



Fish Passage Center

Weekly Report #08 - 12

May 23, 2008

1827 NE 44th Ave., Suite 240
 Portland, OR 97213
 phone: 503/230-4099
 fax: 503/230-7559

Summary of Events:

Water Supply: Precipitation throughout the Columbia Basin has varied between 7% and 72% of average at individual sub-basins over May. Precipitation above The Dalles has been 37% of average over May. Over the entire water year, precipitation has generally been near or above average.

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

Location	Water Year 2008 May 1-19		Water Year 2008 October 1, 2007 to May 1-19 2008	
	Observed (inches)	% Average	Observed (inches)	% Average
Columbia Above Coulee	0.71	52	16.87	98
Snake River Above Ice Harbor	0.32	27	12.78	99
Columbia Above The Dalles	0.44	37	16.83	98
Kootenai	0.77	57	16.30	92
Clark Fork	0.29	23	11.34	99
Flathead	1.07	72	14.69	96
Pend Oreille/Spokane	0.46	29	24.44	102
Central Washington	0.03	7	4.91	70
Snake River Plain	0.27	29	6.46	80
Salmon/Boise/Payette	0.11	10	15.67	101
Clearwater	0.44	24	22.55	98
SW Washington Cascades/Cowlitz	0.88	38	56.23	92
Willamette Valley	0.31	14	53.55	102

Snowpack within the Columbia Basin is above average. Average snowpack in the Columbia River for basins above the Snake River confluence is 123% of average, for Snake River Basins the average snowpack is 82% of average, and for lower Columbia Basins between McNary and Bonneville Dam average snowpack is 459% of average (one basin within the lower Columbia has a snowpack of over 10000% as reported by the NRCS, this may or may not be accurate).

Table 2 displays the May Final and May Mid-Month runoff volume forecasts for multiple reservoirs. Water Supply Forecasts decreased slightly between the May Final and May Mid-Month forecasts. The current forecast (May Mid-Month) at The Dalles between January and July is 94700 Kaf (88% of average).

Table 2. May Final and May Mid-Month Runoff Volume Forecasts for various reservoirs within the Columbia and Snake River Basins.

Location	May Final		May Mid-Month	
	% Average (1971- 2000)	Probable Runoff Volume (Kaf)	% Average (1971- 2000)	Probable Runoff Volume (Kaf)
The Dalles (Jan-July)	91	97300	88	94700
Grand Coulee (Jan-July)	95	59800	93	58700
Libby Res. Inflow, MT (Jan-July)	92	5820	90	5670
Hungry Horse Res. Inflow, MT (Jan-July)	91	2030	91	2020
Lower Granite Res. Inflow (Apr-July)	101	21800	96	20700
Brownlee Res. Inflow (Apr-July)	77	4860	72	4520
Dworshak Res. Inflow (Apr-July)	111	2930	105	2780

The Biological Opinion flow period began on April 3rd in the lower Snake River (Lower Granite) and began on April 10th in the mid (Priest Rapids) and lower

(McNary) Columbia River. According to the April Final Water Supply Forecast, the flow objectives this spring are 100 Kcfs at Lower Granite, 260 Kcfs at McNary, and 135 Kcfs at Priest Rapids. Generally, flows have been high over the last week. Flows at Lower Granite Dam have averaged 160.7 Kcfs over the last week and 76.8 Kcfs over the spring season, flows at Priest Rapids have averaged 162.8 Kcfs over the last week and 120.1 Kcfs over the spring season and flows at McNary have averaged 349.4 Kcfs over the last week and 217.4 Kcfs over the spring season.

Grand Coulee Reservoir is at 1249.3 feet (5-22-08) and has refilled 18.7 feet over the last week. Outflows at Grand Coulee have ranged between 95.3 and 149 Kcfs over the last week. Inflows last week have ranged between 155.8 Kcfs and 247.5 Kcfs.

The Libby Reservoir is currently at elevation 2411.7 feet (5-22-08) and refilled 13.9 feet last week. Outflows at Libby ranged between 8.8 and 13.8 Kcfs last week. Inflows at Libby have ranged between 20.6 Kcfs to 65.0 Kcfs over the last week.

Hungry Horse is currently at an elevation of 3523.3 ft (5-22-08) and has refilled 17.0 feet last week. Outflows were 0.4-4.7 Kcfs last week; inflows ranged between 15.0 kcfs and 37.5 Kcfs last week.

Dworshak is currently at an elevation of 1524.6 feet (5-22-08) and refilled 33.2 feet last week. Outflows were reduced from 4.7 Kcfs to 1.6 Kcfs on 5-17-08. Dworshak inflows have ranged between 22.4 and 40.1 Kcfs last week.

The Brownlee Reservoir is at an elevation of 2058.6 feet (May 21st, 2008), refilling 18.4 feet last week. Outflows at Brownlee Dam have been 7.5 to 19.0 Kcfs over the last week. Inflows at Brownlee Dam have been 21.0 to 35.2 Kcfs over the last week.

Spill: In accordance with the Court Order, spill was initiated at the Snake River Projects at 0001 hours on April 3, 2007. The Court Order calls for the following spill levels at the Federal Snake River Projects:

Project	Day/Night Spill
Lower Granite	20Kcfs/20Kcfs
Little Goose	30%/30%
Lower Monumental	Gas Cap/Gas Cap
Ice Harbor	30%/30% vs 45Kcfs/Gas Cap Study

High runoff has resulted in flows in excess of hydraulic capacity throughout the lower Snake River. Presently, two units are out of service at Lower Granite Dam limiting powerhouse capacity to about 70 Kcfs at lower Granite Dam. Little Goose Dam went from spilling 30% of daily flow at the beginning of the week to spilling 50% of daily flow at the end of this past week. At Lower Monumental Dam spill has been in excess of hydraulic capacity and increased from 26 to 86 Kcfs as the week progressed. Spill at Ice Harbor Dam has exceeded the court ordered levels of 45 Kcfs daytime spill and gas cap nighttime spill alternating with 30% instantaneous spill and is spill in excess of hydraulic capacity.

Court ordered spill at the lower Columbia projects began on April 10, 2007. The Court Order calls for the following spill levels at the Federal Lower Columbia River Projects:

Project	Day/Night Spill
McNary	40%/40%
John Day	0/60%; 30%/30% vs 40%/40% test
The Dalles	40%/40%
Bonneville	100 Kcfs/100 Kcfs

Spill at McNary exceeded the Court ordered spill this past week. At John Day Dam TSW testing began on April 29th. During TSW testing, spill at John Day Dam alternates between 30% of instantaneous flow for 24 hours and 40% of instantaneous flow for 24 hours. Spill at The Dalles Dam has met the Court Order except on May 18 and 19, when attempts were made to reduce spill to address TDG exceedences in Bonneville Dam forebay. Spill at Bonneville Dams was reduced to just 95 Kcfs on May 16 to address a TDG exceedence at the Camas/Washougal gage (which is not a point of compliance); however by week's end flows had increased to where spill was in excess of 230 Kcfs.

Gas bubble trauma (GBT) monitoring occurred at all the Snake River sites, Rock Island Dam and at Bonneville Dam. There were no observations of GBT at Lower Granite, Little Goose, or Lower Monumental dams when sampled earlier this past week. At McNary Dam 1% of fish sampled was detected with minor signs of GBT on May 22, 2008 and at Rock Island Dam 2% of sampled fish had minor signs of GBT on May 19, 2008.

Smolt Monitoring: High flows in the Snake River tributaries, and main-stem have forced all SMP traps to cease sampling. Smolt passage numbers remained high in the Snake River and increased in the Columbia River.

At Lower Granite Dam the daily passage indices for yearling Chinook and steelhead rose in conjunction with the freshet in the Snake River. Yearling Chinook and steelhead indices rose to around 200,000 on May 19, while coho indices reached a relatively high 12,000 on that same date. Sockeye indices rose to over 5,000 on May 20. All indices for spring migrants began to decline after that date. Subyearling Chinook are beginning to show up in the sample now at Lower Granite Dam too. The peak numbers of in-river fish appear to have passed Lower Monumental Dam this week on May 21, when the yearling Chinook index rose to 800,000, and on that same date the steelhead index was at 535,000 while coho daily index also peaked at 84,000. The site was in secondary bypass on that date because at such high flows barges are unable to navigate into position for loading smolts.

