



Fish Passage Center

Weekly Report #01 - 4

April 6, 2001

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BPA declared a power emergency from April 3 through April 13, under the terms of the NMFS Biological Opinion. The power emergency will result in the elimination of flow and spill for fish passage that is included in the NMFS Biological Opinion, during the period of the emergency. Biological Opinion passage measures for listed stocks and unlisted stocks will not be provided.

SUMMARY OF EVENTS:

Water Supply: Precipitation increased in the region of the Upper Snake, as much as 0.25 inches, while precipitation in the rest of the subbasins remained scarce.

Reservoir Operations: Reservoirs are being operated for power generation needs and are far below required end of month flood control elevations. Under the current conditions of low water supply it is highly unlikely that reservoirs will be refilled by the end of June as required by the 2000 Biological Opinion. A summary of the actual elevations and required flood control elevations at the end of April, based on the March Final Runoff Volume Forecast (as the April Final Runoff Volume Forecast is not issued yet), is shown in the following Table:

Reservoir	Actual Elev. as of April 5, 2001 [ft]	Required End of April Flood Control Elev. [ft]	Maximum Reservoir pool [ft]
<i>Libby</i>	2387.05	Na	2459
<i>Hungry Horse</i>	3490.38	3557.2	3560
<i>Grand Coulee</i>	1222.2	1283.3	1290
<i>Brownlee</i>	2074.01*	2077.0	2077
<i>Dworshak</i>	1514.97	1589.5	1600

*as of April 4

Libby reservoir was operated at an outflow of 4.5 kcfs through April 3, to return water stored in Canadian projects by agreement with Canadian authorities. Since completion of the operation, the outflow decreased to 4 kcfs. Inflows were in the range of 1.9 kcfs-3.2 kcfs for the period of March 30-April 5.

Hungry Horse is operating with a minimum outflow of 2.40 kcfs to meet the required minimum of 3.5 kcfs at Columbia Falls. Inflows were in the range of 0.25 to 1.74 kcfs for the period of March 30 - April 5.

Grand Coulee is being operated to initiate spring refill and maintain minimum flows below Vernita Bar. The most current outflows were in the range of 35.8 kcfs-69.5 kcfs for the period of March 30-April 5. For the same period, inflows were in the range of 53.9 kcfs-72.5 kcfs.

Brownlee is operating close to the required flood control elevations. The end of March elevation was 3.34 ft below the required flood control elevation. Outflows at the Hells Canyon Dam project were in the range of 8.9 kcfs to 17.88 kcfs for the period of March 30-April 4. The *Brownlee* inflows were in the range of 11.52 kcfs to 13.64 kcfs for the same period.

Dworshak is operating with a minimum outflows of 1.5 kcfs. Inflow increased during the previous week due to local snowmelt, which fluctuated between 3.9 kcfs and 5.6 kcfs for the period of March 30-April 5.

The *Upper Snake* projects have continued to refill since fall. Currently, as of April 5, the system is at 78% of capacity; American Falls is full, Palisades is at 49% of capacity, and Jackson Lake is at 76 % of capacity.

Flows: Flows below Bonneville fluctuated between 111.3 kcfs and 147.1 kcfs for the period of March 30-April 5, depending upon power generation demands.

Flow at Priest Rapids has been maintained at a daily minimum of 65 kcfs for the fall/winter period for protection of redds at Vernita Bar. Redd counts on November 19, 2000 determined the minimum required protection flows for the 2000-2001 season.

Spill: There was no spill reported for Snake, Mid-Columbia or Lower Columbia projects over the past week.

Smolt Monitoring: Trap collections of yearling chinook have reached daily highs this reporting period (March 30-April 5) with counts of over 800 fish on the lower Salmon River (WTB), nearly 1,500 fish on the lower Imnaha River (IMN), and over 1,000 fish on the lower Grande Ronde River (GRN). Based on adipose fin clips, the yearling chinook collection this week consisted of about 96% hatchery fish at the Salmon River trap, 94% hatchery fish at the Grande Ronde River trap, and about 84% hatchery at the Imnaha River trap. Current low flows have allowed fish to avoid capture in the Snake River trap (LEW), resulting in only a handful of fish have been collected to date. This week has seen increasing collections of yearling chinook and steelhead at Lower Granite Dam. Increasing numbers of hatchery chinook (mostly from Dworshak Hatchery based on PIT tag detections) have been detected at Lower Granite Dam over the course of the week. Smolt monitoring began this week in the mid-Columbia River at Rock Island Dam with small numbers of yearling and subyearling chinook and steelhead being collected. Smolt monitoring also began this week in the lower Columbia River at McNary and John Day dams with typical early season small collections of mostly yearling chinook and steelhead. Smolt passage at Bonneville Dam continued to be mostly a mix of yearling and subyearling chinook.

Adult Fish Passage – Fish counting started April 1 at most COE projects; currently all COE projects are counting adult fish passing mainstem Columbia and Snake River dams. The PUD projects on the Mid-Columbia River will begin on or near April 15 at Priest Rapids, Rock Island, and Rocky Reach dams with Wells Dam starting May 1. The FPC Weekly Report will list in a Table; the adult fish counts for the week with the previous year (2000) and the 10-year average through the same ending date so the reader can compare passage throughout the year for the individual species.

At Bonneville Dam, adult spring Chinook salmon counts increased considerably during the week with the daily peak count of 9,942, bringing the total count since March 15 to 41,737. This year's count through April 5 compares with 11,664 in 2000 and 2,859 for the 10-year average. The 2001 count is about 3.6 times and 15 times greater than the respective 2000 and 10-year average. The fish counts at present would indicate that 2001 could indeed be the Record Breaking Year that was expected. The fishing activity for Spring Chinook salmon from the I-5 Bridge to Bonneville Dam is the first since the 1970s. These numbers of fish are not going unnoticed as sport fishermen are lining the banks of the river below the dam and boat fishers are prevalent in that area. Also, pinneped (7-8) were sighted at Bonneville Dam and areas below the project preying on adult salmon. At The Dalles Dam, 1,670 adult salmon were counted on April 1 with the total through April 5 of 8,898. Numbers of adult spring Chinook continuing up to the Snake River is now exceeding 100 per day at Ice Harbor with a few fish now arriving at Lower Granite Dam.

Steelhead passage increased to about 80/day through the week at Bonneville Dam with the total through April 5 of 1,406. At Bonneville Dam, steelhead are mostly lower river, winter steelhead with some upriver summer fish moving upstream to spawning sites as well. At Lower Granite Dam, steelhead counts have been greater than 100 per day for the week with 3,745 counted since March 1. Most steelhead passing the project are those that have over-wintered in the Snake or Columbia rivers.

Hatchery Releases – See the Hatchery Release Summary for the Previous 2-wk and next 2-wk Projected Releases for the Columbia River Basin above Bonneville Dam.

Snake River – For the week, volitional or direct stream hatchery releases of yearling spring Chinook began or are on-going from the Salmon River (Rapid River Hatchery), Imnaha River and Clearwater River basins. About 60% of the Rapid River Chinook have emigrated from the ponds and are in-river based on the PIT tag detection equipment set up on the exit from the ponds. Dworshak and Kooskia NFHs released spring Chinook on 3/28 and 3/27, respectively into the Clearwater R basin. Summer Chinook from McCall Hatchery were trucked and released into the S. Fk Salmon River throughout the week (3/26-29). The summer Chinook program was nearer normal production levels than the hatchery spring Chinook program that will be approximately one third normal level. About 560,000 coho were released into Lapwai Creek and Potlatch River in March. Initial steelhead releases began with fish trucks hauling loads from Niagara Springs Hatchery to below Hells Canyon. Other volitional and direct stream releases of steelhead were started as well during the week.

