



Fish Passage Center

Weekly Report #03 - 4

April 11, 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. Additionally, 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 beginning of April (Table 1). The Snake River Plain received 192% of average precipitation through April 1-7. 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 1-7, 2003		Cumulative October, 1 2002 to April 7, 2003	
	Observed (inches)	% Average	Observed (inches)	% Average
Columbia Above Coulee	0.49	128	13.12	90
Snake River Above Ice Harbor	0.46	135	10.13	95
Columbia Above The Dalles	0.49	128	13.76	94
Kootenai	0.40	99	12.61	84
Clark Fork	0.46	160	9.10	98
Flathead	0.52	140	11.11	89
Pend Oreille/Spokane	0.70	133	20.82	101
Central Washington	0.19	130	6.98	115
Snake River Plain	0.47	192	4.41	69
Clearwater	0.60	97	21.78	113
SW Washington Cascades/Cowlitz	1.68	134	49.05	90
Willamette Valley	2.12	188	43.76	94

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.

Table 3 displays the April 15th Flood Control Targets along with actual reservoir elevations recorded on April 10th, 2003 for Libby, Hungry Horse, Grand Coulee, Brownlee, and Dworshak.

Table 3. April Flood Control Targets along with actual reservoir elevations recorded on April 10, 2003 for Libby, Hungry Horse, Grand Coulee, Brownlee, and Dworshak.

Reservoir	Actual Elevation April 10 th , 2003	April 15th, 2003 Flood Control Target	April 30 th , 2003 Flood Control Target
Libby	2404.7	2447.4	2449.8
Hungry Horse	3511.6	3538.8	3537.3
Grand Coulee	1283.4	1283.3	1283.3
Brownlee	2070.0	2075.7	2077.0
Dworshak	1576.1	1541.9	1541.9

The Libby Reservoir is currently at an elevation of 2404.7 feet, 42.7 feet below its April 15th Flood Control Target (Table 3). Libby has been operating to a minimum discharge of 4.0 Kcfs, and has refilled approximately 1/10 of a foot over the last week.

The Hungry Horse Reservoir is currently at an elevation of 3511.6 feet, 27.2 feet below its April 15th 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 one foot in the last week.

The Dworshak reservoir is currently at an elevation of 1576.1 feet. The April Final Runoff Volume Forecast (April-July) increased to 2.39 Maf above Dworshak, up 0.53 Maf relative to the March

Final Forecast. As result of the increased forecast, the COE's April 15th flood control elevation has dropped to 1541.9 feet. Currently, Dworshak is releasing 16.1 kcfs of water (9.5 Kcfs through the powerhouse and the rest spill).

The Grand Coulee Reservoir ended April 10th at an elevation of 1283.4 feet, 0.1 feet above its April 15th flood control elevation.

Spill: Spill is presently occurring at Dworshak Dam. The project is operating at full powerhouse and is spilling up to the 110% TDG gas cap. This operation is expected to continue for some time based on the runoff volume forecast for Dworshak Reservoir.

Biological Opinion spill was initiated at Lower Granite Dam at 1800 hours on April 3, 2003, and was phased in at the downstream Snake River projects at two-day intervals. Spill at the lower Columbia projects will be initiated on April 14th. Monitoring for signs of gas bubble trauma (GBT) was initiated on April 6th. Thus far no fish have been observed with signs of GBT.

Smolt Monitoring: The White Bird Trap collected a season high of 2,546 yearling chinook on April 7 compared to 1,576 last week. The average daily collection was 1,487 yearling chinook compared to 550 last week. Steelhead numbers are up with the average daily collection this week at 29 versus 1 last week. At the Imnaha Trap the average daily catch of yearling chinook this week was 2,122 compared to 300 fish per day average last week. Small numbers of steelhead continue to be collected with an average of 19 fish per day this week. Numbers of yearling chinook captured at the Grande Ronde trap decreased significantly this past week with a daily average of 339 compared to 663 last week. At the Lewiston Trap they continue to capture small numbers of yearling chinook and steelhead. It is likely the collection of yearling chinook at Lewiston trap will increase with increasing flows around the middle of April.

At Lower Granite Dam the average weekly passage index for yearling chinook increased this past week to 8,400 compared to 3,800 last week.

The steelhead average daily passage index also increased from 1,000 last week to 3,400 this week. Small numbers of coho, sockeye and subyearling chinook were also captured this past week. At Little Goose Dam small numbers of yearling chinook and steelhead have been captured to date. With the start of spill the collection numbers have remained low at the site. While at Lower Monumental Dam larger passage indices (compared to Little Goose) of yearling chinook likely represent releases from Lyons Ferry Hatchery of 650,000 yearling fall chinook.

