Fish Passage Center

Weekly Report #11 - 17

July 8, 2011

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Summary of Events:

Water Supply: Precipitation throughout the Columbia Basin has varied between 65% and 141% of average at individual sub-basins over June. Precipitation above The Dalles has been 111% of average over June. Over the 2011 water year, precipitation has ranged between 108% and 130% of average.

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

Location	Water Year 2011 June 1-27, 2011		Water Year 2011 October 1, 2010 to June 27, 2011	
	Observed (inches)	% Average	Observed (inches)	% Average
Columbia Above Coulee	2.45	114	23.83	118
Snake River Above Ice Harbor	1.57	120	19.29	129
Columbia Above The Dalles	1.78	111	23.94	123
Kootenai	2.23	101	23.50	113
Clark Fork	2.44	141	17.59	126
Flathead	3.26	137	24.15	130
Pend Oreille/ Spokane	1.92	97	32.66	121
Central Washington	0.47	81	9.14	116
Snake River Plain	0.87	101	12.18	128
Salmon/Boise/ Payette	1.64	124	20.15	115
Clearwater	2.78	124	34.32	129
SW Washington Cascades/Cowlitz	1.84	69	70.84	109
Willamette Valley	1.32	65	60.34	108

Table 2 displays the June Final and July Early runoff volume forecasts for multiple reservoirs. The July Early forecast at The Dalles between January and July is 142000 Kaf (132% of average).

Table 2. June Final and July Early Runoff Volume Forecasts for various reservoirs within the Columbia and Snake River Basins.

Location	June Final		July Early	
	% Average (1971 -2000)	Probable Runoff Volume (Kaf)	% Average (1971 -2000)	Probable Runoff Volume (Kaf)
The Dalles (Jan-July)	131	141000	132	142000
Grand Coulee (Jan-July)	124	78300	126	79500
Libby Res. Inflow, MT (Apr-Aug)	127	7930 8099*	129	8080
Hungry Horse Res. Inflow, MT (Jan-July)	153	3410	154	3430
Lower Granite Res. Inflow (Apr- July)	156	33700	157	33800
Brownlee Res. Inflow (Apr-July)	177	11200	181	11400
Dworshak Res. Inflow (Apr-July)	143	3770 3813*	145	3840

* Denotes COE Forecast

The flow objective at Lower Granite over the summer period (June 21st to August 31st) is 55 Kcfs, and so far over the summer period flows at Lower Granite have averaged 160.6 Kcfs and 145.6 Kcfs over the last week.

The summer flow objective period began at McNary Dam on July 1st with a flow objective of 200 Kcfs. Over the first week of the summer flow period, flows at McNary have averaged 408.8 Kcfs.

Grand Coulee Reservoir is at 1286.7 feet (7-7-11) and has refilled 5.2 feet over the last week. Outflows at Grand Coulee have ranged between 196.2 and 224.2 Kcfs over the last week.

The Libby Reservoir is currently at elevation 2436.4 feet (7-7-11) and has refilled 8.5 feet last week. Outflows at Libby Dam have been 15.0 Kcfs last week.

Hungry Horse is currently at an elevation of 3550.3 feet (7-7-11) and has refilled 5.9 feet last week. Outflows at Hungry Horse have been 8.6-9.5 Kcfs last week.

Dworshak is currently at an elevation of 1599.5 feet (7-7-11) and has refilled 3.3 feet last week. Outflows from Dworshak have ranged between 9.5-13.5 Kcfs last week.

The Brownlee Reservoir was at an elevation of 2074.6 feet on July 7th, 2011 drafting 1.6 feet last week. Over the last week, outflows at Brownlee have ranged between 25.6-38.4 Kcfs.

Spill:

Spill levels transitioned from spring to summer levels for fish passage on June 21st at the lower Snake River projects. Although decreasing over the past week, flows in the Snake and Columbia rivers remain high for this time period. Lower Snake River projects in the FCRPS are mostly spilling water in excess of hydraulic capacity.

Spill has occurred at Dworshak Dam this past week as the project approaches full, and inflow remains relatively high. All the Snake River hydroprojects have one unit out for annual maintenance, and are spilling water in excess of hydraulic capacity. Over the past week, daily average flows at Lower Granite Dam have ranged from 131.7 to 168.1 Kcfs, and spill has ranged from 34.4 to 75.8 Kcfs. At Little Goose Dam, spill exceeded the 30% level as specified in the Court Order early in the week, did not meet the Court Order on the 2nd , but met, or slightly exceeded, the Court Order the remainder of the week. Daily average spill at Little Goose dam has ranged from 37.5 Kcfs to 52.1 Kcfs. At Lower Monumental Dam spill was all flow in excess of hydraulic capacity and was in excess of the Court Order. Spill ranged from 40.8 to 74.2 Kcfs over the past week.

Beginning April 28th, the Court Order spill operations at Ice Harbor called for an alternating schedule of 45 Kcfs spill during the day and gas cap spill at night versus 30% of instantaneous flow, on 2-day alternating blocks until mid-July. Over the past week spill levels have mostly met or exceeded the Court Order and, since May 22nd spill has occurred as all flow in excess of powerhouse or generation capacity. Spill has ranged from 63 to 96.6 Kcfs.

Project	Day/Night Spill
Lower Granite	18 Kcfs/18 Kcfs
Little Goose	30%/30%
Lower Monumental	17 Kcfs/17 Kcfs
Ice Harbor	**April 28-~mid-July:** 45 Kcfs/ gas cap vs. 30%/30%

Summer spill levels were initiated at McNary Dam on June 20th and at Bonneville Dam on June 16th. Summer spill season began at John Day and The Dalles dams on July 1st . Spill is also occurring at Grand Coulee Dam and Chief Joseph Dam, which are being operated for refill, flood control and gas management. Chief Joseph has been prioritized by the COE for spilling additional excess generation spill.

Spill at McNary Dam has been in excess of the Court Order as a result of flows in excess of hydraulic capacity and unit outages (two units are presently out of service). Spill at McNary Dam has ranged between 61.6% and 65.5% of daily average flow (daily average spill ranged from 237.3 to 283.9 Kcfs) at this project. The planned test at John Day Dam was designed to start on the evening of April 27th. Under this test, spill at John Day Dam alternates between 30% and 40% of instantaneous flow, roughly every two days. However, due to high flows the test conditions were not implementable and the test was not conducted. As flow receded, the planned 40% days were not achieved due to restricting spill based on The Dalles forebay total dissolved gas readings. Spill levels at John Day have ranged from 30.4% to 36.4% of total river flow. At The Dalles Dam, spill was also restricted to less than 40% for the last five days of the past week. This reduction is based on the COE's response to

TDG levels in the Bonneville Dam forebay. Finally, at Bonneville Dam, spill exceeded the summer test operations beginning June 16th, with spill ranging from a daily average of 161.9 Kcfs to 225.6 Kcfs.

Project	Day/Night Spill
McNary	50%/50%
John Day	**Pre-test:** 30%/30% **Testing:** 30%/30% vs. 40%/40%
The Dalles	40%/40%
Bonneville	**June 16 to July 20**: alternate between 95 Kcfs/95 Kcfs and 85 Kcfs/121 Kcfs. **July 20th - August 31:** 75 Kcfs day/ GasCap night.

TDG levels this past week have decreased considerably at the FCRPS project tailraces and, with the exception of the McNary tailrace, have been near or less than the 120% criteria. Where and when possible, the COE is limiting spill on the basis of downstream forebay readings of TDG based on the Washington DOE gas standards. Gas Bubble Trauma monitoring at Little Goose Dam showed GBT in 1% of the fish examined on July 4th, with Rank 1 signs. Incidence of GBT at Rock Island Dam remained low this past week. The examination on July 6th showed a 1% incidence of GBT, while the sample on July 7th revealed a 6% incidence of GBT. Total dissolved gas levels in the Mid Columbia River have been much higher than observed in the Snake and lower Columbia rivers over the past week.

The action criteria for GBT with Rank 1 signs of GBT is 15% of the population was not exceeded this past week.

Smolt Monitoring:

Smolt monitoring was ongoing at all SMP sites this past week. Subyearling Chinook predominated in the collections at all dams over the past week. The numbers of spring migrant salmonids and lamprey have continued to decline over the past week. The largest numbers of subyearling Chinook are now passing the Lower Columbia dams in the reach from McNary Dam to Bonneville Dam as both wild Hanford subyearlings and large hatchery releases pass through the system.

