



Fish Passage Center

Weekly Report #01 - 11

May 25, 2001

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SIGNIFICANT POINTS

The FPC assessment of the current status of the juvenile migration:

- Travel time and passage index data indicate that the present hydrosystem operations, load following, elimination of spill for fish passage at most projects, and low flows are having a significant detrimental impact on the juvenile spring migration of yearling chinook salmon and steelhead.
- Travel time of PIT tagged yearling chinook and steelhead through the lower Columbia River from McNary Dam to Bonneville Dam in 2001 is about two times longer than it was in 2000.
- The fastest fish travel times in 2001 from trap sites to Lower Granite Dam are 20% to 231% longer than fastest fish travel times in 2000.
- Weekly average travel times from trap sites to Lower Granite Dam are 6% to 175% longer in 2001 when compared with 2000.
- Passage indices of yearling chinook and steelhead at Rock Island Dam are significantly lower than previous years' relative to upstream hatchery releases
- Comparable Mid Columbia hatchery releases from Winthrop and Leavenworth hatcheries are not arriving at McNary Dam in expected numbers.
- Wild and hatchery fish from the Snake, Mid Columbia and lower Columbia tributaries continue to pass Bonneville Dam.
- A significant mortality has been sustained by Hanford Reach fall chinook due to stranding from project operations and flow fluctuations.

SUMMARY OF EVENTS:

Reservoir Operations: System reservoirs are being operated for refill and power generation. The system continues to be operated for power emergency needs and will not refill by the end of June as required by the 2000 Biological Opinion. A summary of the actual elevation change over the past week and full pool elevations are shown in the following Table:

Reservoir	Actual Elev. From May 17 - 24, 2001 [ft]	Maximum Reservoir pool [ft]
<i>Libby</i>	2394.89 – 2398.52	2459
<i>Hungry Horse</i>	3507.97 - 3514.84	3560
<i>Grand Coulee</i>	1247.70 – 1259.10	1290
<i>Brownlee*</i>	2076.0 – 2076.4	2077
<i>Dworshak</i>	1556.69 – 1565.4	1600

**as of May 23*

Albeni Falls: Albeni Falls reservoir refilled from elevation 2055.4 on May 17 to 2056.8 on May 24.

Flows: The system wide emphases on refill has resulted in flows far below the Biological Opinion flow targets for the spring migration in the Columbia and Snake Rivers. At Lower Granite flows declined steadily throughout the week from a daily average of 81 kcfs on May 18 to 64 kcfs on May 24. At Priest Rapids daily average flows were 47.5 kcfs on May 18 to 64.2 kcfs on May 24. At McNary Dam daily average flows fluctuated between 111.3 kcfs on May 21, to a high daily average flow of 154.7 kcfs on May 23. Daily average flows at Bonneville Dam also fluctuated through the past week. The low daily average flow, 142 kcfs, occurred on May 22, the high daily average flow, 180 kcfs, occurred on May 18.

The 1995 Biological Opinion spring flow target is 85 Kcfs at Lower Granite beginning April

10. Actual weekly average flow for the past week at Lower Granite was, 67.8 kcfs. The 1995 Biological Opinion spring flow target at McNary is 220 kcfs, beginning April 20. The average flow for the past week at McNary Dam was 136.0 kcfs, far below the Biological Opinion flow target for spring migrants. The weekly average flow over the past week at Priest Rapids Dam was 67.4 kcfs. The spring flow target at Priest Rapids Dam is 135 kcfs for spring migrants.

Spill: A Lower Columbia River limited spill program was implemented beginning at 1800 hours on May 16, 2001. The total impact of the spill program is to be 300 MW and includes spill at The Dalles and Bonneville dams. The spill program is expected to last up to three weeks.

Spill at The Dalles has been adjusted from the 30% instantaneous level to accommodate a test of a constant spill level during daytime hours. Spill at The Dalles dam averaged 31 % of daily average flow over the past week. Spill at Bonneville Dam has equaled an instantaneous level of 50 Kcfs per hour over each 24-hour period. Bonneville spill was stopped from 0830 to 1200 hours on May 24, 2001 in an effort to reduce TDG levels downstream of the project at the Camas/Washougal monitor. The 50 Kcfs spill level was to have resumed at 1200 on May 24, but did not resume until 1600.

On May 19th a fish barge loaded at Lower Granite Dam with approximately 357,000 fish did not complete its trip to below Bonneville Dam. The fish were released above Ice Harbor Dam and 6 hours of 40 Kcfs spill was provided at Ice Harbor on May 19th to facilitate project passage.

The FERC fish spill program continues at the Mid Columbia projects. Total dissolved gas readings at most monitors are reading in excess of 100%, but less than the waiver limits. Fish with bubbles in their lateral line have been sampled at both McNary and Rock Island dams.

Smolt Monitoring: Mostly steelhead were being collected this week at traps on the lower Salmon (WTB), Imnaha (IMN), and mainstem Snake (LEW) rivers, while few smolts of any kind were collected at the lower Grande Ronde River trap (GRN). Since the recent peaks in yearling chinook and steelhead passage at Lower Granite Dam on May 15 and 16, collections of both yearling chinook and steelhead have dropped rapidly, ending this week at less than 90% of the recent peak level. From May 22 to 24, the smolt passage indices of all springtime migrants, yearling chinook, steelhead, coho, and sockeye, have increased substantially at Rock Island Dam. From the start of this week to the last day, Rock Island Dam passage indices have increased nearly 7-fold for yearling chinook, 10-fold for coho, 9-fold for steelhead, and 40-fold for sockeye. By the latter part of this week, the daily collections of all smolts were beginning to increase at McNary Dam; however, the numbers being collected still remain much lower than expected apparently as a result of the slow migration out of the mid-Columbia basin. Increases in coho passage was observed this week at John Day and Bonneville dams, while passage of yearling chinook and steelhead continue at fairly steady paces. PIT tag data have shown that travel times from McNary Dam to Bonneville Dam for yearling chinook and steelhead are running about two times longer in 2001 compared to last year, as a result of this year's very low flows in the lower Columbia River.

