21
4/5	103	103	103	21	103	103	104	11	103	103	104	11	104	104	104	24	104	104	104	24
4/6	102	102	103	23	104	104	105	14	103	103	104	14	104	104	104	21	104	104	104	21
4/7	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
4/8	104	105	105	23	104	104	105	19	104	104	105	19	104	105	107	24	105	106	108	24
4/9	104	104	106	23	104	105	105	22	104	105	105	22	106	107	107	20	106	107	108	20
4/10	103	104	104	23	105	105	105	24	105	105	105	24	105	105	105	24	105	105	105	24
4/11	104	104	104	23	105	105	105	20	104	105	105	20	105	105	105	21	105	105	106	21
4/12	104	104	104	23	105	105	105	24	106	107	107	24	106	106	106	24	106	106	106	24
4/13	104	105	105	23	105	105	105	24	106	106	107	24	106	106	106	24	106	106	106	24
4/14	104	105	107	23	105	105	105	24	106	107	107	24	106	106	106	24	106	106	107	24
4/15	104	105	106	23	105	105	105	24	107	107	108	24	106	106	107	24	107	107	107	24
4/16	104	104	106	23	105	105	105	23	107	107	108	23	106	107	107	23	106	107	107	23
4/17	104	105	106	23	105	105	106	24	107	107	108	24	107	107	108	24	107	108	108	23

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>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>#</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>#</u>
	<u>Avg</u>	<u>Avg</u>			<u>Avg</u>	<u>Avg</u>			<u>Avg</u>	<u>Avg</u>			<u>Avg</u>	<u>Avg</u>			<u>Avg</u>	<u>Avg</u>		
4/4	104	104	104	22	104	104	104	22	104	105	107	24	104	104	104	24	104	104	105	24
4/5	103	103	104	24	104	104	104	24	104	104	104	24	103	103	104	24	104	104	104	24
4/6	103	103	103	21	103	103	103	21	104	104	105	24	103	103	104	24	103	104	104	24
4/7	---	---	---	0	---	---	---	0	103	103	103	24	104	106	115	24	103	104	106	24
4/8	104	104	105	24	104	105	105	23	104	104	106	24	104	105	105	24	105	106	107	24
4/9	105	106	107	21	102	103	105	20	104	105	107	24	105	105	105	24	104	105	105	24
4/10	105	106	106	24	101	101	101	24	105	105	106	24	105	106	106	24	105	105	105	24
4/11	105	105	105	21	103	105	106	20	104	105	106	24	105	106	106	24	105	105	105	24
4/12	105	106	106	24	106	106	106	24	105	106	106	24	107	107	108	24	106	106	106	24
4/13	106	106	106	24	106	106	106	24	105	106	106	24	107	107	107	24	106	106	106	24
4/14	105	106	106	24	106	106	106	24	105	105	105	24	106	106	106	24	105	106	106	24
4/15	106	106	107	24	106	107	107	24	105	105	106	24	105	105	106	24	105	105	105	24
4/16	106	106	106	24	106	106	107	24	105	105	106	24	105	106	106	24	105	105	105	24
4/17	107	107	107	24	115	118	122	23	---	---	---	0	---	---	---	0	---	---	---	0

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

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

Date	<u>Priest R. Dnst</u>			#	<u>Pasco</u>			#	<u>Dworshak</u>			#	<u>Clrwrtr-Peck</u>			#	<u>Anatone</u>			#			
	<u>24 h</u>	<u>12 h</u>	High		<u>24 h</u>	<u>12 h</u>	High		<u>24 h</u>	<u>12 h</u>	High		<u>24 h</u>	<u>12 h</u>	High		<u>24 h</u>	<u>12 h</u>	High		<u>24 h</u>	<u>12 h</u>	High
	Avg	Avg			Avg	Avg			Avg	Avg			Avg	Avg			Avg	Avg			Avg	Avg	
4/4	105	105	106	24	104	105	106	24	108	109	110	24	104	104	105	24	102	102	103	23			
4/5	104	105	105	24	104	104	104	22	108	108	109	22	104	104	104	22	102	102	103	20			
4/6	104	104	105	24	104	104	105	23	108	109	109	23	104	104	105	23	102	102	102	22			
4/7	104	104	104	15	104	104	105	24	108	108	109	24	104	105	105	24	102	103	104	23			
4/8	---	---	---	0	105	106	107	24	109	109	110	24	105	106	107	24	103	104	105	24			
4/9	105	105	105	7	106	107	107	24	109	109	110	24	105	106	106	24	102	103	103	24			
4/10	106	107	107	21	106	107	108	24	110	110	110	24	105	106	106	23	103	103	104	24			
4/11	106	106	106	24	106	106	107	24	108	109	109	24	103	104	105	24	101	102	103	24			
4/12	107	108	108	24	107	107	108	24	109	109	109	24	103	104	104	24	102	102	103	24			
4/13	107	107	108	24	107	107	108	24	109	109	109	24	103	103	104	24	101	102	102	24			
4/14	106	107	107	24	105	106	106	24	109	109	109	24	103	103	104	24	101	102	102	24			
4/15	106	106	106	24	105	106	106	24	109	110	110	24	103	104	104	24	101	102	102	24			
4/16	105	106	106	24	105	106	107	24	109	109	110	24	103	104	104	24	101	102	102	24			
4/17	---	---	---	0	105	106	106	24	109	109	110	24	104	104	104	24	102	102	102	24			

