

Fish Passage Center Weekly Report #07 - 12

May 25, 2007

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Summary of Events:

Water Supply: Precipitation throughout the Columbia Basin has varied between 35% and 107% of average at individual sub-basins over the first three weeks of May. Precipitation above The Dalles has been 70% of average over the first three weeks of 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.

	Water Y	ear 2007	Water Year 2007		
			October 1, 2006 to		
	May	1-21	May 21, 2007		
	Observed	%	Observed	%	
Location	(inches)	Average	(inches)	Average	
Columbia Above	1.29	85	19.03	109	
Coulee					
Snake River Above	0.62	49	10.96	84	
Ice Harbor					
Columbia Above	0.93	70	17.69	102	
The Dalles					
Kootenai	1.46	97	20.57	115	
Clark Fork	1.40	101	12.25	105	
Flathead	1.25	76	15.72	102	
Pend	0.90	51	22.75	94	
Oreille/Spokane					
Central Washington	0.56	107	6.86	97	
Snake River Plain	0.35	35	6.39	78	
Salmon/Boise/	0.68	56	12.98	83	
Payette					
Clearwater	1.31	64	23.21	100	
SWWashington	1.74	68	62.02	101	
Cascades/Cowlitz					
Willamette Valley	1.65	69	55.13	105	

Table 2 displays the May Final and May Midmonth runoff volume forecasts for multiple reservoirs. Water Supply Forecasts did not vary much between the May Final and May Midmonth forecasts at Columbia Basins and Snake Basin sites. The current forecast at The Dalles between January and July is 99100 Kaf (92% of average).

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

	Max	y Final	May M	id-month	
	%	Probable	%	Probable	
	Average	Runoff	Average	Runoff	
	(1971-	Volume	(1971-	Volume	
Location	2000)	(Kaf)	2000)	(Kaf)	
The Dalles (Jan-July)	92	99100	92	99100	
Grand Coulee (Jan-	104	65300	104	65400	
July)					
Libby Res. Inflow, MT	108	<i>67</i> 90	113	7100	
(Jan-July)					
Hungry Horse Res.	92	2050	98	2170	
Inflow, MΓ(Jan-July)					
Lower Granite Res.	66	14200	66	14200	
Inflow					
(Apr-July)					
Brownlee Res. Inflow	48	3040	46	2930	
(Apr-July)					
Dworshak Res. Inflow	78	2060	78	2060	
(Apr-July), RFC					
Forecast					
Dworshak Res. Inflow	70	1868			
(Apr-July), COE	(May	(May			
Forecast	Final)	Final)			

Grand Coulee Reservoir is at 1265.1 feet (5-24-07) and refilled 8.8 last week. Outflows at Grand Coulee ranged between 108.3 and 147.5 Kcfs last week.

Dworshak is currently at an elevation of 1588.8 feet (5-17-07) and refilled 5.0 feet last week. Outflows at Dworshak are currently 5.4 Kcfs.

The Libby Reservoir is currently at elevation 2410.3 feet (5-24-07) and refilled 6.5 feet last week. Sturgeon pulse operations have been occurring at Libby with outflows currently at 25 Kcfs.

Hungry Horse is currently at an elevation of 3550.6 feet (5-24-07) and refilled 3.0 feet last week. Outflows at Hungry Horse are currently 6 Kcfs.

The Brownlee Reservoir was at an elevation of 2076.1 feet on May 24th, 2007, holding steady last week. Outflows at Brownlee Dam have been 12.0 to 18.8 Kcfs over the last week.

The Biological Opinion flow period began on April 3rd in the lower Snake River (Lower Granite) and on April 10th in the mid (Priest Rapids) and lower (McNary) Columbia River. According to the last Water Supply Forecast (April Final), the flow objectives this spring are 85 Kcfs at Lower Granite, 237 Kcfs at McNary, and 135 Kcfs at Priest Rapids. The McNary Dam flow over the past week averaged 267.3 Kcfs and 249.7 Kcfs over the season. The Lower Granite Dam flow over the past week averaged 84.7 Kcfs and 64.7 Kcfs over the season. The Priest Rapids Dam flow over the past week averaged 168.3 Kcfs and 169.4 Kcfs over the season.

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

Spill at Lower Granite Dam had been averaging between 19.7 and 19.8 Kcfs daily, consistently less than the 20 Kcfs specified in the Court Order. As flows recede spill at Little Goose Dam has met the Court Order over most of the past week. While the spill cap established by the COE has not changed significantly, the lower flows have resulted in being able to achieve the 30% of instantaneous flow contained in the Court Order.

According to the Court Order, spill at Lower Monumental Dam is gas cap spill for 24 hours daily. The monitoring of forebay gas at the downstream project (Ice Harbor) has consistently been below 115% this past week. The total dissolved gas readings at the Lower Monumental tailrace exceeded 120% on May 20 and 21. Spill was 22.6 Kcfs earlier in the week and gradually increased to 24.7 Kcfs, which caused the tailrace TDG to exceed 120%. Spill was initially decreased to 22.6 Kcfs and then increased slightly to 23.5 Kcfs for the last few days. The tailrace TDG reading remained below 120% over the past few days.

Ice Harbor spill is being provided to achieve the study conditions specified in the Court's Order.

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%
The Dalles	40%/40%
Bonneville	100Kcfs/100Kcfs

Spill at McNary Dam is meeting the Court's Order. Spill at John Day Dam has only come close to the Court's Order one time over the past week. This is due to the COE spill caps. Total dissolved gas averages have been less than 118% in the John Day Dam tailrace and below 113% at The Dalles Dam forebay monitor. Spill could be increased at this project to better meet the Court's Order.

Spill at The Dalles has met the Court's Order on a daily basis over the past week.

Daily average spill at Bonneville Dam ranged from 97.8 Kcfs to 98.6 Kcfs over the past

week, consistently less than the 100 Kcfs specified in the Court's Order. The tailrace average TDG reading has not varied more than 0.1% over the past seven days and has not exceeded 118.4%, while the downstream forebay readings at Camas/Washougal ranged between 112.5 and 115.7%. The 115.7% occurred at Camas/Washougal on May 24th even though no changes in spill occurred at Bonneville Dam. While the COE spill cap is 100 Kcfs the project is not always meeting the Court Order, averaging 1-2 Kcfs less than 100 Kcfs on a daily basis.

Total dissolved gas at the federal hydroprojects remained below the TDG criteria over the past week with the exception of slight tailrace exceedence at Lower Monumental Dam and at Camas/Washougal. Gas bubble trauma (GBT) monitoring continued this week at Lower Granite, Little Goose, Lower Monumental, Rock Island, McNary and Bonneville dams. A small percentage of fish (2.0 - 5.9%) were observed with minor signs of GBT at Little Goose, Lower Monumental, Bonneville and Rock Island dams over the past week. Most signs observed were of the lowest rank, with the exception of some Rank 2 signs observed at Bonneville Dam. However, all samples were well below the action criteria of 15% of fish observed with signs of GBT or 5% with signs of GBT greater than Rank 1.

Smolt Monitoring: Full transportation (as apposed to research transportation) began at Lower Granite Dam on May 1 and on May 8 at Little Goose Dam and May 11 at Lower Monumental Dam. Full 24 hour sampling at Lower Monumental Dams, in support of transportation, began May 10. Sampling at McNary Dam has been resumed on a regular schedule; every other day for spring migrants.