Spring migrant passage increased over the past week at Rock Island Dam. Indices for yearling Chinook averaged 800 per day over the past week, while steelhead indices averaged 1,200, coho averaged 3,000 and sockeye averaged 1,700. In the lower River at McNary, John Day and Bonneville dams passage indices for most spring migrants continued to increase or remained high. Yearling Chinook indices rose to seasonal high of 168,000 at McNary on May 19. And while steelhead indices declined at the site, coho and sockeye passage indices continued to increase as well over the past week.

At Bonneville Dam passage indices of yearling Chinook, coho and sockeye continued to increase over the past week, similar to McNary passage. This week the incidence of descaling remained high at the project. SMP crews reported descaling rates as high as 18% for Chinook and 10% for coho, in May 13 samples taken from 1100 to 0700 hours on May 14. The rate was a bit lower for the fish sampled from 0700 hours to noon (6-7%) on May 14, but was still considered much higher than normally observed. FPAC requested that debris be removed from trash racks. The COE reported that trash racks were raked on May 14. Subsequent samples at Bonneville Dam indicated a decrease in the incidence of descaling to under 1% for steelhead on May 15, while yearling Chinook descaling rate was just over 4% on that date. However, descaling rates again increased over the weekend and the COE reduced turbine loading in

response and higher flows forced increased spill as well. The COE then proceeded to clean VBS screens. But descaling rates began increasing, and rose to over 18% again for yearling Chinook on the sample that ended at 7 am on May 21.

A TMT call to address the issue was held on Wednesday May 21. At the time photographs were produced showing large amounts of debris on the screens as well as large numbers (nearly 50 one photo) of dead smolts on at least one of the screens. The salmon managers requested that the COE continue removing debris from screens to improve the situation. However the COE claimed that because of the heavy debris load they did not have enough personnel to remove the debris fast enough. They indicated that the Washington Shore adult ladder could be shut down if they did not clean screens for that route. As a result the COE said the only option available was to remove the STS's from the turbine units at Powerhouse 2 until debris levels decreased. This operation is ongoing as of the writing of this report. As of Friday morning May 23, screens had been removed at units 11, 16 and 18.

Hatchery Release:

Snake River Zone: The Snake River Zone encompasses the Snake River and its tributaries from its confluence with the Columbia River to Hells Canyon Dam. Approximately 800,000 subyearling fall Chinook from the Umatilla Hatchery were scheduled for release into the Snake River, below Hells Canyon Dam, on May 20th. There were no other releases of salmonid juveniles to this zone scheduled for this week.

Approximately 1.8 million subyearling fall Chinook are scheduled for release into this zone over the next two weeks. Of these, about 28% are scheduled for release from the Big Canyon Creek Acclimation Facility on the Clearwater River. About 61% will be released into the Snake River, above Lower Granite Dam, from various locations including: the Pittsburg Landing Acclimation Ponds, Captain Johns Rapids Acclimation Ponds, and Couse Creek. Finally, the remaining 11% are scheduled to be released directly from Lyons Ferry Hatchery. There are no other releases scheduled for this zone over the next two weeks.

Mid-Columbia Zone: The Mid-Columbia Zone encompasses the area of the Columbia River and its tributaries from McNary Dam to Chief Joseph Dam. A release of nearly 242,500 subyearling summer Chinook juveniles to the Mid-Columbia River from

Wells Hatchery was scheduled to end this week. In addition, the Yakama Tribal releases of coho to the Methow, Wenatchee, and Yakima rivers continued this week. These releases are part of the tribal program to re-establish coho runs to these basins and are expected to run through the end of this month. Finally, several releases totaling about 448,000 summer steelhead were scheduled to end this week. About 69% of these steelhead were being released into the Methow River, while the remaining 31% were being released into the Okanogan River. All of these releases began in mid-April. There are no scheduled releases of juvenile salmonids to this zone over the next two weeks.

Lower Columbia Zone: The Lower Columbia Zone is defined as the Columbia River and its tributaries from Bonneville Dam to McNary Dam. A volitional release of nearly 27,000 winter steelhead to Hood River was scheduled to end this week. This was a Warm Springs Tribal release from the Parkdale Acclimation Facility that began in late April. There were no other releases scheduled for this zone this week.

Two releases of subyearling fall Chinook to the Umatilla River have been delayed. These releases were originally scheduled to take place on May 15th but are now scheduled for May 28th. In all, approximately 600,000 subyearling fall Chinook will be released during these releases. There are no other releases of juvenile salmonids scheduled for this zone over the next two weeks.

Adult Fish Passage Report

Daily adult spring Chinook counts at Bonneville ranged from 529 to 3,931. The 2008 count of 114,511 was about 1.88 times larger than the 2007 adult spring Chinook count of 60,618 at Bonneville Dam but is about 80.9% of the ten year average. The 2008 spring Chinook jack count at Bonneville Dam of 14,825 increased about 1.05 times compared to the 2007 count and increased about 1.75 times compared to the ten year average. The 2007 spring Chinook migration arrived later than usual at Bonneville Dam. The 2008 spring Chinook migration arrived earlier than the 2007 migration, but arrived later than the 10 year average migration.

A total of 36,840 spring Chinook adults have been observed at Ice harbor Dam as of May 21st. The 2008 Ice Harbor count about increased 1.76 times when compared to the 2007 count. However, it was about 84.6% of the 10 year average count. The 2008 spring Chinook jack count of 3,656 was about 78.6% of the

2007 count, but increased by 1.57 times when compared to the 10 year average. A total of 6,977 spring Chinook adults have been counted at Priest Rapids Dam as of May 21st. The 2008 Priest Rapids Dam adult spring Chinook count increased about 1.72 times compared to the 2007 count. However, it was only 48.5% of the 10 year average count.

The 2008 Bonneville adult steelhead count was 2,982 fish, as of May 22nd, which was 272 more fish when compared to the 2007 count of 2,710 fish. The 2008 wild steelhead count at Bonneville Dam was 842 fish. At Willamette Falls Dam, the 2008 count for steelhead was 8,495, as of May 20th. This year's steelhead count has 123 fewer fish than the 2007 count of 8,618 at Willamette Falls Dam.

Daily steelhead counts at Lower Granite ranged from 0 to 20 adult steelhead last week. The total steelhead count passing at Lower Granite Dam as of May 22nd was 7,733. The 2008 count was about 73.1% of the 2007 count of 10,574. The 2008 Lower Granite adult steelhead count increased about 1.04 times when compared to the 10-year average count of 7,400. The 2008 wild steelhead count at Lower Granite Dam as of May 22nd was 2,431. At Rock Island Dam, as of May 21st, 219 adult steelhead had been counted. At Rocky Reach Dam 416 adult steelhead had been counted so far this season. The 2008 Rocky Reach Dam adult steelhead count increased 2.75 times when compared to the 2007 count and increased 3.2 times when compared to the 10 year average.