Total Dissolved Gas Saturation Data at Snake River Sites

Date	<u>Clrwrtr-Lewiston</u>			#	<u>Lower Granite</u>			#	<u>L. Granite Tlwr</u>			#	<u>Little Goose</u>			#	<u>L. Goose Tlwr</u>			#			
	<u>24 h</u>	<u>12 h</u>	High		<u>24 h</u>	<u>12 h</u>	High		<u>24 h</u>	<u>12 h</u>	High		<u>24 h</u>	<u>12 h</u>	High		<u>24 h</u>	<u>12 h</u>	High		<u>24 h</u>	<u>12 h</u>	High
	Avg	Avg			Avg	Avg			Avg	Avg			Avg	Avg			Avg	Avg			Avg	Avg	
4/4	96	97	98	20	101	101	101	24	109	118	119	24	102	102	102	24	102	102	102	24			
4/5	97	97	97	22	100	100	100	22	109	117	119	22	102	102	102	22	105	108	117	22			
4/6	97	97	98	23	100	101	101	23	110	118	119	23	103	103	106	23	109	115	117	23			
4/7	97	98	99	24	101	102	104	24	110	118	120	24	105	106	106	24	111	117	118	24			
4/8	99	100	101	24	102	103	104	24	111	119	120	24	107	108	110	24	113	118	119	24			
4/9	99	100	101	24	102	103	103	24	111	119	120	23	108	108	109	24	113	117	119	23			
4/10	101	103	106	24	104	105	106	24	114	119	119	23	109	110	111	24	113	116	117	24			
4/11	102	103	103	24	105	105	107	24	111	118	119	24	109	110	111	24	114	117	117	24			
4/12	102	103	104	24	104	105	105	24	112	119	119	24	111	111	112	24	114	117	118	24			
4/13	102	103	103	24	104	104	105	24	112	119	119	24	112	113	113	24	115	117	118	24			
4/14	102	103	104	24	102	103	103	24	112	114	119	24	111	111	112	24	113	116	118	24			
4/15	102	103	104	24	102	102	102	24	109	109	110	24	109	109	110	24	112	115	116	24			
4/16	102	103	104	24	101	102	102	24	107	114	119	24	108	110	111	24	112	116	116	24			
4/17	103	104	105	24	102	102	102	24	110	118	119	24	109	109	110	24	112	116	117	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>	High		<u>24 h</u>	<u>12 h</u>	High		<u>24 h</u>	<u>12 h</u>	High		<u>24 h</u>	<u>12 h</u>	High		<u>24 h</u>	<u>12 h</u>	High		<u>24 h</u>	<u>12 h</u>	High
	Avg	Avg			Avg	Avg			Avg	Avg			Avg	Avg			Avg	Avg			Avg	Avg	
4/4	102	102	103	24	102	103	103	24	102	102	102	24	102	102	102	24	103	104	106	24			
4/5	101	101	102	22	102	102	102	22	101	101	102	21	101	101	101	21	102	102	102	22			
4/6	101	101	101	23	102	102	102	23	101	101	102	23	101	101	102	23	102	102	103	23			
4/7	102	104	108	24	105	109	116	24	101	101	102	24	101	101	101	24	103	104	107	23			
4/8	108	109	110	24	116	118	118	24	102	102	103	24	102	102	103	24	104	106	110	24			
4/9	110	112	113	24	116	117	118	24	102	103	105	24	104	106	111	24	104	105	107	24			
4/10	112	114	116	24	117	118	119	24	107	110	112	24	113	114	114	24	104	105	107	24			
4/11	114	115	115	24	118	118	119	24	113	114	116	24	113	114	114	24	105	107	110	24			
4/12	114	114	116	24	118	118	120	24	116	117	119	24	114	114	115	24	106	107	110	24			
4/13	114	115	116	24	118	118	119	24	115	116	117	24	114	114	115	24	109	110	113	24			
4/14	114	115	116	24	117	118	118	24	114	114	115	24	114	114	115	24	107	108	108	24			
4/15	113	113	114	24	117	118	119	24	112	112	113	24	114	115	116	24	107	107	108	24			
4/16	112	113	115	24	117	118	119	24	112	113	113	24	114	114	116	24	108	109	113	24			
4/17	112	113	114	24	117	118	119	24	113	113	114	24	114	115	117	24	107	108	109	24			

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

Total Dissolved Gas Saturation Data at Lower Columbia River Sites

Date	<u>McNary-Wash</u>			<u>McNary Tlwr</u>			<u>John Day</u>			<u>John Day Tlwr</u>			<u>The Dalles</u>							
	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24h</u>	<u>12h</u>	<u>#</u>	<u>24h</u>	<u>12h</u>	<u>#</u>	<u>24h</u>	<u>12h</u>	<u>#</u>	<u>24h</u>	<u>12h</u>	<u>High</u>	<u>#</u>	
	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	AVG	High	hr
4/4	103	103	103	24	102	102	102	24	103	103	104	24	103	103	103	24	102	102	103	24
4/5	102	102	102	22	101	101	101	22	102	102	103	21	102	102	102	22	102	102	102	21
4/6	102	102	102	23	101	101	102	23	102	102	103	23	102	102	102	23	102	102	102	23
4/7	103	103	104	24	101	101	101	24	102	103	104	23	101	101	102	24	101	101	102	23
4/8	103	104	105	24	102	102	103	24	102	103	103	23	102	102	102	24	102	103	103	23
4/9	104	105	106	24	103	103	103	24	102	103	104	23	102	102	102	24	102	102	103	23
4/10	106	107	108	24	104	105	105	24	104	104	106	23	109	115	118	24	103	103	103	23
4/11	106	107	108	24	104	105	106	24	103	103	104	23	102	103	103	24	105	106	106	23
4/12	109	110	111	24	107	107	108	24	106	107	108	23	104	104	105	24	104	104	104	23
4/13	109	109	110	24	107	107	108	24	105	105	106	23	104	104	105	24	104	104	104	23
4/14	108	108	109	24	109	111	117	24	104	104	104	23	107	111	119	24	103	104	104	23
4/15	107	107	107	24	112	117	118	24	104	104	104	23	110	117	119	24	106	108	111	23
4/16	107	107	108	24	112	117	118	24	104	104	105	23	111	118	119	24	108	110	112	23
4/17	108	108	108	24	114	118	119	24	105	105	105	23	111	118	119	24	108	111	112	23

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>	<u>#</u>			
	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
4/4	103	103	103	23	102	102	103	24	103	103	103	24	102	103	104	23
4/5	102	102	102	22	102	102	102	21	103	103	103	21	102	102	103	22
4/6	102	102	102	23	102	102	102	23	102	103	103	23	102	102	103	23
4/7	102	102	102	24	102	102	102	23	103	103	103	23	102	102	103	24
4/8	103	103	103	24	102	103	103	23	103	103	104	23	103	104	104	24
4/9	102	103	103	24	103	103	104	23	103	104	104	23	103	105	106	24
4/10	103	103	103	24	103	104	104	23	104	104	105	23	104	104	105	24
4/11	105	107	107	24	103	103	104	23	104	104	104	23	104	105	105	24
4/12	104	104	105	24	104	104	105	23	104	105	105	23	105	105	106	24
4/13	104	104	105	24	105	106	106	23	106	106	107	23	104	105	106	24
4/14	105	106	112	24	103	103	104	23	107	109	110	23	105	105	106	24
4/15	114	115	117	24	103	103	103	23	110	112	115	23	107	109	111	24
4/16	115	116	117	24	106	109	110	23	116	117	118	23	109	112	113	24
4/17	115	117	117	24	112	113	113	23	119	119	119	23	114	115	116	24