Smolt Monitoring at Snake River tributary traps continued at most locations this past week, where the numbers of yearling Chinook and steel-head being captured has decreased. Sampling is scheduled to end today, May 25, at the Salmon River, Grande Ronde and Snake River traps. Due to high flows and debris the Salmon River Trap has not sampled since May 11 and will not restart this season. Flows dropped over past several days in the tributaries, where SMP traps are sampling. In

the Salmon River, flows dropped from 35 Kcfs, down to 25 Kcfs in the past four days (ending May 25) to well below historic median which is typically above 35 Kcfs and rising at this time of year. Temperatures were down too, so that there may yet be another pulse of water out of the Salmon. Similar drops in flow were seen in the Imnaha and Grande Ronde Rivers. The Salmon River Trap, operated by IDFG, was pulled, due to those high flows and associated debris. At the Grande Ronde Trap the catch of yearling chinook and steelhead decreased over the past week. The Imnaha Trap has had large numbers of hatchery yearling chinook and steelhead pass the trap. Steelhead collection decreased over the past week, but still remains relatively high, averaging over 500 per day over the past week. At the Snake River Trap collection numbers decreased over the past week.

At Lower Granite Dam, there was a decrease in passage of spring migrants the past week. The passage index for yearling Chinook averaged 9,000 per day, compared to 51,000 last week, and steelhead averaged 29,000 per day this week compared to 61,000 last week. Based on different methods of estimated collection efficiency, an estimated 6.5 to 7.7 million yearling chinook have passed Lower Granite Dam, while an 3 to 5.5 million steelhead have passed.

Full 24-hour sampling at Little Goose and Lower Monumental dams began two weeks ago, as transportation began at those sites. Transportation began May 8 at Little Goose, so that sampling in support of transport began May 7, while full 24-hour sampling at Lower Monumental began 3 days later, on May 10. The first collection for transport began May 11, with the first barge load of fish transported May 12. Prior to those dates some sampling for research and fish condition had occurred at those dams. As a result of the increased sampling, passage indices and collection numbers increased greatly at Little Goose Dam and Lower Monumental Dam.

At Rock Island Dam, the numbers of all spring migrants have continued passing in relatively good numbers this past week. The coho index rose sharply on May 17, when it climbed to over 5,000. Coho continued to pass in relatively large numbers this past week. Sockeye numbers

rose too, although to a lesser extent, with index increasing to 1,800 fish on May 18. Steelhead indices increased too at the site, with a peak index of 3,000 on May 21. Yearling Chinook numbers have declined gradually over the past week.

In the Lower Columbia, at McNary Dam, just as at Rock Island, numbers of coho and sockeye increased this past week. But yearling Chinook which continue to predominate in the passage, and steelhead indices, declined over the past week. The yearling Chinook index averaged 101,000 for the past 4 sampling dates, compared to 151,000 the previous 4 days of sampling. Steelhead indices averaged 14,000 per day the past 4 sampling days, compared to 24,000 the previous time period. While at John Day Dam indices for most spring migrants were down. The yearling chinook index averaged 99,000 per day this week compared to 210,000 last week, and steelhead index averaged 12,000 compared to 50,000 the previous week. Coho indices averaged 11.000 this past week while sockeye index rose to an average of 41,000 per day this week compared to 6,000 per day the previous week.

At Bonneville Dam indices for most spring migrants were also down. The yearling chinook index averaged 35,000 over the past week, compared to 96,000 the previous week. Coho indices averaged 14,000 per day this week compared to 24,000 per day last week. Steelhead indices averaged nearly 6,000 per day. Sockeye indices averaged 8,500 per day this week compared to 3,000 last week. Subyearling chinook indices continue to decrease. The index rose to 259,000 on May 3, as passage from the third Spring Creek release peaked. Fish numbers continually declined over the past three weeks. Indices for subs averaged 2,400 per day this past week, compared to 3,700 per day last week.

Adult Passage: Daily passage numbers at Bonneville Dam have ranged between 498 and 998 adult spring Chinook in the last week. The 2007 spring Chinook count of 61,746 is about 41.6 percent of the 10-year average count and 67.2 percent of the 2006 count. In 2006, the spring Chinook migration arrived much later than usual. The 2007 spring Chinook migration arrived earlier than the 2006 migration, but arrived later than the 10-year average migration. In 2006 there was a large increase in spring Chinook counts from about May 6th through May 19th. The 2007 count has not yet seen a similar large increase in fish. The spring Chinook jack count of 14,767 at Bonneville Dam is presently 5.73 times greater than observed in 2006, and about twice as large as the 10-year average count to date.

As of May 25th, 2,826 steelhead had passed Bonneville Dam which is about 1.03 times the 2006 count of 2,737. The 2007 Bonneville steelhead count is about 78.5 percent of the 10-year average. As of May 25th 301,232 adult Shad have been counted at Bonneville Dam this season with daily counts ranging from 11,582 to 51,736.

A total of 21,941 spring Chinook adults have been observed at Ice Harbor Dam as of May 23rd. The 2007 Ice Harbor count increased about 1.24 times when compared to the 2006 count. However, it is only 48.4% of the 10-year average. The 2007 spring Chinook jack count of 5,334 is about 12.1 times the 2006 count and 2.6 times the 10-year average count. A total of 4,243 spring Chinook adult have been counted at Priest Rapids Dam which is 1,028 fish less than the 2006 count. The 2007 Priest Rapids spring Chinook count is only 29.3 percent of the 10-year average.

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. A total of 363,431 subyearling fall Chinook from the Nez Perce Tribal Hatchery were released into the Clearwater River on May 22nd and 23rd. In addition, about 200,000 subyearling fall Chinook were scheduled for release into the Snake River from Lyons Ferry Hatchery on May 23rd. Final numbers on this release are not yet known.

Approximately 1.4 million subyearling fall Chinook are scheduled for release into this zone over the next two weeks. Of these 35.7% will be released from the Big Canyon Creek Acclimation Facility on the Clearwater River. The remaining 64.3% are scheduled for release from the Pittsburg Landing and Captain Johns Rapids Acclimation Facilities on the Snake River. Both of these acclimation facilities are located above Lower Granite Dam. There are no other scheduled releases of juvenile salmonids over the next two weeks in this zone.

Mid-Columbia Zone: The Mid-Columbia Zone encompasses the area of the Columbia River and its tributaries from McNary Dam to Chief Joseph Dam. This week marked the end of several long volitional releases of summer steelhead into the Methow River and its tributaries. In all, 315,443 steelhead juveniles were released during these volitional releases. Of these 30.5% were released directly into the Methow River, while 35.4% and 34.1% were released into the Twisp and Chewuch Rivers, respectively.

Currently, there are no scheduled releases of juvenile salmonids into the Mid-Columbia River 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. There were no scheduled releases of juvenile salmonids this week.

A volitional release of approximately 4.0 million subyearling fall Chinook from Klickitat Hatchery is scheduled to begin on or around June

1st. This release is anticipated to last approximately 2 weeks. There are no other scheduled releases of juvenile salmonids over the next two weeks in this zone.

Daily Average Flow and Spill (in kcfs) at Mid-Columbia Projec

	Gr	and	Chi	ef			Ro	cky	Ro	ck			Pr	iest
	Co	ulee	Jose	ph	We	ells	Re	ach	Isla	nd	Wan	apum	Ra	pids
Date	Flow	Spill												
05/11/07	128.4	0.0	132.1	0.0	145.1	13.0	147.2	0.0	156.6	17.7	170.5	23.6	168.6	9.4
05/12/07	142.4	0.0	146.9	0.0	154.5	20.2	149.1	0.0	153.6	16.6	169.5	27.3	173.8	11.5
05/13/07	108.9	0.0	109.9	0.0	142.0	33.8	155.2	0.0	165.0	12.8	180.9	41.7	172.3	10.9
05/14/07	142.2	0.0	133.0	0.0	148.0	13.2	141.8	0.0	151.5	18.3	154.2	10.1	152.9	11.0
05/15/07	135.8	0.0	146.1	0.0	166.1	16.4	160.8	0.0	167.8	17.0	175.2	30.1	164.4	13.0
05/16/07	137.6	0.0	141.4	0.0	162.5	18.7	161.9	0.0	170.3	16.3	184.0	44.2	175.0	15.3
05/17/07	130.2	0.0	127.7	0.0	147.3	15.0	156.1	0.5	167.2	16.4	178.5	39.6	176.1	15.8
05/18/07	126.3	0.0	126.9	0.0	150.5	19.7	156.5	0.0	165.8	15.6	175.2	33.5	169.9	15.3
05/19/07	113.2	0.0	113.5	0.0	135.5	12.5	140.5	0.0	150.3	13.9	160.3	18.2	162.2	14.1
05/20/07	108.3	0.0	108.5	0.0	132.4	12.3	136.3	0.0	147.8	11.9	158.5	15.0	155.9	15.3
05/21/07	133.7	0.0	139.4	0.0	160.3	22.4	158.5	0.0	164.4	17.2	166.3	28.1	165.0	14.6
05/22/07	135.8	0.0	132.7	0.0	155.9	14.6	163.9	0.0	171.6	17.2	184.4	41.4	177.5	14.1
05/23/07	139.9	0.0	140.4	0.0	157.2	13.6	155.5	0.0	161.9	17.3	174.2	31.6	174.7	14.2
05/24/07	147.5	0.0	151.9	0.0	169.8	23.6	168.5	0.0	173.6	16.8	178.9	37.5	172.9	14.1