Rock Island Dam has reported small numbers of yearling chinook and steelhead to date, with a collection of 16 yearling chinook on April 10 the highest total to date. There have been larger numbers of sockeye collected than other species, but again, the numbers are very small, with the highest number for the season, 37 collected on April 10.

In the Lower Columbia, at McNary, where sampling is carried out every other day, in conjunction with NMFS transportation study that begins April 20, there have been four days of sampling reported and yearling chinook indices have steadily increased but remain below 1,000 with the average daily index this week at 800 while steelhead indices averaged 850 with a high of 1,200 reported on April 7. The largest indices to date have been reported for subyearling chinook with average daily value near 2,000 for the past week. At John Day Dam the average daily index for yearling chinook was 1,500 this week compared to 700 last week, while steelhead indices were also up, with an average of 600 this week versus 300 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 2,500 compared to 980 last week. The steelhead index averaged 850 this week compared to 160 last week. The indices for coho were up sharply this week with an average index of 500 per day versus 17 per day last week. Subyearling chinook numbers were steady at nearly 400 per day index this week compared to 360 last week. 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 21 million juvenile salmonids were released into the system over the past two weeks, with 17 million fish scheduled for release in the upcoming two weeks.

Snake River - Hatchery facilities were near normal production levels this season, with 27.9 million smolts released from State, Federal, and Tribal hatcheries and acclimation ponds. About 10.4 million yearling spring chinook will be released into the Salmon River basin, into Rapid River and Little Salmon R, below Hells Canyon Dam, the Clearwater River basin, from acclimation ponds in the Grande Ronde R and Imnaha basin, and into the Tucannon R from the Curl Lake acclimation pond. Yearling summer chinook were released into Pahsimeroi R, Johnson Creek, and into the S. Fk. Salmon River from McCall H. Yearling spring and summer chinook releases should be completed by Mid-April. About 500,000 yearling fall chinook are scheduled for release in April from the acclimation ponds with an on-site release of approximately 650,000 yearling fall chinook from Lyons Ferry Hatchery.

About 140,000 hatchery sockeye were released last fall (02) in the upper Salmon R basin lakes. About 550,000 yearling coho salmon were released in early March into Lapwai Creek and Potlatch River. Most juvenile steelhead (9.6 million) will be released during April and May, with these fish released throughout the Snake, Salmon, Clearwater, Imnaha, Grande Ronde, and Tucannon River basins. Most steelhead releases scheduled for the Salmon River basin have begun, except for the Lyons Ferry and Irrigon releases that are scheduled for mid April.

Mid-Columbia River - About 22.2 million yearling and subyearling salmon will be released in the Mid-Columbia during the 03 migration year. Volitional release of yearling spring chinook are ongoing from the acclimation ponds in the Yakima River basin, and they should be completed by mid-May. Releases of yearling chinook will begin

during the next two weeks from Federal hatcheries. 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 R basin this year. About 1.9 million coho are scheduled for release in this Zone. The yearling chinook and yearling coho are normally released from early to mid-April through mid-May. Approximately 1.3 million juvenile steelhead will be released in April and early May as well.

Lower Columbia River - The Lower Columbia River Zone is scheduled to release about 37 million salmon for the 2003 migration. The majority of fish released is comprised of subyearling fall chinook, many from Spring Creek NFH. 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. Warm Springs NFH began volitional release of their yearling spring chinook (Deschutes River) this week as well. The Deschutes and Hood rivers will see yearling chinook releases during the next two weeks from ODFW and Warm Springs tribal releases. About 2.5 million coho salmon were released this past week into the Klickitat River. Winter and summer steelhead releases will begin 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 near 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 1,567 on 4/4 to a high count of 7,455 on 4/6.

Since March 15, the cumulative count of adult spring chinook was 48,020, still well above the 2002 and 10-year average to date. PIT tagged spring chinook have been from the major river basins, i.e., Clearwater, Salmon, Grande Ronde, Wenatchee, Methow, Umatilla, and Yakima rivers. Other river basins may have early run fish; however, they may not have marked release groups (hatchery or wild spring chinook) with PIT tags. PIT tag data to date indicate that adult returning chinook have primarily been 5-year old fish. During the past week, four-year old spring chinook have increased passing Bonneville Dam.

Counts of adult spring chinook at The Dalles ranged from 699 on April 5 to 3,649 by April 8, with the cumulative 20,580. Upstream at McNary Dam, 6,665 were counted past the project with greater than 3,000 into the Snake River to date.

About 14,500 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 are now moving upstream to their spawning areas.

