



Fish Passage Center

Weekly Report #00 - 13

June 2, 2000

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SUMMARY OF EVENTS:

Water Supply: During the past week of May 27-June 1, mostly dry conditions prevailed over the region.

Reservoir Operations: Reservoirs were refilling during the week of May 26 through June 1. A summary of actual elevations on June 1, and full pool elevations is shown in the following table:

Project	Actual June 1 Elevation in [ft]	Full Pool Elevation in [ft]
<i>Libby</i>	2398.12	2459.0
<i>Hungry Horse</i>	3538.79	3560.0
<i>Grand Coulee</i>	1249.2	1290.0
<i>Brownlee</i>	2072.9*	2077.0
<i>Dworshak</i>	1578.72	1600.0

* elevation as of May 31

Libby reservoir continued to refill in order to meet the 95 BiOp and the sturgeon BiOp, which includes refill to full pool elevation by June 30 and sturgeon flow releases. The reservoir is at minimum outflows of 4 kcfs. Inflows to the project were decreasing from 27.4 kcfs on May 26 to 21 kcfs on June 1.

Hungry Horse continued to be operated for refill during the May 26 through June 1 period. Inflows declined from 16.32 kcfs on May 26 to 6.62 kcfs on May 30. The project continued to be operated with minimum outflows in the range of 0.52 kcfs to 1.8 kcfs during May 26-June 1.

Grand Coulee was refilling through May 26-June 1 from 1241.2 ft to 1249.2 ft. Inflows fluctuated from 146.8 kcfs to 157.1 kcfs in the same period and outflows were in the range of 79 kcfs to 138.3 kcfs.

Brownlee continued to refill during the past week of May 26-June 1. The flows at Hells Canyon Dam were fluctuating between 8.79 kcfs and 18.18 kcfs. Inflows at Brownlee reservoir were fluctuating between 17.61 kcfs and 19.07 kcfs for the period of May 26-May 31.

Dworshak continued to refill. The outflow continued to be at 1.5-1.6 kcfs. Inflows decreased from 16.6 kcfs on May 26 to 13.8 kcfs on June 1.

Upper Snake reservoirs: As of June 1, the Upper Snake system refilled an additional 2% since May 25, bringing the system to 95% full. American Falls is at 94% of full and Palisades and Jackson Lake are 94% and 100% full. Flow below American Falls was 10.2 kcfs on June 1 and flow below Milner, which is the lowest point in the Upper Snake system, continued to be in the range of 0.24-0.26 kcfs, which is below the level requested by the fishery agencies.

Boise and Payette River Basins: Both systems continued to refill. As of June 1, the Boise River system was 99% full. The other major reservoirs are: Arrowrock 96% full, Anderson Ranch, 100% full and Lucky Peak 100% full. As of June 1, the Payette River system was at 101% of capacity. The major reservoir, Cascade, was surcharged at 101% of full capacity.

Streamflow: The 1995 Biological Opinion spring flow targets based on May Final Runoff Volume forecasts are: at Lower Granite 96.25 kcfs and at McNary 260 kcfs. The 1998 Biological Opinion flow target at Priest Rapids is 135 kcfs beginning on April 10. Weekly average flows for all three major run-of-river projects remain below the BiOp required flow target for

the period of May 26 through June 1. The average discharges for the major run-of-river projects for May 19 through June 1 are given in the following table:

Project	Average Discharge [kcf/s]	
	May 26-June 1	May 19-25
Priest Rapids	129.2	165.2
McNary	227.9	256.8
Lower Granite	87.1	86.23
Bonneville	242.7	269.2

Spill: Dworshak Dam was operated at the minimum of 1.5 Kcfs for the past week. Spill for fish passage continues at the Lower Snake projects as described by the NMFS and Action Agencies' Spill Plan.

Spill for fish passage continues at the lower Columbia River projects. The NMFS and Action Agencies' Spill Plan modifies spill at the lower Columbia Projects. The Dalles spill is reduced from 64% to 40% for 24 hours each day. Nighttime spill as described in the 1998 Supplemental Biological Opinion will continue at John Day and Bonneville dams, but daytime spill will be studied at John Day and Bonneville dams. At John Day Dam daytime spill will vary between 0 and 30% in three-day blocks. At Bonneville Dam daytime spill will vary between the old 75 Kcfs spill level and the gas cap spill (120-150 Kcfs). Days of gas cap spill at Bonneville Dam will correspond to days of zero daytime spill at John Day Dam.

Spill volumes continue at decreased levels at some projects because of total dissolved gas levels produced.

The FERC spill program was implemented at the Mid Columbia projects this past week.

Levels of total dissolved gas were significantly below the allowable TDGS levels at all locations measured. Monitoring for signs of gas bubble trauma (GBT) on fish collected through the Smolt Monitoring Program was conducted this past week. Few fish were detected with signs of GBT in fins.

Smolt Monitoring Program. Snake River basin: Both yearling chinook and steelhead passage indices have decreased significantly at Lower Granite Dam over the past week. The direct stream release of subyearling fall chinook into the Snake River from Lyons Ferry Hatchery are reflected in the Lower Monumental passage index for fall chinook. Mid-Columbia River: Yearling chinook passage indices at Rock Island Dam continue at low numbers this week, the passage indices of steelhead have declined, and coho continue at numbers exceeding 2000 fish per day. Lower Columbia River: This week has seen large fluctuations in daily passage indices at McNary Dam, with passage indices of yearling chinook ranging between 30 and 47 thousand, those of steelhead and subyearling chinook exhibiting an increasing trend, and those of coho and sockeye exhibiting no trend. At Bonneville Dam, the passage indices have been very variable over the last week for yearling chinook, coho, sockeye, and steelhead. Large numbers of subyearling chinook from the May release of Spring Creek Hatchery tulle fall chinook have continued passing Bonneville Dam since May 19.

Adult Fish Passage: Passage of adult spring chinook at Bonneville Dam through the week (5/26-6/1) ranged between 500 and 900 per day (similar to the previous week). The cumulative count of spring chinook through May 31 was 177,862, approximately 4.6 times and 2.9 times greater than the respective 1999 count and 10-year average. The adult counts at other lower Columbia River projects were: The Dalles - 100,893; John Day - 83,858; and McNary - 60,988. About 57% of the adult chinook and 67% of the jack chinook counted at Bonneville have moved upstream past The Dalles Dam. Through May 25, approximately 3,727 spring chinook have been counted at 3-Mile Dam located on the Umatilla River. The turnoff of adult chinook salmon into the Snake River totaled 34,716 at Ice Harbor Dam through June 1 [May 26 missing count] and that was 9 times greater than the 1999 total and 2.6 times greater than the 10-year average. Turnoff of salmon into the Mid-Columbia now totals 17,866 adult salmon at Priest Rapids Dam through May 29. The count of adult

chinook past Rock Island Dam was 12,069 through May 28; and of this total, 37% have passed Rocky Reach Dam.