Subyearling Chinook smolts continued to predominate in the passage indices this week at Lower Granite Dam but the numbers decreased compared to last week. Subyearling indices averaged 5,000 per day this week compared to 12,000 per day last week. Steelhead, the second most predominant species, had passage numbers that continued to decline with indices averaging 500 per day this week compared to 1,700 last week; yearling Chinook average weekly indices dropped from 400 to 100; sockeye indices also dropped from 170 per day last week to 140 this week. Little Goose and Lower Monumental dams showed similar patterns in passage with subyearling Chinook predominating, followed by steelhead.

Sampling at Rock Island Dam is ongoing. Subyearling Chinook predominated in the samples over the past week. Subyearling Chinook collections were higher this week than last week with the daily index averaging 540 per day this week compared to just over 290 per day last week. Steelhead indices averaged 30 per day this week. Collections of all spring migrants have declined rapidly over the past two weeks particularly for coho, while yearling Chinook numbers remained low. Sockeye indices were at 14 per day this week compared to 40 per day last week.

Sampling at McNary Dam is every other day in the spring. Sampling began on April 13. Subyearling Chinook predominated in passage at the site this past week, with the average passage index for subs at 160,000 per day this week compared to 113,000 last week. Indices for all spring migrants continued to go down over the past week. Coho, yearling Chinook and sockeye indices all averaged 200 or fewer per day this week and the steelhead index was near zero.

At John Day Dam passage indices declined for all spring migrant species except lamprey while subyearling Chinook indices continued to increase. Subyearling Chinook predominated in the sample at this site as well, with the passage index for subyearlings averaging 70,000 per day this week compared to 32,000 per day last week. Lamprey collections have increased over the past week. The lamprey collection increased from 700 per day last week to 800 per day this week.

At Bonneville Dam the screens have been removed at Powerhouse 2 so that collections are lower than normal. Due to debris and high flows the COE was unable to keep the screens clean so that they removed the screens until flows subside. Given the biased collections the largest indices over the past week have been for subyearling Chinook which averaged 60,000 per day this week compared to 39,000 per day last week.

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. Releases of subyearling fall Chinook surrogates to the Clearwater River continued this week. These releases are expected to continue through early to mid-July. In all, 98,000 fall Chinook surrogates are scheduled for release into the Clearwater River this year. The fall Chinook surrogates are 100% PIT-tagged, but otherwise unmarked. Approximately 12,000 sockeye pre-smolts are scheduled for release into Alturas Lake in mid-July. These sockeye pre-smolts are 100% adipose clipped but are not expected to out-migrate until the spring of 2012. There are no other new 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. There were no scheduled releases to this zone this week. In addition, there are no new releases of juvenile salmonids scheduled for 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 to this zone this week. Also, there are no new releases of juvenile salmonids scheduled for this zone over the next two weeks.

Adult Passage:

Daily passage numbers at Bonneville Dam ranged between 1,434 and 2,175 adult summer Chinook in the last week. The 2011 summer Chinook count of 86,578 is 1.04 times greater than the 2010 count and about 1.22 times greater than the 10 year average. The 2011 Bonneville Dam summer Chinook jack count of 40,702 is 3.26 times greater than the 2010 count and 3.86 times greater than the 10 year average count. At McNary Dam 48,098 adult summer Chinook have been counted. The 2011 McNary adult summer Chinook is about 97.1% of the 2010, while being 1.01 times greater than the 10 average counts. The 2011 McNary Dam summer Chinook jack count of 19,495 is about 3.68 times greater than the 2010 count of 5,296 and about 3.18 times greater than the 10 year average count of 6,120. The 2011 adult summer Chinook count at Lower Granite Dam in the Snake River of 28,115 is about 1.13 times greater than the 2010 count and 2.35 times greater than the 10 year average count. The 2011 Lower Granite summer Chinook jack count of 11,099 is about 3.05 times greater than the 2010 count and 3.64 times greater than the 10 year average count.

The Bonneville Dam 2011 steelhead count of 17,121 is about 32.9% of the 2010 count of 52,048 and about 57.9% of the 10 year average count of 29,539. At Rock Island Dam, as of July 5th, 90 adult steelhead had been counted and at Rock Reach Dam 573 had been counted. In the Snake River, this year's Lower Granite steelhead count of 12,428 is about 1.03 times greater than the 2010 count of 12,055 and 1.21 times greater than the 10 year average of 10,235. The 2011 Lower Granite wild steelhead count as of July 7th was 5,814. At Willamette Falls Dam, the 2011 count for steelhead was 23,714, as of July 5th. This year's steelhead count is about 81.4% of the 2010 count of 29,126 and about 90.3% of the 10 year average count of 26,264 at Willamette Falls Dam for the same date range.

Daily adult sockeye passage numbers at Bonneville Dam ranged between 6,724 and 11,685 last week. The 2011 adult sockeye count at Bonneville Dam of 147,349 is about 41.2% of the 2010 count of 357,954, while being 1.27 times greater than the 10 year average count of 115,704. The 2011 McNary Dam adult sockeye count of 54,270 is about 23% of the 2010 count and 69.4% of the 10 year average count. Two of the major spawning sites for sockeye in the Upper Columbia River zone are Lake Wenatchee and Lake Osoyoos (Okanogan basin). In the Snake River at Ice Harbor Dam, the 2011 adult sockeye count of 276 is 40.9% of the 2010 count, while being 1.52 times greater than the 10 year average count. The Lower Granite Dam 2011 adult sockeye count of 66 is about 7.9% of the 2010 count and 40.2% of the 10 year average count.

As of July 7th at Bonneville Dam, the adult Shad count was 895,469. This year's shad count is about 87.2% of the 2010 count of 1,026,853 and about 29.6% of the 10 year average count of 3,028,338.

Hatchery Releases Last Two Weeks

Hatchery Release Summary

From: 6/24/2011 to 07/07/11

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
National Marine Fisheries Service	Lyons Ferry Hatchery	CH0	FA	2011	98,000	06-20-11	07-08-11	Big Canyon (Clearwater River)	Clearwater River M F
National Marine Fisheries Service Total					**98,000**				
Nez Perce Tribe	Nez Perce Tribal Hatchery	CH0	SP	2012	550,000	06-28-11	06-29-11	Meadow Creek - SELW	Selway River
Nez Perce Tribe Total					**550,000**				
Washington Dept. of Fish and Wildlife	Ringold Springs Hatchery	CH0	FA	2011	3,450,000	06-23-11	06-30-11	Ringold Springs Hatchery	Mid-Columbia River
Washington Dept. of Fish and Wildlife Total					**3,450,000**				
Grand Total					**4,098,000**				

Hatchery Releases Next Two Weeks

Hatchery Release Summary

From: 7/8/2011 to 7/21/2011

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
Idaho Dept. of Fish and Game	Sawtooth Hatchery	SO	UN	2012	12,000	07-15-11	07-15-11	Alturas Lake	Salmon River (ID)
Idaho Dept. of Fish and Game Total					**12,000**				
National Marine Fisheries Service	Lyons Ferry Hatchery	CH0	FA	2011	98,000	06-20-11	07-08-11	Big Canyon (Clearwater River)	Clearwater River M F
National Marine Fisheries Service Total					**98,000**				
Grand Total					**110,000**				