HATCHERY RELEASE SUMMARY LAST TWO WEEKS

Hatchery Release Summary

From: 4/4/03 to 4/17/03

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
Colville Tribe	Winthrop NFH	CH1	SP	2003	45,000	04-14-03	04-18-03	Omak Creek	Okanogan River
Colville Tribe	Winthrop NFH	CH1	SP	2003	100,000	04-14-03	04-18-03	Ellisford Pond	Okanogan River
Colville Tribe Total					145,000				
Idaho Dept. of Fish and Wildlife	Clearwater Hatchery	ST	SU	2003	106,000	04-17-03	04-30-03	Clear Creek	Clearwater River M F
Idaho Dept. of Fish and Wildlife	Clearwater Hatchery	ST	SU	2003	148,800	04-17-03	04-30-03	Redhouse (Sfk ClearH20 R)	S Fk Clearwater River
Idaho Dept. of Fish and Wildlife	Clearwater Hatchery	ST	SU	2003	251,700	04-17-03	04-30-03	Red River Acclim Pond	S Fk Clearwater River
Idaho Dept. of Fish and Wildlife	Clearwater Hatchery	ST	SU	2003	263,700	04-17-03	04-30-03	Crooked R Acclim Pond	S Fk Clearwater River
Idaho Dept. of Fish and Wildlife	Magic Valley Hatchery	ST	SU	2003	40,000	04-07-03	04-07-03	Lemhi River	Salmon River (ID)
Idaho Dept. of Fish and Wildlife	Magic Valley Hatchery	ST	SU	2003	83,157	04-07-03	04-07-03	Lemhi River	Salmon River (ID)
Idaho Dept. of Fish and Wildlife	Magic Valley Hatchery	ST	SU	2003	121,070	04-09-03	04-09-03	Squaw Cr Acclim Pond	Salmon River (ID)
Idaho Dept. of Fish and Wildlife	Magic Valley Hatchery	ST	SU	2003	130,000	04-16-03	04-18-03	Salmon River (ID)	Salmon River (ID)
Idaho Dept. of Fish and Wildlife	Magic Valley Hatchery	ST	SU	2003	183,634	04-14-03	04-14-03	Hammer Creek	Salmon River (ID)
Idaho Dept. of Fish and Wildlife	Magic Valley Hatchery	ST	SU	2003	355,000	04-08-03	04-11-03	Little Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Wildlife	McCall Hatchery	CH1	SU	2003	1,053,660	03-31-03	04-04-03	Knox Bridge	Salmon River (ID)
Idaho Dept. of Fish and Wildlife	Niagara Springs	ST	SU	2003	302,314	04-08-03	04-10-03	Little Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Wildlife	Niagara Springs	ST	SU	2003	525,884	03-24-03	04-04-03	Hells Canyon Dam	Snake River
Idaho Dept. of Fish and Wildlife	Niagara Springs	ST	SU	2003	830,000	04-12-03	04-30-03	Pahsimeroi Hatchery	Pahsimeroi River
Idaho Dept. of Fish and Wildlife	Pahsimeroi Hatchery	CH1	SU	2003	295,992	03-29-03	04-06-03	Pahsimeroi Hatchery	Pahsimeroi River
Idaho Dept. of Fish and Wildlife	Pahsimeroi Hatchery	CH1	SU	2003	909,926	03-29-03	04-06-03	Pahsimeroi Hatchery	Pahsimeroi River
Idaho Dept. of Fish and Wildlife	Rapid River Hatchery	CH1	SP	2003	2,330,000	03-17-03	04-25-03	Rapid River Hatchery	Little Salmon River
Idaho Dept. of Fish and Wildlife	Sawtooth Hatchery	CH1	SP	2003	145,000	04-07-03	04-18-03	Sawtooth Hatchery	Salmon River (ID)
Idaho Dept. of Fish and Wildlife	Sawtooth Hatchery	CH1	SP	2003	961,000	04-07-03	04-18-03	Sawtooth Hatchery	Salmon River (ID)
Idaho Dept. of Fish and Wildlife Total					9,036,837				
Nez Perce Tribe	Clearwater Hatchery	ST	SU	2003	24,600	04-17-03	04-30-03	Mill Cr Bridge	S Fk Clearwater River
Nez Perce Tribe	Clearwater Hatchery	ST	SU	2003	25,000	04-17-03	04-30-03	Meadow Creek - CLES	S Fk Clearwater River
Nez Perce Tribe	Clearwater Hatchery	ST	SU	2003	49,500	04-17-03	04-30-03	Lolo Creek	Clearwater River M F
Nez Perce Tribe	Hagerman NFH	ST	SU	2003	200,000	03-31-03	04-09-03	Hazard Creek/Little Salmon R	Little Salmon River
Nez Perce Tribe	Lookingglass Hatchery	CH1	SP	2003	133,170	03-28-03	04-14-03	Lostine Accim Pond	Wallowa River
Nez Perce Tribe	Lyons Ferry Hatchery	CH1	FA	2003	140,383	04-13-03	04-14-03	Pittsburg Landing Acclim Pond	Snake River
Nez Perce Tribe	Lyons Ferry Hatchery	CH1	FA	2003	145,331	04-14-03	04-15-03	Big Canyon (Clearwater R)	Clearwater River M F
Nez Perce Tribe	Lyons Ferry Hatchery	CH1	FA	2003	151,919	03-30-03	04-07-03	Cpt John Acclim Pond	Snake River
Nez Perce Tribe Total					869,903				
Oregon Dept. of Fish and Wildlife	Irrigon Hatchery Complex	ST	SU	2003	100,000	04-14-03	04-18-03	Big Sheep Creek	Imnaha River
Oregon Dept. of Fish and Wildlife	Irrigon Hatchery Complex	ST	SU	2003	128,500	04-09-03	04-10-03	L Sheep Acclim Pond	Imnaha River
Oregon Dept. of Fish and Wildlife	Irrigon Hatchery Complex	ST	SU	2003	166,000	04-14-03	04-16-03	Big Canyon Acclim.Pd (Grande Ro	Grande Ronde River
Oregon Dept. of Fish and Wildlife	Irrigon Hatchery Complex	ST	SU	2003	330,000	04-11-03	04-15-03	Wallowa Acclim Pond	Wallowa River
Oregon Dept. of Fish and Wildlife	Lookingglass Hatchery	CH1	SP	2003	268,600	04-01-03	04-15-03	Imnaha Acclim Pond	Imnaha River
Oregon Dept. of Fish and Wildlife	Round Butte Hatchery	CH1	SP	2003	320,000	04-15-03	05-09-03	Bel. Pelton Dam	Deschutes River
Oregon Dept. of Fish and Wildlife	Round Butte Hatchery	ST	SU	2003	162,000	04-08-03	04-08-03	Bel. Pelton Dam	Deschutes River
Oregon Dept. of Fish and Wildlife Total					1,475,100				
U.S. Fish and Wildlife Service	Carson NFH	CH1	SP	2003	1,678,000	04-16-03	04-17-03	Carson Hatchery	Wind River
U.S. Fish and Wildlife Service	Dworshak NFH	ST	SU	2003	200,000	04-14-03	04-18-03	Clear Creek	Clearwater River M F
U.S. Fish and Wildlife Service	Dworshak NFH	ST	SU	2003	500,000	04-14-03	04-18-03	Redhouse (Sfk ClearH20 R)	S Fk Clearwater River
U.S. Fish and Wildlife Service	Entiat Hatchery	CH1	SP	2003	395,000	04-15-03	04-15-03	Entiat Hatchery	Entiat River
U.S. Fish and Wildlife Service	Hagerman NFH	ST	SU	2003	704,833	04-11-03	05-28-03	Sawtooth Hatchery	Salmon River (ID)
U.S. Fish and Wildlife Service	Kooskia NFH	CH1	SP	2003	600,000	03-28-03	04-04-03	Kooskia Hatchery	Clearwater River M F
U.S. Fish and Wildlife Service	Little White Salmon NFH	CH1	SP	2003	1,050,000	04-17-03	04-17-03	Little White Salmon Hatchery	Little White Salmon River
U.S. Fish and Wildlife Service	Spring Creek NFH	CH0	FA	2003	4,070,365	04-14-03	04-14-03	Spring Creek Hatchery	L Col R (D/s McN Dam)
U.S. Fish and Wildlife Service	Warm Springs NFH	CH1	SP	2003	620,000	03-26-03	04-16-03	Warm Springs Hatchery	Deschutes River
U.S. Fish and Wildlife Service	Willard Hatchery	CO	UN	2003	634,000	04-17-03	04-17-03	Little White Salmon River	Little White Salmon River
U.S. Fish and Wildlife Service	Winthrop NFH	CH1	SP	2003	460,000	04-15-03	04-15-03	Winthrop Hatchery	Methow River
U.S. Fish and Wildlife Service	Winthrop NFH	ST	SU	2003	120,000	04-15-03	04-30-03	Winthrop Hatchery	Methow River
U.S. Fish and Wildlife Service Total					11,032,198				
Umatilla Tribe	Bonneville Hatchery	CH1	FA	2003	240,000	04-11-03	04-18-03	Thornhollow Acclim Pond	Umatilla River
Umatilla Tribe	Cascade Hatchery	CO	UN	2003	750,000	04-01-03	04-15-03	Pendelton Acclim Pond	Umatilla River
Umatilla Tribe	Little White Salmon NFH	CH1	SP	2003	350,000	04-10-03	04-18-03	Imeques Acclim Pond	Umatilla River
Umatilla Tribe	Lookingglass Hatchery	CH1	SP	2003	24,400	03-28-03	04-14-03	Catherine Cr Acclim Pond	Grande Ronde River
Umatilla Tribe	Lookingglass Hatchery	CH1	SP	2003	127,200	03-28-03	04-14-03	Grande Ronde Acclim Pond	Grande Ronde River
Umatilla Tribe	Umatilla Hatchery	ST	SU	2003	50,000	04-01-03	04-11-03	Bonifer Acclim Pond	Umatilla River
Umatilla Tribe Total					1,541,600				