Numbers of jack chinook were fairly steady through the week at Bonneville with daily counts ranging from 140 to 270. The total jack chinook count at Bonneville remains well above normal with 20,964 through May 31. The jack count of spring chinook was 2.4 times and 7.7 times greater than the respective 1999 count and 10-year average.

Note: June 1 begins the counting of chinook as summer race at Bonneville Dam. The earlier returning summer run chinook (up to mid-June) are normally destined for the Snake River basin with the later returning summer run chinook normally destined for the Mid-Columbia River basin [Wenatchee and Methow Rivers]. Through June 1, the adult summer chinook count at Bonneville Dam was 482.

Sockeye salmon are now returning to Bonneville and upstream projects. The count at Bonneville Dam of 206 through June 1 is well ahead of the 1999 and 10-year average. This should be the year that 2-ocean sockeye return to the upper Salmon River in greater numbers than in previous years (based on juvenile releases of Redfish Lake sockeye completed in 1998). Most sockeye return to Lake Wenatchee and Lake Osoyoos in the Mid-Columbia [upper] River. Sockeye returns are comprised of mostly wild returns but have a hatchery component in all the Lake systems listed above.

Steelhead counts at Bonneville Dam have been increasing through the week with one daily count above 100 [124 on 5/29] and counts ranging between 59 and 124 for the week. The cumulative count through June 1 was 3,940. Wild steelhead totaled 1,130 for the season. Only a small portion of the steelhead passing Bonneville continue up and pass The Dalles Dam during this time of year as the bulk of the fish are Skamania stock steelhead that are destined for the Bonneville pool tributaries.

Hatchery Releases: Approximately 9.3 million fish were released from Basin hatcheries during the past two weeks and about 13.2 million projected for the upcoming two weeks.

Snake River – The yearling chinook, sockeye, coho, and steelhead for the year 2000 migration should be in the river and migrating downstream to the ocean. Subyearling fall chinook from CPT Johns and Pittsburg Landings in the Snake River, a direct stream release into the Snake River from Lyons Ferry Hatchery, and an acclimated release into the Clearwater River from Big Canyon was accomplished during the past week and a half. Individual releases are noted in the Table. The next large releases of fish will be subyearling fall chinook acclimated at CPT John's Landing and Big Canyon facilities, 370k each, and released in mid to late June. This is the largest release of subyearling fall chinook in the Snake River since 1990. Other research fall chinook are being marked with PIT tags and released in the Snake River.

Mid-Columbia – (above McNary Dam) All releases in the Yakama River should be completed for the 2000 migration season. The second set of releases of coho was completed by May 31 in the Yakama River. In addition, all subyearling fall chinook and yearling spring chinook are in the river. All releases of juvenile steelhead, yearling chinook, coho, and sockeye salmon are completed in the Mid-Columbia that includes the Wenatchee, Methow, Entiat, and Okanogan river basins. Subyearling summer and fall chinook are scheduled for release in June from Priest Rapids, Ringold, Turtle Rock, and Wells hatcheries; these numbers will total about 13 million .

Lower Columbia - (from above Bonneville Dam to below McNary Dam). Yearling spring and fall chinook, coho, and steelhead releases are finished for the year. Release of 3 million subyearling fall chinook (upriver bright stock) was completed in the Umatilla River. All fish were marked again this season with adipose clips and CWTs or BWTs. About 1.5 million subyearling fall chinook have been released in the Klickitat River. Fall chinook that remain to be released are from Klickitat and Little White Salmon hatcheries. These subyearling releases are slated for June.

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
05/19/00	147.1	0.0	147.3	0.0	156.0	10.0	162.4	21.1	170.6	31.0	175.3	61.2	172.8	97.1
05/20/00	124.2	0.0	127.9	0.0	139.4	9.4	146.3	22.7	156.4	30.9	167.4	58.6	168.5	94.9
05/21/00	129.0	0.0	130.5	0.0	135.0	10.2	132.3	19.7	143.4	30.8	145.4	51.6	136.2	77.5
05/22/00	149.7	0.0	152.9	0.0	165.5	16.7	174.4	31.2	183.9	30.9	190.5	72.5	187.6	106.1
05/23/00	116.3	0.0	130.3	0.0	148.9	9.0	162.1	20.0	172.9	30.9	188.4	66.6	182.3	102.8
05/24/00	126.4	0.0	122.2	0.0	141.8	8.7	141.0	25.3	151.2	30.9	162.9	56.6	168.5	95.2
05/25/00	102.6	0.0	104.5	0.0	121.7	8.3	124.3	25.1	135.7	30.9	146.7	51.7	140.4	78.5
05/26/00	102.3	0.0	105.2	0.0	119.5	8.2	122.2	22.3	130.2	30.9	134.3	47.8	124.8	70.2
05/27/00	85.1	0.0	87.8	0.0	103.2	7.5	105.1	18.0	111.3	30.9	114.0	39.9	112.2	63.1
05/28/00	79.0	0.0	81.1	0.0	97.6	6.7	97.0	10.9	105.6	30.9	114.3	40.3	111.6	62.3
05/29/00	94.8	0.0	92.0	0.0	101.3	7.0	103.1	9.7	112.6	30.8	117.3	40.8	115.9	64.0
05/30/00	138.3	0.0	139.3	0.0	153.1	8.8	150.3	11.9	155.2	30.8	159.6	56.3	150.0	85.3
05/31/00	109.1	0.0	113.3	0.0	128.0	8.7	134.7	6.3	145.2	30.9	159.0	60.6	159.4	89.8
06/01/00	83.3	0.0	97.2	0.0	109.6	8.4	109.1	0.0	115.7	30.9	128.5	48.9	130.2	72.1

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

Date	Dworshak		Hells Canyon		Lower Granite		Little Goose		Lower Monumental		Ice Harbor	
	Flow	Spill	Inflow	Outflow	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill
05/19/00	1.5	0.0	17.1	11.2	73.4	18.3	69.8	26.7	70.3	28.4	74.9	57.4
05/20/00	1.5	0.0	17.3	11.9	76.5	19.5	73.6	27.0	76.9	28.3	85.0	65.1
05/21/00	1.5	0.0	18.1	13.8	79.9	20.0	79.5	25.8	80.0	26.1	82.6	62.9
05/22/00	1.5	0.0	18.0	12.1	87.6	22.0	81.6	24.5	81.0	22.1	86.7	64.1
05/23/00	1.5	0.0	17.6	11.6	99.1	23.6	98.4	24.7	101.9	19.7	105.3	69.2
05/24/00	1.5	0.0	19.2	11.6	95.1	23.0	89.7	24.2	89.8	17.9	95.2	66.3
05/25/00	1.5	0.0	19.4	11.4	92.0	21.6	88.3	23.7	89.9	19.6	94.2	67.0
05/26/00	1.5	0.0	19.1	11.5	92.6	22.1	89.9	21.6	91.7	23.3	95.5	69.2
05/27/00	1.5	0.0	18.5	12.2	87.2	20.5	84.8	21.1	87.2	25.0	92.8	70.3
05/28/00	1.5	0.0	18.6	8.4	87.2	20.8	82.9	22.0	82.4	28.8	87.8	63.0
05/29/00	1.5	0.0	18.5	9.3	88.9	28.1	89.9	22.2	93.6	35.9	100.2	71.5
05/30/00	1.5	0.0	18.5	15.5	86.3	29.8	81.1	24.9	79.8	38.8	82.9	57.6
05/31/00	1.5	0.0	17.6	15.5	85.6	31.8	84.1	27.1	88.4	46.7	93.6	69.7
06/01/00	1.6	0.0	---	---	82.2	31.8	79.8	27.1	81.6	44.6	88.9	68.4