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

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

	Grand Coulee		Chief Joseph		Wells		Rocky Reach		Rock Island		Wanapum		Priest Rapids	
Date	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill
06/24/2011	208.1	46.4	206.0	86.7	233.0	74.4	250.9	77.5	261.8	84.3	274.1	150.7	284.8	163.9
06/25/2011	198.7	29.9	206.6	76.4	232.1	66.4	227.6	45.2	205.7	65.3	251.7	129.3	254.4	147.4
06/26/2011	199.3	30.1	207.3	99.4	232.8	77.8	247.0	59.7	234.2	65.4	256.3	130.4	262.5	146.9
06/27/2011	200.6	30.2	209.1	102.7	242.7	77.5	225.3	43.7	228.2	65.3	239.6	117.9	239.2	133.4
06/28/2011	199.8	30.4	204.9	85.3	237.2	78.1	230.7	88.5	234.2	62.9	246.4	126.2	248.4	117.7
06/29/2011	199.2	32.4	200.2	86.2	234.3	83.9	230.3	97.1	235.4	64.0	260.5	140.0	267.7	130.9
06/30/2011	200.7	33.8	207.0	100.6	237.2	65.3	231.3	94.9	234.6	73.5	237.3	114.0	238.1	101.0
07/01/2011	216.7	48.4	213.1	82.9	245.0	71.8	244.4	78.7	251.2	97.2	271.2	144.9	271.6	129.2
07/02/2011	220.2	50.1	222.4	94.7	245.3	100.2	262.0	67.3	263.1	99.2	271.4	158.8	273.0	129.6
07/03/2011	205.2	37.4	206.8	103.6	230.2	99.0	248.6	75.5	255.8	98.9	273.0	158.5	279.1	141.5
07/04/2011	196.2	26.6	197.4	86.2	220.7	80.5	228.5	50.9	235.0	69.3	245.4	130.9	248.1	109.6
07/05/2011	223.1	53.0	219.5	82.9	237.1	82.0	234.7	55.1	236.5	70.1	242.2	136.4	242.4	121.1
07/06/2011	224.2	54.5	226.0	89.1	253.9	91.1	262.9	106.0	264.8	74.1	281.5	157.7	284.5	169.4
07/07/2011	223.6	57.7	224.4	101.6	258.3	88.3	249.2	99.0	254.2	70.0	266.3	149.8	271.6	148.2

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

	Dworshak		Brownlee	Hells Canyon	Lower Granite		Little Goose		Lower Monumental		Ice Harbor	
Date	Flow	Spill	Inflow	Outflow	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill
06/24/2011	9.6	0.5	41.9	38.5	191.6	80.2	179.5	70.8	189.9	73.0	195.0	112.1
06/25/2011	9.6	0.7	42.0	38.5	182.8	71.7	173.3	63.8	182.7	66.0	191.1	108.0
06/26/2011	9.6	0.8	41.1	38.5	172.6	62.5	159.4	50.5	167.5	51.0	173.4	91.4
06/27/2011	9.6	0.5	39.7	38.1	163.6	53.3	154.4	46.8	161.7	54.8	168.4	86.9
06/28/2011	9.0	0.0	39.8	37.8	159.1	48.6	148.2	40.9	157.1	55.0	163.3	80.9
06/29/2011	6.9	0.0	39.4	39.2	162.1	51.6	152.2	47.1	158.1	61.3	162.6	79.6
06/30/2011	7.3	0.0	37.9	41.2	171.8	73.9	160.4	52.7	168.0	70.6	171.9	89.6
07/01/2011	9.5	0.0	34.8	39.4	168.1	75.8	161.1	52.1	171.7	74.2	179.6	96.6
07/02/2011	9.5	0.0	31.2	34.8	151.4	42.2	143.4	40.2	147.6	50.7	153.9	73.6
07/03/2011	10.3	0.8	27.4	32.7	145.5	38.3	136.8	40.7	141.9	44.8	149.3	75.4
07/04/2011	12.0	2.5	27.8	30.5	142.0	34.4	134.5	40.6	137.6	40.8	143.8	73.0
07/05/2011	13.1	3.6	26.4	30.5	141.7	45.4	133.5	41.8	136.8	46.2	142.5	74.2
07/06/2011	13.4	3.9	25.4	28.7	138.6	46.6	132.1	41.3	135.9	53.9	141.0	71.1
07/07/2011	13.5	4.0	---	---	131.7	39.5	123.9	37.5	126.4	43.1	131.6	63.0

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

	McNary		John Day		The Dalles		Bonneville			
Date	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	PH1	PH2
06/24/2011	493.6	327.8	497.0	240.5	480.6	236.2	483.0	294.8	71.7	104.1
06/25/2011	425.3	262.5	463.0	207.9	451.8	222.7	480.6	292.9	70.0	105.4
06/26/2011	434.4	274.5	439.7	175.3	423.1	180.1	428.6	240.2	68.3	107.7
06/27/2011	413.0	259.7	416.5	151.3	396.5	151.0	420.3	243.7	73.9	90.3
06/28/2011	401.9	244.1	408.9	147.4	394.5	150.6	409.6	234.5	72.3	90.4
06/29/2011	401.0	242.8	394.6	138.0	381.4	138.1	401.9	209.7	79.6	100.2
06/30/2011	404.8	253.6	405.0	141.3	388.9	148.5	396.4	183.3	93.6	107.1
07/01/2011	430.4	281.0	436.3	158.7	418.3	168.7	426.2	211.2	93.3	109.3
07/02/2011	433.5	283.9	442.4	149.3	428.2	171.3	439.9	225.6	92.7	109.3
07/03/2011	422.1	275.4	420.8	137.6	405.7	158.8	432.7	217.6	90.3	112.4
07/04/2011	407.2	261.2	419.9	131.6	409.4	161.1	433.2	218.6	91.3	110.9
07/05/2011	381.5	237.3	376.0	114.2	359.3	134.5	377.7	161.9	93.7	109.6
07/06/2011	386.9	238.3	384.2	117.5	370.3	138.4	388.6	170.7	94.1	111.4
07/07/2011	400.0	254.2	398.0	135.3	386.0	145.5	399.5	184.1	93.4	109.6

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

	Hungry H. Dnst				Boundary				Grand Coulee				Grand C. Tlwr				Chief Joseph			
	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
6/24	103.4	104.2	105.0	23	132.8	133.1	133.7	21	122.9	123.1	123.3	24	130.8	133.3	133.7	21	131.7	132.2	132.6	24
6/25	102.8	103.5	104.1	24	132.8	133.0	133.4	21	123.0	123.1	123.3	24	123.5	123.9	124.5	21	129.8	130.2	130.7	24
6/26	102.7	103.0	103.5	22	132.8	133.0	133.3	18	122.9	123.0	123.1	24	122.9	123.1	123.5	18	123.0	125.6	129.2	24
6/27	103.8	104.5	104.7	24	132.1	132.8	133.9	24	123.8	124.3	124.7	24	123.3	123.7	124.0	24	120.3	120.8	121.2	24
6/28	105.3	105.6	105.9	21	132.4	132.9	133.6	17	124.8	125.3	125.5	24	122.8	123.2	124.0	17	121.1	121.5	121.8	24
6/29	105.3	105.6	106.1	24	132.7	133.1	133.5	23	125.4	125.5	125.6	24	122.0	122.3	122.9	23	120.5	120.8	121.0	24
6/30	104.9	105.2	105.6	23	131.1	131.5	131.7	21	124.1	124.4	124.8	24	121.1	121.3	121.5	21	119.1	119.3	119.7	24
7/1	104.0	104.4	105.0	23	130.9	131.5	133.0	22	122.8	123.1	123.4	24	121.9	122.8	123.9	22	119.2	119.8	120.2	24
7/2	103.8	104.2	104.4	24	130.6	131.3	131.9	23	122.8	123.1	123.5	24	122.4	122.9	123.5	23	121.4	123.0	123.7	24
7/3	104.9	105.1	105.3	24	130.8	131.0	131.2	20	123.1	123.4	123.8	24	121.5	122.1	123.7	20	122.2	122.5	123.1	24
7/4	104.8	105.1	105.4	24	130.2	130.7	131.1	23	123.1	123.4	123.6	24	119.2	119.8	120.2	23	120.7	121.0	121.3	24
7/5	104.8	104.9	105.3	24	130.1	130.3	130.8	20	122.6	122.7	122.9	21	122.2	123.4	124.0	20	119.4	119.7	120.1	24
7/6	105.1	105.2	105.4	22	130.1	130.7	131.1	21	122.7	123.0	123.6	24	122.9	123.0	123.3	21	120.9	122.7	123.4	24
7/7	105.9	106.3	106.6	24	130.9	131.5	132.2	24	123.8	124.1	124.4	24	123.1	123.9	124.6	24	122.8	123.4	124.1	24