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 began counting on April 15 at Priest Rapids, Rock Island, and Rocky Reach dams, with Wells Dam initiating counting on May 1. The Fish Passage Center Weekly Report will list in a Table; the adult fish counts for the week with the previous year (2000) and the 10-year averages 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 averaged 2,175 per day for the week with the daily peak count of 3,061 on May 24. The total count of adult spring chinook is now 376,089 through May 24 and compares with 173,392 in 2000 and 68,251 for the 10-year average. The 2001 count is about 2.2 times and 5.5 times greater than the respective 2000 and 10-year average. At The Dalles Dam, 285,224 adult salmon have been counted through May 24 (approx. 75.8% of the Bonneville count). The McNary Dam count through May 24 is 233,009, with 147,673 adult spring chinook (Ice Harbor Count) continuing up the Snake River and 47,025 counted at Priest Rapids Dam. Adult spring chinook passage at Prosser Dam (Yakama River) is now nearly 19,000 to date with the missing count days estimated. Counts from Ice Harbor, Priest Rapids, and Prosser account for about 91% of the adult spring chinook salmon that have passed McNary Dam (excluding Ringold Hatchery returns). Up the Mid-Columbia River, about 35,000 adult spring chinook have passed Rock Island Dam, with 14,100 passing Rocky Reach Dam through May 22. At Wells Dam, 8,525 adult spring chinook were counted through May 23. At the upper Snake River project, more than 138,000 adult spring chinook have been tallied through 5/22. The jack chinook count at Bonneville Dam totals 12,700 for this season, with the counts ranging between 272 and 373 for the week. The jack count (12,721) was about 3 times greater than the 10-year average and about 65% of the record 2000 jack spring chinook count. These high jack chinook returns

should again give promise for excellent adult returns in 2002 to most of the river basins; however, the jack returns drop off rapidly between some dams (See adult table).

Steelhead passage finally began increasing at Bonneville Dam with counts ranging between 64 and 168/day through the week with the total through May 24 of 5,019. Numbers also were slowly increasing at The Dalles with other projects still at reduced rates at all other projects.

No sockeye have been counted to date at Bonneville Dam.

Hatchery Releases – See the Hatchery Release Summary for the previous two-week and next two week projected releases for the Columbia River Basin above Bonneville Dam.

Snake River – Release of yearling chinook is completed for this 2001 migration season. Approximately 4.16 million spring and summer chinook were released this year and include a small number released last fall. Hatchery release of yearling fall chinook is also completed for the season, with approximately 450,000 yearling fall chinook released directly from Lyons Ferry Hatchery and 343,000 released from the Acclimation Ponds at Captain Johns, Pittsburg Landing (Snake River) and Big Canyon (Clearwater River). About 580,000 coho were released into the Clearwater River basin. Most steelhead releases are in river with only the final volitional releases remaining. About 9.83 million juvenile steelhead will be released in the Snake River basin for the 2001 migration season. A small number of yearling sockeye salmon were released into Redfish Lake Creek during the spring season. The next large release groups in the Snake River basin will be the subyearling fall chinook from Lyons Ferry Hatchery and the Snake and Clearwater Acclimation Ponds.

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. All other yearling spring chinook have been released. Approximately 3.3 million yearling spring chinook will be released in the mid-Columbia River Zone for the 2001 migration season. About 241,000 sockeye salmon were released into Lake Wenatchee

from net pens and into Lake Osoyoos (direct releases) during the 2000 fall prior to the 2001 migration. Release of yearling summer chinook has been completed for this season with subyearling summer chinook scheduled for release in June. About 4.3 million summer chinook are scheduled for release in the mid-Columbia Reach. Hatchery steelhead releases are completed for the season with a nearly normal (1.34 million) release for this Reach. The Wenatchee, Entiat, Methow, Okanogan and main Columbia (Ringold Hatchery release) rivers were planted with the "endangered" status steelhead from WDFW and USFWS hatcheries. Steelhead from Lyons Ferry Hatchery were released into the Walla Walla River basin, but are not considered part of the listed steelhead. The estimated coho release is slated to be 2.1 million for the season. Coho have been released into the Methow, Wenatchee, and Yakama rivers, with additional releases still to come from the Yakama River basin. Subyearling fall chinook releases will be primarily from the lower section of the Reach, i.e., Priest Rapids, Ringold, and Yakama Rivers. The estimated release of 12.2 million subyearling fall chinook is nearly equal to the year 2000 production and close to the previous seven years' annual production.

Lower Columbia [McNary Dam to above Bonneville Dam]— Yearling spring chinook from State, Federal, and Tribal facilities are completed for the year. Spring chinook have been released in the Umatilla, Klickitat, Deschutes, Hood, Wind, and Little White Salmon rivers to date. The estimated total of hatchery spring chinook is 5.9 million in this river zone; about 500,000 subyearling spring chinook have been released into the White Salmon River and another 160,000 into the upper Klickitat River. About 10.6 million subyearling fall chinook were released from Spring Creek National Fish Hatchery this season. Yearling releases of "bright" fall chinook were made in March and April in the Umatilla River; the remaining fall chinook release groups will be subyearling fish liberated in late May and June. Normal production of subyearling fall chinook generally ranges between 8 and 10 million annually. All coho salmon have been released in the Umatilla River, Little White

Salmon River, and Klickitat River basins for the 2001 migration. About 6.6 million coho salmon were released in this reach for the 2001 season. Steelhead were released in the Umatilla, Little White Salmon, Klickitat, and Hood River basins from late April through May.

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
05/11/01	55.9	0.0	55.9	0.0	58.7	5.2	58.2	0.0	63.9	12.5	75.3	32.4	65.8	40.0
05/12/01	22.7	0.0	26.3	0.0	29.5	2.9	28.6	0.0	33.8	5.6	60.3	26.0	51.5	31.5
05/13/01	20.9	0.0	25.8	0.0	32.0	2.9	32.1	0.0	39.0	7.8	42.8	18.4	38.6	23.4
05/14/01	43.5	0.0	45.8	0.0	52.1	4.7	51.3	0.0	59.6	11.6	57.9	24.9	41.8	25.4
05/15/01	30.8	0.0	31.9	0.0	37.1	3.4	35.4	0.0	43.0	7.2	52.2	22.5	53.0	32.4
05/16/01	28.0	0.0	23.2	0.0	35.5	3.4	37.3	0.0	45.2	9.1	56.3	24.2	42.5	25.9
05/17/01	39.6	0.0	39.4	0.0	43.6	4.0	43.1	0.0	50.5	10.8	61.5	26.4	54.4	33.0
05/18/01	27.9	0.0	28.7	0.0	34.0	3.0	34.7	0.0	40.3	8.0	45.7	19.4	47.5	29.1
05/19/01	30.7	0.0	30.9	0.0	38.0	3.7	38.2	0.0	43.9	8.7	58.4	25.1	47.2	29.2
05/20/01	23.1	0.0	26.2	0.0	32.0	3.3	32.6	0.0	37.2	7.2	50.9	21.9	40.0	24.4
05/21/01	65.8	0.0	67.2	0.0	71.0	5.1	70.1	0.0	76.7	15.0	76.6	32.8	62.4	38.3
05/22/01	69.9	0.0	72.6	0.0	77.7	5.9	81.2	0.0	88.1	16.7	112.3	48.3	107.0	65.5
05/23/01	70.7	0.0	69.6	0.0	73.4	5.6	72.9	0.0	82.6	15.8	94.7	40.7	77.0	47.0
05/24/01	56.9	0.0	64.1	0.0	74.3	5.9	75.6	0.0	87.8	17.5	104.2	44.9	91.2	56.2