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		
05/19/00	246.8	114.8	240.2	103.6	233.7	93.4	254.9	80.8	82.4	81.3
05/20/00	250.3	107.0	244.2	74.3	237.5	94.5	244.1	95.4	82.0	56.3
05/21/00	241.6	74.5	247.9	69.5	240.9	96.3	266.0	92.1	88.7	74.8
05/22/00	245.2	107.4	240.6	68.3	238.6	94.1	256.0	87.9	83.2	74.5
05/23/00	279.0	148.2	294.2	120.3	286.5	112.7	287.0	79.3	90.4	106.9
05/24/00	281.5	127.2	274.9	115.6	273.1	108.5	287.7	80.3	85.7	111.3
05/25/00	253.3	114.4	274.0	119.4	271.5	108.5	288.4	80.0	91.9	106.1
05/26/00	208.9	71.6	211.0	61.1	209.3	84.2	246.0	88.1	96.3	51.3
05/27/00	234.7	72.8	231.5	63.8	228.6	90.8	235.0	88.0	96.7	39.9
05/28/00	225.3	72.1	234.2	66.5	229.6	91.3	242.1	89.3	95.0	47.4
05/29/00	207.3	60.5	196.0	87.5	192.6	77.3	210.6	80.4	91.0	28.8
05/30/00	218.6	68.9	228.8	104.7	222.6	89.0	236.3	81.1	92.1	52.7
05/31/00	249.8	104.7	244.7	106.9	237.3	94.8	247.6	81.5	91.5	64.1
06/01/00	250.8	101.8	266.6	115.5	265.9	103.6	281.4	81.6	101.9	87.6

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													
	05/29/00	Yearling Chinook	99	0	0	0.00%	0.00%	0	0	0	0	0	0
	05/29/00	Steelhead	101	0	0	0.00%	0.00%	0	0	0	0	0	0
Little Goose Dam													
	05/24/00	Yearling Chinook	100	2	2	2.00%	0.00%	2	0	0	0	0	0
	05/24/00	Steelhead	100	0	0	0.00%	0.00%	0	0	0	0	0	0
	05/31/00	Yearling Chinook	64	2	2	3.12%	0.00%	2	0	0	0	0	0
	05/31/00	Steelhead	78	1	1	1.28%	0.00%	1	0	0	0	0	0
Lower Monumental Dam													
	05/29/00	Yearling Chinook	100	1	0	0.00%	0.00%	0	0	0	0	1	1
	05/29/00	Steelhead	100	5	1	1.00%	0.00%	1	0	0	0	4	1
Ice Harbor Dam													
	05/23/00	Yearling Chinook	56	0	0	0.00%	0.00%	0	0	0	0	0	0
	05/23/00	Steelhead	71	0	0	0.00%	0.00%	0	0	0	0	0	0
	05/30/00	Yearling Chinook	6	0	0	0.00%	0.00%	0	0	0	0	0	0
	05/30/00	Steelhead	24	1	0	0.00%	0.00%	0	0	0	0	0	0
McNary Dam													
	05/25/00	Yearling Chinook	100	2	0	0.00%	0.00%	0	0	0	0	2	1
	05/25/00	Steelhead	100	0	0	0.00%	0.00%	0	0	0	0	0	0
	05/29/00	Yearling Chinook	100	4	0	0.00%	0.00%	0	0	0	0	4	1
	05/29/00	Steelhead	100	1	0	0.00%	0.00%	0	0	0	0	1	1
	06/01/00	Yearling Chinook	100	1	0	0.00%	0.00%	0	0	0	0	1	1
	06/01/00	Steelhead	100	1	0	0.00%	0.00%	0	0	0	0	1	1
Bonneville Dam													
	05/25/00	Yearling Chinook	100	0	0	0.00%	0.00%	0	0	0	0	0	0
	05/25/00	Steelhead	100	0	0	0.00%	0.00%	0	0	0	0	0	0
	05/29/00	Yearling Chinook	100	0	0	0.00%	0.00%	0	0	0	0	0	0
	05/29/00	Steelhead	100	0	0	0.00%	0.00%	0	0	0	0	0	0
	06/01/00	Yearling Chinook	100	0	0	0.00%	0.00%	0	0	0	0	0	0
	06/01/00	Steelhead	100	0	0	0.00%	0.00%	0	0	0	0	0	0
Rock Island Dam													
	05/25/00	Yearling Chinook	100	4	3	3.00%	0.00%	3	0	0	0	2	1
	05/25/00	Steelhead	100	2	2	2.00%	0.00%	2	0	0	0	0	0
	06/01/00	Yearling Chinook	100	5	3	3.00%	0.00%	2	1	0	0	2	1
	06/01/00	Steelhead	100	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	<u>Hungry H. Dnst</u>			<u>Boundary</u>			<u>Grand Coulee</u>			<u>Grand C. Tlwr</u>			<u>Chief Joseph</u>			#				
	<u>24 h</u>	<u>12 h</u>	High	#	<u>24 h</u>	<u>12 h</u>	High	#	<u>24 h</u>	<u>12 h</u>	High	#	<u>24 h</u>	<u>12 h</u>	High		#			
	Avg	Avg		hr	Avg	Avg		hr	Avg	Avg		hr	Avg	Avg			hr	Avg	Avg	hr
5/19	99	100	103	24	119	120	122	24	113	113	114	24	110	110	110	24	111	111	112	24
5/20	103	105	105	24	119	120	122	24	114	114	114	24	110	111	111	24	112	112	112	24
5/21	104	104	105	24	119	121	122	24	114	114	115	24	111	112	112	24	112	112	113	23
5/22	101	102	104	24	121	122	123	24	114	115	115	24	111	111	112	24	112	112	113	23
5/23	100	101	104	24	121	122	123	24	114	115	115	24	112	112	113	24	112	112	113	23
5/24	100	101	103	24	123	124	124	24	116	116	117	24	113	113	113	24	113	113	114	23
5/25	101	102	104	23	121	122	122	22	116	116	116	24	113	114	114	24	113	114	114	21
5/26	101	101	103	20	120	121	121	20	116	116	116	19	114	114	114	20	114	114	114	18
5/27	103	104	105	24	120	121	122	24	116	116	116	24	114	114	115	24	114	114	114	24
5/28	103	104	105	24	120	121	121	24	115	115	116	24	113	114	114	24	113	113	113	23
5/29	103	103	104	24	120	121	122	24	115	115	115	24	113	113	114	24	113	113	113	23
5/30	100	102	103	24	120	121	122	24	115	115	115	24	113	113	113	24	113	113	114	23
5/31	99	100	102	24	119	120	121	24	113	114	114	24	111	112	113	24	113	113	114	23
6/1	99	100	103	24	118	121	122	24	113	113	114	24	112	113	113	24	112	113	113	23