Total Dissolved Gas Saturation Data at Mid Columbia River Sites

	Chief J. Dnst				Wells				Wells Dwnstrm				Rocky Reach				Rocky R. Tlwr			
	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
6/24	117.3	118.1	118.8	24	120.7	121.1	122.1	24	125.7	126.9	127.7	24	125.5	126.3	126.6	24	123.7	124.4	125.1	24
6/25	116.0	116.6	118.8	24	121.8	122.1	122.4	24	124.4	126.1	127.0	24	123.3	124.2	125.6	24	120.9	121.1	121.4	24
6/26	116.7	117.4	118.1	24	120.8	121.6	122.2	24	126.4	127.3	129.0	24	124.3	125.4	126.9	24	123.1	123.9	124.3	24
6/27	118.0	118.3	118.9	24	118.2	118.6	118.9	24	123.0	125.4	126.6	24	125.2	126.6	127.4	24	121.6	122.2	123.5	24
6/28	116.0	116.7	119.3	24	118.4	118.8	119.2	24	125.0	127.2	128.6	24	124.2	125.6	127.3	24	122.4	122.9	123.5	24
6/29	115.1	115.4	115.8	24	117.0	117.4	117.8	24	125.6	127.6	128.6	24	122.8	124.3	127.6	24	123.8	124.8	125.7	24
6/30	116.4	117.7	119.2	24	115.0	115.3	115.6	24	121.2	122.3	124.1	24	119.9	123.1	124.5	24	124.1	124.8	125.2	24
7/1	115.9	117.0	118.4	24	116.2	116.8	117.2	24	122.5	124.3	127.1	24	118.6	120.4	122.6	24	124.0	126.3	130.3	24
7/2	116.8	117.1	117.4	24	118.3	119.2	119.8	24	128.3	129.1	129.6	24	122.3	124.0	126.5	24	122.5	123.2	123.5	24
7/3	116.1	116.9	117.3	24	118.4	118.7	119.2	24	128.8	129.2	129.9	24	126.1	126.7	127.0	24	123.3	124.2	124.9	24
7/4	116.2	116.8	117.6	24	117.5	118.4	118.9	24	125.5	125.9	126.2	24	125.1	125.6	126.2	24	121.8	123.1	123.6	24
7/5	116.5	118.4	119.2	24	117.3	117.7	117.8	24	125.9	126.4	127.2	24	124.0	124.8	125.2	24	122.1	122.8	123.7	24
7/6	117.4	117.9	118.8	24	118.4	119.2	119.5	24	127.7	129.3	131.0	24	125.1	126.1	127.5	24	124.0	124.8	125.4	24
7/7	---	---	---	0	119.0	119.5	119.8	24	126.0	127.0	127.7	24	125.1	126.8	127.6	24	123.6	124.3	125.0	24

Total Dissolved Gas Saturation at Mid Columbia River Sites

	Rock Island				Rock I. Tlwr				Wanapum				Wanapum Tlwr				Priest Rapids			
	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
6/24	123.1	123.8	124.4	24	125.0	125.4	126.3	24	119.5	120.2	120.7	24	125.9	127.7	129.0	24	125.5	126.3	126.7	24
6/25	121.4	121.9	122.8	24	120.6	123.3	124.0	24	121.7	122.9	123.4	24	123.6	123.8	124.2	24	122.2	123.2	123.8	24
6/26	121.5	123.0	123.4	24	123.3	124.4	124.7	24	122.4	123.0	123.6	24	123.4	123.5	123.6	24	122.6	123.4	123.9	24
6/27	123.3	123.9	124.2	24	124.5	125.0	125.3	24	123.0	124.1	124.3	24	122.5	123.6	124.2	24	123.8	124.0	124.4	24
6/28	121.5	122.7	123.4	24	123.1	124.0	124.6	24	124.3	124.9	125.7	24	123.8	125.6	127.0	24	124.0	126.2	128.4	24
6/29	122.4	123.1	123.6	24	124.8	125.9	127.3	24	119.9	120.5	121.9	24	124.7	126.0	126.5	24	123.7	125.3	126.6	24
6/30	120.0	121.2	122.1	24	121.9	127.0	127.6	17	118.4	118.6	119.0	24	120.8	122.6	123.0	24	120.6	122.7	125.1	24
7/1	119.9	121.0	122.8	24	107.7	107.7	122.9	10	121.3	122.8	123.4	24	124.8	125.5	125.7	24	123.9	125.6	126.3	24
7/2	120.8	122.0	122.5	24	123.9	124.9	125.4	24	123.2	124.5	125.2	24	126.7	127.2	127.6	24	126.6	128.0	128.9	24
7/3	123.6	124.2	124.8	24	126.0	126.4	126.8	24	120.8	121.3	122.2	24	126.7	127.6	127.9	24	125.3	126.3	127.7	24
7/4	122.3	123.4	124.1	24	125.2	126.0	126.5	24	121.1	122.7	123.2	24	123.7	124.3	124.5	24	124.4	125.4	127.2	24
7/5	121.8	122.1	122.7	24	125.2	125.5	126.2	24	122.5	123.8	124.4	24	125.0	126.6	127.4	24	123.3	124.2	124.9	24
7/6	123.8	124.5	125.0	24	126.6	127.1	127.9	24	123.6	124.6	125.8	24	126.8	127.9	130.0	24	125.8	126.9	127.5	24
7/7	123.3	124.4	125.7	24	126.3	127.0	127.8	24	123.3	124.8	125.9	24	126.3	127.2	128.7	24	124.2	124.5	124.9	24

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

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

	Priest R. Dnst				Pasco				Dworshak				Clrwtr-Peck				Anatone			
	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
6/24	125.7	126.1	126.4	24	117.3	118.9	119.6	24	102.8	104.9	109.1	24	103.4	104.2	104.7	24	108.8	109.6	110.1	24
6/25	124.0	124.6	125.1	24	118.1	118.7	119.4	24	103.3	105.4	108.3	24	103.2	103.8	104.4	24	109.4	110.0	110.5	24
6/26	124.2	124.8	125.0	24	117.3	118.0	118.5	24	102.5	104.0	108.4	24	102.8	103.5	104.0	24	109.1	109.7	110.1	24
6/27	124.5	124.8	125.0	24	118.5	119.5	120.0	24	101.9	102.0	102.1	24	102.9	103.7	104.1	24	109.1	109.7	110.1	24
6/28	124.6	125.4	126.3	24	117.9	118.4	119.0	24	103.8	105.4	107.9	24	102.6	103.2	103.6	24	108.3	108.7	109.2	24
6/29	124.4	125.2	125.6	24	116.3	116.9	117.9	24	103.6	105.4	107.3	24	103.0	103.5	103.7	24	107.7	108.0	108.6	24
6/30	122.0	122.7	124.1	24	115.7	116.3	116.9	24	101.0	101.4	101.6	24	103.3	104.0	104.4	24	108.3	109.0	109.6	24
7/1	124.1	125.4	126.0	24	115.7	116.9	117.7	24	100.9	101.1	101.2	24	103.2	104.1	104.7	24	108.5	109.2	109.8	24
7/2	125.8	126.8	127.4	24	118.7	119.9	120.4	24	101.7	101.8	102.0	24	103.2	104.2	104.9	24	108.1	108.8	109.3	24
7/3	125.3	125.8	126.6	24	118.9	119.5	120.2	24	104.5	105.8	106.4	24	103.2	104.2	104.9	24	107.1	107.6	108.2	24
7/4	124.1	124.7	125.1	24	117.9	118.6	119.2	24	107.3	108.7	110.3	24	103.9	104.9	105.4	24	106.5	107.2	107.8	24
7/5	123.9	124.7	125.2	24	117.5	118.5	119.2	24	110.8	112.2	112.3	24	104.6	105.6	106.4	24	106.3	107.0	107.6	24
7/6	126.1	127.3	128.6	24	118.1	119.4	120.1	24	110.1	112.1	112.5	24	104.9	105.6	106.4	24	106.2	106.9	107.5	24
7/7	125.1	125.5	126.8	24	119.0	120.1	121.5	24	107.9	109.8	112.9	24	104.4	104.9	105.7	24	105.7	106.3	106.7	24