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

				Hells	Lov	Lower		ttle	Lower		Ice	
	Dwo	rshak	Brownlee	Canyon	yon Granite		Goose		Monumental		Harbor	
Date	Flow	Spill	Inflow	Outflow	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill
05/11/07	9.7	0.0	14.3	18.2	93.2	19.8	90.9	25.7	92.4	18.6	92.2	28.1
05/12/07	9.7	0.0	13.3	14.2	93.3	19.8	90.8	24.2	94.6	17.1	93.8	28.0
05/13/07	9.7	0.0	14.2	15.1	100.9	19.9	95.1	22.0	95.3	14.7	94.7	28.4
05/14/07	9.7	0.0	14.0	15.9	99.2	19.7	95.7	23.8	98.4	16.1	99.6	51.1
05/15/07	9.7	0.0	13.7	12.6	92.7	19.7	90.7	25.1	93.7	20.3	96.7	60.4
05/16/07	9.4	0.0	14.2	12.8	90.0	19.7	87.2	25.1	87.7	21.6	87.6	38.5
05/17/07	5.4	0.0	15.4	16.7	85.9	19.7	79.6	23.8	80.7	21.4	81.0	24.3
05/18/07	5.4	0.0	14.8	16.3	92.7	19.8	92.6	27.1	92.6	22.1	95.3	52.6
05/19/07	5.4	0.0	14.1	13.8	91.1	19.8	87.2	26.1	87.9	21.7	89.3	60.0
05/20/07	5.4	0.0	14.7	14.5	88.0	19.7	85.4	25.8	85.8	23.3	87.8	56.9
05/21/07	5.4	0.0	14.3	15.2	87.0	19.8	84.6	25.4	85.9	22.7	89.5	58.4
05/22/07	5.4	0.0	14.5	12.6	84.8	19.8	83.7	25.2	83.7	22.5	84.4	34.2
05/23/07	5.3	0.0	14.5	15.1	75.2	19.7	71.8	21.6	72.8	23.1	73.9	22.3
05/24/07	5.4	0.0			74.2	19.8	70.1	21.0	69.5	22.8	70.6	41.0

Daily Average Flow and Spill (in kcfs) at Lower	Columbia Projects
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	McI	Nary	John [John Day		alles		Bonneville			
Date	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	PH1	PH2	
05/11/07	281.5	112.4	278.0	72.9	270.2	107.9	285.2	94.6	80.5	98.6	
05/12/07	272.6	109.4	259.6	72.1	263.9	105.2	283.8	97.3	79.3	95.7	
05/13/07	270.3	108.3	259.0	68.8	245.8	98.5	257.5	97.7	48.9	99.2	
05/14/07	280.2	112.3	283.3	73.8	283.2	113.5	301.0	98.9	84.6	106.0	
05/15/07	280.9	112.4	278.7	67.0	269.4	107.2	292.0	98.2	84.3	97.9	
05/16/07	268.8	107.2	244.6	65.5	251.4	100.4	274.3	99.0	72.9	90.9	
05/17/07	271.0	108.0	265.1	67.2	252.1	101.1	268.2	98.4	72.0	86.3	
05/18/07	257.0	103.0	252.8	59.9	253.9	101.6	269.4	98.1	66.9	92.9	
05/19/07	272.3	109.7	258.3	63.9	254.8	102.4	278.2	98.0	72.4	96.3	
05/20/07	268.2	107.1	264.9	66.7	259.1	102.9	266.1	98.2	64.0	92.4	
05/21/07	279.5	111.4	262.1	61.1	255.6	100.5	256.5	97.8	47.0	100.1	
05/22/07	265.9	106.2	261.0	66.9	254.3	101.6	270.7	98.1	65.2	95.9	
05/23/07	264.4	105.7	255.9	63.8	258.1	103.9	269.0	98.6	63.1	95.8	
05/24/07	263.6	105.2	254.1	58.8	245.6	97.6	267.5	99.0	60.7	96.3	

Gas Bubble Trauma Monitoring Results from Representative Sites on the Snake River and Columbia River

										sh with I	
			Number of	Number w	Number w	% Fin	% Severe	Rank		Rank	Rank
Site	Date	Species	Fish	GBT signs	Fin Signs	GBT	Fin GBT	1	2	3	4
Low	er Grani	te Dam									
	05/15/07	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
Littl	e Goose	Dam									
	05/15/07	Chinook + Steelhead	100	1	1	1.00%	0.00%	1	0	0	0
	05/22/07	Chinook + Steelhead	100	2	2	2.00%	0.00%	2	0	0	0
Low	er Monu	mental Dam									
	05/21/07	Chinook + Steelhead	100	3	3	3.00%	0.00%	3	0	0	0
McN	lary Dam	l									
	-	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
	05/20/07	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
Bon	neville D	am									
	05/15/07	Chinook + Steelhead	107	8	8	7.47%	0.00%	7	1	0	0
	05/19/07	Chinook + Steelhead	111	4	4	3.60%	0.00%	3	1	0	0
	05/22/07	Chinook + Steelhead	119	7	7	5.88%	0.00%	4	3	0	0
Roc	k Island	Dam									
		Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
	05/21/07	Chinook + Steelhead	100	2	2	2.00%		2	0	0	0