Mid-Columbia [above McNary Dam] – Volitional releases of spring chinook from the Acclimation Ponds in the Yakama River began mid-March and will continue through May. Most hatcheries will be releasing yearling spring chinook during mid to late April either volitionally or directly from the raceways to the streams. Yearling Chinook from Entiat NFH were released early this week as the Rocky Reach juvenile fish facility was fully watered up and operating. Sockeye in the Mid-Columbia are normally released into Lake Wenatchee from net pens and into Lake Osoyoos (direct releases) during the fall prior to their migration in April through May. Yearling summer Chinook from Wells and Eastbank complex hatcheries will be released mainly in April. Hatchery steelhead will be released in April and May.

Lower Columbia [McNary Dam to above Bonneville Dam]– Yearling spring chinook have been released in the Umatilla, Klickitat, and Hood

Rivers to date with other juvenile spring Chinook hatchery releases scheduled for April. The initial release of subyearling fall chinook (5.3 million) was completed from Spring Creek National Fish Hatchery on March 8th with the 2nd release of 5.3 million scheduled for mid-April. Yearling releases of “bright” fall chinook began March 12 in the Umatilla River with other releases scheduled for April. Coho salmon have been released in the Umatilla River basin with 2.8 million scheduled for the Klickitat River in the upcoming 2 weeks.

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
03/23/01	69.2	0.0	67.4	0.0	65.4	0.0	53.8	0.0	53.8	0.0	68.6	0.0	74.3	0.0
03/24/01	49.6	0.0	49.2	0.0	53.1	0.0	53.7	0.0	58.3	0.0	69.6	0.0	70.6	0.0
03/25/01	41.2	0.0	41.2	0.0	39.9	0.0	36.9	0.0	37.3	0.0	57.1	0.0	70.2	0.0
03/26/01	65.5	0.0	70.0	0.0	73.0	0.0	74.2	0.0	71.7	0.0	69.6	0.0	70.4	0.0
03/27/01	76.2	0.0	78.7	0.0	77.7	0.0	77.8	0.0	81.8	0.0	71.7	0.0	70.5	0.0
03/28/01	68.1	0.0	70.9	0.0	71.2	0.0	76.4	0.0	70.8	0.0	67.5	0.0	71.7	0.0
03/29/01	68.4	0.0	63.0	0.0	61.5	0.0	57.9	0.0	60.3	0.0	68.6	0.0	69.5	0.0
03/30/01	53.1	0.0	61.9	0.0	65.1	0.0	67.4	0.0	68.8	0.0	65.0	0.0	70.1	0.0
03/31/01	54.7	0.0	51.4	0.0	53.6	0.0	53.5	0.0	55.0	0.0	68.4	0.0	70.4	0.0
04/01/01	35.8	0.0	34.7	0.0	36.9	0.0	36.1	0.0	37.7	0.0	64.4	0.0	70.2	0.0
04/02/01	66.2	0.0	66.2	0.0	65.6	0.0	60.2	0.0	62.7	0.0	64.4	0.0	69.2	0.0
04/03/01	60.2	0.0	63.2	0.0	63.3	0.0	64.7	0.0	65.5	0.0	62.8	0.0	68.8	0.0
04/04/01	62.4	0.0	65.6	0.0	68.4	0.0	68.6	0.0	70.1	0.0	73.0	0.0	68.4	0.0
04/05/01	69.5	0.0	65.4	0.0	64.3	0.0	59.3	0.0	61.3	0.0	66.4	0.0	67.7	0.0

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

Date	Dworshak		Brownlee Canyon		Hells Granite		Lower Granite		Little Goose		Lower Monumental		Ice Harbor	
	Flow	Spill	Inflow	Outflow	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill
03/23/01	1.5	0.0	13.8	13.0	27.1	0.0	29.3	0.0	29.8	0.0	29.8	0.0	29.8	0.0
03/24/01	1.5	0.0	13.2	8.9	28.8	0.0	30.4	0.0	31.6	0.0	32.2	0.0	32.2	0.0
03/25/01	1.5	0.0	13.1	8.9	27.4	0.0	27.9	0.0	28.4	0.0	26.7	0.0	26.7	0.0
03/26/01	1.5	0.0	15.2	15.5	38.6	0.0	37.8	0.0	38.9	0.0	40.2	0.0	40.2	0.0
03/27/01	1.5	0.0	15.9	17.4	44.2	0.0	48.5	0.0	52.9	0.0	50.2	0.0	50.2	0.0
03/28/01	1.5	0.0	13.2	17.8	41.5	0.0	43.2	0.0	43.7	0.0	43.1	0.0	43.1	0.0
03/29/01	1.5	0.0	13.5	18.6	39.3	0.0	43.0	0.0	45.7	0.0	47.9	0.0	47.9	0.0
03/30/01	1.5	0.0	13.6	17.9	44.1	0.0	46.4	0.0	52.5	0.0	51.1	0.0	51.1	0.0
03/31/01	1.5	0.0	13.6	16.7	40.2	0.0	43.0	0.0	43.0	0.0	41.9	0.0	41.9	0.0
04/01/01	1.5	0.0	11.5	9.0	32.2	0.0	25.0	0.0	25.2	0.0	24.7	0.0	24.7	0.0
04/02/01	1.4	0.0	13.6	14.7	37.1	0.0	39.6	0.0	41.9	0.0	40.8	0.0	40.8	0.0
04/03/01	1.5	0.0	12.9	14.5	37.6	0.0	42.0	0.0	44.3	0.0	45.5	0.0	45.5	0.0
04/04/01	1.4	0.0	12.9	13.3	35.2	0.0	37.9	0.0	40.7	0.0	40.0	0.0	40.0	0.0
04/05/01	1.4	0.0	---	---	35.9	0.0	40.8	0.0	43.5	0.0	42.7	0.0	42.7	0.0

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

Date	McNary		John Day		The Dalles		Bonneville		PH1	PH2
	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill		
03/23/01	119.3	0.0	134.2	0.0	137.6	0.0	148.5	0.0	26.3	113.0
03/24/01	94.5	0.0	89.6	0.0	89.2	0.0	100.4	0.0	3.0	88.2
03/25/01	92.0	0.0	88.9	0.0	89.6	0.0	100.3	0.0	0.8	90.3
03/26/01	106.5	0.0	117.2	0.0	117.8	0.0	122.7	0.0	15.4	98.1
03/27/01	123.2	0.0	133.7	0.0	134.5	0.0	137.9	0.0	30.8	97.9
03/28/01	115.5	0.0	109.6	0.0	112.5	0.0	124.7	0.0	18.7	96.8
03/29/01	116.0	0.0	128.2	0.0	126.1	0.0	138.1	0.0	26.5	102.4
03/30/01	123.6	0.0	136.9	0.0	138.7	0.0	147.1	0.0	29.5	108.4
03/31/01	110.2	0.0	107.9	0.0	107.6	0.0	122.5	0.0	12.9	100.4
04/01/01	89.0	0.0	94.9	0.0	95.3	0.0	111.3	0.0	4.4	97.7
04/02/01	114.4	0.0	116.6	0.0	116.7	0.0	121.2	0.0	15.3	96.7
04/03/01	112.0	0.0	124.8	0.0	126.0	0.0	134.5	0.0	24.3	101.0
04/04/01	120.0	0.0	117.5	0.0	120.3	0.0	132.1	0.0	21.6	101.3
04/05/01	106.6	0.0	122.1	0.0	113.9	0.0	119.3	0.0	14.8	95.3