Total Dissolved Gas Saturation Data at Snake River Sites

	Clrwtr-Lewiston				Lower Granite				L. Granite Tlwr				Little Goose				L. Goose Tlwr			
	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
6/24	102.9	103.6	103.9	24	106.7	107.1	107.3	24	127.7	128.4	128.9	24	115.2	116.1	117.1	24	124.5	125.0	126.3	24
6/25	103.1	103.8	104.5	24	107.8	108.3	108.7	24	126.4	126.8	128.3	24	118.3	119.1	119.5	24	123.4	123.9	124.6	24
6/26	102.8	103.5	104.1	24	108.3	108.6	109.0	24	125.5	125.7	126.0	24	119.5	119.7	120.1	24	120.7	121.5	122.9	24
6/27	103.1	103.9	104.4	24	108.9	109.5	109.8	24	122.6	123.6	125.7	24	120.0	120.5	120.9	24	119.7	121.0	122.0	24
6/28	102.8	103.3	104.0	24	109.0	109.2	109.4	24	121.0	122.1	123.3	24	119.7	120.1	120.5	24	117.6	117.8	118.0	24
6/29	102.3	102.7	103.3	24	107.5	107.8	108.4	24	122.0	125.1	125.8	24	116.4	117.3	118.2	24	118.6	120.0	120.7	24
6/30	102.1	102.8	103.2	24	105.7	105.8	106.1	24	126.7	130.0	130.7	24	112.4	113.1	114.0	24	120.0	122.0	123.6	24
7/1	102.6	103.5	104.1	24	106.1	107.0	107.5	24	126.0	129.0	129.8	24	113.1	114.7	117.5	24	120.3	121.8	123.8	24
7/2	102.9	103.8	104.5	24	108.3	109.1	109.5	24	119.7	120.8	121.7	24	121.9	123.9	124.8	24	118.4	118.9	119.1	24
7/3	102.5	103.2	104.0	24	108.1	108.4	109.2	24	118.5	119.9	120.2	24	119.9	121.6	124.1	24	117.4	117.7	118.2	24
7/4	103.0	103.9	104.5	24	106.5	106.8	107.7	24	117.3	118.7	119.8	24	114.7	115.0	116.1	24	116.6	117.1	118.6	24
7/5	103.5	104.5	105.4	24	106.1	106.5	106.9	24	120.0	121.3	121.6	24	113.5	113.9	114.3	24	117.1	117.6	117.7	24
7/6	104.1	105.0	106.1	24	106.6	107.1	107.6	24	120.7	121.1	121.6	24	113.4	113.9	114.6	24	117.1	117.3	117.4	24
7/7	103.7	104.8	105.7	24	107.1	107.3	107.4	24	120.0	120.5	120.7	24	116.7	117.7	118.5	24	116.6	116.9	118.2	24

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

	Lower Mon.				L. Mon. Tlwr				Ice Harbor				Ice Harbor Tlwr				McNary-Oregon			
	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#	24 h	12 h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
6/24	121.1	123.1	124.2	24	123.7	124.3	124.6	23	118.1	119.2	120.0	24	125.4	126.5	127.8	24	---	---	---	0
6/25	123.6	124.0	124.4	24	122.8	123.4	123.9	24	120.8	121.5	121.9	24	124.9	125.5	127.7	24	---	---	---	0
6/26	123.1	123.5	124.4	24	121.5	122.2	123.2	24	121.3	121.5	121.7	24	122.5	123.4	123.9	24	---	---	---	0
6/27	122.2	122.4	122.9	24	121.6	122.9	124.9	24	121.6	121.6	121.7	24	122.2	122.9	123.1	24	---	---	---	0
6/28	121.6	122.4	122.7	24	121.5	122.5	123.0	24	121.0	121.6	121.9	24	121.2	121.7	123.0	24	---	---	---	0
6/29	118.3	118.9	119.4	24	121.9	123.0	123.9	24	118.6	119.2	119.5	24	121.3	122.0	123.1	24	---	---	---	0
6/30	116.1	116.6	117.2	24	122.6	123.9	126.2	24	115.6	116.2	116.6	24	122.1	123.3	127.1	24	---	---	---	0
7/1	118.2	120.2	122.4	24	122.8	123.6	125.2	24	117.8	119.5	121.1	24	123.2	124.8	127.0	24	---	---	---	0
7/2	121.0	121.8	122.8	24	121.0	121.5	122.0	24	121.0	121.2	121.5	24	120.5	120.7	120.9	24	---	---	---	0
7/3	120.9	121.1	121.4	24	119.6	120.3	120.4	24	119.5	120.1	121.1	24	120.1	120.4	120.7	24	---	---	---	0
7/4	118.9	119.3	120.3	24	118.0	119.1	121.3	24	118.1	118.3	118.6	24	119.6	119.8	120.2	24	---	---	---	0
7/5	117.6	117.8	118.0	24	119.4	119.8	121.3	24	117.9	118.2	118.4	24	120.3	120.8	121.1	24	---	---	---	0
7/6	118.1	118.9	119.2	24	119.8	120.3	120.7	24	118.2	118.7	118.9	24	120.4	121.0	121.4	24	---	---	---	0
7/7	118.7	119.1	119.2	24	119.1	120.3	122.1	24	118.7	119.2	119.6	24	119.2	120.3	120.6	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				McNary Tlwr				John Day				John Day Tlwr				The Dalles			
	24 h	12 h		#	24 h	12 h		#	24h	12h		#	24h	12h		#	24h	12h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	AVG	High	hr
6/24	115.6	116.2	116.7	24	129.9	130.6	131.0	24	115.2	115.7	116.3	24	128.2	128.6	129.2	24	118.8	120.3	121.1	24
6/25	116.8	118.0	118.9	24	126.8	128.4	129.2	24	114.2	114.8	115.3	24	125.2	127.5	127.7	24	119.5	120.3	121.2	24
6/26	118.2	118.8	119.5	24	126.8	127.7	127.9	24	118.6	120.5	121.6	24	122.4	124.0	124.7	24	118.2	120.4	121.1	24
6/27	118.9	120.1	120.8	24	126.3	126.6	126.9	24	123.3	124.7	125.4	24	120.4	120.7	121.4	24	120.0	120.9	121.3	24
6/28	119.3	119.8	120.1	24	126.0	126.1	126.4	24	124.0	124.3	125.0	24	120.3	120.6	121.4	24	119.7	120.2	120.6	24
6/29	116.5	117.9	119.0	24	125.5	125.8	125.9	24	121.5	122.8	123.7	24	119.4	119.9	120.5	24	117.2	118.0	118.3	19
6/30	112.0	112.3	112.7	24	125.3	125.6	125.8	24	115.8	116.8	118.6	24	119.4	119.6	119.9	24	114.3	114.7	115.0	24
7/1	113.9	115.5	116.5	24	126.8	127.2	127.5	24	113.2	113.6	113.9	24	121.0	121.9	122.1	24	114.6	115.9	116.7	24
7/2	117.2	118.5	119.1	24	127.5	127.7	128.0	24	113.9	114.9	116.0	24	120.7	121.2	122.3	24	115.4	116.0	116.6	24
7/3	118.3	118.6	118.7	24	126.7	126.8	127.1	24	117.0	118.1	118.9	24	119.5	119.9	120.1	24	114.1	115.0	116.1	24
7/4	117.6	118.4	118.9	24	126.1	126.5	127.1	24	119.5	119.8	120.1	24	119.7	120.1	120.5	24	117.1	117.9	118.4	24
7/5	118.1	118.7	119.1	24	125.5	125.9	126.2	24	118.7	119.2	119.8	24	118.7	119.1	119.4	24	116.4	117.4	117.7	24
7/6	118.4	119.1	119.7	24	125.6	126.0	126.2	24	121.3	122.0	122.5	24	118.9	119.2	119.5	24	117.7	118.8	119.3	24
7/7	118.3	118.9	119.2	24	125.7	126.0	126.4	24	121.6	122.2	122.5	24	119.3	119.7	120.8	24	116.2	117.3	118.2	24