HATCHERY RELEASE LAST TWO WEEKS

Hatchery Release Summary 5/11/2007 to 05/24/07

	From	5/11/200	7	to	05/24/07
Agency Idaho Dept. of Fish and Game Idaho Dept. of Fish and Game Idaho Dept. of Fish and Game Idaho Dept. of Fish and Game	Hatchery Eagle Hatchery Oktowlotaho Oktowlotaho Sawtooth Hatchery	Species SO OHO SO SO	Race UN FA UN UN	MigYr 2007 2007 2007 2007	NumRel RelStart RelEnd RelSite RelRiver 329 05-08-07 05-08-07 Salmon River (ID) Salmon River (ID) 117,693 05-08-07 05-08-07 Hells Canyon Dam Snake River 54,582 05-08-07 05-08-07 RedFish Lake Salmon River (ID) 46,765 05-08-07 05-08-07 Salmon River (ID) Salmon River (ID)
Idaho Dept. of Fish and Game Total Oregon Dept. of Fish and Wildlife Oregon Dept. of Fish and Wildlife Oregon Dept. of Fish and Wildlife Total	Irrigon Hatchery Complex Umatilla Hatchery	ST OHO	SU FA	2007 2007	219,369 121,738 04-28-07 05-10-07 Wallowa AcclimPond Wallowa River 306,681 05-15-07 05-15-07 Umatilla River Umatilla River 428,419
U.S. Fish and Wildife Service	Hagerman NFH	ST	SU	2007	247,855 05-03-07 05-09-07 Yankee Pk (Salmon R) Salmon River (ID)
U.S. Fish and Wildlife Service Total					247,855 Thomhollow Acdim
Umatilla Tribe Umatilla Tribe Total	Umatilla Hatchery	CH0	FA	2007	309,701 05-15-07 05-15-07 Pond Umatilla River 309,701
Warm Springs Tribe	Oak Springs Hatchery	ST	W	2007	9,750 05-03-07 05-16-07 Parkdale AcclimPond Hood River
Warm Springs Tribe	Oak Springs Hatchery	ST	W	2007	19,500 0420-07 05-15-07 E.F.k. Irrig Dist Sand Trap Hood River Jones Creek Acdim
Warm Springs Tribe	Round Butte Hatchery	CH1	SP	2007	20,000 04-24-07 05-07-07 Pond Hood River
WarmSpringsTribe WarmSpringsTribeTotal	Round Butte Hatchery	CH1	SP	2007	27,500 04-24-07 05-08-07 Blackberry Acdim Pond Hood River 76,750
Washington Dept. of Fish and Wildife	Chiwawa Hatchery	CH1	SP	2007	493,000 04-16-07 05-15-07 Chiwawa Hatchery Wenatchee River
Washington Dept. of Fish and Wildife Washington Dept. of Fish and Wildife	Eastbank Hatchery Skamenia Hatchery	CH1 ST	an an	2007 2007	275,919 04-18-07 05-09-07 Smilkameen AcdimPd Ckanogan River 91,135 05-02-07 05-09-07 Klickitat River Klickitat River
Washington Dept. of Fish and Wildlife	Wells Hatchery	С НО	SU	2007	225,000 05-16-07 05-17-07 Wells Hatchery Md-Columbia River
Washington Dept. of Fish and Wildlife	Wells Hatchery	CH1	$\mathfrak{S} U$	2007	358,000 04-23-07 05-07-07 Wells Hatchery Mcl-Columbia River
Washington Dept. of Fish and Wildlife	Wells Hatchery	ST	$\mathfrak{S} U$	2007	100,000 04-23-07 05-19-07 Twisp River Methow River
Washington Dept. of Fish and Wildlife	Wells Hatchery	ST	SU	2007	122,500 04-23-07 05-19-07 Chevuch River Methow River
Washington Dept. of Fish and Wildlife	Wells Hatchery	ST	SU	2007	122,500 04-23-07 05-19-07 MethowRiver MethowRiver
Washington Dept. of Fish and Wildife	Wells Hatchery	ST	SU	2007	135,840 04-30-07 05-16-07 Okanogan River Okanogan River
Washington Dept. of Fish and					4 000 004
Wildlife Total Yakama Tribe	Coccodo Littobon /	∞	UN	2007	1,923,894 70,035,05-07-07, 05-07-07, Næon Creek Wenatchee River
Yakama Tribe	Cascade Hatchery Cle Bern Hatchery	CH1	SP	2007	281,17603-15-07 05-15-07 Easton Pond Yakima River
Yakama Tribe	Ge Bem Hatchery	CHI	SP	2007	287,645 03-15-07 05-15-07 Clark Flat Addim Pond Yakima River
idera inic	della ili ala ay				
Yakama Tribe	Ge ⊟emHatchery	CH1	SP	2007	291,991 03-15-07 05-15-07 Jack Creek Acolim Pond Yakima River
Yakama Tribe	Klickitat Hatchery	∞	NO	2007	1,073,000 05-07-07 05-10-07 Klickitat Hatchery Klickitat River
Yakama Tribe	Prosser Acdim Pond	CH0	FA	2007	95,000 05-07-07 05-07-07 Siles Pand Yakima River
Yakama Tribe	Willard Hatchery	∞	UN	2007	99,930 05-07-07 05-07-07 Nason Creek Wenatchee River
Yakama Tribe	Willard Hatchery	∞	UN	2007	101,482 05-08-07 05-08-07 Wenatchee River Wenatchee River
Yakama Tribe	Willard Hatchery	∞	UN	2007	136,490.05-06-07 05-06-07 Nason Creek Warratchee River
Yakama Tribe Total Grand Total					2,436,749 5,642,777
Gaulua					5,642,737

HATCHERY RELEASE NEXT TWO WEEKS

Hatchery Release Summary

From 5/25/2007 to 6/7/2007

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd		RelRiver
Nez Perce Tribe	Lyons Ferry Hatchery	αно	FA	2007	500 C	05-26-07	05.26.07	Big Canyon (Clearwater	Clearwater River IVIF
Nez Perce Tribe	Lyons Ferry Hatchery	аю	FA	2007	•			Opt John Acclim Pand	Snake River
								•	
Nez Perce Tribe	Nez Perce Tribal Hatchery	α	FΑ	2007	165,604	105-22-07	05-23-07	Lapwai Creek	Clearwater River MF
								Pittsburg Landing Addim	Snake River
Nez Perce Tribe	Umatilla Hatchery	CHD	FΑ	2007	200,000	05-23-07	05-23-07	Pand	
Nez Perce Tribe Total					1,365,604	1			
Washington Dept. of Fish and Wildlife	Wells Hatchery	ST	SU	2007	100,000	0423-07	05-19-07	Twisp River	Methow River
Washington Dept. of Fish and Wildlife	Wells Hatchery	ST	SU	2007	122,500	0423-07	05-19-07	Chewuch River	Methow River
Washington Dept. of Fish and Wildlife	Wells Hatchery	ST	SU	2007	122,500	0423-07	05-19-07	MethowRiver	Methow River
Washington Dept. of Fish and	•								
Wildlife Total					345,000)			
Grand Total					1,710,60				

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 Sit

	Hungry H. Dnst Bound				dary			Grand	d Coul	<u>ee</u>		Grane	d C. T	<u>wr</u>		Chief	Jose	<u>ph</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>Date</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	Avg	<u>High</u>	<u>hr</u>	<u>Avg</u>	Avg	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>
5/11	98	99	99	24	117	119	119	24	111	111	111	24	109	110	110	24	109	109	110	24
5/12	99	99	100	24	117	119	119	24	111	111	112	24	109	110	110	24	109	110	110	24
5/13	98	98	99	24	117	117	118	24	110	110	111	24	108	109	109	24	109	109	109	24
5/14	97	98	98	24	119	120	121	24	110	110	111	24	108	108	109	24	108	108	109	24
5/15	97	98	98	24	119	120	121	24	110	111	111	24	108	109	110	24	109	109	110	24
5/16	98	99	99	24	120	121	121	24	111	111	112	24	109	110	110	24	109	110	110	24
5/17	99	99	100	24	120	121	122	24	111	111	112	24	109	110	110	24	109	110	110	24
5/18	99	99	99	24	121	121	122	24	111	112	112	24	109	109	110	24	109	110	110	24
5/19	98	99	99	24	120	120	121	24	111	112	112	24	109	109	109	24	109	109	110	24
5/20	99	99	99	24	120	121	122	24	112	112	113	24	109	110	110	24	109	109	110	24
5/21	99	99	100	24	120	120	121	24	113	113	113	24	110	110	111	24	109	109	110	24
5/22	98	98	98	24	120	120	121	24	112	112	113	24	109	109	110	24	109	109	109	24
5/23	98	98	99	24	119	121	121	24	112	113	113	24	109	110	111	24	109	110	110	24
5/24	98	98	98	24	120	121	122	24	113	113	114	24	110	111	111	24	110	110	110	24