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
03/28/03	119.7	0.0	122.2	0.0	124.2	0.0	123.3	0.0	128.9	0.0	129.0	0.0	127.0	0.0
03/29/03	114.1	0.0	116.6	0.0	119.4	0.0	119.1	0.0	123.1	0.0	130.2	0.0	130.9	0.0
03/30/03	90.2	0.0	89.1	0.0	89.5	0.0	88.8	0.0	92.9	0.0	109.4	0.0	116.9	0.0
03/31/03	117.0	0.0	115.6	0.0	117.0	0.0	113.3	0.0	117.6	0.0	110.4	0.0	110.0	0.0
04/01/03	83.9	0.0	87.5	0.0	93.3	0.0	93.0	0.0	102.2	0.0	106.1	0.0	99.7	0.0
04/02/03	89.6	0.0	88.8	0.0	90.2	0.0	90.8	0.0	95.7	0.0	93.7	0.0	95.9	0.0
04/03/03	98.8	0.0	98.9	0.0	99.3	0.0	97.6	0.0	104.1	0.0	104.1	0.0	99.5	0.0
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

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
03/28/03	2.2	0.0	16.1	13.4	52.6	0.0	51.7	0.0	58.1	0.0	56.5	0.2
03/29/03	2.2	0.0	16.8	13.8	42.3	0.0	48.1	0.0	51.0	0.0	47.9	0.0
03/30/03	2.2	0.0	14.0	14.4	40.2	0.0	46.0	0.0	49.8	0.0	49.3	0.0
03/31/03	3.2	0.0	14.6	16.3	42.5	0.0	48.5	0.0	56.4	0.0	52.9	0.0
04/01/03	8.8	0.0	16.0	18.0	61.7	0.0	59.3	0.0	59.1	0.0	54.9	0.0
04/02/03	9.5	0.0	16.3	20.3	69.8	0.0	76.8	0.0	85.6	0.0	82.8	0.0
04/03/03	14.5	4.9	16.2	19.2	76.3	10.2	56.8	0.0	53.5	0.0	47.3	0.0
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	---	---	60.0	26.3	61.1	18.5	60.6	29.7	65.7	49.7

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		
03/28/03	197.1	0.0	219.2	0.0	222.3	0.0	237.3	2.0	90.8	137.9
03/29/03	181.5	0.0	190.3	0.0	192.3	0.0	208.3	1.9	73.5	126.2
03/30/03	185.6	0.0	187.8	0.0	188.1	0.0	191.8	2.0	75.8	107.3
03/31/03	169.7	0.0	177.8	0.0	183.0	0.0	194.2	1.9	73.6	112.1
04/01/03	169.4	0.0	170.4	0.0	175.1	0.0	184.9	2.1	58.8	117.4
04/02/03	169.2	0.0	186.7	0.0	192.1	0.0	208.1	2.1	77.6	121.7
04/03/03	172.9	0.0	163.9	0.0	173.6	0.0	185.7	1.9	53.1	123.8
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	201.8	0.0	189.1	28.2	189.9	0.0	205.6	2.0	66.5	130.5

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		
Lower Monumental Dam													
	04/07/03	Yearling Chinook	32	0	0	0.00%	0.00%	0	0	0	0		
	04/07/03	Steelhead	5	0	0	0.00%	0.00%	0	0	0	0		
McNary Dam													
	04/06/03	Yearling Chinook	25	0	0	0.00%	0.00%	0	0	0	0		
	04/06/03	Steelhead	26	0	0	0.00%	0.00%	0	0	0	0		
Bonneville Dam													
	04/07/03	Yearling Chinook	89	0	0	0.00%	0.00%	0	0	0	0		
	04/07/03	Steelhead	15	0	0	0.00%	0.00%	0	0	0	0		
	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		

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>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</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>
3/28	99	99	99	24	110	111	112	24	100	101	101	24	100	101	101	23	---	---	---	0
3/29	98	99	99	24	107	111	113	24	101	101	102	16	100	101	101	23	---	---	---	0
3/30	99	100	100	24	106	108	112	24	102	102	103	21	102	102	103	23	---	---	---	0
3/31	100	100	101	24	105	106	106	24	103	103	104	21	103	103	105	23	---	---	---	0
4/1	100	100	100	24	105	106	106	24	104	104	104	24	104	104	105	23	---	---	---	0
4/2	99	100	100	16	106	108	114	24	104	104	105	24	104	104	108	23	---	---	---	0
4/3	100	100	100	16	105	107	110	24	103	103	104	24	103	103	106	23	---	---	---	0
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

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>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</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>
3/28	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/29	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/30	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/31	---	---	---	0	104	104	104	11	104	104	105	11	105	105	105	15	105	105	105	15
4/1	---	---	---	0	105	105	105	22	105	105	105	22	105	105	105	23	105	105	106	23
4/2	---	---	---	0	104	105	105	23	104	105	106	23	105	105	105	24	105	105	105	24
4/3	100	100	100	14	104	104	104	20	104	104	105	20	104	104	105	24	104	104	105	24
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