Total Dissolved Gas Saturation Data at Mid Columbia River Sites

Date	<u>Chief J. Dnst</u>			<u>Wells</u>			<u>Wells Dwnstrm</u>			<u>Rocky Reach</u>			<u>Rocky R. Tlwr</u>			#				
	<u>24 h</u>	<u>12 h</u>	High	#	<u>24 h</u>	<u>12 h</u>	High	#	<u>24 h</u>	<u>12 h</u>	High	#	<u>24 h</u>	<u>12 h</u>	High		#			
	Avg	Avg		hr	Avg	Avg		hr	Avg	Avg		hr	Avg	Avg			hr	Avg	Avg	hr
5/19	111	112	113	24	109	109	110	24	111	111	111	24	109	110	110	23	111	111	111	21
5/20	112	113	113	24	110	110	110	24	111	111	112	24	109	109	110	22	111	111	112	20
5/21	113	113	114	23	110	110	110	23	111	111	114	23	109	109	110	24	111	111	112	24
5/22	112	113	113	23	109	110	110	24	112	113	117	24	108	109	109	22	112	112	117	22
5/23	112	113	113	23	109	109	110	12	110	110	112	12	109	110	110	22	112	112	115	20
5/24	113	113	114	23	110	110	111	12	111	111	112	12	109	110	110	21	112	112	113	19
5/25	114	115	115	21	111	111	112	24	112	112	112	24	109	110	110	20	112	112	113	18
5/26	114	114	115	18	110	111	112	19	111	112	113	19	110	110	110	16	112	112	112	15
5/27	114	115	116	24	111	111	111	21	112	112	112	21	110	110	110	13	112	112	112	13
5/28	112	112	114	23	109	109	110	24	110	111	111	24	110	110	110	6	111	111	111	6
5/29	113	114	115	23	110	111	113	24	111	112	112	24	109	110	110	22	110	111	111	22
5/30	113	113	113	23	110	111	111	24	111	112	112	24	109	110	110	21	111	111	111	21
5/31	110	114	114	23	109	110	110	24	111	111	112	24	109	110	110	20	111	111	112	19
6/1	100	100	100	23	110	111	111	24	111	112	112	24	110	110	111	21	110	110	111	19

Total Dissolved Gas Saturation at Mid Columbia River Sites

Date	<u>Rock Island</u>			<u>Rock I. Tlwr</u>			<u>Wanapum</u>			<u>Wanapum Tlwr</u>			<u>Priest Rapids</u>			#				
	<u>24 h</u>	<u>12 h</u>	High	#	<u>24 h</u>	<u>12 h</u>	High	#	<u>24 h</u>	<u>12 h</u>	High	#	<u>24 h</u>	<u>12 h</u>	High		#			
	Avg	Avg		hr	Avg	Avg		hr	Avg	Avg		hr	Avg	Avg			hr	Avg	Avg	hr
5/19	109	110	110	23	116	116	118	21	112	112	112	24	115	115	116	24	113	113	115	24
5/20	110	110	111	24	116	116	117	23	112	113	113	24	115	115	115	24	114	114	116	24
5/21	110	110	111	24	116	117	118	23	113	113	114	24	114	115	115	24	114	115	116	23
5/22	110	110	110	23	116	116	117	22	112	112	113	23	116	117	121	23	113	115	117	24
5/23	110	110	110	22	116	117	119	21	112	113	115	24	116	118	124	24	115	117	120	24
5/24	110	110	110	24	117	117	118	24	113	114	116	23	115	115	117	22	113	114	116	24
5/25	110	110	110	23	117	117	118	22	113	113	114	24	114	115	117	24	113	114	115	24
5/26	109	110	110	16	117	117	118	15	113	113	114	24	114	114	116	24	113	113	114	24
5/27	109	109	110	13	118	118	119	10	113	113	113	24	113	114	116	24	111	112	113	24
5/28	107	107	108	5	---	---	---	0	112	112	113	24	113	113	113	24	---	---	---	0
5/29	107	107	108	24	---	---	---	0	111	112	114	24	112	112	113	24	111	111	113	23
5/30	107	108	108	22	---	---	---	0	112	112	113	24	114	115	117	24	112	113	117	16
5/31	107	107	108	20	---	---	---	0	111	111	113	24	115	116	117	24	112	113	115	24
6/1	105	105	106	21	116	116	116	9	---	---	---	0	---	---	---	0	---	---	---	0

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

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

Date	<u>Priest R. Dnst</u>			<u>Pasco</u>			<u>Dworshak</u>			<u>Clrwtr-Peck</u>			<u>Anatone</u>			#				
	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>					
	Avg	Avg		Avg	Avg		Avg	Avg		Avg	Avg		Avg	Avg			Avg			
5/19	119	120	120	24	111	112	113	24	103	103	104	24	---	---	---	0	104	105	106	24
5/20	120	120	120	24	113	113	114	24	103	104	105	23	---	---	---	0	104	105	106	24
5/21	119	119	120	24	113	113	113	24	106	107	108	24	103	104	105	24	105	106	107	24
5/22	116	117	121	23	112	113	114	24	106	108	109	24	103	105	105	24	105	106	107	24
5/23	120	121	122	24	113	113	114	24	106	107	108	24	103	103	104	24	104	105	106	23
5/24	120	120	120	24	114	114	114	24	107	108	110	24	103	104	105	24	105	106	106	24
5/25	119	120	120	24	112	113	114	24	107	108	110	21	103	104	104	24	105	106	106	24
5/26	118	119	120	24	109	110	111	19	107	108	109	20	102	103	103	19	105	105	106	20
5/27	117	118	118	24	108	108	108	23	103	103	104	24	---	---	---	0	105	105	106	24
5/28	116	117	117	24	107	107	108	24	107	109	109	24	103	104	104	24	105	106	106	24
5/29	116	117	119	24	107	109	109	24	107	109	110	24	103	104	105	24	105	105	106	24
5/30	117	118	118	18	107	108	108	24	109	112	114	24	103	103	104	24	104	105	106	24
5/31	117	117	117	24	106	106	108	24	107	108	110	15	102	102	102	24	104	104	104	24
6/1	---	---	---	0	109	111	113	24	107	109	110	23	103	104	105	23	105	106	107	24