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
15/09/2008	139.8	0.0	133.9	0.0	145.1	8.9	139.4	0.0	142.6	13.8	152.8	19.2	146.8	21.5
15/10/2008	121.0	0.0	130.0	0.0	138.0	8.6	135.4	0.0	138.1	13.2	146.0	19.1	148.9	21.6
15/11/2008	124.0	0.0	118.0	0.0	133.1	8.7	131.0	0.0	139.6	14.1	156.7	19.0	147.6	22.1
15/12/2008	155.5	0.0	156.3	0.0	163.4	10.0	155.4	0.0	157.9	14.7	156.4	19.1	158.0	19.8
15/13/2008	134.7	0.0	151.2	0.0	171.2	10.0	168.4	0.0	172.1	16.0	170.5	28.2	158.7	24.4
15/14/2008	129.1	0.0	127.5	0.0	150.9	10.0	149.7	0.0	156.0	16.1	168.1	26.9	176.3	20.5
15/15/2008	131.0	0.0	126.4	0.0	130.5	10.0	125.5	0.0	132.9	16.8	158.5	18.9	150.7	20.6
15/16/2008	113.3	0.0	126.7	0.0	139.4	10.0	129.9	0.0	137.9	15.9	120.4	18.1	124.0	18.7
15/17/2008	112.9	0.0	105.9	0.0	141.5	8.8	141.2	0.0	157.6	16.0	163.7	28.0	144.3	22.1
15/18/2008	101.5	0.0	102.3	0.0	131.4	8.4	131.2	0.0	151.6	16.0	160.2	25.4	161.5	22.9
15/19/2008	121.0	0.0	119.0	0.0	152.4	10.0	151.3	0.0	173.2	17.1	184.2	43.5	181.3	21.3
15/20/2008	95.3	0.0	111.3	0.0	152.8	10.5	156.5	0.0	176.1	17.0	185.7	45.8	180.2	20.5
15/21/2008	119.7	0.0	112.9	0.0	149.3	10.5	144.6	0.0	164.5	17.7	170.0	30.3	171.3	21.3
15/22/2008	149.0	0.0	142.7	0.0	166.7	11.0	165.0	0.0	179.7	18.1	185.5	45.6	176.8	21.5

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

Date	Dworshak		Hells Brownlee Canyon		Lower Granite		Little Goose		Lower Monumental		Ice Harbor	
	Flow	Spill	Inflow	Outflow	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill
15/09/2008	7.4	0.0	20.9	21.4	97.8	28.6	95.2	32.2	94.1	24.5	97.4	59.8
15/10/2008	7.4	0.0	21.0	21.6	93.4	24.2	91.6	27.4	90.7	26.6	95.2	39.3
15/11/2008	7.2	0.0	19.7	21.6	89.5	20.5	86.9	23.8	85.1	27.9	87.0	26.2
15/12/2008	5.0	0.0	19.1	23.7	88.5	20.7	86.8	23.8	87.6	26.2	91.3	28.2
15/13/2008	4.9	0.0	19.1	23.7	87.0	20.7	85.2	25.6	83.5	22.8	85.9	25.8
15/14/2008	5.0	0.0	17.9	9.8	76.4	20.6	74.3	22.1	71.9	24.0	75.8	44.3
15/15/2008	5.0	0.0	18.9	9.6	79.9	20.5	77.3	23.1	77.9	26.7	81.2	56.4
15/16/2008	4.7	0.0	21.0	10.3	97.4	27.6	97.3	26.1	96.4	27.2	100.4	44.3
15/17/2008	1.5	0.0	25.6	12.0	121.9	51.2	117.8	35.7	116.7	25.6	120.4	53.3
15/18/2008	1.7	0.0	29.1	12.9	149.5	78.2	144.8	53.6	147.0	32.4	149.3	78.7
15/19/2008	1.7	0.0	32.3	16.2	177.5	105.4	172.5	81.1	182.7	68.6	185.1	112.3
15/20/2008	1.6	0.0	34.3	16.1	197.3	125.8	186.9	96.7	198.8	85.6	198.8	129.9
15/21/2008	1.6	0.0	35.2	20.4	198.9	128.6	186.4	96.0	197.2	85.7	199.0	131.3
15/22/2008	1.6	0.0	---	---	182.4	112.0	178.1	86.8	189.7	79.2	193.4	126.0

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

Date	McNary		John Day		The Dalles		Bonneville		PH1	PH2
	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill		
15/09/2008	285.6	114.5	290.9	87.3	284.2	113.3	298.0	102.4	64.7	119.5
15/10/2008	268.1	107.6	268.2	97.0	262.6	105.0	300.5	99.4	68.0	121.7
15/11/2008	224.1	89.7	209.4	84.0	203.1	81.6	239.5	97.1	29.7	101.3
15/12/2008	275.7	110.6	292.7	111.2	282.6	113.0	273.2	110.6	58.2	94.4
15/13/2008	265.6	107.0	263.8	105.5	263.4	105.3	297.8	97.4	67.4	121.6
15/14/2008	252.6	101.5	236.4	77.3	226.8	90.8	252.5	97.5	49.4	94.3
15/15/2008	253.1	101.5	260.9	78.4	249.7	99.6	272.7	97.1	52.6	111.6
15/16/2008	268.3	107.4	270.4	81.1	261.3	104.5	298.4	95.5	67.8	123.7
15/17/2008	265.7	106.6	263.8	79.6	260.8	104.3	276.2	105.6	63.2	96.0
15/18/2008	341.3	165.3	349.3	110.6	342.4	128.6	346.0	152.7	68.2	113.6
15/19/2008	385.0	210.2	387.5	133.5	377.1	144.6	402.4	195.5	68.0	127.5
15/20/2008	390.6	219.0	385.9	125.1	382.5	151.7	402.7	202.5	67.3	121.5
15/21/2008	401.1	233.0	414.9	123.6	396.2	161.5	414.7	222.7	66.3	114.3
15/22/2008	393.5	221.3	409.4	137.3	398.2	165.0	418.6	230.9	66.7	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			
								Rank 1	Rank 2	Rank 3	Rank 4
Lower Granite Dam											
	05/13/08	Chinook + Steelhead	99	0	0	0.00%	0.00%	0	0	0	0
	05/20/08	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
Little Goose Dam											
	05/12/08	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
	05/20/08	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
Lower Monumental Dam											
	05/13/08	Chinook + Steelhead	100	1	1	1.00%	0.00%	1	0	0	0
	05/19/08	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
McNary Dam											
	05/14/08	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
	05/18/08	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
	05/22/08	Chinook + Steelhead	100	1	1	1.00%	0.00%	1	0	0	0
Bonneville Dam											
	05/13/08	Chinook + Steelhead	104	0	0	0.00%	0.00%	0	0	0	0
	05/17/08	Chinook + Steelhead	108	3	2	1.85%	0.00%	2	0	0	0
	05/20/08	Chinook + Steelhead	108	0	0	0.00%	0.00%	0	0	0	0
Rock Island Dam											
	05/12/08	Chinook + Steelhead	100	2	2	2.00%	0.00%	2	0	0	0
	05/15/08	Chinook + Steelhead	100	1	1	1.00%	0.00%	1	0	0	0
	05/19/08	Chinook + Steelhead	100	3	2	2.00%	0.00%	2	0	0	0
	05/22/08	Chinook + Steelhead	100	1	0	0.00%	0.00%	0	0	0	0