Total Dissolved Gas Saturation Data at Lower Columbia River Sites

	The Dalles Dnst				Bonneville				Warrendale				Camas\Washougal				Cascade Island			
	24 h	12 h		#	24 h	12 h		#	24h	12h		#	24h	12h		#	24h	12h		#
Date	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr	Avg	Avg	High	hr
6/24	121.5	122.8	123.7	24	117.3	118.0	119.1	24	129.4	131.4	132.1	24	124.9	126.5	128.2	24	---	---	---	0
6/25	122.4	122.9	123.4	24	120.6	121.0	121.2	24	130.8	132.0	132.5	24	129.3	130.2	130.9	24	---	---	---	0
6/26	121.6	122.8	123.3	24	120.7	120.8	121.0	24	127.6	128.2	128.8	24	126.4	126.9	127.8	24	---	---	---	0
6/27	122.5	122.9	123.6	24	122.0	122.9	123.4	24	128.1	128.5	128.8	24	125.9	127.3	127.9	24	---	---	---	0
6/28	122.5	123.0	123.6	24	120.2	120.9	121.8	24	126.8	127.6	128.1	24	125.9	126.3	126.6	24	---	---	---	0
6/29	120.3	120.8	121.1	24	117.9	118.9	119.7	24	123.7	124.9	125.4	24	122.6	123.3	124.5	24	---	---	---	0
6/30	118.8	119.3	119.6	24	115.3	115.5	115.8	24	120.0	120.2	120.5	24	118.9	119.3	120.7	24	---	---	---	0
7/1	119.3	120.3	121.1	24	117.6	118.8	119.5	24	122.7	123.6	124.4	24	120.4	122.1	122.9	24	---	---	---	0
7/2	120.0	120.5	121.0	24	120.3	120.7	121.1	24	124.9	125.2	125.5	24	123.3	124.4	125.3	24	---	---	---	0
7/3	118.4	119.0	119.9	24	116.4	117.2	119.4	24	122.4	123.0	124.2	24	121.7	122.1	122.5	24	---	---	---	0
7/4	120.8	121.4	122.1	24	116.5	117.6	118.2	24	122.3	122.6	122.9	24	120.8	121.4	121.9	24	---	---	---	0
7/5	120.1	120.3	120.6	24	118.8	119.2	119.6	24	120.8	121.0	121.2	24	120.6	121.0	121.5	24	---	---	---	0
7/6	120.7	121.5	122.8	24	118.2	118.5	118.8	24	120.6	120.8	121.0	24	119.5	120.3	121.3	24	---	---	---	0
7/7	119.9	121.1	122.1	24	115.6	116.4	117.7	24	119.2	119.7	120.3	24	117.5	118.0	118.9	24	---	---	---	0

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											
	06/30/11	Chinook + Steelhead	13	0	0	0.00%	0.00%	0	0	0	0
Little Goose Dam											
	06/27/11	Chinook + Steelhead	100	1	1	1.00%	0.00%	1	0	0	0
	07/04/11	Chinook + Steelhead	100	1	1	1.00%	0.00%	1	0	0	0
Lower Monumental Dam											
	06/29/11	Chinook + Steelhead	62	1	1	1.61%	0.00%	1	0	0	0
	07/06/11	Chinook + Steelhead	18	0	0	0.00%	0.00%	0	0	0	0
McNary Dam											
	06/27/11	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
	07/01/11	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
	07/05/11	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
	07/07/11	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
Bonneville Dam											
	06/25/11	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
	06/28/11	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
	07/03/11	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0

Two-Week Summary of Passage Indices

				COMBINED YEARLING CHINOOK								
		WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date		(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
06/24/2011	*	---	---	---	---	928	292	296	11	1,053	622	130
06/25/2011	*	---	---	---	---	770	494	223	11	---	383	280
06/26/2011	*	---	---	---	---	733	506	268	4	330	634	121
06/27/2011	*	---	5	---	---	232	1,167	367	6	---	0	0
06/28/2011	*	---	1	---	---	219	526	404	4	295	390	303
06/29/2011	*	---	---	---	---	72	486	661	0	---	519	0
06/30/2011	*	---	---	---	---	75	551	345	4	533	104	124
07/01/2011	*	---	---	---	---	349	576	109	10	---	152	185
07/02/2011	*	---	---	---	---	201	247	191	0	9	0	193
07/03/2011	*	---	---	---	---	68	246	269	2	---	149	263
07/04/2011	*	---	---	---	---	102	288	144	5	301	247	0
07/05/2011	*	---	---	---	---	65	118	158	2	---	0	0
07/06/2011	*	---	---	---	---	31	0	25	0	281	0	0
07/07/2011	*	---	---	---	---	44	160	17	2	---	0	231
07/08/2011		---	---	---	---	---	---	---	---	---	---	---
Total:		**0**	**6**	**0**	**0**	**3,889**	**5,657**	**3,477**	**61**	**2,802**	**3,200**	**1,830**
# Days:		**0**	**2**	**0**	**0**	**14**	**14**	**14**	**14**	**7**	**14**	**14**
Average:		**0**	**3**	**0**	**0**	**278**	**404**	**248**	**4**	**400**	**229**	**131**
YTD		**31,090**	**30,208**	**12,492**	**18,836**	**3,830,828**	**2,528,116**	**1,236,139**	**26,447**	**1,979,287**	**2,935,987**	**1,321,747**

				COMBINED SUBYEARLING CHINOOK								
		WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date		(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
06/24/2011	*	---	---	---	---	15,749	26,897	10,507	228	67,830	20,567	15,028
06/25/2011	*	---	---	---	---	18,916	31,029	9,186	343	---	22,532	25,831
06/26/2011	*	---	---	---	---	19,375	34,705	12,345	374	84,732	31,585	27,887
06/27/2011	*	---	0	---	---	12,237	25,287	8,632	309	---	35,290	33,328
06/28/2011	*	---	0	---	---	9,848	15,833	8,087	200	120,940	29,501	52,990
06/29/2011	*	---	---	---	---	3,732	7,924	14,453	251	---	32,752	48,790
06/30/2011	*	---	---	---	---	6,292	13,241	6,035	371	177,292	50,215	69,699
07/01/2011	*	---	---	---	---	6,942	22,502	6,779	672	---	79,874	60,535
07/02/2011	*	---	---	---	---	5,336	14,467	5,208	458	217,732	55,329	72,138
07/03/2011	*	---	---	---	---	4,108	12,948	4,894	438	---	60,068	62,805
07/04/2011	*	---	---	---	---	4,672	16,295	1,499	509	119,582	99,063	53,651
07/05/2011	*	---	---	---	---	4,076	7,062	2,904	740	---	66,083	63,485
07/06/2011	*	---	---	---	---	5,133	4,681	1,917	447	148,617	70,644	56,040
07/07/2011	*	---	---	---	---	3,773	4,731	1,546	518	---	59,299	54,787
07/08/2011		---	---	---	---	---	---	---	---	---	---	---
Total:		**0**	**0**	**0**	**0**	**120,189**	**237,602**	**93,992**	**5,858**	**936,725**	**712,802**	**696,994**
# Days:		**0**	**2**	**0**	**0**	**14**	**14**	**14**	**14**	**7**	**14**	**14**
Average:		**0**	**0**	**0**	**0**	**8,585**	**16,972**	**6,714**	**418**	**133,818**	**50,914**	**49,785**
YTD		**9**	**36**	**12**	**163**	**1,020,310**	**1,183,949**	**285,820**	**15,804**	**1,643,918**	**1,284,713**	**3,624,442**

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)
06/24/2011	*	---	---	---	---	0	0	0	39	727	326	43
06/25/2011	*	---	---	---	---	86	0	32	7	---	383	234
06/26/2011	*	---	---	---	---	81	0	30	17	795	318	190
06/27/2011	*	---	0	---	---	0	0	0	25	---	324	80
06/28/2011	*	---	0	---	---	0	0	0	10	138	78	0
06/29/2011	*	---	---	---	---	0	69	31	4	---	104	35
06/30/2011	*	---	---	---	---	150	0	0	10	260	206	187
07/01/2011	*	---	---	---	---	50	0	0	18	---	254	370
07/02/2011	*	---	---	---	---	0	0	0	3	0	229	0
07/03/2011	*	---	---	---	---	34	0	0	14	---	0	0
07/04/2011	*	---	---	---	---	0	0	29	2	0	0	0
07/05/2011	*	---	---	---	---	13	0	0	8	---	208	0
07/06/2011	*	---	---	---	---	31	0	0	6	536	0	0
07/07/2011	*	---	---	---	---	0	44	0	4	---	210	0
07/08/2011		---	---	---	---	---	---	---	---	---	---	---
Total:		**0**	**0**	**0**	**0**	**445**	**113**	**122**	**167**	**2,456**	**2,640**	**1,139**
# Days:		**0**	**2**	**0**	**0**	**14**	**14**	**14**	**14**	**7**	**14**	**14**
Average:		**0**	**0**	**0**	**0**	**32**	**8**	**9**	**12**	**351**	**189**	**81**
YTD		**0**	**0**	**0**	**218**	**80,422**	**80,000**	**18,950**	**46,316**	**187,254**	**475,831**	**439,012**