HATCHERY RELEASE SUMMARY LAST TWO WEEKS (con't)

Agency	From:		Hatchery Release Summary									
	Hatchery		4/4/03	to	4/17/03	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite
Warm Springs Tribe	Oak Springs Hatchery	ST	SU	2003	39,900	04-03-03	05-01-03			Blackberry Acclim Pond		Hood River
Warm Springs Tribe	Oak Springs Hatchery	ST	WI	2003	25,000	04-10-03	04-29-03			Parkdale Acclim Pond		Hood River
Warm Springs Tribe	Oak Springs Hatchery	ST	WI	2003	25,000	04-11-03	04-29-03			E Fk Irrig Dist Sand Trap		Hood River
Warm Springs Tribe	Round Butte Hatchery	CH1	SP	2003	22,500	04-07-03	04-22-03			Blackberry Acclim Pond		Hood River
Warm Springs Tribe	Round Butte Hatchery	CH1	SP	2003	22,500	04-07-03	04-22-03			Jones Creek Acclim Pond		Hood River
Warm Springs Tribe	Round Butte Hatchery	CH1	SP	2003	30,000	04-04-03	04-04-03			Parkdale Acclim Pond		Hood River
Warm Springs Tribe Total					164,900							
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	CH1	FA	2003	518,436	04-01-03	04-09-03			Lyons Ferry Hatchery		Snake River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2003	31,000	04-14-03	04-18-03			Dayton Acclim Pond		Touchet River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2003	50,000	04-14-03	04-18-03			Curl Lake		Tucannon River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2003	60,000	04-14-03	04-18-03			Lyons Ferry Hatchery		Snake River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2003	100,000	04-01-03	04-30-03			Dayton Acclim Pond		Touchet River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2003	125,000	04-14-03	04-18-03			Walla Walla River		Walla Walla River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2003	135,000	04-14-03	04-18-03			Tucannon River		Tucannon River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2003	200,000	04-01-03	04-30-03			Cottonwood Acclim Pond		Grande Ronde River
Washington Dept. of Fish and Wildlife	Methow Hatchery	CH1	SP	2003	58,700	04-14-03	04-25-03			Twisp Acclim Pond		Methow River
Washington Dept. of Fish and Wildlife	Methow Hatchery	CH1	SP	2003	131,500	04-14-03	04-25-03			Methow Hatchery		Methow River
Washington Dept. of Fish and Wildlife	Methow Hatchery	CH1	SP	2003	262,500	04-14-03	04-25-03			Chewuch Acclim Pond		Methow River
Washington Dept. of Fish and Wildlife	Priest Rapids Hatchery	ST	SU	2003	171,000	04-09-03	04-30-03			Ringold Springs Hatchery		Mid-Columbia River
Washington Dept. of Fish and Wildlife	Skamania Hatchery	ST	WI	2003	20,000	04-15-03	04-15-03			Salmon Creek (WA)		Columbia River
Washington Dept. of Fish and Wildlife	Tucannon Hatchery	CH1	SP	2003	150,000	03-15-03	04-18-03			Curl Lake		Tucannon River
Washington Dept. of Fish and Wildlife	Tucannon Hatchery	CH1	SP	2003	150,000	03-15-03	04-18-03			Curl Lake		Tucannon River
Washington Dept. of Fish and Wildlife	Turtle Rock Hatchery	CH1	SU	2003	120,000	04-15-03	05-23-03			Above Rocky Reach Dam		Mid-Columbia River
Washington Dept. of Fish and Wildlife	Washougal Hatchery	CO	NO	2003	2,500,000	03-31-03	04-04-03			Klickitat River		Klickitat River
Washington Dept. of Fish and Wildlife	Wells Hatchery	CH1	SU	2003	121,000	04-07-03	05-30-03			Bel. Priest Rapids Dam		Mid-Columbia River
Washington Dept. of Fish and Wildlife	Wells Hatchery	CH1	SU	2003	177,300	04-14-03	04-30-03			Wells Hatchery		Mid-Columbia River
Washington Dept. of Fish and Wildlife	Wells Hatchery	ST	SU	2003	105,890	04-15-03	05-16-03			Twisp Acclim Pond		Methow River
Washington Dept. of Fish and Wildlife Total					5,187,326							
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2003	39,319	03-14-03	05-15-03			Easton Pond		Yakama River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2003	81,113	03-14-03	05-15-03			Clark Flat Acclim Pond		Yakama River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2003	250,852	03-14-03	05-15-03			Jack Creek Acclim Pond		Yakama River
Yakama Tribe	Cle Elem Hatchery	CO	UN	2003	82,525	04-07-03	05-07-03			Yakama River		Yakama River
Yakama Tribe	Cle Elem Hatchery	CO	UN	2003	180,761	04-07-03	05-07-03			Lost Creek Acclim Pond		Yakama River
Yakama Tribe	Cle Elem Hatchery	CO	UN	2003	262,046	04-07-03	05-07-03			Easton Pond		Yakama River
Yakama Tribe	Prosser Acclim. Pond	CH0	FA	2003	12,000	04-12-03	04-13-03			Yakama River		Yakama River
Yakama Tribe	Stiles Pond	CO	UN	2003	169,629	04-07-03	05-07-03			Yakama River		Yakama River
Yakama Tribe Total					1,078,245							
Grand Total					30,531,109							