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

Date	Dworshak		Brownlee Canyon		Lower Granite		Little Goose		Lower Monumental		Ice Harbor	
	Flow	Spill	Inflow	Outflow	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill
05/11/01	1.6	0.0	9.6	10.9	55.8	0.0	57.9	0.0	60.8	0.0	60.1	0.0
05/12/01	1.6	0.0	9.8	8.6	55.6	0.0	56.1	0.0	57.8	0.0	56.2	0.0
05/13/01	1.6	0.0	9.5	8.6	61.9	0.0	61.1	0.0	62.0	0.0	59.4	0.0
05/14/01	1.6	0.0	11.0	11.0	70.9	0.0	72.6	0.0	77.4	0.0	77.4	0.0
05/15/01	1.6	0.0	13.4	12.2	80.5	0.0	80.0	0.0	81.4	0.0	74.9	0.0
05/16/01	1.6	0.0	15.2	15.9	91.3	0.0	91.5	0.0	94.6	0.0	91.8	0.0
05/17/01	1.5	0.0	15.9	19.7	88.3	0.0	89.8	0.0	93.5	0.0	90.9	0.0
05/18/01	1.4	0.0	15.6	19.2	81.9	0.0	83.1	0.0	91.0	0.0	92.1	0.0
05/19/01	1.4	0.0	15.9	19.4	75.3	0.0	76.8	0.0	83.3	0.0	84.7	9.8
05/20/01	1.5	0.0	14.8	13.4	68.3	0.0	68.8	0.0	72.7	0.0	72.5	0.0
05/21/01	1.4	0.0	14.4	13.8	62.8	0.0	63.4	0.0	66.8	0.0	65.5	0.0
05/22/01	1.4	0.0	13.8	13.8	60.0	0.0	58.7	0.0	61.5	0.0	61.0	0.0
05/23/01	1.4	0.0	12.0	14.1	62.4	0.0	64.6	0.0	67.1	0.0	64.0	0.0
05/24/01	---	---	---	---	64.2	0.0	63.3	0.0	67.6	0.0	67.0	0.0

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

Date	McNary		John Day		The Dalles		Bonneville			
	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	PH1	PH2
05/11/01	110.3	0.0	118.4	0.0	117.6	0.0	111.9	0.0	7.2	96.4
05/12/01	117.5	0.0	114.9	0.0	115.6	0.0	120.0	0.0	2.9	108.7
05/13/01	103.8	0.0	99.9	0.0	100.9	0.0	111.6	0.0	2.6	100.5
05/14/01	116.0	0.0	117.6	0.0	116.5	0.0	122.1	0.0	4.2	109.6
05/15/01	126.4	0.0	127.5	0.0	128.9	0.0	133.2	0.0	13.0	111.9
05/16/01	142.0	0.0	141.1	0.0	140.8	13.0	158.6	12.6	15.7	122.1
05/17/01	147.1	0.0	171.2	0.0	169.4	50.7	175.4	49.6	2.8	116.4
05/18/01	150.6	0.0	162.4	0.0	161.2	46.5	180.4	49.8	5.8	118.1
05/19/01	128.1	0.0	117.8	0.0	118.0	35.4	138.1	49.6	0.6	81.3
05/20/01	108.9	0.0	120.7	0.0	116.3	34.9	125.8	49.5	0.6	69.1
05/21/01	111.3	0.0	123.7	0.0	128.9	38.2	144.8	49.6	0.5	88.0
05/22/01	144.9	0.0	144.0	0.0	140.3	47.8	142.0	48.8	0.5	86.0
05/23/01	154.7	0.0	161.6	0.0	156.2	53.0	170.1	49.3	2.0	112.2
05/24/01	153.9	0.0	157.7	0.0	154.8	46.6	166.3	35.6	13.6	109.6

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													
	05/15/01	Yearling Chinook	19	0	0	0.00%	0.00%	0	0	0	0	0	0
	05/15/01	Steelhead	81	0	0	0.00%	0.00%	0	0	0	0	0	0
	05/22/01	Yearling Chinook	20	0	0	0.00%	0.00%	0	0	0	0	0	0
	05/22/01	Steelhead	80	0	0	0.00%	0.00%	0	0	0	0	0	0
Little Goose Dam													
	05/16/01	Yearling Chinook	59	0	0	0.00%	0.00%	0	0	0	0	0	0
	05/16/01	Steelhead	41	0	0	0.00%	0.00%	0	0	0	0	0	0
	05/23/01	Yearling Chinook	25	0	0	0.00%	0.00%	0	0	0	0	0	0
	05/23/01	Steelhead	75	0	0	0.00%	0.00%	0	0	0	0	0	0
Lower Monumental Dam													
	05/21/01	Yearling Chinook	47	0	0	0.00%	0.00%	0	0	0	0	0	0
	05/21/01	Steelhead	53	0	0	0.00%	0.00%	0	0	0	0	0	0
McNary Dam													
	05/17/01	Yearling Chinook	73	1	0	0.00%	0.00%	0	0	0	0	1	1
	05/17/01	Steelhead	27	1	0	0.00%	0.00%	0	0	0	0	1	1
	05/21/01	Yearling Chinook	55	0	0	0.00%	0.00%	0	0	0	0	0	0
	05/21/01	Steelhead	45	2	0	0.00%	0.00%	0	0	0	0	2	1
	05/24/01	Subyearling Chinook	2	0	0	0.00%	0.00%	0	0	0	0	0	0
	05/24/01	Yearling Chinook	88	2	0	0.00%	0.00%	0	0	0	0	2	1
Bonneville Dam													
	05/22/01	Steelhead	5	0	0	0.00%	0.00%	0	0	0	0	0	0
Rock Island Dam													
	05/17/01	Yearling Chinook	27	0	0	0.00%	0.00%	0	0	0	0	0	0
	05/17/01	Steelhead	73	0	0	0.00%	0.00%	0	0	0	0	0	0
	05/24/01	Yearling Chinook	50	2	0	0.00%	0.00%	0	0	0	0	2	1
	05/24/01	Steelhead	50	2	0	0.00%	0.00%	0	0	0	0	2	1

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. Dnst				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	
5/11	109	110	111	24	106	107	107	24	107	108	108	24	105	106	107	24	108	109	109	24
5/12	109	110	111	24	107	108	108	24	109	109	110	22	107	108	110	16	109	110	111	24
5/13	109	110	111	23	107	107	108	24	107	108	109	24	108	108	109	19	109	109	110	23
5/14	108	109	109	22	112	113	113	24	107	107	109	20	107	108	108	21	108	108	108	23
5/15	108	108	109	23	111	113	114	24	107	108	109	24	106	107	109	24	108	108	109	23
5/16	108	108	108	24	111	112	114	24	106	107	109	24	106	107	108	24	107	107	108	23
5/17	108	109	110	24	110	112	115	24	106	107	107	23	105	106	107	22	107	108	111	23
5/18	108	108	108	23	111	112	113	24	106	107	107	24	105	106	107	24	107	108	108	24
5/19	108	108	109	24	109	111	114	24	106	107	108	24	106	107	107	24	108	108	109	23
5/20	108	109	110	24	110	112	114	24	104	104	105	24	105	106	107	21	108	109	110	23
5/21	108	109	110	24	109	111	113	24	105	105	107	24	104	105	106	24	108	109	110	23
5/22	107	109	111	24	112	114	115	24	107	107	108	24	105	106	106	24	108	109	109	23
5/23	104	105	107	24	111	113	114	24	106	107	108	24	105	106	107	24	108	108	109	23
5/24	104	105	106	24	113	114	116	24	106	106	107	24	105	106	107	24	108	109	109	23