Total Dissolved Gas Saturation at Mid Columbia River Sites

Date	<u>Rock Island</u>			<u>Rock I. Tlwr</u>			<u>Pasco</u>			#		
	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</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>
3/28	---	---	---	0	---	---	---	0	102	103	104	24
3/29	---	---	---	0	---	---	---	0	103	103	104	16
3/30	---	---	---	0	---	---	---	0	104	105	106	24
3/31	107	107	107	15	107	107	107	13	105	105	106	24
4/1	107	107	108	23	107	107	108	22	105	106	107	24
4/2	107	107	108	24	107	107	108	24	105	105	106	24
4/3	105	106	107	24	105	106	107	24	103	104	104	24
4/4	104	104	104	22	104	104	104	22	104	105	106	24
4/5	103	103	104	24	104	104	104	24	104	104	104	22
4/6	103	103	103	21	103	103	103	21	104	104	105	23
4/7	---	---	---	0	---	---	---	0	104	104	105	24
4/8	104	104	105	24	104	105	105	23	105	106	107	24
4/9	105	106	107	21	102	103	105	20	106	107	107	24
4/10	105	106	106	24	101	101	101	24	106	107	108	24

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

Total Dissolved Gas Saturation Data at Snake River Sites

Date	<u>Dworshak</u>			<u>Clrwtr-Peck</u>			<u>Anatone</u>			<u>Clrwtr-Lewiston</u>							
	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>					
	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High					
3/28	97	98	100	24	101	102	103	24	102	102	103	24	3/28	96	96	97	10
3/29	98	98	100	16	100	101	102	16	102	102	103	15	3/29	96	96	97	9
3/30	98	99	100	24	101	102	103	24	103	104	104	19	3/30	98	98	100	12
3/31	100	102	103	24	101	101	102	24	102	103	103	24	3/31	99	99	100	24
4/1	99	100	104	24	100	101	101	24	102	102	103	23	4/1	98	99	100	24
4/2	97	98	98	24	100	100	100	24	101	102	102	24	4/2	96	96	97	7
4/3	106	107	107	24	102	103	103	24	101	102	102	24	4/3	95	95	96	10
4/4	108	109	110	24	104	104	105	24	102	102	103	23	4/4	96	97	98	20
4/5	108	108	109	22	104	104	104	22	102	102	103	20	4/5	97	97	97	22
4/6	108	109	109	23	104	104	105	23	102	102	102	22	4/6	97	97	98	23
4/7	108	108	109	24	104	105	105	24	102	103	104	23	4/7	97	98	99	24
4/8	109	109	110	24	105	106	107	24	103	104	105	24	4/8	99	100	101	24
4/9	109	109	110	24	105	106	106	24	102	103	103	24	4/9	99	100	101	24
4/10	110	110	110	24	105	106	106	23	103	103	104	24	4/10	101	103	106	24

Total Dissolved Gas Saturation Data at Snake River Sites

Date	<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>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>				
	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High				
3/28	100	101	102	24	99	100	100	24	100	101	102	24	100	100	100	24
3/29	100	101	103	16	100	100	100	16	100	101	101	16	100	100	100	16
3/30	102	102	103	24	100	101	101	24	101	101	102	20	101	101	101	24
3/31	103	103	104	24	102	102	102	24	101	102	102	24	101	102	102	24
4/1	104	105	106	24	103	104	105	24	103	103	103	24	103	103	103	24
4/2	105	105	105	24	104	104	105	12	103	103	103	24	103	103	103	24
4/3	102	102	103	24	110	110	119	11	102	102	102	24	102	102	102	24
4/4	101	101	101	24	109	118	119	24	102	102	102	24	102	102	102	24
4/5	100	100	100	22	109	117	119	22	102	102	102	22	105	108	117	22
4/6	100	101	101	23	110	118	119	23	103	103	106	23	109	115	117	23
4/7	101	102	104	24	110	118	120	24	105	106	106	24	111	117	118	24
4/8	102	103	104	24	111	119	120	24	107	108	110	24	113	118	119	24
4/9	102	103	103	24	111	119	120	23	108	108	109	24	113	117	119	23
4/10	104	105	106	24	114	119	119	23	109	110	111	24	113	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>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>					
	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High					
3/28	99	100	101	24	100	100	101	24	99	99	101	24	99	100	101	24	101	102	104	24
3/29	99	100	100	16	100	100	102	16	100	100	100	16	100	100	101	15	101	101	104	16
3/30	101	102	102	20	102	103	103	24	101	101	102	20	101	101	102	24	102	103	105	20
3/31	102	103	103	24	104	104	105	24	102	102	103	24	102	102	103	24	103	103	104	24
4/1	103	103	103	22	104	104	105	24	103	103	103	24	103	103	104	24	104	105	105	24
4/2	103	103	103	24	103	103	104	24	103	103	103	24	103	103	103	23	104	104	105	24
4/3	102	102	102	24	102	103	104	24	102	102	102	24	102	102	103	24	103	103	103	24
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