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)
06/24/2011	*	---	---	---	---	2,706	1,892	197	174	148	618	43
06/25/2011	*	---	---	---	---	2,225	1,974	318	94	---	765	47
06/26/2011	*	---	---	---	---	2,117	1,944	596	70	8	958	17
06/27/2011	*	---	6	---	---	1,704	1,555	551	130	---	729	160
06/28/2011	*	---	2	---	---	1,459	1,858	462	46	544	546	0
06/29/2011	*	---	---	---	---	1,076	1,045	554	52	---	937	288
06/30/2011	*	---	---	---	---	674	919	241	54	523	618	251
07/01/2011	*	---	---	---	---	1,313	1,037	109	53	---	557	370
07/02/2011	*	---	---	---	---	522	423	127	47	0	0	0
07/03/2011	*	---	---	---	---	274	633	179	24	---	510	0
07/04/2011	*	---	---	---	---	512	575	115	34	3	0	0
07/05/2011	*	---	---	---	---	392	187	113	14	---	832	0
07/06/2011	*	---	---	---	---	323	147	31	15	0	410	0
07/07/2011	*	---	---	---	---	340	131	68	34	---	0	0
07/08/2011		---	---	---	---	---	---	---	---	---	---	---
Total:		**0**	**8**	**0**	**0**	**15,637**	**14,320**	**3,661**	**841**	**1,226**	**7,480**	**1,176**
# Days:		**0**	**2**	**0**	**0**	**14**	**14**	**14**	**14**	**7**	**14**	**14**
Average:		**0**	**4**	**0**	**0**	**1,117**	**1,023**	**262**	**60**	**175**	**534**	**84**
YTD		**1,080**	**13,876**	**4,071**	**2,934**	**4,116,538**	**2,031,745**	**837,758**	**28,279**	**607,744**	**2,619,561**	**246,497**

Two-Week Summary of Passage Indices

				COMBINED SOCKEYE								
		WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date		(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
06/24/2011	*	---	---	---	---	251	243	0	67	454	434	302
06/25/2011	*	---	---	---	---	428	82	64	67	---	287	280
06/26/2011	*	---	---	---	---	163	39	0	36	674	869	259
06/27/2011	*	---	0	---	---	77	73	122	72	---	243	240
06/28/2011	*	---	0	---	---	219	0	0	10	135	234	152
06/29/2011	*	---	---	---	---	72	35	345	2	---	312	144
06/30/2011	*	---	---	---	---	0	74	138	35	525	516	0
07/01/2011	*	---	---	---	---	149	115	73	22	---	0	0
07/02/2011	*	---	---	---	---	201	141	0	10	596	229	193
07/03/2011	*	---	---	---	---	137	0	0	14	---	297	0
07/04/2011	*	---	---	---	---	205	180	0	9	0	148	505
07/05/2011	*	---	---	---	---	118	29	23	20	---	208	0
07/06/2011	*	---	---	---	---	108	59	0	8	8	0	226
07/07/2011	*	---	---	---	---	59	44	0	13	---	0	231
07/08/2011		---	---	---	---	---	---	---	---	---	---	---
Total:		**0**	**0**	**0**	**0**	**2,187**	**1,114**	**765**	**385**	**2,392**	**3,777**	**2,532**
# Days:		**0**	**2**	**0**	**0**	**14**	**14**	**14**	**14**	**7**	**14**	**14**
Average:		**0**	**0**	**0**	**0**	**156**	**80**	**55**	**28**	**342**	**270**	**181**
YTD		**0**	**0**	**1**	**0**	**118,094**	**43,252**	**30,853**	**18,342**	**315,962**	**360,126**	**111,231**

				COMBINED LAMPREY JUVENILES								
		WTB	IMN	GRN	LEW	LGR†	LGS	LMN	RIS	MCN	JDA	BO2
Date		(Coll)	(Coll)	(Coll)	(Coll)	(Coll)	(Coll)	(Coll)	(Coll)	(Coll)	(Coll)	(Coll)
06/24/2011	*	---	---	---	---	0	20	0	1	1,150	780	20
06/25/2011	*	---	---	---	---	0	125	0	0	---	1,150	50
06/26/2011	*	---	---	---	---	100	150	0	3	1,100	1,029	32
06/27/2011	*	---	0	---	---	0	450	0	2	---	586	40
06/28/2011	*	---	0	---	---	200	400	0	1	750	750	20
06/29/2011	*	---	---	---	---	150	275	0	2	---	600	67
06/30/2011	*	---	---	---	---	200	250	0	1	400	133	133
07/01/2011	*	---	---	---	---	50	175	0	1	---	1,500	0
07/02/2011	*	---	---	---	---	25	77	0	1	800	529	0
07/03/2011	*	---	---	---	---	0	150	0	2	---	743	0
07/04/2011	*	---	---	---	---	50	150	0	0	600	1,000	0
07/05/2011	*	---	---	---	---	30	221	0	1	---	286	134
07/06/2011	*	---	---	---	---	90	60	0	0	600	714	0
07/07/2011	*	---	---	---	---	400	100	0	0	---	857	0
07/08/2011		---	---	---	---	---	---	---	---	---	---	---
Total:		**0**	**0**	**0**	**0**	**1,295**	**2,603**	**0**	**15**	**5,400**	**10,657**	**496**
# Days:		**0**	**2**	**0**	**0**	**14**	**14**	**14**	**14**	**7**	**14**	**14**
Average:		**0**	**0**	**0**	**0**	**93**	**186**	**0**	**1**	**771**	**761**	**35**
YTD		**0**	**0**	**0**	**0**	**7,272**	**14,331**	**746**	**312**	**156,815**	**482,761**	**25,455**

Two-Week Summary of Passage Indices

* 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, sockeye, and lamprey juveniles. Two classes of fish counts are shown in these tables:

Two classes of fish counts are shown in these tables:
Collection counts (Coll), which account for sample rates but are not adjusted for flow;
Passage indices (INDEX), 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.

Combined lamprey juvenile collection counts are provided for all sites. Combined lamprey juveniles is a combination of pacific lamprey ammocoetes, brook lamprey ammocoetes, unknown lamprey ammocoetes, and pacific lamprey macropthalmia.

† Caution should be used with interpreting lamprey juvenile collection counts at LGR because of the possibility that lamprey may escape the sample tank before being sampled

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: 7/8/11 10:21 AM

06/24/11 TO 07/08/11

		Species					
Site	Data	**CH0**	**CH1**	CO	ST	SO	**Grand Total**
LGR	Sum of NumberCollected	76,060	2,380	280	9,817	1,400	89,937
	Sum of NumberBarged	83,924	2,638	378	11,324	1,490	99,754
	Sum of NumberBypassed	42	0	1	0	0	43
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of SampleMorts	17	0	0	3	1	21
	Sum of FacilityMorts	129	13	1	10	19	172
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	146	13	1	13	20	193
LGS	Sum of NumberCollected	157,945	3,824	80	9,533	740	172,122
	Sum of NumberBarged	165,391	3,913	50	9,878	763	179,995
	Sum of NumberBypassed	18	0	0	0	0	18
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of SampleMorts	39	0	0	1	0	40
	Sum of FacilityMorts	670	1	0	24	4	699
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	709	1	0	25	4	739
LMN	Sum of NumberCollected	59,816	2,232	80	2,368	475	64,971
	Sum of NumberBarged	67,816	2,500	80	2,882	614	73,892
	Sum of NumberBypassed	41	2	0	38	0	81
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of SampleMorts	7	0	0	0	0	7
	Sum of FacilityMorts	135	0	0	8	1	144
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	142	0	0	8	1	151
MCN	Sum of NumberCollected	337,695	1,011	902	457	867	340,932
	Sum of NumberBarged	0	0	0	0	0	0
	Sum of NumberBypassed	333,284	950	900	450	850	336,434
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of SampleMorts	142	0	0	0	0	142
	Sum of FacilityMorts	4,269	61	2	7	17	4,356
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	4,411	61	2	7	17	4,498
Total Sum of NumberCollected		631,516	9,447	1,342	22,175	3,482	667,962
Total Sum of NumberBarged		317,131	9,051	508	24,084	2,867	353,641
Total Sum of NumberBypassed		333,385	952	901	488	850	336,576
Total Sum of Numbertrucked		0	0	0	0	0	0
Total Sum of SampleMorts		205	0	0	4	1	210
Total Sum of FacilityMorts		5,203	75	3	49	41	5,371
Total Sum of ResearchMorts		0	0	0	0	0	0
Total Sum of TotalProjectMorts		5,408	75	3	53	42	5,581