Total Dissolved Gas Saturation Data at Mid Columbia River Sites

Date	Chief J. Dnst				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	
5/11	108	108	109	24	108	109	110	19	110	110	111	19	110	111	111	22	110	110	111	19
5/12	109	110	111	24	110	111	111	17	111	112	112	17	111	112	112	23	111	111	111	22
5/13	108	109	109	23	110	110	111	21	111	111	112	21	111	111	111	23	111	111	111	22
5/14	109	109	110	23	110	110	110	20	111	111	112	20	112	112	112	22	111	112	112	22
5/15	108	109	110	23	109	109	109	20	110	111	111	20	112	112	112	24	112	112	112	21
5/16	107	108	108	23	107	107	108	20	109	109	109	20	111	111	112	21	111	111	112	20
5/17	107	108	111	23	106	106	107	21	107	108	109	21	110	110	111	21	110	111	111	20
5/18	106	107	108	24	106	106	106	17	108	108	109	17	109	109	110	24	109	109	109	22
5/19	107	107	108	23	106	107	107	19	107	107	108	19	109	109	109	6	108	108	108	6
5/20	107	108	108	23	107	107	108	19	108	108	109	19	---	---	---	0	---	---	---	0
5/21	107	108	109	23	108	108	109	22	109	110	110	22	108	108	109	7	108	108	108	6
5/22	108	108	109	23	109	110	111	24	110	111	112	24	108	109	109	22	108	109	109	21
5/23	108	108	109	23	110	111	113	22	111	112	112	22	111	111	111	11	111	111	111	11
5/24	108	109	109	23	110	110	111	22	111	112	112	22	110	110	111	24	111	111	111	23

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	
5/11	106	106	107	20	118	118	119	19	116	118	121	24	112	113	114	24	113	114	117	24
5/12	106	106	107	23	119	119	120	22	119	119	121	24	113	114	114	24	116	118	120	24
5/13	106	106	106	22	119	119	119	21	115	116	117	24	112	112	113	24	113	114	115	24
5/14	107	107	107	24	119	119	119	23	114	114	114	24	112	112	113	24	112	112	113	24
5/15	106	107	107	22	117	118	119	18	---	---	---	0	---	---	---	0	---	---	---	0
5/16	105	105	106	20	113	114	114	18	112	113	113	24	112	113	113	24	109	109	110	24
5/17	105	105	105	21	115	116	118	20	---	---	---	0	---	---	---	0	---	---	---	0
5/18	104	104	105	22	115	116	117	22	---	---	---	0	---	---	---	0	---	---	---	0
5/19	103	103	104	6	115	115	118	5	110	110	110	24	110	111	112	24	109	110	111	24
5/20	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
5/21	103	103	103	9	116	116	118	8	109	110	111	24	110	111	112	24	109	110	112	24
5/22	102	102	103	20	116	117	120	17	116	119	122	24	113	114	114	24	113	113	114	24
5/23	103	103	104	13	116	116	117	13	118	119	121	24	114	114	116	24	116	117	121	24
5/24	103	104	104	24	118	118	119	24	---	---	---	0	---	---	---	0	---	---	---	0

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

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

Date	Priest R. Dnst			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	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High		hr			
5/11	111	113	116	24	110	110	111	20	104	106	107	24	---	---	---	0	103	104	105	24
5/12	113	114	116	24	---	---	---	0	105	106	107	24	---	---	---	0	103	104	105	24
5/13	111	111	112	24	---	---	---	0	105	105	106	24	102	103	103	24	103	104	104	24
5/14	110	110	111	24	108	108	109	15	104	105	105	24	102	102	103	24	102	103	103	24
5/15	---	---	---	0	106	107	107	24	105	106	107	24	103	104	104	24	103	103	104	24
5/16	109	110	111	24	105	105	106	24	103	105	106	24	102	103	103	24	103	104	104	24
5/17	---	---	---	0	106	107	108	24	102	104	105	24	103	104	104	24	104	105	105	24
5/18	---	---	---	0	107	107	108	24	105	106	107	24	---	---	---	0	104	104	105	24
5/19	108	110	111	24	107	108	109	20	106	108	110	24	103	104	105	24	104	104	105	24
5/20	---	---	---	0	106	106	107	24	103	105	106	24	102	103	104	24	103	104	105	24
5/21	110	111	111	24	107	108	109	24	104	106	108	24	103	104	105	24	104	105	106	24
5/22	117	118	119	24	109	110	111	24	105	107	109	24	103	104	105	24	104	105	106	24
5/23	116	117	119	24	112	114	114	24	105	107	108	24	103	104	105	24	104	105	106	24
5/24	---	---	---	0	113	114	114	24	105	106	108	24	103	104	105	24	104	105	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	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High		hr			
5/11	102	104	106	24	105	106	108	23	104	104	105	24	105	106	110	20	104	105	105	24
5/12	102	103	105	24	105	106	108	24	104	105	105	24	111	111	113	14	105	106	106	24
5/13	102	103	103	24	104	104	104	24	103	103	104	24	103	103	104	12	103	104	104	24
5/14	101	101	101	24	104	104	104	24	103	103	104	24	103	103	104	14	103	104	104	24
5/15	102	103	103	24	103	103	104	23	103	103	103	24	103	103	103	23	103	103	104	24
5/16	102	102	103	24	102	102	103	24	101	102	103	24	101	102	103	24	102	102	103	24
5/17	102	103	104	24	102	103	103	24	102	102	102	24	101	101	101	24	101	101	102	24
5/18	102	103	103	24	103	103	104	24	102	102	103	24	100	100	101	24	101	101	101	24
5/19	102	104	105	24	103	103	104	23	103	103	104	24	101	101	101	24	101	101	101	24
5/20	102	103	105	24	103	103	104	24	102	103	103	24	101	101	101	24	101	101	102	24
5/21	102	104	105	24	105	106	107	24	103	103	104	21	103	105	108	24	102	102	103	24
5/22	103	105	107	24	105	106	107	24	104	104	105	20	106	108	112	24	103	104	104	24
5/23	103	105	106	24	106	107	110	24	105	105	105	23	107	108	110	24	104	105	105	24
5/24	102	104	105	23	107	108	109	24	105	105	105	22	105	106	108	24	105	105	105	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	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High		hr			
5/11	103	104	106	24	103	104	105	24	103	104	105	24	103	104	105	24	113	115	119	24
5/12	105	106	107	24	104	105	105	24	104	105	107	24	104	105	106	24	112	115	118	24
5/13	105	106	106	24	104	105	105	24	103	103	104	24	104	105	105	24	111	113	114	24
5/14	105	106	106	22	105	105	105	24	103	103	103	24	104	104	105	24	110	111	112	24
5/15	104	105	105	24	104	104	105	24	103	104	104	24	105	105	106	24	109	110	112	24
5/16	103	103	104	24	103	103	103	24	103	103	103	24	104	105	105	24	105	106	107	24
5/17	102	103	103	24	102	102	102	24	102	102	103	24	104	104	104	24	107	109	110	24
5/18	102	102	103	24	101	101	102	24	102	102	104	24	103	104	104	24	106	108	114	24
5/19	102	102	102	24	101	102	102	24	101	102	102	23	106	108	113	23	105	106	109	24
5/20	101	101	102	24	101	101	102	24	101	101	102	24	102	103	103	24	107	110	114	24
5/21	102	102	104	24	101	102	102	24	102	103	105	24	103	103	104	24	110	113	115	24
5/22	104	105	107	24	102	103	104	24	103	105	107	24	104	104	105	24	110	113	116	24
5/23	105	106	107	24	104	104	105	24	103	104	106	24	104	105	106	24	109	111	113	24
5/24	105	106	107	24	104	105	105	24	102	103	104	24	105	105	106	24	112	115	118	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			12 h	24 h			#	24h			12h	24h			12h	24h			12h	#
	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	AVG	High	hr	
5/11	115	117	118	24	109	110	111	24	106	109	112	24	104	105	105	24	105	106	107	24	
5/12	112	113	116	24	110	110	111	24	106	107	108	24	105	106	106	24	106	107	107	24	
5/13	110	110	111	24	109	109	109	24	104	105	105	23	104	105	105	24	104	104	105	23	
5/14	109	109	110	24	108	108	108	24	105	105	106	23	104	104	105	24	104	104	104	23	
5/15	108	108	110	24	107	108	108	24	105	106	107	23	105	105	105	24	104	104	105	23	
5/16	106	106	108	24	105	106	107	24	104	105	105	22	104	104	104	22	103	104	104	23	
5/17	104	105	105	24	105	105	105	24	104	104	105	23	103	104	104	24	103	103	104	23	
5/18	105	106	110	24	104	104	105	24	104	104	105	24	103	103	104	24	103	103	103	24	
5/19	106	108	110	24	104	105	105	24	104	104	104	23	103	104	104	24	103	103	104	23	
5/20	105	107	111	24	104	105	105	24	105	106	109	23	103	103	103	24	102	102	103	23	
5/21	108	109	110	24	106	106	107	24	107	110	112	23	103	104	104	24	103	104	105	23	
5/22	111	113	115	24	107	108	109	24	112	114	116	23	104	105	105	24	105	106	106	23	
5/23	110	112	114	23	108	109	109	24	111	113	115	23	105	105	105	24	106	106	106	23	
5/24	109	110	111	24	108	109	109	24	105	106	108	23	104	104	104	24	105	105	105	23	