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

Total Dissolved Gas Saturation Data at Lower Columbia River Sites

Date	<u>McNary-Wash</u>			<u>McNary Tlwr</u>			<u>John Day</u>			<u>John Day Tlwr</u>			<u>The Dalles</u>							
	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24h</u>	<u>12h</u>	<u>#</u>	<u>24h</u>	<u>12h</u>	<u>#</u>	<u>24h</u>	<u>12h</u>	<u>#</u>					
	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	AVG	High	hr				
3/28	101	102	103	24	101	101	102	24	101	102	103	24	100	101	101	24	101	101	101	24
3/29	102	102	104	16	102	102	103	16	101	102	103	18	101	101	101	16	101	101	101	18
3/30	105	105	106	20	104	104	105	24	103	103	103	20	102	102	102	20	102	103	103	22
3/31	105	106	106	24	104	105	105	24	103	103	104	24	102	102	103	24	103	103	104	24
4/1	105	105	106	24	104	105	105	24	104	104	104	24	103	103	104	24	103	103	104	24
4/2	105	105	106	24	104	104	105	24	104	104	104	24	103	103	104	24	103	103	104	24
4/3	103	103	104	24	103	103	103	24	103	103	104	24	103	103	103	24	103	103	103	24
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

Total Dissolved Gas Saturation Data at Lower Columbia River Sites

Date	<u>The Dalles Dnst</u>			<u>Bonneville</u>			<u>Warrendale</u>			<u>Camas\Washugal</u>						
	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24h</u>	<u>12h</u>	<u>#</u>	<u>24h</u>	<u>12h</u>	<u>#</u>				
	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr				
3/28	100	101	101	23	---	---	---	0	---	---	---	0	101	102	102	23
3/29	101	101	101	15	---	---	---	0	103	103	103	6	101	102	103	15
3/30	102	102	103	23	---	---	---	0	103	104	104	24	103	104	105	23
3/31	103	103	103	23	---	---	---	0	104	104	105	24	104	104	105	23
4/1	103	104	104	23	103	104	104	24	104	105	105	24	104	105	105	23
4/2	103	104	104	23	103	103	104	24	104	104	105	24	104	104	105	23
4/3	103	103	103	23	102	102	103	24	103	103	103	24	102	102	103	23
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

HATCHERY RELEASE SUMMARY LAST TWO WEEKS

Hatchery Release Summary

From: 3/28/03 to 4/10/03

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
Idaho Dept. of Fish and Wildlife	Clearwater Hatchery	CH1	SP	2003	350,000	04-10-03	04-10-03	Powell Acclim Pond	Lochsa River
Idaho Dept. of Fish and Wildlife	Clearwater Hatchery	CH1	SP	2003	630,000	04-02-03	04-11-03	Crooked R Acclim Pond	S Fk Clearwater River
Idaho Dept. of Fish and Wildlife	Magic Valley Hatchery	ST	SU	2003	132,000	04-07-03	04-08-03	Squaw Cr Acclim Pond	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	1,052,000	03-31-03	04-04-03	Knox Bridge	Salmon River (ID)
Idaho Dept. of Fish and Wildlife	Niagara Springs	ST	SU	2003	275,000	04-05-03	04-10-03	Little Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Wildlife	Niagara Springs	ST	SU	2003	525,000	03-24-03	04-04-03	Hells Canyon Dam	Snake 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					7,960,918				
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	150,000	04-01-03	04-10-03	Big Canyon (Clearwater R)	Clearwater River M F
Nez Perce Tribe	Lyons Ferry Hatchery	CH1	FA	2003	150,000	04-01-03	04-10-03	Cpt John Acclim Pond	Snake River
Nez Perce Tribe	Lyons Ferry Hatchery	CH1	FA	2003	150,000	04-01-03	04-10-03	Pittsburg Landing Acclim Pond	Snake River
Nez Perce Tribe Total					783,170				
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	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	ST	SU	2003	162,000	04-08-03	04-08-03	Bel. Pelton Dam	Deschutes River
Oregon Dept. of Fish and Wildlife Total					559,100				
U.S. Fish and Wildlife Service	Entiat Hatchery	CH1	SP	2003	395,000	04-10-03	04-10-03	Entiat Hatchery	Entiat River
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	Spring Creek NFH	CH0	FA	2003	4,100,000	04-10-03	04-10-03	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 Total					5,715,000				
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					1,301,600				
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	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					139,900				
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	CH1	FA	2003	650,000	04-01-03	04-15-03	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	200,000	04-01-03	04-30-03	Cottonwood Acclim Pond	Grande Ronde 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	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 Total					3,871,000				
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2003	38,564	03-14-03	05-15-03	Easton Pond	Yakama River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2003	81,301	03-14-03	05-15-03	Clark Flat Acclim Pond	Yakama River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2003	249,854	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					1,064,680				
Grand Total					21,395,368				