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	Hungry H. Dnstr				Boundary				Grand Coulee				Grand C. Tlwr				Chief Joseph			
	24 h		12 h		#	24 h		12 h		#	24 h		12 h		#	24 h		12 h		#
	Avg	Avg	High	hr		Avg	Avg	High	hr		Avg	Avg	High	hr		Avg	Avg	High	hr	
3/23	---	---	---	0	103	104	104	24	103	103	104	23	103	104	105	23	104	104	104	24
3/24	---	---	---	0	103	104	105	24	104	105	106	23	104	105	105	23	104	105	105	24
3/25	---	---	---	0	103	103	104	24	104	104	105	23	104	105	106	23	105	105	105	24
3/26	---	---	---	0	103	104	104	24	103	104	104	23	103	104	106	23	104	104	104	23
3/27	---	---	---	0	103	104	105	24	103	104	104	23	103	103	104	23	104	105	105	24
3/28	---	---	---	0	103	104	104	20	103	104	104	23	103	104	105	23	104	105	105	24
3/29	---	---	---	0	103	104	104	24	104	104	104	23	103	104	105	23	105	105	105	24
3/30	---	---	---	0	103	104	105	24	104	104	107	23	105	106	108	19	105	105	109	24
3/31	---	---	---	0	103	104	104	24	104	104	105	23	107	107	109	18	105	105	106	21
4/1	---	---	---	0	103	104	105	23	105	105	106	24	108	108	109	7	105	105	106	23
4/2	---	---	---	0	104	106	106	24	105	105	106	24	108	108	109	17	105	106	106	23
4/3	---	---	---	0	103	104	104	24	104	104	105	24	107	107	108	20	104	105	105	23
4/4	---	---	---	0	103	104	104	24	104	105	106	24	106	106	108	15	104	105	105	23
4/5	---	---	---	0	104	105	105	24	105	105	106	24	108	108	109	22	105	106	106	23

Total Dissolved Gas Saturation Data at Mid Columbia River Sites

Date	Chief J. Dnstr				Wells				Wells Dwnstrm				Rocky Reach				Rocky R. Tlwr			
	24 h		12 h		#	24 h		12 h		#	24 h		12 h		#	24 h		12 h		#
	Avg	Avg	High	hr		Avg	Avg	High	hr		Avg	Avg	High	hr		Avg	Avg	High	hr	
3/23	105	107	107	24	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/24	106	107	107	24	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/25	106	107	108	24	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/26	106	106	107	24	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/27	106	107	107	24	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/28	106	106	107	22	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/29	106	107	108	24	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/30	105	106	106	24	104	105	105	20	104	105	105	20	---	---	---	0	---	---	---	0
3/31	105	105	107	21	106	106	107	13	106	106	107	13	---	---	---	0	---	---	---	0
4/1	106	107	108	23	107	107	109	19	106	107	108	19	---	---	---	0	---	---	---	0
4/2	105	106	107	23	106	106	107	23	106	106	107	23	---	---	---	0	---	---	---	0
4/3	105	105	105	23	105	105	105	21	105	105	105	21	---	---	---	0	---	---	---	0
4/4	104	105	106	23	104	105	105	22	104	105	105	22	---	---	---	0	---	---	---	0
4/5	105	106	107	23	106	106	107	21	105	106	106	21	---	---	---	0	---	---	---	0

Total Dissolved Gas Saturation at Mid Columbia River Sites

Date	Rock Island				Rock I. Tlwr				Wanapum				Wanapum Tlwr				Priest Rapids			
	24 h		12 h		#	24 h		12 h		#	24 h		12 h		#	24 h		12 h		#
	Avg	Avg	High	hr		Avg	Avg	High	hr		Avg	Avg	High	hr		Avg	Avg	High	hr	
3/23	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/24	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/25	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/26	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/27	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/28	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/29	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/30	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/31	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
4/1	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
4/2	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
4/3	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
4/4	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
4/5	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0

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

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

Date	Priest R. Dnstr			Pasco			Dworshak			Clrwtr-Peck			Anatone							
	24 h	12 h	#	24 h	12 h	#	24 h	12 h	#	24 h	12 h	#	24 h	12 h	#					
	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High					
3/23	---	---	---	0	---	---	---	0	106	107	108	24	102	103	105	24	103	104	105	24
3/24	---	---	---	0	---	---	---	0	106	107	108	24	102	103	104	24	103	104	105	24
3/25	---	---	---	0	---	---	---	0	106	106	107	24	101	101	102	24	102	102	103	24
3/26	---	---	---	0	103	103	104	11	104	105	107	24	101	101	102	24	101	102	103	24
3/27	---	---	---	0	103	104	105	24	105	106	107	24	102	103	103	24	102	103	104	23
3/28	---	---	---	0	103	104	104	24	106	106	107	24	102	102	103	24	102	103	104	24
3/29	---	---	---	0	103	104	104	23	106	107	109	24	102	102	103	24	102	103	104	24
3/30	---	---	---	0	103	104	105	24	106	106	107	24	---	---	---	0	102	103	103	24
3/31	---	---	---	0	104	104	105	22	106	106	107	22	101	101	102	22	102	102	103	22
4/1	---	---	---	0	103	104	105	23	106	106	107	23	102	102	103	23	102	103	104	21
4/2	---	---	---	0	104	104	105	24	105	106	106	24	101	101	102	24	101	102	102	24
4/3	---	---	---	0	102	103	103	24	105	106	107	24	101	102	102	24	102	103	104	24
4/4	---	---	---	0	103	104	105	24	105	106	107	24	101	102	103	24	102	103	105	24
4/5	---	---	---	0	105	106	106	24	106	108	109	24	102	104	105	24	103	104	106	24

Total Dissolved Gas Saturation Data at Snake River Sites

Date	Clrwtr-Lewiston			Lower Granite			L. Granite Tlwr			Little Goose			L. Goose Tlwr							
	24 h	12 h	#	24 h	12 h	#	24 h	12 h	#	24 h	12 h	#	24 h	12 h	#					
	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High					
3/23	102	105	106	24	104	105	106	24	104	104	104	24	105	106	107	24	105	105	105	24
3/24	103	105	106	24	104	104	105	24	104	104	105	24	106	108	109	24	105	105	106	24
3/25	101	102	103	24	103	104	104	24	103	103	104	24	105	105	106	24	104	104	105	24
3/26	101	102	103	24	102	102	102	24	102	102	103	24	103	104	104	24	103	103	103	24
3/27	101	103	104	24	103	104	104	24	102	103	103	24	103	104	105	24	103	103	104	24
3/28	102	103	104	24	103	103	103	24	103	103	104	24	104	104	104	24	103	103	103	24
3/29	102	103	104	24	102	103	103	24	102	103	103	24	103	104	104	24	103	103	103	24
3/30	102	103	104	24	101	101	101	24	101	101	102	24	103	103	103	24	102	102	103	24
3/31	101	102	103	22	102	102	102	22	101	102	102	22	103	104	104	22	102	103	103	22
4/1	102	104	105	23	102	103	103	24	102	102	103	24	103	103	104	24	102	103	103	24
4/2	101	101	102	24	102	103	103	24	102	103	103	24	103	103	104	24	103	103	103	24
4/3	101	102	104	24	101	101	101	24	101	101	102	24	102	102	102	24	101	102	102	24
4/4	101	103	105	24	100	100	101	24	100	100	101	24	101	101	101	24	101	101	102	24
4/5	103	105	107	24	101	103	103	24	101	102	102	24	101	102	102	24	101	101	102	24