HATCHERY RELEASE SUMMARY NEXT TWO WEEKS

Hatchery Release Summary

From: **4/18/03** to **5/1/03**

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
Colville Tribe	Winthrop NFH	CH1	SP	2003	45,000	04-14-03	04-18-03	Omak Creek	Okanogan River
Colville Tribe	Winthrop NFH	CH1	SP	2003	100,000	04-14-03	04-18-03	Ellisford Pond	Okanogan River
Colville Tribe Total					145,000				
Idaho Dept. of Fish and Wildlife	Clearwater Hatchery	ST	SU	2003	106,000	04-17-03	04-30-03	Clear Creek	Clearwater River M F
Idaho Dept. of Fish and Wildlife	Clearwater Hatchery	ST	SU	2003	148,800	04-17-03	04-30-03	Redhouse (SFk ClearH20 R)	S Fk Clearwater River
Idaho Dept. of Fish and Wildlife	Clearwater Hatchery	ST	SU	2003	251,700	04-17-03	04-30-03	Red River Acclim Pond	S Fk Clearwater River
Idaho Dept. of Fish and Wildlife	Clearwater Hatchery	ST	SU	2003	263,700	04-17-03	04-30-03	Crooked R Acclim Pond	S Fk Clearwater River
Idaho Dept. of Fish and Wildlife	Magic Valley Hatchery	ST	SU	2003	28,500	04-28-03	04-30-03	East Fk Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Wildlife	Magic Valley Hatchery	ST	SU	2003	30,000	04-21-03	04-25-03	Valley Creek	Salmon River (ID)
Idaho Dept. of Fish and Wildlife	Magic Valley Hatchery	ST	SU	2003	40,000	04-21-03	04-25-03	Challis Ramp	Salmon River (ID)
Idaho Dept. of Fish and Wildlife	Magic Valley Hatchery	ST	SU	2003	70,000	04-21-03	04-25-03	Salmon River (ID)	Salmon River (ID)
Idaho Dept. of Fish and Wildlife	Magic Valley Hatchery	ST	SU	2003	120,000	04-21-03	04-25-03	McNabb/Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Wildlife	Magic Valley Hatchery	ST	SU	2003	130,000	04-16-03	04-18-03	Salmon River (ID)	Salmon River (ID)
Idaho Dept. of Fish and Wildlife	Magic Valley Hatchery	ST	SU	2003	200,000	04-28-03	04-30-03	Squaw Creek	Salmon River (ID)
Idaho Dept. of Fish and Wildlife	Magic Valley Hatchery	ST	SU	2003	225,000	04-28-03	04-30-03	East Fk Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Wildlife	Magic Valley Hatchery	ST	SU	2003	250,000	04-18-03	04-25-03	Shoup Br (Salmon R)	Salmon River (ID)
Idaho Dept. of Fish and Wildlife	Niagara Springs	ST	SU	2003	830,000	04-12-03	04-30-03	Pahsimeroi Hatchery	Pahsimeroi River
Idaho Dept. of Fish and Wildlife	Rapid River Hatchery	CH1	SP	2003	2,330,000	03-17-03	04-25-03	Rapid River Hatchery	Little Salmon River
Idaho Dept. of Fish and Wildlife	Sawtooth Hatchery	CH1	SP	2003	145,000	04-07-03	04-18-03	Sawtooth Hatchery	Salmon River (ID)
Idaho Dept. of Fish and Wildlife	Sawtooth Hatchery	CH1	SP	2003	961,000	04-07-03	04-18-03	Sawtooth Hatchery	Salmon River (ID)
Idaho Dept. of Fish and Wildlife Total					6,129,700				
Nez Perce Tribe	Clearwater Hatchery	ST	SU	2003	24,600	04-17-03	04-30-03	Mill Cr Bridge	S Fk Clearwater River
Nez Perce Tribe	Clearwater Hatchery	ST	SU	2003	25,000	04-17-03	04-30-03	Meadow Creek - CLES	S Fk Clearwater River
Nez Perce Tribe	Clearwater Hatchery	ST	SU	2003	49,500	04-17-03	04-30-03	Lolo Creek	Clearwater River M F
Nez Perce Tribe	Dworshak NFH	CO	UN	2003	295,000	05-01-03	05-01-03	Clear Creek	Clearwater River M F
Nez Perce Tribe Total					394,100				
Oregon Dept. of Fish and Wildlife	Irrigon Hatchery Complex	ST	SU	2003	100,000	04-14-03	04-18-03	Big Sheep Creek	Imnaha River
Oregon Dept. of Fish and Wildlife	Round Butte Hatchery	CH1	SP	2003	320,000	04-15-03	05-09-03	Bel. Pelton Dam	Deschutes River
Oregon Dept. of Fish and Wildlife Total					420,000				
U.S. Fish and Wildlife Service	Dworshak NFH	ST	SU	2003	200,000	04-14-03	04-18-03	Clear Creek	Clearwater River M F
U.S. Fish and Wildlife Service	Dworshak NFH	ST	SU	2003	500,000	04-14-03	04-18-03	Redhouse (SFk ClearH20 R)	S Fk Clearwater River
U.S. Fish and Wildlife Service	Dworshak NFH	ST	SU	2003	1,300,000	04-21-03	04-25-03	Dworshak Hatchery	Clearwater River M F
U.S. Fish and Wildlife Service	Hagerman NFH	ST	SU	2003	704,833	04-11-03	05-28-03	Sawtooth Hatchery	Salmon River (ID)
U.S. Fish and Wildlife Service	Leavenworth NFH	CH1	SP	2003	1,320,000	04-21-03	04-22-03	Leavenworth Hatchery	Wenatchee River
U.S. Fish and Wildlife Service	Winthrop NFH	ST	SU	2003	120,000	04-15-03	04-30-03	Winthrop Hatchery	Methow River
U.S. Fish and Wildlife Service Total					4,144,833				
Umatilla Tribe	Bonneville Hatchery	CH1	FA	2003	240,000	04-11-03	04-18-03	Thornhollow Acclim Pond	Umatilla River
Umatilla Tribe	Little White Salmon NFH	CH1	SP	2003	350,000	04-10-03	04-18-03	Imeques Acclim Pond	Umatilla River
Umatilla Tribe	Umatilla Hatchery	ST	SU	2003	50,000	04-21-03	04-30-03	Minthorn Acclimation Pond	Umatilla River
Umatilla Tribe	Umatilla Hatchery	ST	SU	2003	50,000	04-21-03	04-30-03	Pendelton Acclim Pond	Umatilla River
Umatilla Tribe Total					690,000				
Warm Springs Tribe	Oak Springs Hatchery	ST	SU	2003	39,900	04-03-03	05-01-03	Blackberry Acclim Pond	Hood River
Warm Springs Tribe	Oak Springs Hatchery	ST	WI	2003	25,000	04-10-03	04-29-03	Parkdale Acclim Pond	Hood River
Warm Springs Tribe	Oak Springs Hatchery	ST	WI	2003	25,000	04-11-03	04-29-03	E Fk Irrig Dist Sand Trap	Hood River
Warm Springs Tribe	Round Butte Hatchery	CH1	SP	2003	22,500	04-07-03	04-22-03	Blackberry Acclim Pond	Hood River
Warm Springs Tribe	Round Butte Hatchery	CH1	SP	2003	22,500	04-07-03	04-22-03	Jones Creek Acclim Pond	Hood River
Warm Springs Tribe Total					134,900				