Total Dissolved Gas Saturation Data at Lower Columbia River Sites

Date	The Dalles Dnst				Bonneville				Warrendale				Skamania				CamasWashugal				
	24 h			12 h	24 h			#	24h			12h	24h			12h	24h			12h	#
	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	AVG	High	hr	
5/11	105	105	106	23	105	106	106	23	106	107	108	24	105	106	107	24	107	109	110	24	
5/12	106	107	107	24	106	107	107	23	107	107	108	24	106	107	107	24	108	109	110	24	
5/13	104	104	105	24	105	105	106	23	106	107	107	23	105	106	106	23	107	108	109	24	
5/14	103	103	104	24	104	105	105	23	104	105	105	22	104	105	105	23	105	106	108	24	
5/15	103	104	105	24	104	104	104	23	104	104	105	23	103	104	104	23	104	104	106	24	
5/16	104	105	109	24	102	103	104	23	103	104	109	23	103	103	105	23	103	104	105	24	
5/17	110	111	111	24	103	103	104	23	111	112	112	23	106	106	106	23	105	108	109	24	
5/18	110	110	110	24	103	104	106	24	111	112	112	24	106	107	107	24	108	109	110	24	
5/19	109	110	110	24	106	106	106	23	113	114	115	23	109	110	110	23	108	110	111	24	
5/20	109	109	110	24	105	105	106	19	114	115	116	23	110	111	111	23	110	112	113	24	
5/21	110	112	113	24	106	107	108	23	114	115	116	23	109	110	111	23	113	114	115	24	
5/22	113	114	115	23	109	109	111	23	114	116	117	23	111	112	112	23	110	111	113	24	
5/23	113	114	115	24	112	112	113	23	116	116	117	23	113	114	114	23	114	116	117	24	
5/24	112	113	113	24	110	111	112	23	114	115	115	23	112	112	113	23	114	115	116	24	

HATCHERY RELEASE SUMMARY LAST TWO WEEKS

Hatchery Release Summary

From: 5/11/01 to 5/24/01

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
IDFG	Magic Valley	ST	SU	2001	75,912	04-09-01	06-04-01	Squaw Cr Acclim Pd	Salmon River
IDFG Total					75,912				
Nez Perce Tribe	Hagerman	ST	SU	2001	137,657	05-09-01	05-11-01	Yankee Fk (Salmon R)	Salmon River
Nez Perce Tribe	Kooskia	CO	UN	2001	20,000	05-10-01	05-11-01	Kooskia H	Clearwater Rvr M F
Nez Perce Tribe	Lyons Ferry	CH0	FA	2001	400,000	05-23-01	06-01-01	Pittsburg Landing	Snake River
Nez Perce Tribe	Lyons Ferry	CH0	FA	2001	500,000	05-23-01	06-22-01	Big Canyon (Clearwater R)	Clearwater Rvr M F
Nez Perce Tribe	Lyons Ferry	CH0	FA	2001	500,000	05-23-01	06-22-01	Cpt John Acclim Pd	Snake River
Nez Perce Tribe Total					1,557,657				
ODFW	Big Canyon	ST	SU	2001	130,500	05-19-01	06-03-01	Big Canyon Acclim.Pd	Grande Ronde River
ODFW	Li Sheep	ST	SU	2001	80,000	05-10-01	05-11-01	L Sheep Acclim Pd	Imnaha River
ODFW	Wallowa	ST	SU	2001	108,750	05-05-01	05-15-01	Wallowa Acclim Pd	Grande Ronde River
ODFW	Wallowa	ST	SU	2001	108,750	05-13-01	05-27-01	Wallowa Acclim Pd	Grande Ronde River
ODFW Total					428,000				
Umatilla Tribe	Umatilla	CH0	FA	2001	2,682,000	05-21-01	05-31-01	Thornhollow Acclim Pd	Umatilla River
Umatilla Tribe Total					2,682,000				
USFWS	Hagerman	ST	SU	2001	141,446	03-30-01	05-14-01	Sawtooth H	Salmon River
USFWS	Winthrop	ST	SU	2001	99,000	04-11-01	05-20-01	Winthrop H	Methow River
USFWS Total					240,446				
Warm Spgs Tribe	Oak Springs	ST	WI	2001	12,950	05-14-01	05-14-01	Parkdale Acclim Pd	Hood River
Warm Spgs Tribe	Oak Springs	ST	WI	2001	13,000	05-14-01	05-14-01	E Fk Irrig Dist Sand Trap	Hood River
Warm Spgs Tribe Total					25,950				
WDFW	East Bank	ST	SU	2001	33,475	04-23-01	05-11-01	Chiwawa H	Wenatchee River
WDFW	East Bank	ST	SU	2001	45,500	04-23-01	05-11-01	Chiwawa H	Wenatchee River
WDFW	East Bank	ST	SU	2001	48,058	04-23-01	05-11-01	Chiwawa H	Wenatchee River
WDFW	East Bank	ST	SU	2001	57,814	04-23-01	05-11-01	Chiwawa H	Wenatchee River
WDFW	Klickitat	CH0	FA	2001	1,600,000	05-21-01	05-25-01	Klickitat H	Klickitat River
WDFW	Klickitat	CO	NO	2001	1,300,000	05-01-01	05-21-01	Klickitat H	Klickitat River
WDFW Total					3,084,847				
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	Eagle Creek	CO	UN	2001	260,319	04-25-01	05-15-01	Winthrop H	Methow River
Yakima Tribe Total					1,017,319				
Total									
Grand Total					9,112,131				