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

Date	Lower Mon.			L. Mon. Tlwr			Ice Harbor			Ice Harbor Tlwr			McNary-Oregon							
	24 h	12 h	#	24 h	12 h	#	24 h	12 h	#	24 h	12 h	#	24 h	12 h	#					
	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High					
3/23	105	106	108	23	104	105	106	24	105	105	106	24	105	105	106	24	106	107	108	24
3/24	107	108	109	24	105	106	107	24	105	106	107	24	105	106	106	24	107	109	111	24
3/25	106	106	108	24	105	105	106	24	104	105	106	24	104	105	106	24	107	107	108	24
3/26	105	105	105	24	104	105	105	24	103	103	103	24	103	104	104	24	105	106	106	24
3/27	105	105	106	24	104	105	105	24	103	104	104	24	104	105	105	24	106	106	107	24
3/28	104	105	105	24	104	104	105	24	103	104	104	24	104	105	105	24	105	106	106	24
3/29	103	103	104	24	103	103	103	24	103	103	104	24	104	105	105	24	105	105	106	23
3/30	103	104	105	24	102	102	103	24	103	104	107	24	104	104	105	24	105	106	108	24
3/31	103	103	104	22	102	103	103	22	103	103	104	22	104	105	105	22	104	105	106	22
4/1	103	104	104	23	103	104	105	23	103	103	103	23	105	106	107	23	104	105	105	23
4/2	103	104	104	24	103	103	104	24	102	103	103	24	104	104	104	24	105	105	105	24
4/3	102	102	103	24	101	102	102	24	101	101	102	24	102	103	103	24	104	104	105	24
4/4	101	101	102	24	101	101	102	24	100	101	105	24	101	102	102	24	104	106	108	24
4/5	102	103	103	24	101	102	102	24	101	101	102	24	102	103	103	24	104	106	107	24

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

Total Dissolved Gas Saturation Data at Lower Columbia River Sites

Date	McNary-Wash			McNary Tlwr			John Day			John Day Tlwr			The Dalles							
	24 h Avg	12 h Avg	High	# hr	24 h Avg	12 h Avg	High	# hr	24h Avg	12h Avg	High	# hr	24h Avg	12h Avg	High	# hr				
3/23	107	108	108	24	106	107	107	24	---	---	---	0	99	99	99	2	---	---	---	0
3/24	108	109	110	24	107	108	108	24	---	---	---	0	---	---	---	0	---	---	---	0
3/25	107	107	108	24	107	107	108	24	---	---	---	0	---	---	---	0	---	---	---	0
3/26	105	105	105	24	105	106	106	24	---	---	---	0	99	99	100	8	---	---	---	0
3/27	105	106	106	24	105	106	106	24	105	105	106	10	105	105	105	12	---	---	---	0
3/28	105	105	106	24	105	106	106	24	105	105	106	24	105	106	107	24	104	104	105	13
3/29	104	105	105	23	104	104	104	23	105	105	105	24	104	105	106	24	103	104	104	24
3/30	105	107	108	24	103	104	104	24	104	105	105	24	104	104	104	24	103	103	104	24
3/31	106	106	107	22	104	104	105	22	105	105	106	21	105	105	106	22	104	105	106	21
4/1	105	105	105	23	104	104	104	23	105	105	106	23	105	106	106	23	104	105	105	23
4/2	104	104	105	24	104	104	105	24	105	105	106	23	104	105	106	24	104	104	104	23
4/3	104	104	104	24	103	104	104	24	104	104	104	23	103	104	106	24	102	102	103	23
4/4	104	104	104	24	103	103	103	24	103	104	106	23	102	103	104	24	102	102	103	23
4/5	105	106	106	24	104	104	105	24	104	105	107	23	103	104	105	24	103	104	105	23

Total Dissolved Gas Saturation Data at Lower Columbia River Sites

Date	The Dalles Dnst			Bonneville			Warrendale			Skamania			CamasWashugal							
	24 h Avg	12 h Avg	High	# hr	24 h Avg	12 h Avg	High	# hr	24h Avg	12h Avg	High	# hr	24h Avg	12h Avg	High	# hr	24h Avg	12h Avg	High	# hr
3/23	---	---	---	0	106	106	106	24	105	105	106	24	105	106	106	24	106	107	108	23
3/24	---	---	---	0	105	106	106	24	105	105	107	24	106	106	106	24	105	105	106	23
3/25	---	---	---	0	105	105	105	24	104	104	104	24	105	105	105	24	104	104	105	23
3/26	---	---	---	0	104	104	105	24	104	104	105	24	104	104	105	24	104	104	105	23
3/27	---	---	---	0	104	105	105	22	104	104	104	24	104	105	105	24	104	104	104	23
3/28	104	104	105	11	104	104	105	22	104	104	105	22	104	104	105	24	104	104	105	23
3/29	104	104	105	23	104	104	104	23	104	104	105	24	104	104	105	24	105	106	106	19
3/30	103	104	104	24	104	104	104	24	104	104	105	24	104	104	104	24	105	106	107	24
3/31	104	105	105	22	104	104	105	21	105	105	106	21	104	104	104	21	104	105	105	22
4/1	104	104	105	23	104	104	104	23	105	105	106	23	104	104	105	23	104	105	106	23
4/2	104	104	104	24	104	104	104	23	104	105	106	23	104	104	104	23	105	105	106	24
4/3	102	103	103	24	103	103	103	23	104	104	104	23	103	103	104	23	104	105	106	24
4/4	102	103	103	24	103	103	104	23	104	105	106	23	103	104	104	23	104	105	106	23
4/5	103	104	105	24	104	104	105	23	105	105	106	23	104	105	107	23	105	106	106	24