HATCHERY RELEASE SUMMARY NEXT TWO WEEKS

Hatchery Release Summary

From: 4/11/03 to 4/24/03

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	CH1	SP	2003	351,000	04-11-03	04-11-03	Red River Acclim Pond	S Fk Clearwater River
Idaho Dept. of Fish and Wildlife	Clearwater Hatchery	CH1	SP	2003	630,000	04-02-03	04-11-03	Crooked R Acclim Pond	S Fk Clearwater River
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	180,000	04-11-03	04-15-03	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	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					5,082,000				
Nez Perce Tribe	Lookingglass Hatchery	CH1	SP	2003	133,170	03-28-03	04-14-03	Lostine Accim Pond	Wallowa River
Nez Perce Tribe Total					133,170				
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	166,000	04-14-03	04-16-03	Big Canyon Acclim.Pd (Grande Ronde)	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 Total					864,600				
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	Leavenworth NFH	CH1	SP	2003	1,320,000	04-21-03	04-22-03	Leavenworth Hatchery	Wenatchee River
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	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 Total					6,462,000				
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				
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	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					109,900				
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	CH1	FA	2003	650,000	04-01-03	04-15-03	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	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	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 Total					1,792,000				
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2003	38,564	03-14-03	05-15-03	Easton Pond	Yakama River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2003	81,301	03-14-03	05-15-03	Clark Flat Acclim Pond	Yakama River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2003	249,854	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					1,076,680				
Grand Total					17,206,950				

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

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)
03/28/2003	*	141	126	334	9	1,950	---	---	---	---	---	1,138
03/29/2003		---	---	---	---	2,320	---	---	---	---	---	1,269
03/30/2003		---	186	---	---	1,440	---	---	---	---	---	845
03/31/2003	*	35	126	213	4	1,150	---	---	---	---	---	795
04/01/2003	*	291	147	197	3	2,930	---	---	4	---	430	815
04/02/2003	*	1,576	371	635	6	6,920	441	330	13	---	595	887
04/03/2003		706	846	1,938	23	9,820	497	560	5	575	1,115	1,147
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	---	117	2	3,860	432	4,370	16	---	1,737	4,171
Total:		10,183	14,533	5,013	64	85,581	4,321	33,638	48	3,087	12,733	24,470
# Days:		10	12	10	10	14	9	9	10	4	10	14
Average:		1,018	1,211	501	6	6,113	480	3,738	5	772	1,273	1,748
YTD		19,050	15,571	8,240	134	88,181	4,321	33,638	48	3,087	15,375	33,584

		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)
03/28/2003	*	0	0	0	2	60	---	---	---	---	---	326
03/29/2003		---	---	---	---	50	---	---	---	---	---	405
03/30/2003		---	0	---	---	100	---	---	---	---	---	240
03/31/2003	*	0	0	0	1	0	---	---	---	---	---	475
04/01/2003	*	0	0	0	4	140	---	---	136	---	0	191
04/02/2003	*	0	0	0	0	20	0	0	61	---	25	249
04/03/2003		0	1	0	3	120	5	20	36	2,710	10	745
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	157	0	0	100	---	48	889
Total:		0	4	4	15	1,099	5	120	621	8,624	430	5,487
# Days:		10	12	10	10	14	9	9	10	4	10	14
Average:		0	0	0	2	79	1	13	62	2,156	43	392
YTD		1	5	6	65	1,189	5	120	621	8,624	496	353,249

* 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)
03/28/2003	*	0	0	0	0	0	---	---	---	---	---	13
03/29/2003		---	---	---	---	0	---	---	---	---	---	20
03/30/2003		---	0	---	---	0	---	---	---	---	---	13
03/31/2003	*	0	0	0	0	0	---	---	---	---	---	0
04/01/2003	*	0	0	0	0	0	---	---	0	---	0	13
04/02/2003	*	0	0	0	0	20	0	0	0	---	0	12
04/03/2003		0	0	0	0	20	0	0	0	5	5	46
04/04/2003	*	0	0	0	0	0	0	0	0	---	5	84
04/05/2003		---	0	---	---	0	0	0	0	0	0	230
04/06/2003	*	---	0	---	---	0	0	0	0	---	0	365
04/07/2003		0	0	0	0	87	0	0	0	0	21	440
04/08/2003	*	0	0	0	0	0	0	0	0	---	0	982
04/09/2003		0	0	0	0	0	0	0	0	7	24	923
04/10/2003		0	---	0	0	0	6	0	0	---	0	494
Total:		0	0	0	0	127	6	0	0	12	55	3,635
# Days:		10	12	10	10	14	9	9	10	4	10	14
Average:		0	0	0	0	9	1	0	0	3	6	260
YTD		0	0	0	5	127	6	0	0	12	93	3,731