	Chief	J. Dn	st		Wells				Wells	Dwns	<u>strm</u>		Rock	y Rea	<u>ch</u>		Rock	y R. T	lwr	
	<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>Date</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	Avg	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>
5/11	109	110	111	24	108	109	109	24	110	111	111	24	110	110	110	24	110	110	110	24
5/12	109	109	110	24	109	109	110	24	112	113	123	24	110	111	111	24	110	111	111	24
5/13	109	109	110	24	107	108	109	24	115	119	126	24	109	109	110	24	109	109	110	24
5/14	108	108	109	24	107	108	109	24	109	110	110	24	113	115	117	24	113	116	118	24
5/15	108	109	109	24	108	109	109	24	111	112	120	24	110	111	112	24	110	111	111	24
5/16	109	109	110	24	109	109	109	24	112	113	119	24	111	111	112	24	111	111	112	24
5/17	109	109	109	24	109	109	109	24	112	113	119	24	112	112	112	24	112	112	112	24
5/18	108	109	110	24	108	108	109	24	112	114	124	24	111	111	112	8	111	111	112	8
5/19	109	110	110	24	108	108	108	24	111	112	118	24				0				0
5/20	109	109	110	24	107	108	108	24	110	110	111	24				0				0
5/21	108	109	110	24	107	107	108	24	111	113	120	24				0				0
5/22	108	108	109	24	107	107	108	24	110	110	112	24				0				0
5/23	108	109	110	24	108	109	113	24	111	112	115	24				0				0
5/24	109	109	110	24	110	110	111	23	113	115	130	23				0				0

Total Dissolved Gas Saturation at Mid Columbia River Sites

	Rock Island				Rock	I. Tlw	<u>r</u>		<u>Wana</u>	pum			<u>Wana</u>	pum '	<u>Tlwr</u>		Pries	t Rapi	<u>ds</u>	
	<u>24 h</u>	<u>12 h</u>		<u>#</u>	<u>24 h</u>	12 h		<u>#</u>	<u>24 h</u>	12 h		<u>#</u>	<u>24 h</u>	12 h		<u>#</u>	<u>24 h</u>	12 h		<u>#</u>
<u>Date</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	Avg	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>
5/11	109	110	110	24	112	113	114	24	114	116	117	24	117	119	120	24	116	118	121	24
5/12	109	109	110	24	112	113	114	24	113	114	116	24	117	119	120	24	117	119	120	24
5/13	108	108	109	24	110	111	112	24	108	109	110	24	112	114	118	24	112	114	115	24
5/14	110	112	116	24	113	115	119	24	109	111	111	24	110	112	114	24	112	114	115	24
5/15	111	112	115	24	113	115	118	24	110	112	114	24	112	114	117	24	112	114	116	24
5/16	109	110	110	24	112	113	114	24	110	111	113	24	115	117	119	24	114	115	117	24
5/17	109	109	110	24	112	112	115	24	110	110	111	24	114	116	119	24	114	116	119	24
5/18	109	109	109	8	112	112	112	8	109	110	112	24	113	115	117	24	113	114	116	24
5/19				0				0	109	109	110	24	113	115	116	24	112	113	115	24
5/20				0				0	109	109	111	24	112	114	115	24	112	114	115	24
5/21				0				0	108	108	109	24	112	115	119	24	111	112	113	24
5/22				0				0	107	109	111	24	113	116	118	24	112	115	116	24
5/23				0				0	108	109	112	24	112	113	116	22	112	114	116	24
5/24				0				0				0				0				0

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

					Pasco	2			Dwor	<u>shak</u>			Clrwt	r-Pecl	<u> </u>		Anato	one		
	<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>Date</u>	<u>Avg</u>	Avg	<u>High</u>	<u>hr</u>	<u>Avg</u>	Avg	<u>High</u>	<u>hr</u>	<u>Avg</u>	Avg	<u>High</u>	<u>hr</u>	<u>Avg</u>	Avg	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>
5/11	116	118	119	24	113	114	115	24	98	99	99	24	102	103	103	24	104	105	106	24
5/12	117	118	119	24	113	114	115	24	99	99	100	24	102	103	104	24	104	105	106	24
5/13	113	114	115	24	110	111	112	24	98	98	98	24	101	101	102	24	104	105	105	24
5/14	112	113	114	24	110	111	111	24	97	97	98	24	101	102	103	24	105	106	107	24
5/15	113	114	115	24	111	112	113	24	98	98	99	24	101	102	103	24	105	106	107	24
5/16	115	116	116	24	111	112	113	24	99	99	100	24	102	102	103	24	105	106	107	24
5/17	115	116	118	24	111	112	113	24	99	100	100	24	102	103	103	24	105	106	106	24
5/18	114	115	116	24	112	113	114	24	99	99	100	24	102	103	104	24	105	106	106	24
5/19	113	114	115	24	110	110	111	24	99	99	100	24	112	123	127	24	104	105	105	24
5/20	113	115	116	24	109	110	111	24	99	99	99	24	126	126	127	24	104	105	105	24
5/21	112	113	113	24	108	109	110	24	99	99	99	24	114	125	126	24	104	105	105	24
5/22	112	114	115	24	108	109	110	24	99	99	100	24	101	102	103	24	105	105	106	24
5/23	113	115	115	24	110	111	112	24	99	100	100	24	102	103	104	24	105	106	106	24
5/24				0	111	112	113	24	99	100	100	24	102	102	103	24	105	105	106	24

Total Dissolved Gas Saturation Data at Snake River Sites

	Clrwt	r-Lew	<u>iston</u>		Lowe	r Grai	<u>nite</u>		L. Gra	anite T	<u>lwr</u>		Little	Goos	<u>e</u>		L. Go	ose T	<u>lwr</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>Date</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avq</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	Avg	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>
5/11	102	103	104	24	104	104	105	10	110	110	111	24	111	111	112	24	117	117	118	24
5/12	102	103	104	24				0	110	110	110	24	112	112	113	24	116	117	117	24
5/13	101	101	101	24				0	109	109	110	24	108	109	110	24	113	114	115	24
5/14	102	103	104	24	103	103	103	10	109	109	109	24	106	106	107	24	114	115	116	24
5/15	102	103	104	24	103	104	104	24	110	110	111	24	106	107	107	24	115	116	116	24
5/16	102	103	104	24	105	105	106	24	110	110	111	24	108	108	110	24	116	116	117	24
5/17	102	103	104	24	105	105	105	24	110	110	111	24	108	108	109	24	115	116	116	24
5/18	102	103	104	24	104	105	105	24	110	110	111	24	108	108	109	24	116	116	117	24
5/19	101	102	102	24	104	104	104	24	110	110	110	24	108	108	109	24	116	116	116	24
5/20	101	101	102	24	103	104	104	24	110	110	111	24	108	108	108	24	116	116	116	24
5/21	100	101	101	24	103	103	104	24	109	109	110	24	106	107	108	24	115	116	116	24
5/22	101	102	104	24	102	102	102	24	109	110	110	24	105	106	106	24	115	115	115	24
5/23	102	104	105	24	102	102	102	24	109	110	110	24	106	107	107	24	115	115	115	24
5/24	102	104	105	24	103	103	104	24	109	110	111	24	107	107	108	24	115	116	117	24

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

	Lowe	r Mor	<u>ı.</u>		L. Mo	n. Tlw	<u>/r</u>		Ice H	<u>arbor</u>			Ice Ha	arbor	<u>Tlwr</u>		McN ₂	ary-Or	<u>egon</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>Date</u>	<u>Avg</u>	Avg	<u>High</u>	<u>hr</u>	<u>Avg</u>	Avg	<u>High</u>	<u>hr</u>	<u>Avg</u>	Avg	<u>High</u>	<u>hr</u>	<u>Avg</u>	Avg	<u>High</u>	<u>hr</u>	<u>Avg</u>	Avg	<u>High</u>	<u>hr</u>	
5/11	117	117	117	24	116	116	117	24	117	117	117	24	116	117	118	24				0	
5/12	117	118	118	24	115	116	116	24	116	117	117	24	117	117	118	24				0	
5/13	115	116	117	24	113	114	114	24	114	114	115	24	115	116	117	24				0	
5/14	113	113	114	24	115	116	117	24	113	113	113	24	116	117	117	24				0	
5/15	113	113	113	24	117	117	119	24	114	114	115	24	116	117	117	24				0	
5/16	114	115	115	24	117	118	118	24	115	115	115	24	116	116	117	24				0	
5/17	114	114	115	24	115	115	116	24	115	115	115	24	115	116	116	24				0	
5/18	114	114	114	24	116	117	117	24	114	114	115	24	117	118	119	24				0	
5/19	114	114	114	24	115	115	116	24	114	114	114	24	116	117	118	24				0	
5/20	114	114	114	24	118	121	122	24	113	113	114	24	116	117	118	24				0	
5/21	113	113	114	24	118	120	122	24	112	113	113	24	116	116	117	24				0	
5/22	113	113	113	24	116	118	119	24	112	113	113	24	115	116	116	24				0	
5/23	113	114	114	24	119	119	120	24	113	114	114	24	115	115	115	24				0	
5/24	114	114	114	24	119	120	120	24	115	115	115	24	115	116	116	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