HATCHERY RELEASE SUMMARY LAST TWO WEEKS

From:		3/23/01	to	4/5/01					
Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
Colville Tribe	Winthrop	CH1	SP	2001	40,000	03-27-01	03-27-01	Okanogan R	Okanogan River
Colville Tribe Total					40,000				
IDFG	McCall	CH1	SU	2001	88,500	03-26-01	03-29-01	S Fk Salmon R	Salmon River
IDFG	McCall	CH1	SU	2001	1,077,900	03-26-01	03-29-01	S Fk Salmon R	Salmon River
IDFG	Niagara Springs	ST	SU	2001	550,000	03-26-01	04-07-01	Hells Canyon Dam	Snake River
IDFG	Rapid River	CH1	SP	2001	736,000	03-15-01	04-25-01	Rapid River H	Little Salmon River
IDFG Total					2,452,400				
Nez Perce Tribe	Clearwater	CH1	SP	2001	155,000	03-19-01	03-30-01	Lolo Cr	Clearwater Rvr M F
Nez Perce Tribe	Clearwater	CH1	SP	2001	155,000	03-19-01	03-30-01	Newsome Cr	S Fk Clearwater River
Nez Perce Tribe	Hagerman	ST	SU	2001	50,000	04-02-01	04-02-01	Hazard Cr/Little Salmon R	Little Salmon River
Nez Perce Tribe	Hagerman	ST	SU	2001	164,000	04-02-01	04-10-01	Little Salmon R	Salmon River
Nez Perce Tribe	Lookingglass	CH1	SP	2001	134,800	04-01-01	04-15-01	Lostine Accim Pd	Grande Ronde River
Nez Perce Tribe	Lookingglass	CH1	SP	2001	142,400	04-01-01	04-15-01	Catherine Cr Acclim Pd	Grande Ronde River
Nez Perce Tribe Total					801,200				
ODFW	Imnaha	CH1	SP	2001	123,000	03-21-01	04-19-01	Imnaha Acclim Pd	Imnaha River
ODFW	Lookingglass	CH1	SP	2001	2,500	04-01-01	04-15-01	Grande Ronde Acclim Pd	Grande Ronde River
ODFW	Round Butte	CH1	SP	2001	302,000	04-02-01	04-19-01	Bel. Pelton Dam	Deschutes River
ODFW	Round Butte	ST	SU	2001	169,000	04-02-01	04-09-01	Bel. Pelton Dam	Deschutes River
ODFW	Wallowa	ST	SU	2001	174,000	03-30-01	03-31-01	Wallowa Acclim Pd	Grande Ronde River
ODFW	Wallowa	ST	SU	2001	174,000	04-01-01	04-15-01	Wallowa Acclim Pd	Grande Ronde River
ODFW Total					944,500				
Umatilla Tribe	Umatilla	ST	SU	2001	53,000	04-03-01	04-04-01	Minthorn Acclim Pd	Umatilla River
Umatilla Tribe Total					53,000				
USFWS	Dworshak	CH1	SP	2001	333,000	03-28-01	03-28-01	Dworshak H	Clearwater Rvr M F
USFWS	Entiat	CH1	SP	2001	402,000	04-03-01	04-04-01	Entiat H	Entiat River
USFWS	Kooskia	CH1	SP	2001	81,600	03-27-01	03-27-01	Kooskia H	Clearwater Rvr M F
USFWS	Warm Springs	CH1	SP	2001	785,000	03-25-01	04-18-01	Warm Springs H	Warm Springs River
USFWS Total					1,601,600				

HATCHERY RELEASE SUMMARY LAST TWO WEEKS (CON'T)

WDFW	Lyons Ferry	CH1	FA	2001	450,000	04-02-01	04-13-01	Lyons Ferry H	Snake River
WDFW	Lyons Ferry	ST	SU	2001	40,000	04-02-01	04-30-01	Dayton Acclim Pd	Touchet River
WDFW	Lyons Ferry	ST	SU	2001	100,000	03-26-01	04-30-01	Dayton Acclim Pd	Touchet River
WDFW	Lyons Ferry	ST	SU	2001	200,000	03-26-01	04-30-01	Cottonwood Acclim Pd	Grande Ronde River
WDFW	Ringold Springs	ST	SU	2001	225,000	04-02-01	04-15-01	Ringold Springs H	Mid-Columbia River
WDFW	Tucannon	CH1	SP	2001	100,000	04-02-01	04-13-01	Curl Lake	Tucannon River
WDFW	Washougal	CO	SO	2001	2,800,000	04-02-01	04-12-01	Klickitat R	Klickitat River
WDFW	Wells	CH1	SU	2001	633,600	04-02-01	04-27-01	Similkameen Acclim Pd	Similkameen River
WDFW Total					4,548,600				
Yakima Tribe	Cle Elum	CH1	SP	2001	232,700	03-15-01	05-31-01	Clark Flat Acclim Pd	Yakama River
Yakima Tribe	Cle Elum	CH1	SP	2001	257,700	03-15-01	05-31-01	Jack Creek Acclim Pd	Yakama River
Yakima Tribe	Cle Elum	CH1	SP	2001	266,600	03-15-01	05-31-01	Easton Pd	Yakama River
Yakima Tribe Total					757,000				
Grand Total					11,198,300				

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

Hatchery Release Summary Next Two Weeks

From:		4/6/01		to		4/19/01			
Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
IDFG	Clearwater	CH1	SP	2001	84,654	04-13-01	04-13-01	Crooked R Acclim Pd	S Fk Clearwater River
IDFG	Clearwater	CH1	SP	2001	212,777	04-12-01	04-12-01	Powell Acclim Pd	Lochsa River
IDFG	Clearwater	ST	SU	2001	245,000	04-18-01	04-26-01	Crooked R Acclim Pd	S Fk Clearwater River
IDFG	Clearwater	ST	SU	2001	249,000	04-09-01	04-26-01	Red River Acclim Pd	S Fk Clearwater River
IDFG	Magic Valley	ST	SU	2001	50,000	04-16-01	05-11-01	E Fk Salmon R	Salmon River
IDFG	Magic Valley	ST	SU	2001	60,000	04-11-01	04-11-01	Lemhi R	Salmon River
IDFG	Magic Valley	ST	SU	2001	65,000	04-17-01	04-17-01	Salmon R Idaho	Salmon River
IDFG	Magic Valley	ST	SU	2001	80,000	04-09-01	04-10-01	Little Salmon R	Salmon River
IDFG	Magic Valley	ST	SU	2001	80,000	04-09-01	04-12-01	Squaw Cr Acclim Pd	Salmon River
IDFG	Magic Valley	ST	SU	2001	80,000	04-16-01	04-16-01	N Fk Salmon R	Salmon River
IDFG	Magic Valley	ST	SU	2001	100,000	04-16-01	05-11-01	Lemhi R	Salmon River
IDFG	Magic Valley	ST	SU	2001	100,000	04-16-01	05-11-01	Yankee Fk (Salmon R)	Salmon River
IDFG	Magic Valley	ST	SU	2001	115,000	04-12-01	04-24-01	Salmon R Idaho	Salmon River
IDFG	Magic Valley	ST	SU	2001	140,000	04-17-01	04-20-01	McNabb/Salmon R	Salmon River
IDFG	Magic Valley	ST	SU	2001	150,000	04-14-01	04-18-01	Shoup Br (Salmon R)	Salmon River
IDFG	Magic Valley	ST	SU	2001	180,000	04-16-01	05-11-01	Hammer Cr	Salmon River
IDFG	Magic Valley	ST	SU	2001	185,000	04-19-01	05-04-01	Squaw Cr Acclim Pd	Salmon River
IDFG	Magic Valley	ST	SU	2001	240,000	04-16-01	05-11-01	Lemhi R	Salmon River
IDFG	Magic Valley	ST	SU	2001	435,000	04-10-01	04-27-01	Little Salmon R	Salmon River
IDFG	Niagara Springs	ST	SU	2001	250,000	04-08-01	04-13-01	Little Salmon R	Salmon River
IDFG	Niagara Springs	ST	SU	2001	550,000	03-26-01	04-07-01	Hells Canyon Dam	Snake River
IDFG	Niagara Springs	ST	SU	2001	830,000	04-15-01	05-02-01	Pahsimeroi H	Pahsimeroi River
IDFG	Pahsimeroi	CH1	SP	2001	85,000	04-12-01	04-20-01	Pahsimeroi H	Pahsimeroi River
IDFG	Pahsimeroi	CH1	SP	2001	197,000	04-12-01	04-20-01	Pahsimeroi H	Pahsimeroi River
IDFG	Rapid River	CH1	SP	2001	736,000	03-15-01	04-25-01	Rapid River H	Little Salmon River
IDFG Total					5,499,431				
Nez Perce Tribe	Hagerman	ST	SU	2001	140,000	04-11-01	04-15-01	Yankee Fk (Salmon R)	Salmon River
Nez Perce Tribe	Hagerman	ST	SU	2001	164,000	04-02-01	04-10-01	Little Salmon R	Salmon River
Nez Perce Tribe	Lookingglass	CH1	SP	2001	134,800	04-01-01	04-15-01	Lostine Accim Pd	Grande Ronde River
Nez Perce Tribe	Lookingglass	CH1	SP	2001	142,400	04-01-01	04-15-01	Catherine Cr Acclim Pd	Grande Ronde River
Nez Perce Tribe	Lyons Ferry	CH1	FA	2001	111,000	04-09-01	04-13-01	Cpt John Acclim Pd	Snake River
Nez Perce Tribe	Lyons Ferry	CH1	FA	2001	113,000	04-09-01	04-13-01	Pittsburg Landing	Snake River
Nez Perce Tribe	Lyons Ferry	CH1	FA	2001	129,000	04-09-01	04-13-01	Big Canyon (Clearwater R)	Clearwater Rvr M F
Nez Perce Tribe Total					934,200				