Hatchery Releases Last Two Weeks

Hatchery Release Summary									
From:	5/9/2008		to		05/22/08				
Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
Nez Perce Tribe	Nez Perce Tribal Hatchery	CH0	FA	2008	200,000	05-15-08	05-15-08	Lapwai Creek	Clearwater River M F
Nez Perce Tribe Total					200,000				
Oregon Dept. of Fish and Wildlife	Irrigon Hatchery Complex	ST	SU	2008	120,000	05-10-08	05-10-08	Wallowa Acclim Pond	Wallowa River
Oregon Dept. of Fish and Wildlife	Umatilla Hatchery	CH0	FA	2008	800,000	05-20-08	05-21-08	Hells Canyon Dam	Snake River
Oregon Dept. of Fish and Wildlife Total					920,000				
U.S. Fish and Wildlife Service	Hagerman NFH	ST	SU	2008	100,879	05-12-08	05-16-08	Yankee Fk (Salmon R)	Salmon River (ID)
U.S. Fish and Wildlife Service	Hagerman NFH	ST	SU	2008	134,541	05-12-08	05-16-08	Yankee Fk (Salmon R)	Salmon River (ID)
U.S. Fish and Wildlife Service Total					235,420				
Warm Springs Tribe	Oak Springs Hatchery	ST	SU	2008	132	05-15-08	05-15-08	Hood River	Hood River
Warm Springs Tribe	Oak Springs Hatchery	ST	WI	2008	26,918	04-24-08	05-23-08	Parkdale Acclim Pond	Hood River
Warm Springs Tribe	Oak Springs Hatchery	ST	WI	2008	37,698	04-25-08	05-15-08	E Fk Hood River	Hood River
Warm Springs Tribe Total					64,748				
Washington Dept. of Fish and Wildlife	Chiwawa Hatchery	CH1	SP	2008	615,000	04-14-08	05-14-08	Chiwawa River	Wenatchee River
Washington Dept. of Fish and Wildlife	Skamania Hatchery	ST	SU	2008	24,750	04-24-08	05-15-08	White Salmon River	White Salmon River
Washington Dept. of Fish and Wildlife	Skamania Hatchery	ST	SU	2008	94,000	04-24-08	05-15-08	Klickitat River	Klickitat River
Washington Dept. of Fish and Wildlife	Skamania Hatchery	ST	WI	2008	21,000	04-24-08	05-15-08	White Salmon River	White Salmon River
Washington Dept. of Fish and Wildlife	Turtle Rock Hatchery	CH1	SU	2008	44,000	05-12-08	05-15-08	Turtle Rock Hatchery	Mid-Columbia River
Washington Dept. of Fish and Wildlife	Turtle Rock Hatchery	CH1	SU	2008	99,000	05-12-08	05-15-08	Chelan Falls	Mid-Columbia River
Washington Dept. of Fish and Wildlife	Wells Hatchery	CH0	SU	2008	242,400	05-13-08	05-20-08	Wells Hatchery	Mid-Columbia River
Washington Dept. of Fish and Wildlife	Wells Hatchery	ST	SU	2008	90,000	04-21-08	05-19-08	Twisp River	Methow River
Washington Dept. of Fish and Wildlife	Wells Hatchery	ST	SU	2008	110,000	04-21-08	05-19-08	Chewuch River	Methow River
Washington Dept. of Fish and Wildlife	Wells Hatchery	ST	SU	2008	110,000	04-21-08	05-19-08	Methow River	Methow River
Washington Dept. of Fish and Wildlife	Wells Hatchery	ST	SU	2008	138,000	04-21-08	05-19-08	Okanogan River	Okanogan River
Washington Dept. of Fish and Wildlife Total					1,588,150				
Yakama Tribe	Cascade Hatchery	CO	UN	2008	62,201	05-01-08	05-10-08	Wenatchee River	Wenatchee River
Yakama Tribe	Cascade Hatchery	CO	UN	2008	69,402	05-01-08	05-10-08	Rolfings Acclim Pond	Wenatchee River
Yakama Tribe	Cascade Hatchery	CO	UN	2008	147,905	05-01-08	05-10-08	Butcher Creek Acclim. Pond	Wenatchee River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2008	211,004	03-15-08	05-15-08	Clark Flat Acclim Pond	Yakima River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2008	217,146	03-15-08	05-15-08	Jack Creek Acclim Pond	Yakima River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2008	219,470	03-15-08	05-15-08	Easton Pond	Yakima River
Yakama Tribe	Willard Hatchery	CO	UN	2008	27,570	05-01-08	05-10-08	Wenatchee River	Wenatchee River
Yakama Tribe	Willard Hatchery	CO	UN	2008	30,425	05-01-08	05-10-08	Rolfings Acclim Pond	Wenatchee River
Yakama Tribe	Willard Hatchery	CO	UN	2008	70,299	05-01-08	05-10-08	Coulter Creek	Wenatchee River
Yakama Tribe	Willard Hatchery	CO	UN	2008	211,543	05-01-08	05-14-08	Wells Hatchery	Mid-Columbia River
Yakama Tribe Total					1,266,965				
Grand Total					4,275,283				

Hatchery Releases Next Two Weeks

Hatchery Release Summary									
From:	5/23/2008	to	6/5/2008						
Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
Nez Perce Tribe	Lyons Ferry Hatchery	CH0	FA	2008	400,000	05-26-08	05-27-08	Pittsburg Landing Acclim Pond	Snake River
Nez Perce Tribe	Lyons Ferry Hatchery	CH0	FA	2008	500,000	05-26-08	05-26-08	Cpt John Acclim Pond	Snake River
Nez Perce Tribe	Lyons Ferry Hatchery	CH0	FA	2008	500,000	05-28-08	05-29-08	Big Canyon (Clearwater River)	Clearwater River M F
Nez Perce Tribe Total					1,400,000				
Oregon Dept. of Fish and Wildlife	Umatilla Hatchery	CH0	FA	2008	300,000	05-28-08	05-28-08	Umatilla River	Umatilla River
Oregon Dept. of Fish and Wildlife Total					300,000				
Umatilla Tribe	Umatilla Hatchery	CH0	FA	2008	300,000	05-28-08	05-28-08	Thornhollow Acclim Pond	Umatilla River
Umatilla Tribe Total					300,000				
Warm Springs Tribe	Oak Springs Hatchery	ST	WI	2008	26,918	04-24-08	05-23-08	Parkdale Acclim Pond	Hood River
Warm Springs Tribe Total					26,918				
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	CH0	FA	2008	200,000	06-01-08	06-01-08	Couse Creek	Snake River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	CH0	FA	2008	200,000	06-01-08	06-01-08	Lyons Ferry Hatchery	Snake River
Washington Dept. of Fish and Wildlife Total					400,000				
Grand Total					2,426,918				

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

Total Dissolved Gas Saturation Data at Upper Columbia River Sites

Date	<u>Hungry H. Dnst</u>			<u>Boundary</u>			<u>Grand Coulee</u>			<u>Grand C. Tlwr</u>			<u>Chief Joseph</u>							
	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>		
	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
5/9	97	97	97	24	116	117	117	21	108	108	109	24	106	106	107	21	106	106	106	24
5/10	97	97	98	24	115	116	117	22	109	109	110	24	106	107	108	22	105	106	106	24
5/11	98	98	99	24	115	116	116	23	109	109	110	24	106	107	107	23	106	106	106	24
5/12	97	97	98	24	115	116	116	23	107	107	108	24	105	106	106	23	105	106	106	24
5/13	97	97	98	24	115	116	116	19	108	109	109	24	105	106	107	19	105	106	106	24
5/14	97	97	97	24	114	115	115	23	108	108	109	24	105	106	108	23	105	105	105	24
5/15	97	97	97	24	115	116	118	24	107	107	108	24	105	106	106	24	105	106	106	24
5/16	97	98	98	24	117	118	119	22	108	108	109	24	105	106	107	22	105	105	105	1
5/17	98	98	98	24	118	120	121	22	109	110	111	24	107	108	109	22	107	108	109	22
5/18	98	99	99	24	122	123	123	23	110	111	111	24	108	108	109	23	108	108	109	24
5/19	102	105	107	24	121	123	123	22	109	109	109	24	107	108	108	22	108	108	109	24
5/20	103	105	105	24	125	126	127	21	110	111	111	24	107	108	108	21	108	109	109	24
5/21	101	102	103	24	125	126	127	23	110	110	110	24	107	108	109	23	108	108	109	24
5/22	99	100	102	24	127	128	129	24	110	111	111	24	108	109	109	24	108	108	109	24