	McNary-Wash				McNa	ry Tlw	<u>/r</u>		<u>John</u>	Day			<u>John</u>	Day T	lwr		The [Dalles		
	<u>24 h</u>	<u>12 h</u>		#	<u>24 h</u>	12 h		#	<u>24h</u>	<u>12h</u>		#	<u>24h</u>	<u>12h</u>		<u>#</u>	<u>24h</u>	<u>12h</u>		<u>#</u>
<u>Date</u>	<u>Avg</u>	Avg	<u>High</u>	<u>hr</u>	<u>Avg</u>	Avg	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>AVG</u>	<u>High</u>	<u>hr</u>
5/11	117	118	118	24	115	116	116	24	114	114	115	24	116	118	119	24	114	116	118	24
5/12	115	115	117	24	116	116	116	24	113	114	114	24	115	118	119	24	113	114	114	24
5/13	111	111	113	24	115	116	116	24	110	110	111	24	114	118	119	24	109	111	112	24
5/14	110	111	111	24	115	115	115	24	110	111	111	24	114	118	119	24	111	114	115	24
5/15	112	113	114	24	115	115	115	24	111	111	112	24	114	118	120	24	113	116	118	24
5/16	113	113	113	24	115	115	115	24	109	110	111	24	113	117	119	24	110	112	113	24
5/17	112	113	113	24	114	115	115	24	109	110	111	24	114	118	119	24	110	112	114	24
5/18	111	112	112	24	116	116	118	24	110	111	111	24	114	118	119	24	111	114	116	24
5/19	110	111	111	24	116	116	116	24	109	110	110	24	113	117	118	24	111	113	115	24
5/20	111	111	111	24	115	116	116	24	109	109	109	24	113	117	119	24	111	114	117	24
5/21	109	109	110	24	115	115	116	24	107	108	108	24	112	117	121	24	108	109	110	24
5/22	108	108	109	24	114	114	115	24	106	106	107	24	112	117	119	24	108	111	114	24
5/23	110	110	111	24	114	114	115	24	106	107	107	24	112	117	119	24	110	113	115	24
5/24	111	111	112	24	115	116	116	24	108	108	109	24	112	117	119	24	110	112	115	24

Total Dissolved	Gas Saturation	Data at Lower	Columbia	River Sites
I Ulai Dissuiveu v	Gas Galulalion	Dala al LUWEI	Culullibia	IVIACI OIICO

The Dalles Dnst			Bonn	eville	•		Warre	endale	<u>) </u>		Cama	ıs\Wa	shouga	<u> </u>	Casc	ade Is	land			
	<u>24 h</u>	<u>12 h</u>		<u>#</u>	<u>24 h</u>	<u>12 h</u>		<u>#</u>	<u>24h</u>	<u>12h</u>		<u>#</u>	<u>24h</u>	<u>12h</u>		<u>#</u>	<u>24h</u>	<u>12h</u>		<u>#</u>
<u>Date</u>	<u>Avg</u>	Avg	<u>High</u>	<u>hr</u>	<u>Avg</u>	Avg	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>
5/11	118	119	119	24	113	113	114	24	114	114	115	24	113	114	115	24	118	119	119	24
5/12	117	117	118	24	113	114	115	24	114	115	115	24	113	113	114	24	119	119	119	24
5/13	114	116	117	24	109	110	111	24	113	113	113	24	112	113	113	24	118	118	118	24
5/14	116	118	119	24	111	112	115	24	113	113	115	24	112	113	113	24	119	119	120	24
5/15	117	119	120	24	115	116	117	24	115	116	116	24	112	114	115	24	119	119	119	24
5/16	115	116	116	24	113	113	116	24	114	115	116	24	114	115	116	24	118	118	119	24
5/17	115	116	117	24	111	111	113	24	113	113	114	24	113	114	115	24	118	118	118	24
5/18	116	117	118	24	112	112	114	24	114	114	115	24	113	114	114	24	118	118	119	24
5/19	115	117	118	24	112	113	114	24	113	114	115	24	112	113	114	24	118	118	119	24
5/20	115	117	119	24	112	113	114	24	114	114	115	24	112	113	115	24	118	118	118	24
5/21	113	114	115	24	111	112	114	24	114	115	116	24	111	112	113	24	118	118	118	24
5/22	113	115	117	24	109	109	110	24	112	112	113	24	111	112	113	24	118	118	118	24
5/23	115	116	118	24	110	111	113	24	113	114	114	24	112	113	114	24	118	118	119	24
5/24	114	116	117	24	113	114	114	24	115	116	116	24	114	116	117	24	118	118	119	24

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 dip information see: http://www.fpc.org/CurrentDaily/catch.htm

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

					COMB	INE D YEA	RLINGCH	NOOK				
		WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MON	JDA	BO2
Date		(Call)	(Call)	(Call)	(Call)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
05/11/2007	*	27	393	163	95	75,026	22,390	371	616	221,248	224,996	111,363
05/12/2007	*	_	44	78	215	61,162	47,105	42,171	538		308,059	72,335
05/13/2007		_	53	34	59	74,340	70,102	43,447	742	160,048	302,040	75,136
05/14/2007	*	_	83	58	90	71,300	88,876	74,840	200		181,374	78,682
05/15/2007		_	81	13	100	40,545	104,485	71,214	369	142,730	160,527	145,699
05/16/2007	*	_	75	6	51	20,298	33,517	29,673	995		136,465	96,180
05/17/2007	*	_	88	26	38	12,332	20,389	15,040	2,030	81,436	161,063	90,426
05/18/2007	*	_	96	10	5	18,552	19,039	10,119	1,003		112,180	32,002
05/19/2007		_	110	16	25	13,055	16,442	9,155	487	124,801	98,669	49,307
05/20/2007	*	_	62	27	11	10,402	11,689	12,623	438		103,639	39,276
05/21/2007		_	<i>7</i> 5	27	10	8,925	10,682	11,335	332	87,272	117,291	24,348
05/22/2007	*	_	65	14	10	8,031	35,591	11,213	308		115,953	33,126
05/23/2007		_	65	5	2	2,118	7,209	4,223	543	90,077	82,044	33,536
05/24/2007	*	_		4	2	2,586	3,952	1,802	429		65,763	35,223
05/25/2007					_							
Total:		27	1,290	481	713	418,672	491,468	337,226	9,030	907,612	2,170,063	916,639
#Days:		1	13	14	14	14	14	14	14	7	14	14
Average:		27	99	34	51	29,905	35,105	24,088	645	129,659	155,005	65,474
YTD		43,505	85,445	15,099	6,550	2,232,628	635,570	349,451	17,966	1,993,081	3,757,167	1,798,553