Hatchery Release Summary Next Two Weeks (con't)

ODFW	Big Canyon	ST	SU	2001	87,000	04-06-01	04-07-01	Big Canyon Acclim.Pd	Grande Ronde River
ODFW	Big Canyon	ST	SU	2001	87,000	04-08-01	04-22-01	Big Canyon Acclim.Pd	Grande Ronde River
ODFW	Imnaha	CH1	SP	2001	123,000	03-21-01	04-19-01	Imnaha Acclim Pd	Imnaha River
ODFW	Irrigon	ST	SU	2001	100,000	04-16-01	04-18-01	Big Sheep Cr	Imnaha River
ODFW	Li Sheep	ST	SU	2001	155,000	04-12-01	04-13-01	L Sheep Acclim Pd	Imnaha River
ODFW	Lookingglass	CH1	SP	2001	2,500	04-01-01	04-15-01	Grande Ronde Acclim Pd	Grande Ronde River
ODFW	Round Butte	CH1	SP	2001	302,000	04-02-01	04-19-01	Bel. Pelton Dam	Deschutes River
ODFW	Round Butte	ST	SU	2001	169,000	04-02-01	04-09-01	Bel. Pelton Dam	Deschutes River
ODFW	Wallowa	ST	SU	2001	174,000	04-01-01	04-15-01	Wallowa Acclim Pd	Grande Ronde River
ODFW Total					1,199,500				
Umatilla Tribe	Bonneville	CH1	FA	2001	240,000	04-10-01	04-20-01	Thornhollow Acclim Pd	Umatilla River
Umatilla Tribe	Cascade	CO	UN	2001	750,000	04-10-01	04-20-01	Pendelton Acclim Pd	Umatilla River
Umatilla Tribe	L White Salmon	CH1	SP	2001	183,378	04-10-01	04-20-01	Imeques Acclim Pd	Umatilla River
Umatilla Tribe	Umatilla	ST	SU	2001	48,508	04-06-01	04-06-01	Bonifer Acclim Pd	Umatilla River
Umatilla Tribe Total					1,221,886				
USFWS	Dworshak	ST	SU	2001	300,000	04-16-01	04-20-01	Kooskia H	Clearwater Rvr M F
USFWS	Dworshak	ST	SU	2001	600,000	04-16-01	04-20-01	Redhouse (SFk ClearH2O R)	S Fk Clearwater River
USFWS	L White Salmon	CH1	SP	2001	1,100,000	04-19-01	04-19-01	Little White Salmon H	Little White Salmon River
USFWS	Leavenworth	CH1	SP	2001	1,695,000	04-18-01	04-18-01	Leavenworth H	Wenatchee River
USFWS	Spring Creek	CH0	FA	2001	5,250,000	04-19-01	04-19-01	Spring Creek H	L Col R (D/s McN Dam)
USFWS	Warm Springs	CH1	SP	2001	785,000	03-25-01	04-18-01	Warm Springs H	Warm Springs River
USFWS	Willard	CO	UN	2001	1,000,000	04-19-01	04-19-01	Willard H	Little White Salmon River
USFWS	Winthrop	CH1	SP	2001	177,000	04-11-01	04-20-01	Winthrop H	Methow River
USFWS	Winthrop	ST	SU	2001	99,000	04-11-01	05-20-01	Winthrop H	Methow River
USFWS Total					11,006,000				
Warm Spgs Tribe	Oak Springs	ST	SU	2001	15,000	04-12-01	04-12-01	Blackberry Acclim Pd	Hood River
Warm Spgs Tribe	Round Butte	CH1	SP	2001	31,400	04-09-01	04-24-01	Parkdale Acclim Pd	Hood River
Warm Spgs Tribe	Round Butte	CH1	SP	2001	40,000	04-09-01	04-23-01	Jones Creek Acclim Pd	Hood River
Warm Spgs Tribe	Round Butte	CH1	SP	2001	57,800	04-09-01	04-23-01	Blackberry Acclim Pd	Hood River
Warm Spgs Tribe Total					144,200				

Hatchery Release Summary Next Two Weeks (con't)

WDFW	Klickitat	CO	NO	2001	1,350,000	04-16-01	05-18-01	Klickitat H	Klickitat River
WDFW	Lyons Ferry	CH1	FA	2001	450,000	04-02-01	04-13-01	Lyons Ferry H	Snake River
WDFW	Lyons Ferry	ST	SU	2001	40,000	04-02-01	04-30-01	Dayton Acclim Pd	Touchet River
WDFW	Lyons Ferry	ST	SU	2001	60,000	04-16-01	04-27-01	Lyons Ferry H	Snake River
WDFW	Lyons Ferry	ST	SU	2001	60,000	04-16-01	04-30-01	Tucannon R	Tucannon River
WDFW	Lyons Ferry	ST	SU	2001	100,000	03-26-01	04-30-01	Dayton Acclim Pd	Touchet River
WDFW	Lyons Ferry	ST	SU	2001	125,000	04-16-01	04-30-01	Walla Walla R	Walla Walla River
WDFW	Lyons Ferry	ST	SU	2001	135,000	04-16-01	04-30-01	Tucannon R	Tucannon River
WDFW	Lyons Ferry	ST	SU	2001	200,000	03-26-01	04-30-01	Cottonwood Acclim Pd	Grande Ronde River
WDFW	Methow	CH1	SP	2001	66,500	04-16-01	05-07-01	Twisp R	Methow River
WDFW	Methow	CH1	SP	2001	180,000	04-16-01	04-27-01	Methow H	Methow River
WDFW	Ringold Springs	ST	SU	2001	225,000	04-02-01	04-15-01	Ringold Springs H	Mid-Columbia River
WDFW	Tucannon	CH1	SP	2001	100,000	04-02-01	04-13-01	Curl Lake	Tucannon River
WDFW	Turtle Rock	CH1	SU	2001	294,700	04-16-01	04-25-01	Turtle Rock H	Mid-Columbia River
WDFW	Washougal	CO	SO	2001	2,800,000	04-02-01	04-12-01	Klickitat R	Klickitat River
WDFW	Wells	CH1	SU	2001	430,000	04-16-01	05-07-01	Wells H	Mid-Columbia River
WDFW	Wells	CH1	SU	2001	633,600	04-02-01	04-27-01	Similkameen Acclim Pd	Similkameen River
WDFW	Wells	ST	SU	2001	50,000	04-18-01	04-30-01	Okanogan R	Okanogan River
WDFW	Wells	ST	SU	2001	50,000	04-18-01	05-04-01	Similkameen Acclim Pd	Okanogan River
WDFW	Wells	ST	SU	2001	116,000	04-18-01	05-11-01	Chewuch R	Methow River
WDFW	Wells	ST	SU	2001	116,000	04-18-01	05-11-01	Methow R	Methow River
WDFW	Wells	ST	SU	2001	116,000	04-18-01	05-11-01	Twisp R	Methow River
WDFW	Wells	ST	SU	2001	117,000	04-18-01	05-11-01	Methow R	Methow River
WDFW Total					7,814,800				
Yakima Tribe	Cle Elum	CH1	SP	2001	232,700	03-15-01	05-31-01	Clark Flat Acclim Pd	Yakama River
Yakima Tribe	Cle Elum	CH1	SP	2001	257,700	03-15-01	05-31-01	Jack Creek Acclim Pd	Yakama River
Yakima Tribe	Cle Elum	CH1	SP	2001	266,600	03-15-01	05-31-01	Easton Pd	Yakama River
Yakima Tribe Total					757,000				
Grand Total					28,577,017				