Total Dissolved Gas Saturation Data at Mid Columbia River Sites

Date	<u>Chief J. Dnst</u>			<u>Wells</u>			<u>Wells Dwnstrm</u>			<u>Rocky Reach</u>			<u>Rocky R. Tlwr</u>							
	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>		
	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
5/9	105	105	106	24	106	107	108	24	108	108	109	24	107	108	108	24	107	108	108	24
5/10	105	105	106	24	106	106	107	24	108	108	108	24	108	108	108	24	108	108	109	24
5/11	105	105	106	24	105	106	106	24	107	107	108	24	107	107	108	24	107	108	108	24
5/12	105	105	106	24	105	105	106	24	106	107	107	24	106	106	106	24	106	106	106	24
5/13	105	105	105	24	105	106	106	23	107	107	107	23	106	106	106	24	106	106	106	24
5/14	104	104	105	24	105	105	105	24	106	107	107	24	105	106	106	24	106	106	106	24
5/15	104	105	105	24	105	106	106	24	106	107	108	24	106	106	107	24	106	106	107	24
5/16	105	105	105	1	106	107	107	24	108	109	109	24	106	107	108	24	107	107	108	24
5/17	107	107	108	22	107	108	108	24	109	110	110	24	108	109	109	24	108	109	109	24
5/18	108	108	109	24	108	108	108	24	109	109	110	24	108	109	109	24	109	109	109	24
5/19	107	108	109	24	107	107	108	24	109	109	110	24	108	108	109	24	108	108	109	24
5/20	108	109	109	24	107	108	108	21	110	110	110	21	108	108	108	24	108	108	108	24
5/21	108	108	109	24	107	107	108	24	109	110	110	24	107	107	108	24	107	108	108	24
5/22	107	108	108	24	108	108	108	23	110	110	111	23	108	108	109	24	108	109	109	24

Total Dissolved Gas Saturation at Mid Columbia River Sites

Date	<u>Rock Island</u>			<u>Rock I. Tlwr</u>			<u>Wanapum</u>			<u>Wanapum Tlwr</u>			<u>Priest Rapids</u>							
	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>		
	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
5/9	107	108	108	24	109	110	111	24	106	107	108	22	110	111	111	24	109	110	111	24
5/10	108	108	108	24	110	110	111	24	107	108	109	24	111	112	115	24	110	111	112	24
5/11	107	107	108	24	109	109	110	24	107	108	109	24	111	111	112	24	110	110	110	24
5/12	106	106	107	24	108	109	109	24	106	106	106	24	109	110	111	24	108	109	109	24
5/13	106	106	106	24	108	109	109	24	106	106	107	24	110	110	111	24	109	110	110	24
5/14	106	106	106	24	108	109	110	24	106	106	106	24	110	110	110	24	109	109	109	24
5/15	106	106	107	24	109	110	112	24	106	107	109	24	109	110	110	24	109	110	111	24
5/16	107	107	108	24	110	112	115	24	108	111	114	24	111	112	113	24	111	111	113	24
5/17	108	108	109	24	110	111	112	24	109	110	111	24	112	113	114	24	112	113	115	24
5/18	108	108	109	24	111	112	113	24	109	110	110	24	112	113	114	24	112	112	113	24
5/19	108	108	109	24	110	111	112	24	109	110	111	24	112	113	113	24	112	112	113	24
5/20	107	108	108	24	110	111	112	24	109	109	109	24	112	112	113	24	111	112	112	24
5/21	107	107	107	24	109	110	111	24	107	107	108	24	110	110	111	24	109	109	110	24
5/22	107	108	108	24	109	110	111	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	<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>					
	<u>Avg</u>	<u>Avg</u>		<u>Avg</u>	<u>Avg</u>		<u>Avg</u>	<u>Avg</u>		<u>Avg</u>	<u>Avg</u>		<u>Avg</u>	<u>Avg</u>			<u>Avg</u>	<u>Avg</u>		
5/9	111	112	112	24	108	109	110	24	97	97	97	24	101	101	102	24	103	104	104	24
5/10	113	113	114	24	108	109	110	24	97	97	97	24	100	101	102	24	103	104	104	24
5/11	112	112	113	24	108	108	109	24	97	97	97	24	100	101	101	24	103	103	104	24
5/12	110	110	111	24	107	108	109	24	97	98	98	24	100	101	102	24	103	103	104	24
5/13	112	112	113	24	107	107	108	24	97	97	98	24	101	101	101	24	103	103	104	24
5/14	112	112	113	24	107	108	109	24	96	97	97	24	100	101	101	24	102	103	103	24
5/15	111	112	112	24	108	109	110	24	96	97	97	24	101	103	103	24	103	104	105	24
5/16	112	112	113	24	109	110	110	24	97	98	98	24	102	103	104	24	103	104	105	24
5/17	114	115	115	24	110	111	111	24	104	107	108	24	104	105	106	24	104	105	106	24
5/18	114	115	115	24	111	112	112	24	100	101	102	24	104	106	106	24	105	106	107	24
5/19	114	114	114	24	111	111	111	24	100	101	101	24	105	106	107	24	107	108	108	24
5/20	113	114	114	24	109	110	110	24	101	102	102	24	105	105	106	24	108	108	108	24
5/21	111	112	112	24	107	107	108	24	101	101	102	24	104	105	105	24	108	109	109	24
5/22	---	---	---	0	107	108	108	24	101	101	102	17	104	104	104	17	109	109	109	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>					
	<u>Avg</u>	<u>Avg</u>		<u>Avg</u>	<u>Avg</u>		<u>Avg</u>	<u>Avg</u>		<u>Avg</u>	<u>Avg</u>		<u>Avg</u>	<u>Avg</u>			<u>Avg</u>	<u>Avg</u>		
5/9	101	102	103	24	101	102	102	24	114	114	115	24	106	107	107	24	114	115	116	24
5/10	101	102	102	24	102	103	103	24	112	113	115	24	108	109	111	24	112	113	114	24
5/11	101	102	102	24	103	103	103	24	110	110	110	24	110	110	111	24	116	116	116	24
5/12	101	102	104	24	102	102	102	24	110	110	110	24	108	108	109	24	115	116	116	24
5/13	101	102	103	24	102	102	102	24	109	110	110	24	107	107	107	24	111	112	112	24
5/14	101	102	102	24	101	102	102	24	110	110	110	24	106	106	106	24	110	110	111	24
5/15	102	103	104	24	102	102	103	24	110	110	111	24	106	106	107	24	115	116	116	24
5/16	102	103	104	24	103	103	104	24	113	115	117	24	107	107	109	24	116	117	118	24
5/17	103	104	105	24	105	105	106	24	120	122	122	24	109	110	111	24	115	116	116	24
5/18	104	105	105	24	105	106	106	24	126	128	129	24	111	113	114	24	119	122	123	24
5/19	104	105	106	24	106	106	106	24	130	131	132	24	117	119	121	24	125	127	127	24
5/20	104	104	105	24	106	107	107	24	132	133	135	24	123	124	124	24	127	128	130	24
5/21	103	104	104	24	106	107	107	24	132	133	135	24	122	122	123	24	126	127	128	24
5/22	103	103	104	17	107	108	108	24	131	132	134	24	123	124	125	24	126	127	128	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>					
	<u>Avg</u>	<u>Avg</u>		<u>Avg</u>	<u>Avg</u>		<u>Avg</u>	<u>Avg</u>		<u>Avg</u>	<u>Avg</u>		<u>Avg</u>	<u>Avg</u>			<u>Avg</u>	<u>Avg</u>		
5/9	113	113	114	24	114	114	115	24	113	113	113	24	117	117	120	24	---	---	---	0
5/10	115	116	116	24	115	115	115	24	114	114	114	24	116	117	120	24	---	---	---	0
5/11	113	114	115	24	114	114	114	24	113	113	114	24	115	116	116	24	---	---	---	0
5/12	111	111	112	24	118	120	121	24	112	112	112	24	115	116	116	24	---	---	---	0
5/13	112	112	112	24	119	119	120	24	112	112	112	24	115	115	115	24	---	---	---	0
5/14	112	112	112	24	115	117	119	24	112	112	113	24	115	116	117	24	---	---	---	0
5/15	110	111	111	24	114	115	115	24	113	113	114	24	116	117	118	24	---	---	---	0
5/16	112	113	114	24	118	121	121	24	115	115	116	24	117	117	118	24	---	---	---	0
5/17	115	116	117	24	120	121	121	24	116	116	117	24	118	120	120	24	---	---	---	0
5/18	116	117	117	24	120	120	121	24	117	118	118	24	120	121	122	24	---	---	---	0
5/19	121	124	125	24	122	124	125	24	117	118	119	24	125	126	127	24	---	---	---	0
5/20	128	129	129	24	125	127	129	24	121	121	121	24	127	130	135	24	---	---	---	0
5/21	127	128	129	24	125	126	127	24	121	122	122	24	127	129	131	24	---	---	---	0
5/22	129	130	131	24	124	126	127	24	123	124	125	24	127	129	131	24	---	---	---	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 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>	High	#	<u>24 h</u>	<u>12 h</u>	High	#	<u>24h</u>	<u>12h</u>	High	#	<u>24h</u>	<u>12h</u>	High	#	<u>24h</u>	<u>12h</u>	High	#
	Avg	Avg			Avg	Avg			Avg	Avg			Avg	Avg			Avg	Avg		
5/9	109	110	111	24	115	115	116	24	108	109	109	24	116	117	117	24	109	110	112	24
5/10	111	111	112	24	114	115	115	24	109	109	110	24	116	117	118	24	111	111	112	24
5/11	110	111	112	24	114	114	115	24	107	107	108	24	115	115	116	24	110	110	112	24
5/12	108	108	109	24	115	115	116	24	106	107	107	24	117	118	118	24	109	111	112	24
5/13	108	109	109	24	114	115	115	24	108	108	108	24	116	117	117	24	111	111	112	24
5/14	108	108	108	24	114	114	114	24	106	107	107	24	114	114	115	24	111	111	112	24
5/15	108	109	111	24	114	115	115	24	106	107	108	24	114	115	115	24	110	111	111	24
5/16	112	113	114	24	115	115	116	24	109	109	110	24	115	115	115	24	111	112	112	24
5/17	114	115	115	24	115	116	117	24	110	110	111	24	114	115	115	24	112	112	113	24
5/18	114	115	115	24	118	120	121	24	111	112	113	24	117	118	118	24	112	112	113	24
5/19	113	114	115	24	121	122	122	24	113	114	115	24	119	120	122	24	114	115	115	24
5/20	112	113	114	24	121	122	122	24	113	114	114	24	118	118	118	24	113	114	115	24
5/21	109	110	111	24	122	122	123	24	110	110	111	24	118	118	118	24	110	110	110	24
5/22	110	113	116	24	122	122	123	24	109	110	110	24	119	120	121	24	110	111	111	24