					COMBIN	FDSLIBYE	ARLINGO	HNOOK				
	H	WIB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MON	JDA	BO2
Date	Ħ	(Cdl)	(Call)	(Call)	(Call)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
05/11/2007	*	0	0	4	12	0	0	1	113	1,375	0	5,074
05/12/2007	*		0	3	7	0	554	0	66		0	3,120
05/13/2007		_	0	0	2	0	271	178	107	1,694	0	3,809
05/14/2007	*		0	0	1	495	1	0	60		384	1,890
05/15/2007			0	1	7	0	280	0	30	176	0	4,534
05/16/2007	*		0	2	3	257	0	0	38		0	3,616
05/17/2007	*		1	6	7	0	0	0	42	1,008	0	4,359
05/18/2007	*		1	5	9	389	1,576	0	23		0	1,764
05/19/2007			0	3	5	697	1,134	99	17	1,530	190	3,150
05/20/2007	*		0	4	2	127	502	200	8		384	2,731
05/21/2007			0	3	6	1,564	1,935	0	18	3,036	560	1,526
05/22/2007	*		0	7	8	1,036	2,575	0	14		1,140	1,747
05/23/2007			0	3	1	198	649	0	21	3,034	3,259	2,174
05/24/2007	*			4	4	545	72	87	4		4,109	4,003
05/25/2007												
Total:		0	2	45	74	5,308	9,549	565	561	11,853	10,026	43,497
#Days:	Ш	1	13	14	14	14	14	14	14	7	14	14
Average:		0	0	3	5	379	682	40	40	1,693	716	3,107
YTD		0	57	69	253	7,979	10,888	603	1,401	14,316	10,153	2,148,858

Two-Week Summary of Passage Indices

	П					COMBINE	ЭССНО					
	Ħ	WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MON	JDA	BO2
Date	П	(CdI)	(Call)	(Call)	(Call)	(INDEX)						
05/11/2007	*	, o	0	0	0	525	589	6	80	2,032	17,685	28,041
05/12/2007	*		0	0	0	2,275	2,009	250	67		26,155	21,275
05/13/2007		_	0	0	0	2,030	2,427	0	178	7,957	10,153	17,916
05/14/2007	*	_	0	0	1	7,922	6,403	2,097	277		12,079	28,450
05/15/2007			0	0	1	3,022	10,139	3,589	623	7,093	8,056	29,554
05/16/2007	*		0	0	0	1,796	3,072	2,571	741		11,151	18,956
05/17/2007	*		0	0	1	2,312	2,856	802	5,831	4,705	6,294	23,595
05/18/2007	*		0	0	0	3,114	1,574	1,447	5,017	_	8,067	15,006
05/19/2007			0	0	2	2,408	1,559	995	2,828	5,748	11,574	16,710
05/20/2007	*		0	0	0	2,727	1,793	902	3,824	_	13,242	21,348
05/21/2007			0	0	0	1,694	2,437	1,146	1,918	8,929	14,544	8,844
05/22/2007	*		0	0	1	2,461	6,938	1,486	3,431		13,284	13,614
05/23/2007			0	0	0	1,255	1,514	716	4,949	8,096	8,625	13,110
05/24/2007	*			0	0	613	0	265	4,696		7,473	11,874
05/25/2007	П											
Total:		0	0	0	6	34,154	43,310	16,272	34,460	44,560	168,382	268,293
#Days:		1	13	14	14	14	14	14	14	7	14	14
Average:	Ш	0	0	0	0	2,440	3,094	1,162	2,461	6,366	12,027	19,164
YTD		0	0	0	54	45,869	44,053	16,297	35,853	63,334	261,673	515,820

					α	OMBINED	STEELHE/	AD O				
	Ħ	WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MON	JDA	BO2
Date		(Call)	(Call)	(Call)	(Call)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
05/11/2007	*	24	3,068	70	154	28,856	91,848	1,235	95	35,802	53,842	12,552
05/12/2007	*	_	476	ස	373	47,261	201,932	114,536	76		64,323	9,077
05/13/2007		_	841	37	211	92,354	95,739	39,156	55	28,499	52,563	6,405
05/14/2007	*	_	694	54	255	91,601	148,304	100,174	35		51,767	20,366
05/15/2007		_	479	20	242	70,009	370,319	188,136	86	22,530	55,016	5,821
05/16/2007	*		624	13	68	53,472	86,604	77,739	132		44,795	6,533
05/17/2007	*		676	8	56	46,759	43,754	46,525	634	9,281	30,089	14,181
05/18/2007	*	_	756	9	20	44,110	43,369	17,151	771	_	17,447	15,376
05/19/2007		_	828	22	48	34,411	38,119	27,865	1,164	17,436	15,369	6,711
05/20/2007	*	_	482	11	61	37,676	26,965	16,328	2,196		10,748	4,029
05/21/2007		_	470	15	38	30,033	41,285	25,832	3,032	12,701	12,866	3,487
05/22/2007	*	_	254	18	30	27,006	149,922	17,427	1,962		11,956	6,011
05/23/2007		_	240	2	26	19,422	14,778	13,027	759	10,643	13,994	5,038
05/24/2007	*	_	_	1	26	14,225	13,294	8,210	485		6,539	3,469
05/25/2007		_	_							_		_
Total:		24	9,888	343	1,608	637,195	1,366,232	693,341	11,482	136,892	441,314	119,056
#Days:		1	13	14	14	14	14	14	14	7	14	14
Average:		24	761	25	115	45,514	97,588	49,524	820	19,556	31,522	8,504
ΥD	Ī	3,735	41,694	1,940	7,763	1,755,631	1,633,609	701,297	13,430	339,486	841,918	191,962

Two-Week Summary of Passage Indices

				COMBINED SOCKEYE								
		WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date		(Coll)	(Coll)	(Coll)	(Call)	(INDEX)						
05/11/2007	*	0	0	0	21	525	0	0	16	13,562	2,751	2,136
05/12/2007	*		0	0	18	505	693	374	12		5,231	284
05/13/2007			0	0	102	761	270	0	43	24,241	4,580	1,411
05/14/2007	*		0	0	78	1,733	512	174	36		4,602	3,202
05/15/2007			0	0	22	3,022	274	0	113	33,650	8,252	3,806
05/16/2007	*		0	0	12	2,309	1,396	197	319		5,860	2,741
05/17/2007	*		0	0	18	1,028	563	1,004	1,036	28,428	12,193	6,780
05/18/2007	*		0	0	5	3,114	2,863	625	1,800		16,321	3,207
05/19/2007			0	0	5	2,028	1,134	795	1,323	74,309	22,200	4,520
05/20/2007	*		0	0	2	1,205	1,147	300	1,114		28,980	5,949
05/21/2007			0	0	4	456	932	358	1,651	61,953	47,364	5,406
05/22/2007	*		0	0	8	518	2,575	540	1,234		52,187	15,348
05/23/2007			0	0	1	0	649	286	1,485	54,641	56,165	17,095
05/24/2007	*			0	1	272	359	220	725		61,091	8,539
05/25/2007												
Total:		0	0	0	297	17,476	13,367	4,873	10,907	290,784	327,777	80,424
# Days:		1	13	14	14	14	14	14	14	7	14	14
Average:		0	0	0	21	1,248	955	348	779	41,541	23,413	5,745
YTD		27	0	0	412	19,677	14,268	4,879	14,220	330,562	345,356	84,218

^{*} 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 Updated:

Source: Fish Passage Center

5/25/07 9:35 AM

Jource	: Fish Passage Center	05/11/07	ТО	05/25/07	Updated:	3/	25/07 9:35 AM
	1-	Species					
Site	Data	CH0	CH1	СО		ST	Grand Total
LGR	Sum of NumberCollected	4,100		26,850		499,776	•
	Sum of NumberBarged	4,096	•	26,842	13,683	490,620	
	Sum of NumberBypassed	0	36,322	0	0	8,973	45,295
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of SampleMorts	0	5	0	2	11	18
	Sum of FacilityMorts	4	. 178	8	15	172	377
	Sum of ResearchMorts	0	180	0	0	0	180
	Sum of TotalProjectMorts	4	363	8	17	183	575
LGS	Sum of NumberCollected	6,707	358,492	31,329	9,450	987,433	1,393,411
	Sum of NumberBarged	6,695	357,005	31,263	9,433	979,728	1,384,124
	Sum of NumberBypassed	3	1,393	63	13	7,337	8,809
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of SampleMorts	0	5	2	1	5	13
	Sum of FacilityMorts	9	88	1	3	363	464
	Sum of ResearchMorts	0	1	0	0	0	1
	Sum of TotalProjectMorts	9	94	3	4	368	478
LMN	Sum of NumberCollected	435	268,531	12,466	3,641	544,821	829,894
	Sum of NumberBarged	411	266,786	12,459	3,619	540,799	824,074
	Sum of NumberBypassed	1	1,296	5	0	3,645	
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of SampleMorts	0	9	0	0	18	27
	Sum of FacilityMorts	23	385	2	22	359	791
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	23	394	2	22	377	818
MCN	Sum of NumberCollected	7,024		26,407		81,022	
	Sum of NumberBarged	0	•	0		0	_
	Sum of NumberBypassed	7,000	536,799	26,399	171,961	80,843	823,002
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of SampleMorts	0		1	34	7	
	Sum of FacilityMorts Sum of ResearchMorts	24		7	345 0	172 0	
	Sum of TotalProjectMorts	24		8		179	
Total S	um of NumberCollected	18,266		97,052		2,113,052	,
	um of NumberBarged	11,202		70,564		2,011,147	
	um of NumberBypassed	7,004		26,467		100,798	
	um of Numbertrucked	0		0		0	
	um of SampleMorts	0		3		41	145
	um of FacilityMorts um of ResearchMorts	60		18 0		1,066 0	
	tum of TotalProjectMorts	60		21		1,107	
i utai S	um or rotair rojectiviorts	1 60	1,377	21	422	1,107	∠,96

YTD Transportation Summary

Source: Fish Passage Center

Updated: 5/25/07 9:35 AM

Oource.	Fish Passage Center	то:	05/25/07		Opdated.	J/	(25/07 9.35 AIVI
Site	Data	Species CH0	CH1	CO	SO	ST	Grand Total
LGR	Sum of NumberCollected	5,770		35,110	15,260		
LGK	Sum of NumberBarged	4,900		33,669	14,882		
	Sum of NumberBypassed	856	· ·	1,432	356		
	Sum of NumberTrucked	030	•	1,432	0	•	030,199
		ľ	•	•	_	-	0
	Sum of SampleMorts	5		0	2		
	Sum of FacilityMorts	9		9	20		
	Sum of ResearchMorts	0		0	0	_	
	Sum of TotalProjectMorts	14	•	9	22		·
LGS	Sum of NumberCollected	7,552	· ·	31,806	10,015		
	Sum of NumberBarged	7,324	· ·	31,263	9,576		
	Sum of NumberBypassed	218	64,694	540	433	121,802	187,687
	Sum of NumberTrucked	C	•	0	0	_	Ŭ
	Sum of SampleMorts	C	_	2	2		
	Sum of FacilityMorts	10	148	1	4	452	615
	Sum of ResearchMorts	0	6	0	0	0	6
	Sum of TotalProjectMorts	10	183	3	6	465	667
LMN	Sum of NumberCollected	461	275,320	12,482	3,643	550,051	841,957
	Sum of NumberBarged	411	266,786	12,459	3,619	540,799	824,074
	Sum of NumberBypassed	27	8,067	21	2	8,830	16,947
	Sum of NumberTrucked	0	0	0	0	0	0
	Sum of SampleMorts	C	27	0	0	55	82
	Sum of FacilityMorts	23	387	2	22	384	818
	Sum of ResearchMorts	O	0	0	0	0	0
	Sum of TotalProjectMorts	23	414	2	22	439	900
MCN	Sum of NumberCollected	8,503	1,179,712	37,508	195,894	201,073	1,622,690
	Sum of NumberBarged	Ó		0	0	•	0
	Sum of NumberBypassed	8,464	1,178,855	37,499	195,491	200,710	1,621,019
	Sum of NumberTrucked	C	•	0	0	-	0
	Sum of SampleMorts	1	_	1	35		
	Sum of FacilityMorts Sum of ResearchMorts	38		8	368 0		
	Sum of TotalProjectMorts	39		0 9	403		
Total Su	um of NumberCollected	22,286		116,906	224,812		
	ım of NumberBarged	12,635		77,391	28,077		
	ım of NumberBypassed	9,565		39,492	196,282		
Total Su	ım of NumberTrucked	C	0	0	0	0	0
Total Sum of SampleMorts		6		3	39		
	um of FacilityMorts	80		20	414		
	um of ResearchMorts	0		0	0		
ı otal St	um of TotalProjectMorts	86	3,372	23	453	1,674	5,608

Cumulative Adult Passage at Mainstern Dams Through: 05/24

				Sprin	g Chinoc	ok				Summer (Chinoo	k				Fall Ch	inook		
		20	07	_	006	10-Yr A	wg.	200	07	200	06	10-\	′r Avg.	20	07	20	06	10-Yr	Avg.
DAM	EndDate	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack
BON	05/24	61746	14767	91756	2575	148282	7393	0	0	0	0	0	0	0	0	0	0	0	0
TDA	05/24	46837	12943	55756	1748	99455	5032	0	0	0	0	0	0	0	0	0	0	0	0
JDA	05/24	37837	11293	44669	1688	81742	3889	0	0	0	0	0	0	0	0	0	0	0	0
MCN	05/23	31539	9073	35828	1569	71790	3525	0	0	0	0	0	0	0	0	0	0	0	0
IHR	05/23	21941	5334	17590	441	45246	2022	0	0	0	0	0	0	0	0	0	0	0	0
LMN	05/22	18517	4579	12890	183	40561	1669	0	0	0	0	0	0	0	0	0	0	0	0
LGS	05/24	14078	4157	10343	169	38332	1693	0	0	0	0	0	0	0	0	0	0	0	0
LGR	05/24	12848	4829	8556	178	37120	1678	0	0	0	0	0	0	0	0	0	0	0	0
PRD	05/22	4243	153	5271	10	14461	215	0	0	0	0	0	0	0	0	0	0	0	0
RIS	05/23	3506	570	3784	132	10277	295	0	0	0	0	0	0	0	0	0	0	0	0
RRH	05/23	1506	193	1833	16	3716	77	0	0	0	0	0	0	0	0	0	0	0	0
WEL	05/23	368	57	622	5	1838	27	0	0	0	0	0	0	0	0	0	0	0	0
WFA	05/22	15110	144	23751	117	-		0	0	0	0	-	-	0	0	0	0	-	-

			Coho)			S	ockeye			Steel	head	
	20	007	2000	6	10-Yr	Avg.			10-Yr			10-Yr	Wild
DAM	Adult	Jack	Adult	Jack	Adult	Jack	2007	2006	Avg.	2007	2006	Avg.	2007
BON	0	0	0	0	0	0	0	1	0	2826	2737	3598	721
TDA	0	0	0	0	0	0	0	0	0	1196	1148	1108	408
JDA	0	0	0	0	0	0	0	0	0	2108	2377	3150	809
MCN	0	0	0	0	0	0	0	0	0	1867	2134	1649	585
IHR	0	0	0	0	0	0	0	0	0	2266	2705	1803	625
LWN	0	0	0	0	0	0	0	0	0	2296	2851	1803	823
LGS	0	0	0	0	0	0	0	0	0	2296	2687	2080	764
LGR	0	0	0	0	0	0	0	0	0	10575	7585	6708	2399
PRD	0	1	0	0	0	0	0	0	3	35	25	4	0
RIS	0	0	0	0	0	0	0	0	1	48	57	32	21
RRH	0	0	0	0	0	0	0	0	0	154	146	116	69
WEL	0	0	0	0	0	0	0	0	0	36	26	23	22
WFA	2	0	0	0	-	-	0	0	-	8836	12156	-	0

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

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 undipped 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: 05/25/07

BON counts from January 1, 2006 to March 14, 2006 (our traditional counts begin March 15):

Year	Chinook Adult	Chinook Jack	Steelhead	Wild Steelhead
2007	22	0	1,677	517
2006	2	0	2,523	239

^{*}PRD is not posting wild steelhead numbers.