Total Dissolved Gas Saturation Data at Snake River Sites

Date	<u>Clrwtr-Lewiston</u>			<u>Lower Granite</u>			<u>L. Granite Tlwr</u>			<u>Little Goose</u>			<u>L. Goose Tlwr</u>			#				
	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>					
	Avg	Avg		Avg	Avg		Avg	Avg		Avg	Avg		Avg	Avg			Avg			
5/19	102	103	104	24	103	104	104	23	108	108	109	23	106	106	106	24	113	120	121	24
5/20	103	104	105	23	103	104	105	24	109	109	109	24	106	106	107	24	114	120	120	24
5/21	103	104	105	24	104	105	105	24	109	110	111	24	106	106	107	24	113	119	120	24
5/22	103	104	105	24	104	105	106	24	110	110	111	24	106	106	107	24	113	119	119	24
5/23	102	103	104	24	105	105	105	24	110	110	111	24	106	106	106	24	112	118	119	24
5/24	103	104	105	24	105	105	105	24	110	110	111	24	107	107	107	24	113	119	119	24
5/25	103	103	105	23	104	105	105	24	110	110	110	24	107	107	107	24	113	118	119	24
5/26	102	103	104	20	104	104	105	19	110	111	119	20	106	106	106	20	112	115	118	20
5/27	102	103	104	24	104	104	105	23	109	109	110	23	105	105	105	24	112	117	118	24
5/28	102	104	105	24	103	104	104	24	109	114	119	24	104	104	105	24	111	117	118	24
5/29	102	103	104	24	103	104	104	24	112	118	119	24	105	105	105	24	111	117	118	24
5/30	102	103	104	24	104	104	104	24	112	119	120	24	105	105	105	24	113	119	120	24
5/31	101	102	103	24	103	103	104	24	112	119	121	24	106	107	108	23	114	119	120	23
6/1	103	105	106	23	103	104	106	24	112	119	121	24	108	109	111	24	115	120	121	24

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

Date	<u>Lower Mon.</u>			<u>L. Mon. Tlwr</u>			<u>Ice Harbor</u>			<u>Ice Harbor Tlwr</u>			<u>McNary-Oregon</u>			#				
	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>					
	Avg	Avg		Avg	Avg		Avg	Avg		Avg	Avg		Avg	Avg			Avg			
5/19	112	113	115	23	116	116	117	11	115	115	116	23	113	114	116	24	111	111	113	24
5/20	114	115	118	24	116	116	117	24	115	116	117	23	114	115	117	24	113	115	118	24
5/21	114	116	117	24	116	116	117	24	116	116	116	24	114	116	118	24	114	115	116	24
5/22	114	116	118	24	115	115	116	24	116	116	117	24	114	116	117	24	114	115	115	24
5/23	113	116	119	24	114	115	116	24	115	116	118	24	115	117	120	24	113	114	116	24
5/24	114	116	118	24	114	115	115	24	114	115	116	24	115	117	119	24	114	115	118	24
5/25	113	115	118	23	114	115	116	24	114	114	114	24	115	116	118	24	114	115	116	24
5/26	111	112	115	19	115	115	117	19	111	112	113	20	115	116	119	19	113	114	115	19
5/27	111	113	115	23	115	116	117	23	111	111	111	23	115	117	119	23	112	112	113	23
5/28	110	112	113	24	116	117	117	24	110	110	111	24	114	115	119	24	109	109	110	24
5/29	110	112	114	24	117	118	119	24	111	112	113	24	116	118	120	24	110	111	112	24
5/30	111	114	116	24	117	118	119	24	113	113	113	24	113	114	115	24	109	109	110	24
5/31	109	111	112	24	119	120	121	24	112	112	113	24	115	117	119	24	107	107	108	24
6/1	111	114	117	23	119	120	121	23	113	115	118	24	115	117	119	24	107	108	109	24

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

Total Dissolved Gas Saturation Data at Lower Columbia River Sites

Date	<u>McNary-Wash</u>				<u>McNary Tlwr</u>				<u>John Day</u>				<u>John Day Tlwr</u>				<u>The Dalles</u>			
	<u>24 h</u>		<u>12 h</u>		#	<u>24 h</u>		<u>12 h</u>		#	<u>24h</u>		<u>12h</u>		#	<u>24h</u>		<u>12h</u>		#
	Avg	Avg	High	hr		Avg	Avg	High	hr		Avg	Avg	High	hr		Avg	Avg	High	hr	
5/19	112	112	113	24	117	119	119	24	109	109	109	24	118	119	119	24	111	112	113	24
5/20	112	113	115	24	117	119	120	24	109	109	109	24	113	118	118	24	112	114	115	24
5/21	114	114	114	24	117	120	121	24	109	110	110	23	113	117	119	24	112	114	114	23
5/22	114	114	114	24	118	120	120	24	111	111	111	23	114	118	119	24	110	113	114	23
5/23	113	114	115	24	120	120	121	24	110	110	111	23	119	120	120	24	111	113	115	23
5/24	115	116	117	24	119	120	121	24	110	110	111	23	119	119	119	24	112	113	114	23
5/25	115	115	116	24	118	119	120	23	110	110	116	20	119	119	120	21	111	112	114	19
5/26	112	113	114	19	116	118	119	19	109	109	110	17	114	116	118	19	111	111	114	18
5/27	111	111	112	23	115	119	119	23	110	110	110	23	113	116	118	23	111	113	114	23
5/28	109	109	110	24	114	118	120	24	109	109	109	23	113	117	118	24	109	111	114	23
5/29	109	109	110	24	113	117	119	24	108	108	108	23	116	117	118	24	108	110	112	23
5/30	109	110	110	24	114	118	119	24	107	107	107	23	118	118	119	24	109	110	111	23
5/31	107	108	109	24	115	118	120	24	105	105	106	23	119	119	119	24	108	109	110	23
6/1	107	108	109	24	115	119	120	24	104	105	105	23	119	119	120	23	112	116	118	23

Total Dissolved Gas Saturation Data at Lower Columbia River Sites

Date	<u>The Dalles Dnst</u>				<u>Bonneville</u>				<u>Warrendale</u>				<u>Skamania</u>				<u>Camas\Washugal</u>			
	<u>24 h</u>		<u>12 h</u>		#	<u>24 h</u>		<u>12 h</u>		#	<u>24h</u>		<u>12h</u>		#	<u>24h</u>		<u>12h</u>		#
	Avg	Avg	High	hr		Avg	Avg	High	hr		Avg	Avg	High	hr		Avg	Avg	High	hr	
5/19	117	118	119	24	109	109	110	24	114	114	115	24	114	114	116	24	112	114	115	24
5/20	118	119	121	24	110	111	111	24	116	117	117	24	117	118	119	24	115	117	118	24
5/21	118	119	120	24	111	111	112	23	116	117	118	23	117	118	119	23	116	117	117	23
5/22	118	119	120	24	110	111	111	23	116	117	117	23	116	117	117	23	116	117	118	23
5/23	119	120	121	24	109	109	110	23	115	115	115	23	114	114	115	23	114	115	116	23
5/24	120	121	122	24	111	112	113	23	115	116	116	23	113	114	114	23	114	115	116	24
5/25	120	121	122	24	112	112	113	21	115	115	116	17	113	114	114	18	113	114	115	22
5/26	118	118	120	20	112	112	113	17	114	114	115	17	115	115	116	17	113	114	115	19
5/27	117	118	118	23	113	114	114	24	115	115	115	24	116	117	117	24	114	114	115	24
5/28	116	117	118	24	111	111	112	23	113	113	114	23	115	115	116	23	114	114	115	24
5/29	115	116	117	24	111	112	113	23	113	113	113	23	114	115	116	23	113	114	114	24
5/30	116	116	117	24	109	110	110	23	112	112	113	23	114	116	117	23	112	113	114	22
5/31	115	116	116	24	107	107	107	23	111	111	112	23	111	112	113	23	110	111	112	21
6/1	118	121	121	24	110	111	114	23	113	113	114	23	113	113	114	23	111	112	113	24