Total Dissolved Gas Saturation Data at Lower Columbia River Sites

Date	<u>The Dalles Dnst</u>			<u>Bonneville</u>			<u>Warrendale</u>			<u>Camas\Washougal</u>			<u>Cascade Island</u>							
	<u>24 h</u>	<u>12 h</u>	High	#	<u>24 h</u>	<u>12 h</u>	High	#	<u>24h</u>	<u>12h</u>	High	#	<u>24h</u>	<u>12h</u>	High	#	<u>24h</u>	<u>12h</u>	High	#
	Avg	Avg			Avg	Avg			Avg	Avg			Avg	Avg			Avg	Avg		
5/9	115	116	116	24	110	111	112	24	---	---	---	0	112	113	114	24	120	121	122	24
5/10	116	117	117	24	114	115	115	24	---	---	---	0	113	114	114	24	121	121	122	24
5/11	115	115	116	24	112	113	114	24	---	---	---	0	112	113	114	24	118	119	120	24
5/12	115	116	117	24	110	110	111	24	---	---	---	0	112	113	113	24	120	121	127	24
5/13	116	116	117	24	112	113	113	24	---	---	---	0	113	114	115	24	120	120	121	24
5/14	115	116	116	24	112	113	113	24	---	---	---	0	113	114	115	24	118	119	120	24
5/15	116	116	117	24	114	115	115	24	---	---	---	0	115	116	117	24	119	120	121	24
5/16	116	117	117	24	115	116	117	24	---	---	---	0	114	115	116	24	120	121	121	24
5/17	117	117	118	24	117	117	118	24	---	---	---	0	115	117	118	23	120	120	120	24
5/18	116	116	117	24	116	116	116	24	---	---	---	0	118	119	120	22	123	124	124	24
5/19	117	118	118	24	115	116	116	24	---	---	---	0	119	120	121	24	123	124	125	24
5/20	117	117	118	24	115	116	116	24	---	---	---	0	118	119	119	24	123	124	125	24
5/21	116	116	117	24	112	113	113	24	---	---	---	0	116	117	118	24	124	124	126	24
5/22	116	117	118	24	112	112	112	24	---	---	---	0	119	119	120	24	124	124	125	24

Source: Fish Passage Center

Updated: 5/23/2008 8:18

Two-Week Summary of Passage Indices

* One or more of the sites on this date had an incomplete or biased sample.

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

For clip information see: <http://www.fpc.org/CurrentDaily/catch.htm>

For sockeye and yearling chinook (Snake only) race information see: <http://www.fpc.org/smoltqueries/currentsmppsubmitdata.asp>

COMBINED YEARLING CHINOOK											
Date	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (INDEX)	LGS (INDEX)	LMN (INDEX)	RIS (INDEX)	MCN (INDEX)	JDA (INDEX)	BO2 (INDEX)
05/09/2008 *	---	8	162	934	256,057	102,652	33,630	354	94,407	25,416	35,673
05/10/2008 *	---	18	146	694	208,207	113,949	31,628	606	---	30,417	47,192
05/11/2008	---	5	95	231	212,877	166,278	51,719	388	107,292	29,926	35,885
05/12/2008 *	---	4	162	121	198,374	166,034	39,748	412	---	31,576	31,101
05/13/2008	7	9	214	92	150,101	109,396	30,580	375	133,214	40,357	44,801
05/14/2008 *	28	14	143	53	85,237	93,300	41,483	427	---	34,898	41,017
05/15/2008 *	19	---	252	23	67,258	86,185	29,423	547	117,763	35,115	39,355
05/16/2008 *	---	0	324	66	57,536	73,248	14,041	833	---	36,094	63,992
05/17/2008 *	---	---	28	3,163	49,082	70,976	16,233	935	132,623	31,618	76,265
05/18/2008 *	---	---	1	1,381	110,539	93,157	36,920	781	---	35,777	48,905
05/19/2008 *	---	---	---	1,913	198,420	152,930	39,322	740	168,287	91,846	47,707
05/20/2008 *	---	---	---	---	97,055	154,162	125,040	812	---	117,897	47,110
05/21/2008 *	---	---	---	---	36,012	168,150	800,503	704	71,074	77,795	20,288
05/22/2008 *	---	---	---	---	35,911	109,380	224,204	---	---	85,349	12,474
05/23/2008	---	---	---	---	---	---	---	---	---	---	---
Total:	54	58	1,527	8,671	1,762,666	1,659,797	1,514,474	7,914	824,660	704,081	591,765
# Days:	3	7	10	11	14	14	14	13	7	14	14
Average:	18	8	153	788	125,905	118,557	108,177	609	117,809	50,292	42,269
YTD	56,037	78,577	19,672	13,632	3,415,113	2,207,417	1,714,752	11,150	1,016,983	925,838	1,089,549

COMBINED SUBYEARLING CHINOOK											
Date	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (INDEX)	LGS (INDEX)	LMN (INDEX)	RIS (INDEX)	MCN (INDEX)	JDA (INDEX)	BO2 (INDEX)
05/09/2008 *	---	0	0	13	0	0	0	13	2	0	16,544
05/10/2008 *	---	0	0	5	0	0	0	3	---	0	5,060
05/11/2008	---	0	0	2	0	0	0	3	253	0	6,009
05/12/2008 *	---	0	0	2	0	0	0	1	---	0	2,881
05/13/2008	0	0	0	0	261	0	0	3	422	249	4,260
05/14/2008 *	0	0	0	0	0	0	0	0	---	0	1,489
05/15/2008 *	0	---	0	1	558	0	0	4	508	0	593
05/16/2008 *	---	0	0	3	0	0	0	2	---	0	1,196
05/17/2008 *	---	---	0	22	0	0	0	15	845	205	1,214
05/18/2008 *	---	---	0	16	370	0	0	37	---	0	3,023
05/19/2008 *	---	---	---	1	1,314	0	0	81	1,660	0	1,227
05/20/2008 *	---	---	---	---	4,646	1,176	252	179	---	322	3,203
05/21/2008 *	---	---	---	---	13,692	838	795	412	6,505	238	2,415
05/22/2008 *	---	---	---	---	7,294	6,302	544	---	---	220	3,856
05/23/2008	---	---	---	---	---	---	---	---	---	---	---
Total:	0	0	0	65	28,135	8,316	1,591	753	10,195	1,234	52,970
# Days:	3	7	10	11	14	14	14	13	7	14	14
Average:	0	0	0	6	2,010	594	114	58	1,456	88	3,784
YTD	0	0	2	119	32,454	8,774	1,591	1,233	10,881	1,262	2,013,415