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

HATCHERY RELEASE SUMMARY NEXT TWO WEEKS

Hatchery Release Summary

From: 5/25/01 to 6/7/01

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
IDFG	Magic Valley	ST	SU	2001	75,912	04-09-01	06-04-01	Squaw Cr Acclim Pd	Salmon River
IDFG	Oxbow-Idaho	CH0	FA	2001	107,000	05-25-01	06-01-01	Hells Canyon Dam	Snake River
IDFG Total					182,912				
Nez Perce Tribe	Lyons Ferry	CH0	FA	2001	24,000	06-01-01	07-06-01	Big Canyon (Clearwater R)	Clearwater Rvr M F
Nez Perce Tribe	Lyons Ferry	CH0	FA	2001	400,000	05-23-01	06-01-01	Pittsburg Landing	Snake River
Nez Perce Tribe	Lyons Ferry	CH0	FA	2001	500,000	05-23-01	06-22-01	Big Canyon (Clearwater R)	Clearwater Rvr M F
Nez Perce Tribe	Lyons Ferry	CH0	FA	2001	500,000	05-23-01	06-22-01	Cpt John Acclim Pd	Snake River
Nez Perce Tribe Total					1,424,000				
NMFS	Lyons Ferry	CH0	FA	2001	7,500	06-01-01	07-06-01	Pittsburg Landing	Snake River
NMFS Total					7,500				
ODFW	Big Canyon	ST	SU	2001	130,500	05-19-01	06-03-01	Big Canyon Acclim.Pd	Grande Ronde River
ODFW	Wallowa	ST	SU	2001	108,750	05-13-01	05-27-01	Wallowa Acclim Pd	Grande Ronde River
ODFW Total					239,250				
Umatilla Tribe	Umatilla	CH0	FA	2001	2,682,000	05-21-01	05-31-01	Thornhollow Acclim Pd	Umatilla River
Umatilla Tribe Total					2,682,000				
WDFW	Klickitat	CH0	FA	2001	1,600,000	05-21-01	05-25-01	Klickitat H	Klickitat River
WDFW	Klickitat	CH0	FA	2001	2,300,000	05-29-01	06-15-01	Klickitat H	Klickitat River
WDFW	Lyons Ferry	CH0	FA	2001	200,000	05-25-01	06-01-01	Lyons Ferry H	Snake River
WDFW	Wells	CH0	SU	2001	484,000	06-01-01	06-20-01	Wells H	Mid-Columbia River
WDFW Total					4,584,000				
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	Cle Elum	CO	UN	2001	94,800	05-31-01	05-31-01	Cle Elem Slough	Yakama River
Yakima Tribe	Easton Pond	CO	UN	2001	115,000	05-31-01	05-31-01	Easton Pd	Yakama River
Yakima Tribe	Lost Creek	CO	UN	2001	115,000	05-31-01	05-31-01	Lost Creek Acclim Pd	Yakama River
Yakima Tribe	Prosser	CH0	FA	2001	15,000	05-25-01	05-25-01	Yakama R	Yakama River
Yakima Tribe	Prosser	CH0	FA	2001	162,000	05-25-01	05-25-01	Prosser Acclim Pd	Yakama River
Yakima Tribe	Prosser	CH0	FA	2001	1,700,000	05-25-01	05-25-01	Prosser Acclim Pd	Yakama River
Yakima Tribe	Stiles Pond	CO	UN	2001	115,000	05-31-01	05-31-01	Naches R	Yakama River
Yakima Tribe Total					3,073,800				
Grand Total					12,193,462				

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

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)
05/11/2001 *	119	82	165	2	45,000	25,610	26,745	106	24,858	11,270	68,693
05/12/2001	---	57	---	---	46,500	16,948	24,531	119	32,804	18,650	28,459
05/13/2001	---	---	---	---	67,800	14,451	7,900	85	24,650	13,650	25,271
05/14/2001	33	36	430	0	48,450	15,083	8,017	63	24,156	15,930	23,189
05/15/2001 *	41	81	223	0	141,000	23,976	29,805	65	38,642	18,960	29,437
05/16/2001 *	19	10	108	1	111,919	62,123	22,630	50	59,705	23,670	24,837
05/17/2001 *	27	7	37	2	81,600	38,737	20,707	48	60,404	45,450	27,240
05/18/2001	12	21	23	1	41,550	35,576	12,169	42	50,173	27,016	19,475
05/19/2001	---	---	---	---	16,500	57,329	16,228	43	57,700	43,500	35,559
05/20/2001	---	---	---	---	16,500	30,677	8,700	15	60,004	20,662	17,166
05/21/2001 *	13	11	7	0	7,800	20,511	5,859	29	57,200	14,760	20,430
05/22/2001	8	8	4	3	6,900	20,421	15,687	130	64,957	12,190	19,401
05/23/2001 *	2	35	3	5	7,070	14,309	5,756	223	67,000	17,505	10,445
05/24/2001	6	---	1	4	4,800	8,935	16,583	278	98,505	13,958	9,302
05/25/2001	---	---	---	---	---	---	---	---	---	---	---
Total:	280	348	1,001	18	643,389	384,686	221,317	1,296	720,758	297,171	358,904
# Days:	10	10	10	10	14	14	14	14	14	14	14
Average:	28	35	100	2	45,956	27,478	15,808	93	51,483	21,227	25,636
YTD	12,595	26,429	9,035	466	1,839,595	642,210	478,653	5,149	928,918	435,352	1,152,639