		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)
03/28/2003	*	1	17	7	8	440	---	---	---	---	---	133
03/29/2003		---	---	---	---	740	---	---	---	---	---	108
03/30/2003		---	30	---	---	530	---	---	---	---	---	50
03/31/2003	*	1	26	1	6	490	---	---	---	---	---	92
04/01/2003	*	0	63	2	8	730	---	---	0	---	160	127
04/02/2003	*	1	105	0	7	2,130	140	150	1	---	210	237
04/03/2003		0	40	6	11	1,820	180	290	0	595	620	376
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	---	1	13	2,416	545	364	3	---	736	1,717
Total:		150	395	26	102	30,594	3,195	2,541	11	3,149	5,475	7,091
# Days:		10	12	10	10	14	9	9	10	4	10	14
Average:		15	33	3	10	2,185	355	282	1	787	548	507
YTD		167	871	100	128	31,124	3,195	2,541	11	3,149	6,566	8,148

* 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)	JDA (INDEX)	BO2 (INDEX)
03/28/2003 *	0	0	0	0	0	---	---	---	---	---	7
03/29/2003	---	---	---	---	0	---	---	---	---	---	7
03/30/2003	---	0	---	---	10	---	---	---	---	---	0
03/31/2003 *	0	0	0	0	10	---	---	---	---	---	7
04/01/2003 *	0	0	0	0	0	---	---	0	---	0	6
04/02/2003 *	0	0	0	0	20	0	10	1	---	0	6
04/03/2003	0	0	0	0	20	5	30	0	10	10	7
04/04/2003 *	0	0	0	0	0	0	0	2	---	5	11
04/05/2003	---	0	---	---	0	0	0	3	14	5	6
04/06/2003 *	---	0	---	---	0	0	0	2	---	10	18
04/07/2003	0	0	0	0	29	0	20	4	13	0	0
04/08/2003 *	0	0	0	0	0	12	0	13	---	0	14
04/09/2003	0	0	0	0	0	8	0	8	27	0	0
04/10/2003	0	---	0	0	0	0	0	37	---	16	0
Total:	0	0	0	0	89	25	60	70	64	46	89
# Days:	10	12	10	10	14	9	9	10	4	10	14
Average:	0	0	0	0	6	3	7	7	16	5	6
YTD	0	0	0	0	109	25	60	70	64	46	131

* 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 = Collection Counts / {Powerhouse Flow / (Powerhouse Flow + Spill)}

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

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

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

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

RIS (Index) = Rock Island Dam Second Powerhouse Bypass Trap : Passage Index Counts

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

MCN (Index) = McNary Dam Bypass Collection System : Passage Index Counts

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

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

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

BO2 (Index) = Bonneville Dam Second Powerhouse Bypass Collection System : Passage Index Counts

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

BO1 (Index) = Bonneville Dam First Powerhouse Bypass Collection System : Passage Index Counts

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

JDA and BO2 data collected for the FPC by Pacific States Marine Fisheries Commission.

RIS data collected for the FPC by Chelan Co. PUD/Washington Dept. of Fish and Wildlife.

LGR, LMN, and MCN data collected for the FPC by Washington Dept. of Fish and Wildlife.

LGS and GRN data collected for the FPC by Oregon Dept. of Fish and Wildlife.

IMN data collected for the FPC by the Nez Perce Tribe.

Cumulative Adult Passage at Mainstem Dams Through: 04/10

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	48,020	187	11,710	7	14,387	25	0	0	0	0	0	0	0	0	0	0	0	0
TDA	20,580	18	3,583	4	5,432	8	0	0	0	0	0	0	0	0	0	0	0	0
JDA	12,116	7	1,367	0	2,882	1	0	0	0	0	0	0	0	0	0	0	0	0
MCN	6,665	10	1,022	1	1,082	2	0	0	0	0	0	0	0	0	0	0	0	0
IHR	3,074	0	312	0	487	0	0	0	0	0	0	0	0	0	0	0	0	0
LMN	2,017	3	146	0	263	0	0	0	0	0	0	0	0	0	0	0	0	0
LGS	412	0	21	0	114	0	0	0	0	0	0	0	0	0	0	0	0	0
LWG	182	0	26	0	42	0	0	0	0	0	0	0	0	0	0	0	0	0
PRD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RIS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RRH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