Hatchery Release Summary

From 5/19/00 to 6/1/00

Hatchery	Species...	Migration Year	Number Released	...Release Dates... Begin... ..End	Release Site	River Name
IDFG						
Magic Valley						
SU	Steelhead	2000	106,135	04/10/00 06/08/00	Squaw Cr Acclim Pd	Salmon River
Sawtooth						
	Sockeye	2000	12,955	05/23/00 05/23/00	Alturas Lake	Salmon River
	Agency Totals:		119,090		
Nez Perce Tribe						
Lyons Ferry						
FA	Chinook	2000	500,000	05/21/00 05/31/00	Cpt John Acclim Pd	Snake River
FA	Chinook	2000	400,000	05/24/00 05/26/00	Pittsburg Landing	Snake River
FA	Chinook	2000	500,000	05/30/00 06/01/00	Big Canyon (Clearwater	Clearwater Rvr M F
	Agency Totals:		1,400,000		
ODFW						
Big Canyon						
SU	Steelhead	2000	65,250	05/10/00 05/20/00	Big Canyon H	Grande Ronde River
SU	Steelhead	2000	65,250	05/11/00 05/25/00	Big Canyon H	Grande Ronde River
Li Sheep						
SU	Steelhead	2000	75,000	05/11/00 05/22/00	L Sheep Acclim Pd	Imnaha River
	Agency Totals:		205,500		
Umatilla Tribe						
Thornhollow						
FA	Chinook	2000	3,020,518	05/23/00 05/24/00	Umatilla R	Umatilla River
	Agency Totals:		3,020,518		
USFWS						
Winthrop						
SU	Steelhead	2000	105,000	04/12/00 05/31/00	Winthrop H	Methow River
	Agency Totals:		105,000		
WDFW						
Klickitat						
FA	Chinook	2000	1,500,000	05/15/00 05/21/00	Klickitat H	Klickitat River
Lyons Ferry						
FA	Chinook	2000	200,000	05/26/00 05/26/00	Lyons Ferry H	Snake River
Wells						
SU	Steelhead	2000	67,000	04/22/00 05/22/00	Bel. Wells Dam	Mid-Columbia River
	Agency Totals:		1,767,000		
Warm Spgs Tribe						
Parkdale Pond						
WI	Steelhead	2000	1,162	05/19/00 05/19/00	Columbia R Above Bonn	Columbia River
	Agency Totals:		1,162		
Yakima Tribe						
Clark Flat						
SP	Chinook	2000	229,000	03/15/00 06/01/00	Clark Flat Acclim Pd	Yakama River
Easton Pond						
SP	Chinook	2000	236,800	03/15/00 06/01/00	Easton Pd	Yakama River

Hatchery Release Summary

From 5/19/00 to 6/1/00

Hatchery	Species...	Migration Year	Number Released	...Release Dates...		Release Site	River Name
				Begin...	...End		
Jack Creek Pond	UN Coho	2000	125,000	05/25/00	05/31/00	Easton Pd	Yakama River
	SP Chinook	2000	137,500	03/31/00	06/01/00	Jack Creek Acclim Pd	Yakama River
Lost Creek	UN Coho	2000	125,000	05/25/00	05/31/00	Lost Creek Acclim Pd	Yakama River
Prosser	FA Chinook	2000	1,700,000	05/15/00	05/31/00	Prosser Acclim Pd	Yakama River
Stiles Pond	UN Coho	2000	125,000	05/25/00	05/31/00	Naches R	Yakama River
Agency Totals:			2,678,300			
Total Release..			9,296,570				

Two-Week Summary of Passage Indices

COMBINED YEARLING CHINOOK

	WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date	(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
05/19/00	14	10	71	15	18,668	13,891	2,443	1,247	46,579	15,302	48,958
05/20/00	---	---	---	---	21,465	12,310	3,145	814	57,854	10,024	42,793
05/21/00	---	---	---	---	15,263	10,017	5,342	727	43,376	15,606	65,707
05/22/00	26	34	31	46	11,540	17,094	9,127	646	49,434	19,279	68,441
05/23/00	---	15	104	155	18,048	15,130	19,006	415	71,148	27,815	51,354
05/24/00	---	9	49	337	26,190	17,442	20,828	401	36,271	26,793	72,976
05/25/00	---	14	22	291	16,401	18,101	3,551	227	46,146	18,366	114,396
05/26/00	---	7	25	322	15,349	7,990	14,452	123	33,958	7,962	158,565
05/27/00	---	---	---	---	14,260	6,912	9,949	129	30,146	11,489	109,311
05/28/00	---	---	---	---	8,061	8,028	8,194	240	39,801	7,272	49,013
05/29/00	---	---	4	402	7,621	6,886	4,530	160	38,995	4,377	59,465
05/30/00	---	---	18	104	4,648	5,909	6,811	112	46,907	7,196	25,152
05/31/00	---	17	10	24	2,871	7,026	7,105	306	32,113	8,809	43,505
06/01/00	---	31	12	88	5,975	3,372	1,013	218	32,398	4,652	60,552
06/02/00	---	---	---	---	---	---	---	---	---	---	---
Total:	40	137	346	1,784	186,360	150,108	115,496	5,765	605,126	184,942	970,188
# Days:	2	8	10	10	14	14	14	14	14	14	14
Average:	20	17	35	178	13,311	10,722	8,250	412	43,223	13,210	69,299

COMBINED SUBYEARLING CHINOOK

	WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date	(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
05/19/00	0	0	0	8	0	0	19	16	1,000	286	13,124
05/20/00	---	---	---	---	0	0	0	19	1,461	294	107,703
05/21/00	---	---	---	---	0	0	161	10	738	287	242,700
05/22/00	0	0	0	22	0	0	62	21	681	14	131,493
05/23/00	---	0	0	37	0	0	474	36	2,520	875	49,953
05/24/00	---	0	0	18	0	68	1,249	42	2,344	297	35,456
05/25/00	---	0	0	16	0	0	702	22	3,686	64	23,403
05/26/00	---	0	0	12	0	0	637	21	2,880	103	24,652
05/27/00	---	---	---	---	198	0	658	13	4,547	70	24,291
05/28/00	---	---	---	---	393	35	4,429	9	8,517	67	8,558
05/29/00	---	---	0	58	0	0	1,996	15	9,557	56	16,130
05/30/00	---	---	0	10	150	69	21,226	19	11,686	896	13,973
05/31/00	---	0	0	14	78	97	7,681	23	9,651	2,690	12,256
06/01/00	---	0	0	29	717	0	675	11	19,552	7,774	16,153
06/02/00	---	---	---	---	---	---	---	---	---	---	---
Total:	0	0	0	224	1,536	269	39,969	277	78,820	13,773	719,845
# Days:	2	8	10	10	14	14	14	14	14	14	14
Average:	0	0	0	22	110	19	2,855	20	5,630	984	51,418

* See sampling comments <http://www.fpc.org/2000Daily/smpcomments.htm>

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.