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)
05/11/2001 *	0	0	0	1	0	0	1	7	650	10	4,148
05/12/2001	---	0	---	---	0	0	0	6	500	90	5,495
05/13/2001	---	---	---	---	0	0	0	8	500	350	6,613
05/14/2001	0	0	0	0	0	0	0	13	500	0	7,401
05/15/2001 *	0	0	0	2	0	0	3	6	850	45	8,054
05/16/2001 *	0	0	0	7	0	0	1	6	976	0	9,832
05/17/2001 *	0	0	0	3	0	0	102	17	1,302	45	15,813
05/18/2001	0	0	0	2	0	0	3	9	2,400	194	9,774
05/19/2001	---	---	---	---	0	0	1	6	3,200	50	7,730
05/20/2001	---	---	---	---	0	0	0	12	2,001	16	5,257
05/21/2001 *	0	0	1	0	0	0	3	13	1,800	40	5,730
05/22/2001	0	0	0	0	0	0	304	3	4,800	90	6,975
05/23/2001 *	0	0	2	1	0	0	9	4	6,300	45	7,681
05/24/2001	0	---	5	0	0	0	405	4	6,000	124	8,268
05/25/2001	---	---	---	---	---	---	---	---	---	---	---
Total:	0	0	8	16	0	0	832	114	31,779	1,099	108,771
# Days:	10	10	10	10	14	14	14	14	14	14	14
Average:	0	0	1	2	0	0	59	8	2,270	79	7,769
YTD	1	1	8	22	170	0	965	416	35,668	1,424	646,740

*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 (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (INDEX)	LGS (INDEX)	LMN (INDEX)	RIS (INDEX)	MCN (INDEX)	JDA (INDEX)	BO2 (INDEX)
05/11/2001 *	0	0	0	0	0	0	0	143	100	90	14,519
05/12/2001	---	0	---	---	300	0	0	167	250	840	19,483
05/13/2001	---	---	---	---	1,050	51	0	287	150	650	25,179
05/14/2001	0	0	0	0	450	0	0	171	100	620	17,022
05/15/2001 *	0	0	0	0	750	50	0	611	150	330	58,989
05/16/2001 *	0	0	0	0	600	50	0	893	376	2,310	93,209
05/17/2001 *	0	0	0	1	1,350	107	0	637	100	2,355	129,956
05/18/2001	0	0	0	0	1,650	500	0	705	700	1,520	96,796
05/19/2001	---	---	---	---	1,050	910	0	1,253	1,200	2,300	92,917
05/20/2001	---	---	---	---	1,500	375	0	1,147	1,600	1,266	57,576
05/21/2001 *	0	0	0	0	600	0	0	1,208	1,500	5,030	63,697
05/22/2001	0	0	0	0	750	200	1	2,785	900	3,690	117,289
05/23/2001 *	0	0	0	0	1,500	100	0	5,741	1,400	8,535	82,845
05/24/2001	0	---	0	0	1,350	100	109	6,915	2,200	2,732	104,385
05/25/2001	---	---	---	---	---	---	---	---	---	---	---
Total:	0	0	0	1	12,900	2,443	110	22,663	10,726	32,268	973,862
# Days:	10	10	10	10	14	14	14	14	14	14	14
Average:	0	0	0	0	921	175	8	1,619	766	2,305	69,562
YTD	0	0	0	5	13,400	4,325	182	22,865	15,395	33,300	1,100,966

COMBINED STEELHEAD

Date	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (INDEX)	LGS (INDEX)	LMN (INDEX)	RIS (INDEX)	MCN (INDEX)	JDA (INDEX)	BO2 (INDEX)
05/11/2001 *	160	1,536	79	95	114,600	16,533	14,348	256	4,042	2,120	9,517
05/12/2001	---	1,621	---	---	64,050	19,719	9,250	219	3,501	12,170	8,976
05/13/2001	---	---	---	---	60,300	19,077	13,600	213	4,150	5,700	8,684
05/14/2001	90	3,204	262	1	83,400	14,921	10,999	144	3,601	2,800	13,321
05/15/2001 *	106	6,327	343	225	225,600	9,674	9,542	208	5,008	2,325	16,680
05/16/2001 *	64	1,363	148	102	387,981	42,041	15,164	335	7,875	3,390	19,494
05/17/2001 *	110	673	60	273	240,750	27,516	10,781	209	5,001	5,895	21,792
05/18/2001	130	481	31	61	211,050	39,280	13,262	174	9,927	2,872	25,267
05/19/2001	---	---	---	---	135,150	80,862	20,245	177	8,400	2,500	21,335
05/20/2001	---	---	---	---	175,050	31,935	9,000	133	2,800	3,622	14,538
05/21/2001 *	76	318	4	172	129,000	23,012	6,103	152	25,800	8,570	12,540
05/22/2001	77	234	2	12	113,250	15,432	11,842	588	59,749	3,900	8,498
05/23/2001 *	78	314	3	41	88,280	10,638	5,251	1,354	44,900	4,080	8,995
05/24/2001	33	---	3	20	35,550	26,941	14,332	1,556	26,311	3,222	14,174
05/25/2001	---	---	---	---	---	---	---	---	---	---	---
Total:	924	16,071	935	1,002	2,064,011	377,581	163,719	5,718	211,065	63,166	203,811
# Days:	10	10	10	10	14	14	14	14	14	14	14
Average:	92	1,607	94	100	147,429	26,970	11,694	408	15,076	4,512	14,558
YTD	4,418	30,793	4,343	4,562	4,877,927	630,939	241,832	7,288	352,205	154,438	312,494

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)
05/11/2001 *	3	0	0	0	0	0	102	10	150	0	0
05/12/2001	---	0	---	---	0	0	1	4	750	50	0
05/13/2001	---	---	---	---	0	0	0	2	300	0	77
05/14/2001	1	0	0	0	150	0	0	2	350	20	0
05/15/2001 *	0	0	0	0	0	50	3	10	400	30	0
05/16/2001 *	0	0	0	0	150	100	0	3	525	0	114
05/17/2001 *	2	0	0	0	300	100	100	3	200	45	0
05/18/2001	3	0	0	0	150	100	1	3	400	20	0
05/19/2001	---	---	---	---	300	100	0	15	800	150	0
05/20/2001	---	---	---	---	0	0	100	16	700	16	164
05/21/2001 *	3	0	0	0	300	0	102	21	1,200	110	0
05/22/2001	1	0	0	0	450	200	3	162	600	364	160
05/23/2001 *	1	0	0	0	150	0	1	240	700	345	229
05/24/2001	2	---	0	0	0	150	1	603	1,600	300	148
05/25/2001	---	---	---	---	---	---	---	---	---	---	---
Total:	16	0	0	0	1,950	800	414	1,094	8,675	1,450	892
# Days:	10	10	10	10	14	14	14	14	14	14	14
Average:	2	0	0	0	139	57	30	78	620	104	64
YTD	16	0	0	0	2,440	8,646	586	1,202	10,891	1,722	1,246