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)
05/09/2008 *	---	0	0	30	8,655	1,565	675	61	2,763	5,791	7,884
05/10/2008 *	---	0	0	26	7,899	1,435	0	95	---	14,634	16,947
05/11/2008 *	---	0	0	19	4,268	5,704	1,101	111	3,886	10,637	10,155
05/12/2008 *	---	0	0	8	5,481	5,525	1,967	133	---	2,500	12,120
05/13/2008 *	0	0	0	5	4,184	7,193	141	246	7,346	9,346	13,880
05/14/2008 *	0	0	0	4	2,645	1,148	278	310	---	13,333	8,831
05/15/2008 *	0	---	0	1	1,674	2,576	161	491	11,016	7,684	8,053
05/16/2008 *	---	0	0	4	1,839	2,289	0	789	---	11,248	18,899
05/17/2008 *	---	---	0	50	1,259	1,096	423	1,525	845	4,706	16,516
05/18/2008 *	---	---	0	6	5,176	2,307	368	3,620	---	4,626	14,138
05/19/2008 *	---	---	---	2	12,702	5,029	444	4,019	13,588	9,169	22,462
05/20/2008 *	---	---	---	---	4,130	7,446	6,170	4,268	---	12,244	23,037
05/21/2008 *	---	---	---	---	3,423	23,454	84,236	3,452	5,694	11,366	20,672
05/22/2008 *	---	---	---	---	1,683	28,990	30,710	---	---	14,417	10,206
05/23/2008 *	---	---	---	---	---	---	---	---	---	---	---
Total:	0	0	0	155	65,018	95,757	126,674	19,120	45,138	131,701	203,800
# Days:	3	7	10	11	14	14	14	13	7	14	14
Average:	0	0	0	14	4,644	6,840	9,048	1,471	6,448	9,407	14,557
YTD	0	0	0	326	96,313	98,661	127,702	19,379	46,526	138,190	257,490

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)
05/09/2008 *	---	234	211	724	166,526	139,253	19,178	419	61,838	63,636	20,034
05/10/2008 *	---	451	90	300	161,939	136,030	12,400	675	---	68,920	17,535
05/11/2008 *	---	386	44	262	126,179	269,229	37,853	653	52,127	57,454	13,540
05/12/2008 *	---	631	82	184	153,218	118,531	32,540	508	---	44,173	58,726
05/13/2008 *	45	572	62	149	117,413	112,671	18,857	702	54,001	42,724	34,220
05/14/2008 *	65	439	45	69	48,213	87,536	17,261	900	---	36,030	27,320
05/15/2008 *	56	---	210	56	50,513	45,233	15,756	583	40,233	27,446	32,224
05/16/2008 *	---	0	250	83	37,832	185,405	12,352	505	---	34,968	17,344
05/17/2008 *	---	---	131	1,264	48,722	164,973	23,035	443	14,406	29,061	12,266
05/18/2008 *	---	---	3	281	108,506	145,339	34,344	1,398	---	25,598	24,719
05/19/2008 *	---	---	---	617	204,552	148,546	31,324	1,790	22,741	32,654	13,594
05/20/2008 *	---	---	---	---	147,132	147,768	87,372	1,812	---	34,177	8,770
05/21/2008 *	---	---	---	---	116,023	212,879	535,080	1,241	23,018	38,505	5,843
05/22/2008 *	---	---	---	---	81,922	149,578	232,900	---	---	50,883	4,687
05/23/2008 *	---	---	---	---	---	---	---	---	---	---	---
Total:	166	2,713	1,128	3,989	1,568,690	2,062,971	1,110,252	11,629	268,364	586,229	290,822
# Days:	3	7	10	11	14	14	14	13	7	14	14
Average:	55	388	113	363	112,049	147,355	79,304	895	38,338	41,874	20,773
YTD	4,565	21,677	5,891	10,708	3,060,916	3,107,005	1,292,674	12,715	403,087	743,247	377,597

Two-Week Summary of Passage Indices

Date	COMBINED SOCKEYE										
	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (INDEX)	LGS (INDEX)	LMN (INDEX)	RIS (INDEX)	MCN (INDEX)	JDA (INDEX)	BO2 (INDEX)
05/09/2008 *	---	0	0	0	0	0	0	44	2,130	172	0
05/10/2008 *	---	0	0	0	564	0	0	67	---	331	0
05/11/2008	---	0	0	0	267	285	220	55	1,774	273	25
05/12/2008 *	---	0	0	14	0	0	0	81	---	129	412
05/13/2008	25	0	0	19	261	0	0	92	6,080	873	550
05/14/2008 *	8	0	0	11	0	0	0	85	---	512	313
05/15/2008 *	4	---	0	3	0	0	0	94	11,868	1,312	543
05/16/2008 *	---	0	0	4	0	0	0	192	---	716	718
05/17/2008 *	---	---	0	42	1,977	274	0	342	13,178	1,741	729
05/18/2008 *	---	---	0	1	2,773	1,442	0	972	---	1,953	385
05/19/2008 *	---	---	---	14	2,628	1,006	444	1,764	10,074	6,170	1,355
05/20/2008 *	---	---	---	---	5,163	1,568	2,537	3,476	---	12,328	723
05/21/2008 *	---	---	---	---	1,711	2,094	18,012	3,428	12,315	5,469	2,536
05/22/2008 *	---	---	---	---	561	3,361	6,793	---	---	8,680	1,906
05/23/2008	---	---	---	---	---	---	---	---	---	---	---
Total:	37	0	0	108	15,905	10,030	28,006	10,692	57,419	40,659	10,195
# Days:	3	7	10	11	14	14	14	13	7	14	14
Average:	12	0	0	10	1,136	716	2,000	822	8,203	2,904	728
YTD	37	0	0	111	16,696	10,066	28,138	10,871	59,186	41,179	10,511

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

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

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)}

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.

Two Week Transportation Summary

Source: Fish Passage Center

Updated:

5/23/08 8:16 AM

		Species					
		05/09/08 TO 05/23/08					
Site	Data	CH0	CH1	CO	SO	ST	Grand Total
LGR	Sum of NumberCollected	10,600	1,149,087	39,462	7,654	941,996	2,148,799
	Sum of NumberBarged	10,236	1,073,050	39,016	7,466	924,361	2,054,129
	Sum of NumberBypassed	322	73,121	412	178	17,023	91,056
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of SampleMorts	0	36	0	0	16	52
	Sum of FacilityMorts	42	1,676	34	10	587	2,349
	Sum of ResearchMorts	0	1,204	0	0	9	1,213
	Sum of TotalProjectMorts	42	2,916	34	10	612	3,614
LGS	Sum of NumberCollected	4,000	1,056,026	53,600	5,400	1,320,163	2,439,189
	Sum of NumberBarged	3,999	988,666	52,599	5,399	1,229,872	2,280,535
	Sum of NumberBypassed	1	66,744	1,000	0	90,139	157,884
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of SampleMorts	0	7	1	0	1	9
	Sum of FacilityMorts	0	609	0	1	151	761
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	0	616	1	1	152	770
LMN	Sum of NumberCollected	896	906,280	71,888	15,829	662,694	1,657,587
	Sum of NumberBarged	0	121,654	1,020	0	88,452	211,126
	Sum of NumberBypassed	896	785,498	70,867	15,829	574,165	1,447,255
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of SampleMorts	0	9	0	0	8	17
	Sum of FacilityMorts	0	119	1	0	69	189
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	0	128	1	0	77	206
MCN	Sum of NumberCollected	4,801	457,854	24,283	30,868	152,493	670,299
	Sum of NumberBarged	0	0	0	0	0	0
	Sum of NumberBypassed	4,799	457,727	24,286	30,857	152,423	670,092
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of SampleMorts	0	18	0	1	4	23
	Sum of FacilityMorts	1	155	1	6	109	272
	Sum of ResearchMorts	1	26	0	0	5	32
	Sum of TotalProjectMorts	2	199	1	7	118	327
Total Sum of NumberCollected		20,297	3,569,247	189,233	59,751	3,077,346	6,915,874
Total Sum of NumberBarged		14,235	2,183,370	92,635	12,865	2,242,685	4,545,790
Total Sum of NumberBypassed		6,018	1,383,090	96,565	46,864	833,750	2,366,287
Total Sum of Numbertrucked		0	0	0	0	0	0
Total Sum of SampleMorts		0	70	1	1	29	101
Total Sum of FacilityMorts		43	2,559	36	17	916	3,571
Total Sum of ResearchMorts		1	1,230	0	0	14	1,245
Total Sum of TotalProjectMorts		44	3,859	37	18	959	4,917