Two-Week Summary of Passage Indices

COMBINED COHO

	WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date	(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
05/19/00	0	0	0	2	2,533	68	29	1,080	546	2,387	53,529
05/20/00	---	---	---	---	5,500	193	67	1,962	389	2,692	53,371
05/21/00	---	---	---	---	5,673	40	32	1,855	738	5,610	66,890
05/22/00	0	0	0	0	11,247	234	118	1,976	1,513	2,968	85,147
05/23/00	---	0	0	5	13,235	277	409	4,689	2,147	4,165	73,763
05/24/00	---	0	0	29	15,557	1,221	916	4,291	1,094	5,321	177,468
05/25/00	---	0	0	16	20,551	1,234	372	2,955	3,407	4,313	117,392
05/26/00	---	0	0	11	14,169	1,624	1,389	2,108	5,013	2,980	93,593
05/27/00	---	---	---	---	8,913	3,386	1,316	2,091	7,481	3,388	52,920
05/28/00	---	---	---	---	8,257	5,834	1,846	2,258	8,140	1,273	37,343
05/29/00	---	---	0	2	6,888	3,445	3,105	2,772	9,451	365	45,501
05/30/00	---	---	0	0	5,098	3,222	1,050	2,135	14,499	3,657	23,289
05/31/00	---	0	0	0	2,716	1,995	1,627	2,686	8,841	4,825	33,494
06/01/00	---	0	0	0	3,824	3,019	1,394	2,562	11,134	3,149	36,728
06/02/00	---	---	---	---	---	---	---	---	---	---	---
Total:	0	0	0	65	124,161	25,792	13,670	35,420	74,393	47,093	950,428
# Days:	2	8	10	10	14	14	14	14	14	14	14
Average:	0	0	0	7	8,869	1,842	976	2,530	5,314	3,364	67,888

COMBINED STEELHEAD

	WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date	(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
05/19/00	19	521	116	276	88,271	4,608	9,147	697	6,738	10,406	18,433
05/20/00	---	---	---	---	117,119	3,381	8,967	1,051	7,700	9,389	13,944
05/21/00	---	---	---	---	98,194	2,654	7,595	1,099	7,142	8,396	11,247
05/22/00	10	1,706	26	34	71,094	3,784	5,922	1,158	9,764	8,796	17,245
05/23/00	---	1,244	235	209	121,792	2,925	19,549	1,359	11,205	3,178	12,138
05/24/00	---	700	144	134	219,762	13,724	73,223	1,346	7,978	5,309	27,014
05/25/00	---	486	23	111	118,168	12,860	16,590	1,197	11,061	7,173	21,906
05/26/00	---	436	43	57	87,767	6,277	18,829	660	8,629	6,124	38,858
05/27/00	---	---	---	---	66,943	8,179	12,334	567	5,872	3,712	19,086
05/28/00	---	---	---	---	57,016	11,933	10,335	447	6,860	1,893	17,116
05/29/00	---	---	21	38	54,811	17,363	21,985	366	6,602	814	11,074
05/30/00	---	---	18	0	27,437	10,099	19,404	309	6,205	3,913	1,397
05/31/00	---	482	18	6	12,726	6,952	21,124	254	6,630	4,895	11,227
06/01/00	---	415	46	3	8,365	5,168	8,379	200	12,437	4,889	12,273
06/02/00	---	---	---	---	---	---	---	---	---	---	---
Total:	29	5,990	690	868	1,149,465	109,907	253,383	10,710	114,823	78,887	232,958
# Days:	2	8	10	10	14	14	14	14	14	14	14
Average:	15	749	69	87	82,105	7,851	18,099	765	8,202	5,635	16,640

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 SOCKEYE

	WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date	(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
05/19/00	0	0	0	4	267	0	8	80	2,183	913	1,327
05/20/00	---	---	---	---	0	0	0	29	2,824	888	1,442
05/21/00	---	---	---	---	270	125	0	25	1,640	1,389	0
05/22/00	1	0	0	5	133	205	98	33	832	1,054	539
05/23/00	---	0	0	9	936	35	211	40	2,054	2,143	1,867
05/24/00	---	0	0	6	591	169	1,048	32	1,406	1,387	3,940
05/25/00	---	0	0	8	395	205	141	30	1,899	1,569	4,681
05/26/00	---	0	0	5	394	203	716	23	928	881	3,552
05/27/00	---	---	---	---	198	230	288	14	1,834	1,076	1,735
05/28/00	---	---	---	---	590	335	295	18	1,809	452	2,334
05/29/00	---	---	0	2	147	0	158	23	2,761	84	1,204
05/30/00	---	---	0	0	0	69	570	7	2,489	859	0
05/31/00	---	0	0	0	155	0	719	14	1,279	597	1,216
06/01/00	---	0	0	0	0	198	123	8	2,200	364	2,437
06/02/00	---	---	---	---	---	---	---	---	---	---	---
Total:	1	0	0	39	4,076	1,774	4,375	376	26,138	13,656	26,274
# Days:	2	8	10	10	14	14	14	14	14	14	14
Average:	1	0	0	4	291	127	313	27	1,867	975	1,877

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)}

LEW and WTB data collected for the FPC by Idaho Dept. of Fish and Game.

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 06/01

DAM	Spring Chinook						Summer Chinook						Fall Chinook					
	2000		1999		10-Yr Avg.		2000		1999		10-Yr Avg.		2000		1999		10-Yr Avg.	
	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack
BON	177,862	20,964	38,669	8,691	62,347	2,737	482	150	298	85	356	26	0	0	0	0	0	0
TDA	100,893	14,111	16,959	6,016	35,850	1,776	0	0	0	0	0	0	0	0	0	0	0	0
JDA	83,858	11,419	14,827	4,936	28,612	1,449	0	0	0	0	0	0	0	0	0	0	0	0
MCN	60,988	9,900	8,586	3,668	26,798	1,440	0	0	0	0	0	0	0	0	0	0	0	0
IHR	34,716	7,710	3,877	2,138	13,252	596	0	0	0	0	0	0	0	0	0	0	0	0
LMN	29,919	7,868	2,603	2,015	11,222	560	0	0	0	0	0	0	0	0	0	0	0	0
LGS	30,144	8,174	2,160	1,903	**	**	0	0	0	0	**	**	0	0	0	0	**	**
LWG	28,320	7,816	1,872	1,644	9,324	447	0	0	0	0	0	0	0	0	0	0	0	0
PRD	17,886	885	3,671	435	7,920	125	0	0	0	0	0	0	0	0	0	0	0	0
RIS	12,069	855	2,448	282	5,194	84	0	0	0	0	0	0	0	0	0	0	0	0
RRH	4,421	219	860	50	1,010	13	0	0	0	0	0	0	0	0	0	0	0	0
WEL	920	212	0	5	508	11	0	0	0	0	0	0	0	0	0	0	0	0