CH = Chinook, ST = Steelhead, CO = Coho, SO = Sockeye, CT = Cutthroat Trout, CM = Chum

HATCHERY RELEASE SUMMARY NEXT TWO WEEKS (con't)

		Hatchery Release Summary								
From:		4/18/03		to		5/1/03				
Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite		
Washington Dept. of Fish and Wildlife	Eastbank Hatchery	CH1	SU	2003	25,000	04-30-03	04-30-03	Similkameen Acclim Pd	Okanogan River	
Washington Dept. of Fish and Wildlife	Eastbank Hatchery	CH1	SU	2003	249,043	04-30-03	04-30-03	Carlton Acclim Pond	Methow River	
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2003	31,000	04-14-03	04-18-03	Dayton Acclim Pond	Touchet River	
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2003	50,000	04-14-03	04-18-03	Curl Lake	Tucannon River	
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2003	60,000	04-14-03	04-18-03	Lyons Ferry Hatchery	Snake River	
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2003	100,000	04-01-03	04-30-03	Dayton Acclim Pond	Touchet River	
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2003	125,000	04-14-03	04-18-03	Walla Walla River	Walla Walla River	
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2003	135,000	04-14-03	04-18-03	Tucannon River	Tucannon River	
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2003	200,000	04-01-03	04-30-03	Cottonwood Acclim Pond	Grande Ronde River	
Washington Dept. of Fish and Wildlife	Methow Hatchery	CH1	SP	2003	58,700	04-14-03	04-25-03	Twisp Acclim Pond	Methow River	
Washington Dept. of Fish and Wildlife	Methow Hatchery	CH1	SP	2003	131,500	04-14-03	04-25-03	Methow Hatchery	Methow River	
Washington Dept. of Fish and Wildlife	Methow Hatchery	CH1	SP	2003	262,500	04-14-03	04-25-03	Chewuch Acclim Pond	Methow River	
Washington Dept. of Fish and Wildlife	Priest Rapids Hatchery	ST	SU	2003	171,000	04-09-03	04-30-03	Ringold Springs Hatchery	Mid-Columbia River	
Washington Dept. of Fish and Wildlife	Skamania Hatchery	ST	WI	2003	20,000	04-21-03	04-30-03	White Salmon River	White Salmon River	
Washington Dept. of Fish and Wildlife	Tucannon Hatchery	CH1	SP	2003	150,000	03-15-03	04-18-03	Curl Lake	Tucannon River	
Washington Dept. of Fish and Wildlife	Tucannon Hatchery	CH1	SP	2003	150,000	03-15-03	04-18-03	Curl Lake	Tucannon River	
Washington Dept. of Fish and Wildlife	Turtle Rock Hatchery	CH1	SU	2003	120,000	04-15-03	05-23-03	Above Rocky Reach Dam	Mid-Columbia River	
Washington Dept. of Fish and Wildlife	Turtle Rock Hatchery	CH1	SU	2003	204,400	04-18-03	04-25-03	Turtle Rock Hatchery	Mid-Columbia River	
Washington Dept. of Fish and Wildlife	Turtle Rock Hatchery	ST	SU	2003	16,868	04-30-03	04-30-03	Nason Creek	Wenatchee River	
Washington Dept. of Fish and Wildlife	Turtle Rock Hatchery	ST	SU	2003	16,869	04-30-03	04-30-03	Chiwawa Hatchery	Wenatchee River	
Washington Dept. of Fish and Wildlife	Turtle Rock Hatchery	ST	SU	2003	112,943	04-30-03	04-30-03	Chiwawa Hatchery	Wenatchee River	
Washington Dept. of Fish and Wildlife	Turtle Rock Hatchery	ST	SU	2003	156,430	04-30-03	04-30-03	Nason Creek	Wenatchee River	
Washington Dept. of Fish and Wildlife	Wells Hatchery	CH1	SU	2003	121,000	04-07-03	05-30-03	Bel. Priest Rapids Dam	Mid-Columbia River	
Washington Dept. of Fish and Wildlife	Wells Hatchery	CH1	SU	2003	177,300	04-14-03	04-30-03	Wells Hatchery	Mid-Columbia River	
Washington Dept. of Fish and Wildlife	Wells Hatchery	ST	SU	2003	105,890	04-15-03	05-16-03	Twisp Acclim Pond	Methow River	
Washington Dept. of Fish and Wildlife Total					2,950,443					
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2003	39,319	03-14-03	05-15-03	Easton Pond	Yakama River	
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2003	81,113	03-14-03	05-15-03	Clark Flat Acclim Pond	Yakama River	
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2003	250,852	03-14-03	05-15-03	Jack Creek Acclim Pond	Yakama River	
Yakama Tribe	Cle Elem Hatchery	CO	UN	2003	82,525	04-07-03	05-07-03	Yakama River	Yakama River	
Yakama Tribe	Cle Elem Hatchery	CO	UN	2003	180,761	04-07-03	05-07-03	Lost Creek Acclim Pond	Yakama River	
Yakama Tribe	Cle Elem Hatchery	CO	UN	2003	262,046	04-07-03	05-07-03	Easton Pond	Yakama River	
Yakama Tribe	Stiles Pond	CO	UN	2003	169,629	04-07-03	05-07-03	Yakama River	Yakama River	
Yakama Tribe Total					1,066,245					
Grand Total					16,075,221					

Two-Week Summary of Passage Indices

COMBINED YEARLING CHINOOK											
	WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date	(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
04/04/2003 *	730	1,068	966	8	14,683	320	2,400	2	---	890	860
04/05/2003	---	1,288	---	---	13,291	375	7,740	2	733	1,015	1,131
04/06/2003 *	---	2,372	---	---	7,770	370	4,200	1	---	2,285	1,624
04/07/2003	2,546	1,009	294	4	8,708	732	6,332	1	839	1,466	2,037
04/08/2003 *	2,334	5,167	214	0	6,920	601	4,244	4	---	1,784	3,842
04/09/2003	900	1,827	105	5	3,819	553	3,462	0	940	1,416	3,909
04/10/2003 *	924	3,151	117	2	3,860	432	4,370	16	---	1,737	4,171
04/11/2003	493	1,074	146	5	4,128	664	6,918	3	1,354	2,642	5,951
04/12/2003 *	---	1,954	---	---	10,464	1,342	9,887	6	---	1,840	7,790
04/13/2003	---	1,189	---	---	15,909	3,341	4,459	5	4,973	2,560	5,100
04/14/2003 *	1,682	---	130	5	36,020	4,550	8,536	4	---	2,808	4,815
04/15/2003 *	1,936	1,072	196	145	20,713	4,167	7,033	2	8,307	2,173	8,486
04/16/2003 *	1,469	770	189	235	18,860	11,159	5,924	137	---	1,478	14,261
04/17/2003	449	744	317	77	39,839	8,963	6,298	647	6,646	1,171	18,612
Total:	13,463	22,685	2,674	486	204,984	37,569	81,803	830	23,792	25,265	82,589
# Days:	10	13	10	10	14	14	14	14	7	14	14
Average:	1,346	1,745	267	49	14,642	2,684	5,843	59	3,399	1,805	5,899
YTD	25,079	25,525	9,150	601	234,114	38,507	82,693	852	24,367	27,405	98,599