DAM	Coho						Sockeye			Steelhead			
	2003		2002		10-Yr Avg.		2003	2002	10-Yr Avg.	2003	2002	10-Yr Avg.	Wild 2003
	Adult	Jack	Adult	Jack	Adult	Jack							
BON	0	0	0	0	0	0	0	0	0	1,900	2,176	1,335	431
TDA	0	0	0	0	0	0	0	0	0	519	1,148	535	269
JDA	0	0	0	0	0	0	0	0	0	727	4,363	1,512	431
MCN	0	0	0	0	0	0	0	0	0	870	2,826	1,107	446
IHR	0	0	0	0	0	0	0	0	0	909	2,512	1,307	345
LMN	0	0	0	0	0	0	0	0	0	1,261	2,983	1,397	659
LGS	0	0	0	0	0	0	0	0	0	1,152	3,021	745	586
LWG	0	0	0	0	0	0	0	0	0	14,562	8,374	4,099	2,775
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

LGR is missing data for 3/3, 3/4 and 3/6. IHR is missing 4/7.

**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: 4/11/03

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

03/29/03 TO 04/11/03

		Species					
Site	Data	CH0	CH1	CO	SO	ST	Grand Total
LGR	Sum of NumberCollected	910	67,951	100	80	23,279	92,320
	Sum of NumberBarged	178	15,127	60	19	7,668	23,052
	Sum of NumberBypassed	0	441	0	0	710	1,151
	Sum of Numbertrucked	727	51,625	40	58	14,872	67,322
	Sum of TotalProjectMortalities	5	758	0	3	29	795
LGS	Sum of NumberCollected	5	3,503	4	18	2,402	5,932
	Sum of NumberBarged	0	1,561	4	12	1,547	3,124
	Sum of NumberBypassed	0	0	0	0	0	0
	Sum of Numbertrucked	5	1,871	0	5	850	2,731
	Sum of TotalProjectMortalities	0	71	0	1	5	77
LMN	Sum of NumberCollected	120	27,842		60	2,215	30,237
	Sum of NumberBarged	60	12,502		20	559	13,141
	Sum of NumberBypassed	0	32		0	5	37
	Sum of Numbertrucked	60	15,149		40	1,637	16,886
	Sum of TotalProjectMortalities	0	159		0	14	173
MCN	Sum of NumberCollected	8,624	3,087	12	64	3,149	14,936
	Sum of NumberBarged	0	0	0	0	0	0
	Sum of NumberBypassed	8,592	3,080	12	63	3,149	14,896
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of TotalProjectMortalities	32	7	0	1	0	40
Total Sum of NumberCollected		9,659	102,383	116	222	31,045	143,425
Total Sum of NumberBarged		238	29,190	64	51	9,774	39,317
Total Sum of NumberBypassed		8,592	3,553	12	63	3,864	16,084
Total Sum of Numbertrucked		792	68,645	40	103	17,359	86,939
Total Sum of TotalProjectMortalities		37	995	0	5	48	1,085

YTD Transportation Summary

TO: 04/11/03

		Species					
Site	Data	CH0	CH1	CO	SO	ST	Grand Total
LGR	Sum of NumberCollected	1,000	70,551	100	100	23,809	95,560
	Sum of NumberBarged	178	15,127	60	19	7,668	23,052
	Sum of NumberBypassed	0	441	0	0	710	1,151
	Sum of NumberTrucked	816	54,208	40	78	15,402	70,544
	Sum of TotalProjectMortalities	6	775	0	3	29	813
LGS	Sum of NumberCollected	5	3,503	4	18	2,402	5,932
	Sum of NumberBarged	0	1,561	4	12	1,547	3,124
	Sum of NumberBypassed	0	0	0	0	0	0
	Sum of NumberTrucked	5	1,871	0	5	850	2,731
	Sum of TotalProjectMortalities	0	71	0	1	5	77
LMN	Sum of NumberCollected	120	27,842		60	2,215	30,237
	Sum of NumberBarged	60	12,502		20	559	13,141
	Sum of NumberBypassed	0	32		0	5	37
	Sum of NumberTrucked	60	15,149		40	1,637	16,886
	Sum of TotalProjectMortalities	0	159		0	14	173
MCN	Sum of NumberCollected	8,624	3,087	12	64	3,149	14,936
	Sum of NumberBarged	0	0	0	0	0	0
	Sum of NumberBypassed	8,592	3,080	12	63	3,149	14,896
	Sum of NumberTrucked	0	0	0	0	0	0
	Sum of TotalProjectMortalities	32	7	0	1	0	40
Total Sum of NumberCollected		9,749	104,983	116	242	31,575	146,665
Total Sum of NumberBarged		238	29,190	64	51	9,774	39,317
Total Sum of NumberBypassed		8,592	3,553	12	63	3,864	16,084
Total Sum of NumberTrucked		881	71,228	40	123	17,889	90,161
Total Sum of TotalProjectMortalities		38	1,012	0	5	48	1,103