DAM	Coho						Sockeye			Steelhead			
	2000		1999		10-Yr Avg.		10-Yr			10-Yr			Wild
	Adult	Jack	Adult	Jack	Adult	Jack	2000	1999	Avg.	2000	1999	Avg.	2000
BON	0	0	0	0	0	0	206	1	8	3,940	2,539	4,883	1,130
TDA	0	0	0	0	0	0	70	0	2	755	662	1,751	240
JDA	1	0	0	0	0	0	27	3	2	3,258	3,481	3,203	1,270
MCN	0	0	0	1	0	0	15	0	1	821	528	2,309	242
IHR	0	0	0	0	0	0	0	0	0	800	807	2,379	378
LMN	0	0	0	0	0	0	0	0	0	879	593	2,357	498
LGS	0	0	0	0	**	**	0	0	**	936	919	**	466
LWG	0	0	0	0	0	0	0	0	0	2,448	3,039	5,222	850
PRD	0	0	0	0	0	0	137	7	20	46	25	55	***
RIS	1	0	0	0	0	0	9	2	1	22	34	86	20
RRH	1	0	0	0	0	0	3	0	0	77	51	65	33
WEL	0	0	0	0	0	0	0	0	0	6	6	25	4

Note: TDA, LGS, WEL are through 05/31; LMN is through 05/30; PRD is through 05/29 and RIS, RRH are through 05/28.
 Note: TDA, JDA, MCN, IHR, LGR are missing 05/26; JDA has a partial count on 4/16; LMN is missing 5/18, 05/25, 05/29.
 Note: IHR 05/06 is missing the south ladder count. LMN 04/08 is missing the south ladder count.

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

Wild steelhead numbers are included in the total.

**Adult count records at Little Goose Dam have been maintained since 1991, visual counts were not conducted at Little Goose Dam between 1982 and 1990.

***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
05/19/00 TO 06/01/00

		Species						
Site	Data	CH0	CH1	CO	SO	ST	Grand Total	
LGR	Sum Of NumberCollected	1,050	138,450	92,150	3,050	858,250	1,092,950	
	Sum Of NumberBarged	1,039	133,271	92,117	3,043	853,306	1,082,776	
	Sum Of NumberBypassed	0	4,939	0	0	4,785	9,724	
	Sum Of NumberTrucked	0	0	0	0	0	0	
	Sum Of TotalProjectMort	11	257	33	7	159	467	
LGS	Sum Of NumberCollected	192	104,459	18,749	1,276	78,895	203,571	
	Sum Of NumberBarged	189	103,897	18,732	1,268	78,339	202,425	
	Sum Of NumberBypassed	0	0	0	0	0	0	
	Sum Of NumberTrucked	0	0	0	0	0	0	
	Sum Of TotalProjectMort	3	562	17	8	556	1,146	
LMN	Sum Of NumberCollected	23,095	81,600	8,664	2,949	175,924	292,232	
	Sum Of NumberBarged	22,340	71,402	8,663	2,949	175,446	280,800	
	Sum Of NumberBypassed	701	10,000	0	0	201	10,902	
	Sum Of NumberTrucked	0	0	0	0	0	0	
	Sum Of TotalProjectMort	54	183	1	0	277	515	
MCN	Sum Of NumberCollected	49,362	359,545	47,536	15,720	67,891	540,054	
	Sum Of NumberBarged	0	0	0	0	0	0	
	Sum Of NumberBypassed	49,352	359,334	47,525	15,719	67,819	539,749	
	Sum Of NumberTrucked	0	0	0	0	0	0	
	Sum Of TotalProjectMort	10	211	11	1	72	305	
Total Sum Of NumberCollected		73,699	684,054	167,099	22,995	1,180,960	2,128,807	
Total Sum Of NumberBarged		23,568	308,570	119,512	7,260	1,107,091	1,566,001	
Total Sum Of NumberBypassed		50,053	374,273	47,525	15,719	72,805	560,375	
Total Sum Of NumberTrucked		0	0	0	0	0	0	
Total Sum Of TotalProjectMort		78	1,213	62	16	1,064	2,433	

YTD Transportation Summary
TO: 06/01/00

		Species						
Site	Data	CH0	CH1	CO	SO	ST	Grand Total	
LGR	Sum Of NumberCollected	4,360	2,399,160	107,676	5,210	4,950,084	7,466,490	
	Sum Of NumberBarged	4,165	2,279,832	107,227	4,980	4,712,761	7,108,965	
	Sum Of NumberBypassed	46	110,039	400	16	225,577	336,078	
	Sum Of NumberTrucked	117	6,084	16	187	11,238	17,642	
	Sum Of TotalProjectMort	32	3,223	33	27	508	3,823	
LGS	Sum Of NumberCollected	472	1,288,564	23,437	2,207	1,013,472	2,328,152	
	Sum Of NumberBarged	467	1,279,125	23,412	2,103	1,005,613	2,310,720	
	Sum Of NumberBypassed	0	0	0	0	0	0	
	Sum Of NumberTrucked	0	4,308	5	76	6,791	11,180	
	Sum Of TotalProjectMort	5	5,116	20	28	1,067	6,236	
LMN	Sum Of NumberCollected	23,404	597,620	10,369	3,544	730,176	1,365,113	
	Sum Of NumberBarged	22,646	545,617	10,358	3,532	728,248	1,310,401	
	Sum Of NumberBypassed	702	24,866	0	0	701	26,269	
	Sum Of NumberTrucked	0	25,741	10	10	810	26,571	
	Sum Of TotalProjectMort	56	1,381	1	2	417	1,857	
MCN	Sum Of NumberCollected	63,976	1,025,898	53,855	50,884	306,981	1,501,594	
	Sum Of NumberBarged	0	0	0	0	0	0	
	Sum Of NumberBypassed	63,950	1,025,358	53,844	50,875	306,826	1,500,853	
	Sum Of NumberTrucked	0	0	0	0	0	0	
	Sum Of TotalProjectMort	26	540	11	9	155	741	
Total Sum Of NumberCollected		92,212	5,311,242	195,337	61,845	7,000,713	12,661,349	
Total Sum Of NumberBarged		27,278	4,104,574	140,997	10,615	6,446,622	10,730,086	
Total Sum Of NumberBypassed		64,698	1,160,263	54,244	50,891	533,104	1,863,200	
Total Sum Of NumberTrucked		117	36,133	31	273	18,839	55,393	
Total Sum Of TotalProjectMort		119	10,260	65	66	2,147	12,657	