COMBINED SUBYEARLING CHINOOK											
	WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date	(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
04/04/2003 *	0	1	0	1	163	0	10	73	---	10	357
04/05/2003	---	0	---	---	57	0	10	20	1,654	50	293
04/06/2003 *	---	2	---	---	113	0	20	7	---	55	129
04/07/2003	0	0	2	0	0	0	60	9	2,073	72	270
04/08/2003 *	0	0	1	4	119	0	0	99	---	80	636
04/09/2003	0	0	1	0	0	0	0	80	2,187	80	282
04/10/2003 *	0	0	0	0	157	0	0	100	---	48	889
04/11/2003	0	0	0	1	406	6	21	21	813	66	575
04/12/2003 *	---	0	---	---	115	0	0	4	---	56	584
04/13/2003	---	0	---	---	28	6	0	28	1,446	24	368
04/14/2003 *	0	---	0	2	167	0	24	33	---	8	817
04/15/2003 *	0	0	0	0	402	0	0	73	1,114	42	16,149
04/16/2003 *	0	1	0	5	132	0	0	116	---	43	563,878
04/17/2003	0	0	0	1	340	0	0	95	1,491	23	107,697
Total:	0	4	4	14	2,199	12	145	758	10,778	657	692,924
# Days:	10	13	10	10	14	14	14	14	7	14	14
Average:	0	0	0	1	157	1	10	54	1,540	47	49,495
YTD	1	6	6	74	2,779	17	165	991	13,488	692	1,043,317

* 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.

Two-Week Summary of Passage Indices

COMBINED COHO												
	WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2	
Date	(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	
04/04/2003 *	0	0	0	0	0	0	0	0	0	---	5	84
04/05/2003	---	0	---	---	0	0	0	0	0	0	0	230
04/06/2003 *	---	0	---	---	0	0	0	0	0	---	0	365
04/07/2003	0	0	0	0	87	0	0	0	0	0	21	440
04/08/2003 *	0	0	0	0	0	0	0	0	0	---	0	982
04/09/2003	0	0	0	0	0	0	0	0	0	7	24	923
04/10/2003 *	0	0	0	0	0	6	0	0	0	---	0	494
04/11/2003	0	0	0	0	0	0	0	0	0	7	38	908
04/12/2003 *	---	0	---	---	0	6	0	0	0	---	0	869
04/13/2003	---	0	---	---	0	6	0	0	0	7	32	907
04/14/2003 *	0	---	0	0	0	0	0	0	0	---	16	1,032
04/15/2003 *	0	0	0	0	0	5	0	0	0	16	21	436
04/16/2003 *	0	0	0	3	0	0	0	0	0	---	0	2,170
04/17/2003	0	0	0	2	0	0	0	0	4	16	23	2,349
Total:	0	0	0	5	87	23	0	4	53	180	12,189	
# Days:	10	13	10	10	14	14	14	14	7	14	14	
Average:	0	0	0	1	6	2	0	0	8	13	871	
YTD	0	0	0	10	127	23	0	4	58	185	12,402	

COMBINED STEELHEAD											
	WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date	(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
04/04/2003 *	2	42	7	11	3,224	110	550	1	---	335	324
04/05/2003	---	26	---	---	3,818	195	380	1	607	520	281
04/06/2003 *	---	15	---	---	4,139	304	280	2	---	820	535
04/07/2003	43	14	1	12	3,604	568	225	1	1,200	626	440
04/08/2003 *	35	4	1	14	3,848	595	143	0	---	752	773
04/09/2003	27	13	0	12	2,665	558	159	2	747	696	1,898
04/10/2003 *	40	50	1	13	2,416	545	364	3	---	736	1,717
04/11/2003	43	138	0	13	3,655	810	666	1	440	1,091	1,201
04/12/2003 *	---	500	---	---	3,286	1,176	603	3	---	912	1,019
04/13/2003	---	264	---	---	3,306	1,357	621	0	1,020	1,016	1,077
04/14/2003 *	22	---	30	107	4,419	1,850	1,394	5	---	856	1,146
04/15/2003 *	19	309	154	231	9,921	3,117	1,501	0	900	700	1,794
04/16/2003 *	23	717	348	80	14,447	2,805	1,497	4	---	431	310
04/17/2003	37	1,548	6	89	25,970	4,762	3,221	7	1,078	283	0
Total:	291	3,640	548	582	88,718	18,752	11,604	30	5,992	9,774	12,515
# Days:	10	13	10	10	14	14	14	14	7	14	14
Average:	29	280	55	58	6,337	1,339	829	2	856	698	894
YTD	311	4,397	638	648	96,128	19,072	12,044	31	6,587	10,764	14,695

* See sampling comments

<http://www.fpc.org/currentDaily/smpcomments.htm>

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)
04/04/2003 *	0	0	0	0	0	0	0	2	---
04/05/2003	---	0	---	---	0	0	0	3	14
04/06/2003 *	---	0	---	---	0	0	0	2	---
04/07/2003	0	0	0	0	29	0	20	4	13
04/08/2003 *	0	0	0	0	0	12	0	13	---
04/09/2003	0	0	0	0	0	8	0	8	27
04/10/2003 *	0	0	0	0	0	0	0	37	---
04/11/2003	0	0	0	0	0	6	0	93	14
04/12/2003 *	---	0	---	---	0	0	0	173	---
04/13/2003	---	0	---	---	57	42	0	4	53
04/14/2003 *	0	---	0	0	0	10	24	2	---
04/15/2003 *	0	0	0	0	0	20	23	46	63
04/16/2003 *	0	0	0	0	0	0	31	120	---
04/17/2003	0	0	0	0	0	0	0	90	32
Total:	0	0	0	0	86	98	98	597	216
# Days:	10	13	10	10	14	14	14	14	7
Average:	0	0	0	0	6	7	7	43	31
YTD	0	0	0	0	166	103	138	598	226

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

Definitions for Smolt Index Counts

WTB (Collection) = Salmon River Trap at Whitebird : Collection Counts

IMN (Collection) = Imnaha River Trap : Collection Counts

GRN (Collection) = Grande Ronde River Trap : Collection Counts

LEW (Collection) = Snake River Trap at Lewiston : Collection Counts

LGR (Index) = Lower Granite Dam Bypass Collection System : Passage Index Counts

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

LGS (Index) = Little Goose Bypass Collection System : Passage Index Counts

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

LMN (Index) = Lower Monumental Dam Bypass Collection System : Passage Index Counts