Two-Week Summary of Passage Indices

COMBINED YEARLING CHINOOK

Date	WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
	(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
03/23/2001 *	85	760	8	0	---	---	---	---	---	---	337
03/24/2001 *	---	574	---	---	---	---	---	---	---	---	231
03/25/2001	---	606	---	---	---	---	---	---	---	---	122
03/26/2001 *	226	0	3	0	60	---	---	---	---	---	211
03/27/2001	471	935	8	0	200	---	---	---	---	---	314
03/28/2001	297	1,000	36	1	280	---	---	---	---	---	224
03/29/2001	176	269	21	0	460	---	---	---	---	---	257
03/30/2001 *	536	191	23	0	530	---	---	---	---	80	299
03/31/2001	---	396	---	---	380	---	---	---	---	268	335
04/01/2001	---	1,358	---	---	400	---	---	3	---	112	217
04/02/2001 *	154	356	990	0	360	65	10	4	50	152	389
04/03/2001 *	821	1,464	1,035	0	780	160	70	2	112	236	413
04/04/2001	393	1,295	957	0	950	204	370	4	100	240	548
04/05/2001 *	618	957	318	0	690	245	970	6	156	188	528
04/06/2001	115	---	---	---	1,380	---	---	55	180	208	689
Total:	3,892	10,161	3,399	1	6,470	674	1,420	74	598	1,484	5,114
# Days:	11	14	10	10	12	4	4	6	5	8	15
Average:	354	726	340	0	539	169	355	12	120	186	341

COMBINED SUBYEARLING CHINOOK

Date	WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
	(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
03/23/2001 *	0	0	0	0	---	---	---	---	---	---	2,132
03/24/2001 *	---	0	---	---	---	---	---	---	---	---	2,076
03/25/2001	---	0	---	---	---	---	---	---	---	---	928
03/26/2001 *	0	0	0	0	0	---	---	---	---	---	614
03/27/2001	0	0	0	0	0	---	---	---	---	---	776
03/28/2001	1	0	0	0	0	---	---	---	---	---	982
03/29/2001	0	0	0	0	0	---	---	---	---	---	571
03/30/2001 *	0	0	0	0	0	---	---	---	---	0	546
03/31/2001	---	1	---	---	0	---	---	---	---	0	444
04/01/2001	---	0	---	---	0	---	---	19	---	0	382
04/02/2001 *	0	0	0	1	0	0	0	27	0	0	295
04/03/2001 *	0	0	0	0	0	0	0	15	20	0	392
04/04/2001	0	0	0	0	0	0	0	10	24	0	259
04/05/2001 *	0	0	0	0	0	0	0	0	48	0	311
04/06/2001	0	---	---	---	0	---	---	2	20	0	160
Total:	1	1	0	1	0	0	0	73	112	0	10,868
# Days:	11	14	10	10	12	4	4	6	5	8	15
Average:	0	0	0	0	0	0	0	12	22	0	725

*The total, #days and average do not include the current day's data. *See sampling comments. <http://www.fpc.org/current/daily/smpcomments.htm>. This means that one or more of the sites on this date had an incomplete or biased sample.

These data are preliminary and have been derived from various sources. For verification and/or origin of these data, contact the operators of the Fish Passage Data System at (503) 230-4099.

Smolt indices, clipped & unclipped or combined, are presented in the following order: yearling chinook (chinook 1's,) subyearling chinook (chinook 0's), steelhead, coho, and sockeye. Two classes of fish counts are shown in these tables: collection counts, which account for sample rates but are not adjusted for flow; and passage indices, which are collection counts divided by the proportion of water passing through the sampled powerhouse. Passage indices are not population estimates, but are used to adjust collection counts for daily fluctuations in the site's or project's operations. The classes of counts presented in the report are defined below for each site. Most samples occur over a 24-hr period that spans two calendar days. In this report, the date shown corresponds with the sample end date.

Two-Week Summary of Passage Indices

COMBINED COHO

Date	WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
	(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
03/23/2001 *	0	0	0	0	---	---	---	---	---	---	25
03/24/2001 *	---	0	---	---	---	---	---	---	---	---	12
03/25/2001	---	0	---	---	---	---	---	---	---	---	0
03/26/2001 *	0	0	0	0	0	---	---	---	---	---	0
03/27/2001	0	0	0	0	0	---	---	---	---	---	21
03/28/2001	0	0	0	0	0	---	---	---	---	---	16
03/29/2001	0	0	0	0	20	---	---	---	---	---	7
03/30/2001 *	0	0	0	2	0	---	---	---	---	0	7
03/31/2001	---	0	---	---	0	---	---	---	---	0	0
04/01/2001	---	0	---	---	10	---	---	0	---	0	7
04/02/2001 *	0	0	0	0	0	0	0	0	0	0	19
04/03/2001 *	0	0	0	0	0	0	0	0	0	0	14
04/04/2001	0	0	0	0	0	0	0	0	0	0	0
04/05/2001 *	0	0	0	0	0	0	0	0	0	0	0
04/06/2001	0	---	---	---	0	---	---	0	4	0	0
Total:	0	0	0	2	30	0	0	0	4	0	128
# Days:	11	14	10	10	12	4	4	6	5	8	15
Average:	0	0	0	0	3	0	0	0	1	0	9

COMBINED STEELHEAD

Date	WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
	(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
03/23/2001 *	0	21	2	0	---	---	---	---	---	---	0
03/24/2001 *	---	26	---	---	---	---	---	---	---	---	12
03/25/2001	---	16	---	---	---	---	---	---	---	---	0
03/26/2001 *	1	0	2	2	40	---	---	---	---	---	0
03/27/2001	0	17	3	0	60	---	---	---	---	---	21
03/28/2001	0	26	10	3	100	---	---	---	---	---	16
03/29/2001	0	14	1	2	120	---	---	---	---	---	21
03/30/2001 *	0	14	3	9	270	---	---	---	---	20	30
03/31/2001	---	3	---	---	180	---	---	---	---	116	23
04/01/2001	---	9	---	---	300	---	---	2	---	76	26
04/02/2001 *	0	4	1	2	310	20	20	1	10	24	50
04/03/2001 *	0	7	2	2	330	36	80	5	48	80	63
04/04/2001	0	2	13	1	460	96	50	0	108	100	74
04/05/2001 *	1	4	0	2	670	120	80	1	148	88	29
04/06/2001	0	---	---	---	550	---	---	2	160	100	42
Total:	2	163	37	23	3,390	272	230	11	474	604	407
# Days:	11	14	10	10	12	4	4	6	5	8	15
Average:	0	12	4	2	283	68	58	2	95	76	27