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 05/24

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	376,089	12,721	173,392	19,666	68,251	4,292	0	0	0	0	0	0	0	0	0	0	0	0
TDA	285,224	8,476	97,355	13,065	38,426	2,791	0	0	0	0	0	0	0	0	0	0	0	0
JDA	241,080	4,901	80,429	10,464	30,419	2,210	0	0	0	0	0	0	0	0	0	0	0	0
MCN	233,009	4,596	57,687	8,821	26,339	1,954	0	0	0	0	0	0	0	0	0	0	0	0
IHR	147,673	1,884	32,218	6,993	13,017	1,127	0	0	0	0	0	0	0	0	0	0	0	0
LMN	153,386	1,089	28,837	7,565	10,951	1,148	0	0	0	0	0	0	0	0	0	0	0	0
LGS	145,331	1,815	27,378	7,101	9,700	1,047	0	0	0	0	0	0	0	0	0	0	0	0
LWG	138,050	1,254	25,882	6,720	8,632	927	0	0	0	0	0	0	0	0	0	0	0	0
PRD	47,025	618	17,834	689	7,861	136	0	0	0	0	0	0	0	0	0	0	0	0
RIS	35,061	775	11,497	640	4,796	99	0	0	0	0	0	0	0	0	0	0	0	0
RRH	14,118	263	3,841	145	998	20	0	0	0	0	0	0	0	0	0	0	0	0
WEL	8,525	192	1,304	98	413	15	0	0	0	0	0	0	0	0	0	0	0	0

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	1	0	5,019	3,294	3,706	1,168
TDA	0	0	0	0	0	0	0	0	0	1,127	691	1,324	361
JDA	0	1	0	0	0	0	0	0	0	2,293	3,249	2,958	865
MCN	0	0	0	0	0	0	0	0	1	1,636	743	1,929	718
IHR	0	0	0	0	0	0	0	0	0	1,424	888	2,157	670
LMN	0	0	0	0	0	0	2	0	0	1,713	878	2,145	873
LGS	0	0	0	0	0	0	1	0	0	1,979	935	1,213	1,012
LWG	0	0	0	0	0	0	0	0	0	5,722	2,468	4,838	1,652
PRD	0	0	0	0	0	0	22	75	12	25	10	42	**
RIS	0	0	1	0	0	0	5	6	1	69	77	68	35
RRH	0	0	3	0	0	0	0	0	0	116	654	62	44
WEL	0	0	0	0	0	0	0	0	0	16	22	18	18

RIS, RRH are through 5/22/01, WEL, PRD are through 5/23/01

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

1

		05/12/01 TO 05/25/01					
		Species					
Site	Data	CH0	CH1	CO	SO	ST	Grand Total
LGR	Sum of NumberCollected	150	800,438	2,250	150	2,145,012	2,948,000
	Sum of NumberBarged	150	799,087	2,250	150	2,135,867	2,937,504
	Sum of NumberBypassed	0	415	0	0	8,846	9,261
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of TotalProjectMortalities	0	936	0	0	299	1,235
LGS	Sum of NumberCollected		236,764	1,952	6,950	267,442	513,108
	Sum of NumberBarged		235,727	1,950	6,941	267,031	511,649
	Sum of NumberBypassed		0	0	0	0	0
	Sum of Numbertrucked		0	0	0	0	0
	Sum of TotalProjectMortalities		1,037	2	9	411	1,459
LMN	Sum of NumberCollected	104	140,324	12	225	99,534	240,199
	Sum of NumberBarged	103	134,446	12	222	99,173	233,956
	Sum of NumberBypassed	0	5,638	0	0	78	5,716
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of TotalProjectMortalities	1	240	0	3	283	527
MCN	Sum of NumberCollected	4,330	272,779	4,440	3,570	81,155	366,274
	Sum of NumberBarged	2,338	131,257	2,424	1,365	42,209	179,593
	Sum of NumberBypassed	1,969	140,813	2,009	2,200	38,844	185,835
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of TotalProjectMortalities	23	709	7	5	102	846
Total Sum of NumberCollected		4,584	1,450,305	8,654	10,895	2,593,143	4,067,581
Total Sum of NumberBarged		2,591	1,300,517	6,636	8,678	2,544,280	3,862,702
Total Sum of NumberBypassed		1,969	146,866	2,009	2,200	47,768	200,812
Total Sum of Numbertrucked		0	0	0	0	0	0
Total Sum of TotalProjectMortalities		24	2,922	9	17	1,095	4,067

YTD Transportation Summary

TO: 05/25/01

		Species					
Site	Data	CH0	CH1	CO	SO	ST	Grand Total
LGR	Sum of NumberCollected	170	1,403,956	2,300	640	3,136,266	4,543,332
	Sum of NumberBarged	170	1,394,986	2,270	468	3,120,316	4,518,210
	Sum of NumberBypassed	0	941	0	0	12,189	13,130
	Sum of NumberTrucked	0	6,433	30	167	3,386	10,016
	Sum of TotalProjectMortalities	0	1,596	0	5	375	1,976
LGS	Sum of NumberCollected		331,549	1,952	7,847	324,469	665,817
	Sum of NumberBarged		329,433	1,950	7,806	323,712	662,901
	Sum of NumberBypassed		0	0	0	0	0
	Sum of NumberTrucked		898	0	28	336	1,262
	Sum of TotalProjectMortalities		1,218	2	13	421	1,654
LMN	Sum of NumberCollected	134	316,512	72	275	115,311	432,304
	Sum of NumberBarged	133	304,290	72	272	114,536	419,303
	Sum of NumberBypassed	0	5,971	0	0	145	6,116
	Sum of NumberTrucked	0	5,519	0	0	319	5,838
	Sum of TotalProjectMortalities	1	732	0	3	311	1,047
MCN	Sum of NumberCollected	6,044	314,684	5,271	3,766	156,494	486,259
	Sum of NumberBarged	2,338	131,257	2,424	1,365	42,209	179,593
	Sum of NumberBypassed	3,675	182,656	2,839	2,396	114,120	305,686
	Sum of NumberTrucked	0	0	0	0	0	0
	Sum of TotalProjectMortalities	31	771	8	5	165	980
Total Sum of NumberCollected		6,348	2,366,701	9,595	12,528	3,732,540	6,127,712
Total Sum of NumberBarged		2,641	2,159,966	6,716	9,911	3,600,773	5,780,007
Total Sum of NumberBypassed		3,675	189,568	2,839	2,396	126,454	324,932
Total Sum of NumberTrucked		0	12,850	30	195	4,041	17,116
Total Sum of TotalProjectMortalities		32	4,317	10	26	1,272	5,657