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

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

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

JDA (Index) = John Day Dam Bypass Collection System : Passage Index Counts

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

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

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: 04/17

DAM	Spring Chinook						Summer Chinook						Fall Chinook					
	2003		2002		10-Yr Avg.		2003		2002		10-Yr Avg.		2003		2002		10-Yr Avg.	
	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack
BON	81,959	357	29,172	41	36,490	131	0	0	0	0	0	0	0	0	0	0	0	0
TDA	48,701	76	9,378	17	17,387	47	0	0	0	0	0	0	0	0	0	0	0	0
JDA	34,386	40	4,476	4	10,168	15	0	0	0	0	0	0	0	0	0	0	0	0
MCN	23,498	85	2,397	5	4,432	7	0	0	0	0	0	0	0	0	0	0	0	0
IHR	16,510	24	972	1	2,907	4	0	0	0	0	0	0	0	0	0	0	0	0
LMN	7,906	10	687	0	2,156	1	0	0	0	0	0	0	0	0	0	0	0	0
LGS	5,086	1	307	0	952	11	0	0	0	0	0	0	0	0	0	0	0	0
LWG	2,470	0	65	0	822	0	0	0	0	0	0	0	0	0	0	0	0	0
PRD	1,477	0	60	0	155	0	0	0	0	0	0	0	0	0	0	0	0	0
RIS	0	0	4	2	37	0	0	0	0	0	0	0	0	0	0	0	0	0
RRH	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

DAM	Coho						Sockeye			Steelhead			
	2003		2002		10-Yr Avg.		10-Yr Avg.			10-Yr Avg.		Wild	
	Adult	Jack	Adult	Jack	Adult	Jack	2003	2002	Avg.	2003	2002	Avg.	2003
BON	0	0	0	0	0	0	0	0	0	2,182	2,875	1,696	530
TDA	0	0	0	0	0	0	0	0	0	685	1,932	776	379
JDA	0	0	0	0	0	0	0	0	0	1,126	5,932	2,248	662
MCN	0	0	0	0	0	0	0	0	0	1,136	4,024	1,500	639
IHR	0	0	0	0	0	0	0	0	0	1,231	3,979	1,850	576
LMN	0	0	0	0	0	0	0	0	0	1,516	4,376	1,960	851
LGS	0	0	0	0	0	0	0	0	0	1,575	4,805	1,203	882
LWG	0	0	0	0	0	0	0	0	0	15,095	10,764	4,831	3,135
PRD	0	0	0	0	0	0	0	0	0	0	6	0	0
RIS	0	0	0	0	0	0	0	0	0	0	18	7	0
RRH	0	0	0	0	0	0	0	0	0	0	44	12	0
WEL	0	0	0	0	0	0	0	0	0	0	0	0	0

MCN and LGS data through 04/16. LGR is missing data for 3/3, 3/4 and 3/6.
 RIS, RRH don't have counts available yet. WEL began counts early on 4/15, but data not available until May 1.
 **PRD is not reporting Wild Steelhead numbers.
 These numbers were collected from the COE's Running Sums text files, except where otherwise noted.
 Wild steelhead numbers are included in the total.
 Historic counts (pre-1996) were obtained from CRITFC and compiled by the FPC.
 Historic counts 1997 to present were obtained from the Corps of Engineers.
 *As Chelan CO PUD does not report wild, these numbers are from the COE.

Page last updated on: 4/18/03

BON counts from January 1, 2003 to March 14, 2003 (our counts begin March 15)

Chinook Adult	Chinook Jack	Steelhead	Wild Steelhead
3,758	0	3,443	408

Two Week Transportation Summary

04/05/03 TO 04/18/03

		Species						
Site	Data	CH0	CH1	CO	SO	ST	Grand Total	
LGR	Sum of NumberCollected	1,530	147,292		60	60	63,768	212,710
	Sum of NumberBarged	1,038	87,849		60	58	33,661	122,666
	Sum of NumberBypassed	0	5,293		0	0	3,630	8,923
	Sum of Numbertrucked	359	35,217		20	20	9,829	45,445
	Sum of TotalProjectMortalities	4	628		0	2	17	651
LGS	Sum of NumberCollected	8	27,911		16	68	13,765	41,768
	Sum of NumberBarged	8	20,107		15	66	9,662	29,858
	Sum of NumberBypassed	0	0		0	0	0	0
	Sum of Numbertrucked	5	1,431		0	5	710	2,151
	Sum of TotalProjectMortalities	0	127		0	2	7	136
LMN	Sum of NumberCollected	125	54,953			70	7,328	62,476
	Sum of NumberBarged	85	36,835			70	4,291	41,281
	Sum of NumberBypassed	0	114			0	23	137
	Sum of Numbertrucked	60	14,821			30	1,487	16,398
	Sum of TotalProjectMortalities	0	245			0	10	255
MCN	Sum of NumberCollected	9,823	18,326		41	181	5,268	33,639
	Sum of NumberBarged	0	0		0	0	0	0
	Sum of NumberBypassed	9,802	18,309		41	180	5,267	33,599
	Sum of Numbertrucked	0	0		0	0	0	0
	Sum of TotalProjectMortalities	21	17		0	1	1	40
Total Sum of NumberCollected		11,486	248,482		117	379	90,129	350,593
Total Sum of NumberBarged		1,131	144,791		75	194	47,614	193,805
Total Sum of NumberBypassed		9,802	23,716		41	180	8,920	42,659
Total Sum of Numbertrucked		424	51,469		20	55	12,026	63,994
Total Sum of TotalProjectMortalities		25	1,017		0	5	35	1,082

YTD Transportation Summary

TO: 04/18/03

		Species					
Site	Data	CH0	CH1	CO	SO	ST	Grand Total
LGR	Sum of NumberCollected	2,110	176,422	100	140	71,178	249,950
	Sum of NumberBarged	1,038	87,849	60	58	33,661	122,666
	Sum of NumberBypassed	0	5,293	0	0	3,630	8,923
	Sum of NumberTrucked	816	54,208	40	78	15,402	70,544
	Sum of TotalProjectMortalities	7	981	0	4	35	1,027
LGS	Sum of NumberCollected	13	28,849	16	73	14,085	43,036
	Sum of NumberBarged	8	20,107	15	66	9,662	29,858
	Sum of NumberBypassed	0	0	0	0	0	0
	Sum of NumberTrucked	5	1,871	0	5	850	2,731
	Sum of TotalProjectMortalities	0	151	0	2	12	165
LMN	Sum of NumberCollected	145	55,843		110	7,768	63,866
	Sum of NumberBarged	85	36,835		70	4,291	41,281
	Sum of NumberBypassed	0	114		0	23	137
	Sum of NumberTrucked	60	15,149		40	1,637	16,886
	Sum of TotalProjectMortalities	0	248		0	17	265
MCN	Sum of NumberCollected	12,533	18,901	46	191	5,863	37,534
	Sum of NumberBarged	0	0	0	0	0	0
	Sum of NumberBypassed	12,500	18,883	46	190	5,862	37,481
	Sum of NumberTrucked	0	0	0	0	0	0
	Sum of TotalProjectMortalities	33	18	0	1	1	53
Total Sum of NumberCollected		14,801	280,015	162	514	98,894	394,386
Total Sum of NumberBarged		1,131	144,791	75	194	47,614	193,805
Total Sum of NumberBypassed		12,500	24,290	46	190	9,515	46,541
Total Sum of NumberTrucked		881	71,228	40	123	17,889	90,161
Total Sum of TotalProjectMortalities		40	1,398	0	7	65	1,510