YTD Transportation Summary

Source: Fish Passage Center

Updated:

5/23/08 8:16 AM

TO: 05/23/08

		Species					
Site	Data	CH0	CH1	CO	SO	ST	Grand Total
LGR	Sum of NumberCollected	13,543	2,311,323	62,504	8,164	1,974,493	4,370,027
	Sum of NumberBarged	11,918	1,883,190	60,627	7,771	1,609,890	3,573,396
	Sum of NumberBypassed	1,580	422,572	1,836	372	363,853	790,213
	Sum of NumberTrucked	0	0	0	0	0	0
	Sum of SampleMorts	2	131	1	0	36	170
	Sum of FacilityMorts	43	2,636	40	21	705	3,445
	Sum of ResearchMorts	0	2,794	0	0	9	2,803
	Sum of TotalProjectMorts	45	5,561	41	21	750	6,418
LGS	Sum of NumberCollected	4,283	1,377,901	55,326	5,421	1,947,907	3,390,838
	Sum of NumberBarged	3,999	988,666	52,599	5,399	1,229,872	2,280,535
	Sum of NumberBypassed	283	388,600	2,726	21	717,876	1,109,506
	Sum of NumberTrucked	0	0	0	0	0	0
	Sum of SampleMorts	0	12	1	0	6	19
	Sum of FacilityMorts	1	623	0	1	153	778
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	1	635	1	1	159	797
LMN	Sum of NumberCollected	896	1,034,985	72,598	15,899	779,301	1,903,679
	Sum of NumberBarged	0	121,654	1,020	0	88,452	211,126
	Sum of NumberBypassed	896	913,729	71,577	15,899	690,736	1,692,837
	Sum of NumberTrucked	0	0	0	0	0	0
	Sum of SampleMorts	0	23	0	0	8	31
	Sum of FacilityMorts	0	570	1	0	105	676
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	0	593	1	0	113	707
MCN	Sum of NumberCollected	5,208	602,108	25,268	31,908	231,826	896,318
	Sum of NumberBarged	0	0	0	0	0	0
	Sum of NumberBypassed	5,206	601,889	25,271	31,897	231,701	895,964
	Sum of NumberTrucked	0	0	0	0	0	0
	Sum of SampleMorts	0	56	0	1	15	72
	Sum of FacilityMorts	1	197	1	6	145	350
	Sum of ResearchMorts	1	32	0	0	11	44
	Sum of TotalProjectMorts	2	285	1	7	171	466
Total Sum of NumberCollected		23,930	5,326,317	215,696	61,392	4,933,527	10,560,862
Total Sum of NumberBarged		15,917	2,993,510	114,246	13,170	2,928,214	6,065,057
Total Sum of NumberBypassed		7,965	2,326,790	101,410	48,189	2,004,166	4,488,520
Total Sum of NumberTrucked		0	0	0	0	0	0
Total Sum of SampleMorts		2	222	2	1	65	292
Total Sum of FacilityMorts		45	4,026	42	28	1,108	5,249
Total Sum of ResearchMorts		1	2,826	0	0	20	2,847
Total Sum of TotalProjectMorts		48	7,074	44	29	1,193	8,388

Cumulative Adult Passage at Mainstem Dams Through: 05/22

DAM	EndDate	Spring Chinook						Summer Chinook						Fall Chinook					
		2008		2007		10-Yr Avg.		2008		2007		10-Yr Avg.		2008		2007		10-Yr Avg.	
		Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack
BON	05/22	114511	14825	60618	14104	141424	8430	0	0	0	0	0	0	0	0	0	0	0	0
TDA	05/22	85461	13017	45857	12392	96021	5998	0	0	0	0	0	0	0	0	0	0	0	0
JDA	05/22	70664	11930	36994	10881	78637	4733	0	0	0	0	0	0	0	0	0	0	0	0
MCN	05/22	53300	7591	30992	8665	69604	4223	0	0	0	0	0	0	0	0	0	0	0	0
IHR	05/21	36840	3656	20932	4651	43519	2323	0	0	0	0	0	0	0	0	0	0	0	0
LMN	05/22	32867	3296	19607	4656	40452	2124	0	0	0	0	0	0	0	0	0	0	0	0
LGS	05/22	25384	2452	13508	3579	36805	1881	0	0	0	0	0	0	0	0	0	0	0	0
LGR	05/22	19990	2163	12491	4076	35833	1890	0	0	0	0	0	0	0	0	0	0	0	0
PRD	05/21	6977	204	4033	135	14360	203	0	0	0	0	0	0	0	0	0	0	0	0
RIS	05/21	5255	76	3227	402	10048	285	0	0	0	0	0	0	0	0	0	0	0	0
RRH	05/21	1416	11	1329	126	3581	70	0	0	0	0	0	0	0	0	0	0	0	0
WEL	05/21	254	4	323	29	1697	22	0	0	0	0	0	0	0	0	0	0	0	0
WFA	05/20	4810	46	14651	118	-	-	0	0	0	0	-	-	0	0	0	0	-	-

DAM	Coho						Sockeye			Steelhead			
	2008		2007		10-Yr Avg.		10-Yr		10-Yr			Wild	
	Adult	Jack	Adult	Jack	Adult	Jack	2008	2007	Avg.	2008	2007	Avg.	2008
BON	0	0	0	0	0	0	3	0	0	2982	2710	3264	842
TDA	0	0	0	0	0	0	0	0	0	1336	1181	1097	524
JDA	-1	0	0	0	0	0	1	0	0	3167	2077	3038	1398
MCN	0	0	0	0	0	0	0	0	0	2424	1861	1671	1088
IHR	0	0	0	0	0	0	0	0	0	3172	2267	1889	1176
LMN	0	0	0	0	0	0	0	0	0	4024	2296	1909	1761
LGS	0	0	0	0	0	0	0	0	0	2644	2293	2170	1039
LGR	0	0	0	0	0	0	0	0	0	7733	10574	7400	2431
PRD	0	0	0	1	0	0	0	0	2	98	34	5	0
RIS	0	0	0	0	0	0	1	0	1	219	47	34	112
RRH	0	0	0	0	0	0	1	0	0	416	151	130	216
WEL	0	0	0	0	0	0	0	0	0	115	38	23	83
WFA	0	0	2	0	-	-	0	0	-	8495	8618	-	-

BON and LGR have switched to video counts so the data is delayed.

*PRD is not posting wild steelhead numbers.

These numbers were collected from USACE, Grant PUD, Douglas PUD, Chelan PUD, ODFW and DART.

Wild steelhead numbers are included in the total. Wild Steelhead are defined as unclipped fish.

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.

Page last updated on: 05/23/08

BON counts from January 1, 2008 to March 14, 2008 (our traditional counts begin March 15):

Year	Chinook Adult	Chinook Jack	Steelhead	Wild Steelhead
2008	42	0	578	278
2007	22	0	1,677	517