Two-Week Summary of Passage Indices

COMBINED SOCKEYE

Date	WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
	(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
03/23/2001 *	0	0	0	0	---	---	---	---	---	---	0
03/24/2001 *	---	0	---	---	---	---	---	---	---	---	0
03/25/2001	---	0	---	---	---	---	---	---	---	---	0
03/26/2001 *	0	0	0	0	20	---	---	---	---	---	0
03/27/2001	0	0	0	0	10	---	---	---	---	---	14
03/28/2001	0	0	0	0	10	---	---	---	---	---	0
03/29/2001	0	0	0	0	10	---	---	---	---	---	0
03/30/2001 *	0	0	0	0	30	---	---	---	---	0	0
03/31/2001	---	0	---	---	0	---	---	---	---	8	0
04/01/2001	---	0	---	---	10	---	---	0	---	0	0
04/02/2001 *	0	0	0	0	0	0	0	0	0	0	6
04/03/2001 *	0	0	0	0	30	9	0	0	0	0	0
04/04/2001	0	0	0	0	20	8	0	0	0	0	0
04/05/2001 *	0	0	0	0	30	4	0	0	4	8	0
04/06/2001	0	---	---	---	0	---	---	0	12	0	14
Total:	0	0	0	0	170	21	0	0	16	16	34
# Days:	11	14	10	10	12	4	4	6	5	8	15
Average:	0	0	0	0	14	5	0	0	3	2	2

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 04/05

DAM	Spring Chinook						Summer Chinook						Fall Chinook					
	2001		2000		10-Yr Avg.		2001		2000		10-Yr Avg.		2001		2000		10-Yr Avg.	
	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack
BON	41,737	49	11,664	72	2,859	13	0	0	0	0	0	0	0	0	0	0	0	0
TDA	8,898	12	2,713	38	678	5	0	0	0	0	0	0	0	0	0	0	0	0
JDA	6,306	2	706	1	181	1	0	0	0	0	0	0	0	0	0	0	0	0
MCN	1,623	0	160	1	71	1	0	0	0	0	0	0	0	0	0	0	0	0
IHR	603	31	12	1	11	0	0	0	0	0	0	0	0	0	0	0	0	0
LMN	332	3	9	2	8	0	0	0	0	0	0	0	0	0	0	0	0	0
LGS	178	5	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LWG	39	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0
PRD	---	---					---	---					---	---				
RIS	---	---					---	---					---	---				
RRH	---	---					---	---					---	---				
WEL	---	---					---	---					---	---				

DAM	Coho						Sockeye			Steelhead			
	2001		2000		10-Yr Avg.		10-Yr			10-Yr			Wild
	Adult	Jack	Adult	Jack	Adult	Jack	2001	2000	Avg.	2001	2000	Avg.	2001
BON	0	0	0	0	0	0	0	0	0	1,406	1,006	916	457
TDA	0	0	0	0	0	0	0	0	0	222	164	263	72
JDA	0	0	0	0	0	0	0	0	0	930	784	604	151
MCN	0	0	0	0	0	0	0	0	0	444	165	493	191
IHR	0	0	0	0	0	0	0	0	0	444	198	637	69
LMN	0	0	0	0	0	0	0	0	0	545	245	643	174
LGS	0	0	0	0	0	0	0	0	0	604	199	194	229
LWG	0	0	0	0	0	0	0	0	0	3,745	1,694	3,010	621
PRD	---	---					---			---			---
RIS	---	---					---			---			---
RRH	---	---					---			---			---
WEL	---	---					---			---			---

These numbers were collected from the COE's Running Sums text files.

Wild steelhead numbers are included in the total.

***PRD is not reporting Wild Steelhead numbers.

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.

Two Week Transportation Summary

03/24/01 TO 04/06/01

		Species					
Site	Data	CH0	CH1	CO	SO	ST	Grand Total
LGR	Sum of NumberCollected		6,470	30	170	3,390	10,060
	Sum of NumberBarged		0	0	0	0	0
	Sum of NumberBypassed		0	0	0	0	0
	Sum of Numbertrucked		6,433	30	167	3,386	10,016
	Sum of TotalProjectMortalities		37	0	3	4	44
LGS	Sum of NumberCollected		674		21	272	967
	Sum of NumberBarged		0		0	0	0
	Sum of NumberBypassed		0		0	0	0
	Sum of Numbertrucked		428		16	152	596
	Sum of TotalProjectMortalities		2		1	0	3
LMN	Sum of NumberCollected		1,420			230	1,650
	Sum of NumberBarged		0			0	0
	Sum of NumberBypassed		0			0	0
	Sum of Numbertrucked		450			150	600
	Sum of TotalProjectMortalities		0			0	0
MCN	Sum of NumberCollected	112	598	4	16	474	1,204
	Sum of NumberBarged	0	0	0	0	0	0
	Sum of NumberBypassed	111	596	4	16	474	1,201
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of TotalProjectMortalities	1	2	0	0	0	3
Total Sum of NumberCollected		112	9,162	34	207	4,366	13,881
Total Sum of NumberBarged		0	0	0	0	0	0
Total Sum of NumberBypassed		111	596	4	16	474	1,201
Total Sum of Numbertrucked		0	7,311	30	183	3,688	11,212
Total Sum of TotalProjectMortalities		1	41	0	4	4	50

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YTD Transportation Summary

TO: 04/06/01

		Species						
Site	Data	CH0	CH1	CO	SO	ST	Grand Total	
LGR	Sum of NumberCollected		6,470		30	170	3,390	10,060
	Sum of NumberBarged		0		0	0	0	0
	Sum of NumberBypassed		0		0	0	0	0
	Sum of NumberTrucked		6,433		30	167	3,386	10,016
	Sum of TotalProjectMortalities		37		0	3	4	44
LGS	Sum of NumberCollected		674			21	272	967
	Sum of NumberBarged		0			0	0	0
	Sum of NumberBypassed		0			0	0	0
	Sum of NumberTrucked		428			16	152	596
	Sum of TotalProjectMortalities		2			1	0	3
LMN	Sum of NumberCollected		1,420				230	1,650
	Sum of NumberBarged		0				0	0
	Sum of NumberBypassed		0				0	0
	Sum of NumberTrucked		450				150	600
	Sum of TotalProjectMortalities		0				0	0
MCN	Sum of NumberCollected	112	598		4	16	474	1,204
	Sum of NumberBarged	0	0		0	0	0	0
	Sum of NumberBypassed	111	596		4	16	474	1,201
	Sum of NumberTrucked	0	0		0	0	0	0
	Sum of TotalProjectMortalities	1	2		0	0	0	3
Total Sum of NumberCollected		112	9,162		34	207	4,366	13,881
Total Sum of NumberBarged		0	0		0	0	0	0
Total Sum of NumberBypassed		111	596		4	16	474	1,201
Total Sum of NumberTrucked		0	7,311		30	183	3,688	11,212
Total Sum of TotalProjectMortalities		1	41		0	4	4	50

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