YTD Transportation Summary

Source: Fish Passage Center Updated: 7/8/11 10:21 AM

TO: 07/08/11

		Species					
Site	Data	**CH0**	**CH1**	CO	SO	ST	**Grand Total**
LGR	Sum of NumberCollected	633,610	2,716,714	52,714	77,139	2,711,778	6,191,955
	Sum of NumberBarged	547,380	1,704,897	38,188	34,481	1,435,273	3,760,219
	Sum of NumberBypassed	81,829	1,009,672	14,508	42,055	1,275,909	2,423,973
	Sum of NumberTrucked	0	0	0	0	0	0
	Sum of SampleMorts	125	101	1	71	41	339
	Sum of FacilityMorts	1,743	1,774	17	492	262	4,288
	Sum of ResearchMorts	0	241	0	0	58	299
	Sum of TotalProjectMorts	1,868	2,116	18	563	361	4,926
LGS	Sum of NumberCollected	612,860	1,448,992	40,290	23,471	1,131,479	3,257,092
	Sum of NumberBarged	606,680	1,343,930	39,858	18,080	892,346	2,900,894
	Sum of NumberBypassed	76	103,168	401	5,227	238,633	347,505
	Sum of NumberTrucked	0	0	0	0	0	0
	Sum of SampleMorts	109	50	0	9	9	177
	Sum of FacilityMorts	2,738	1,734	1	125	401	4,999
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	2,847	1,784	1	134	410	5,176
LMN	Sum of NumberCollected	187,946	853,622	12,585	20,696	565,456	1,640,305
	Sum of NumberBarged	177,752	636,210	11,423	18,481	459,309	1,303,175
	Sum of NumberBypassed	8,323	215,897	1,254	1,964	103,433	330,871
	Sum of NumberTrucked	0	0	0	0	0	0
	Sum of SampleMorts	8	3	0	0	5	16
	Sum of FacilityMorts	955	1,499	10	251	869	3,584
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	963	1,502	10	251	874	3,600
MCN	Sum of NumberCollected	568,558	952,637	71,455	132,249	295,876	2,020,775
	Sum of NumberBarged	0	0	0	0	0	0
	Sum of NumberBypassed	562,209	949,771	71,257	131,864	295,663	2,010,764
	Sum of NumberTrucked	0	0	0	0	0	0
	Sum of SampleMorts	315	187	8	40	13	563
	Sum of FacilityMorts	6,034	2,679	170	345	200	9,428
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	6,349	2,866	178	385	213	9,991
Total Sum of NumberCollected		2,002,974	5,971,965	177,044	253,555	4,704,589	13,110,127
Total Sum of NumberBarged		1,331,812	3,685,037	89,469	71,042	2,786,928	7,964,288
Total Sum of NumberBypassed		652,437	2,278,508	87,420	181,110	1,913,638	5,113,113
Total Sum of NumberTrucked		0	0	0	0	0	0
Total Sum of SampleMorts		557	341	9	120	68	1,095
Total Sum of FacilityMorts		11,470	7,686	198	1,213	1,732	22,299
Total Sum of ResearchMorts		0	241	0	0	58	299
Total Sum of TotalProjectMorts		12,027	8,268	207	1,333	1,858	23,693

Cumulative Adult Passage at Mainstem Dams Through: 07/07

		Spring Chinook						Summer Chinook						Fall Chinook					
		2011		2010		10-Yr Avg.		2011		2010		10-Yr Avg.		2011		2010		10-Yr Avg.	
DAM	EndDate	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack
BON	**07/07**	**167097**	**50945**	**244384**	**12612**	**174444**	**16431**	**86578**	**40702**	**82938**	**12487**	**71241**	**10531**	**0**	**0**	**0**	**0**	**0**	**0**
TDA	**07/07**	**124164**	**40146**	**189839**	**11546**	**130174**	**13470**	**60056**	**28907**	**66579**	**9794**	**60464**	**7861**	**0**	**0**	**0**	**0**	**0**	**0**
JDA	**07/07**	**103401**	**39823**	**179446**	**11794**	**110572**	**12004**	**53907**	**24690**	**56466**	**8861**	**53986**	**8081**	**0**	**0**	**0**	**0**	**0**	**0**
MCN	**07/07**	**101245**	**31750**	**153500**	**9185**	**102003**	**11175**	**48098**	**19495**	**49539**	**5296**	**47488**	**6120**	**0**	**0**	**0**	**0**	**0**	**0**
IHR	**07/07**	**69306**	**18161**	**101188**	**6047**	**70295**	**6879**	**22383**	**9682**	**26287**	**2674**	**15559**	**2866**	**0**	**0**	**0**	**0**	**0**	**0**
LMN	**07/07**	**69832**	**18094**	**97334**	**5898**	**69566**	**5561**	**25525**	**10627**	**31451**	**3544**	**15968**	**2319**	**0**	**0**	**0**	**0**	**0**	**0**
LGS	**07/07**	**67321**	**23492**	**92985**	**5461**	**64800**	**6145**	**33664**	**13405**	**28392**	**3052**	**12956**	**2682**	**0**	**0**	**0**	**0**	**0**	**0**
LGR	**07/07**	**59342**	**22063**	**94203**	**6409**	**65342**	**7745**	**28115**	**11099**	**24827**	**3644**	**11972**	**3047**	**0**	**0**	**0**	**0**	**0**	**0**
PRD	**07/06**	**15246**	**6030**	**30539**	**932**	**20141**	**818**	**13356**	**1438**	**21835**	**268**	**28238**	**894**	**0**	**0**	**0**	**0**	**0**	**0**
RIS	**07/05**	**13089**	**8394**	**29684**	**1513**	**17327**	**1572**	**5007**	**3306**	**13754**	**754**	**18546**	**1296**	**0**	**0**	**0**	**0**	**0**	**0**
RRH	**07/05**	**6989**	**3491**	**8660**	**523**	**6536**	**525**	**2114**	**701**	**6111**	**180**	**9670**	**571**	**0**	**0**	**0**	**0**	**0**	**0**
WEL	**07/06**	**4153**	**3969**	**7596**	**661**	**5414**	**510**	**433**	**252**	**3241**	**90**	**5548**	**182**	**0**	**0**	**0**	**0**	**0**	**0**
WFA	**07/05**	**39054**	**1132**	**60621**	**1348**	**49834**	**974**	**-**	**-**	**-**	**-**	**-**	**-**	**0**	**0**	**0**	**0**	**-**	**-**

	Coho						Sockeye			Steelhead			
	2011		2010		10-Yr Avg.								
DAM	Adult	Jack	Adult	Jack	Adult	Jack	2011	2010	10-Yr Avg.	2011	2010	10-Yr Avg.	Wild 2011
BON	**0**	**0**	**0**	**0**	**0**	**0**	**147349**	**357954**	**115704**	**17121**	**52048**	**29539**	**6834**
TDA	**0**	**0**	**0**	**0**	**0**	**0**	**96332**	**294296**	**97187**	**5560**	**25561**	**13430**	**2240**
JDA	**0**	**0**	**0**	**0**	**0**	**0**	**88185**	**287673**	**98417**	**5326**	**18534**	**13137**	**2630**
MCN	**0**	**0**	**0**	**0**	**0**	**0**	**54270**	**236134**	**78173**	**4464**	**10790**	**7848**	**2036**
IHR	**0**	**0**	**0**	**0**	**0**	**0**	**276**	**675**	**182**	**3707**	**6956**	**5186**	**1327**
LMN	**0**	**0**	**0**	**0**	**0**	**0**	**167**	**891**	**202**	**4352**	**8083**	**5261**	**2253**
LGS	**0**	**0**	**0**	**0**	**0**	**0**	**108**	**694**	**168**	**6463**	**5104**	**4101**	**3400**
LGR	**0**	**0**	**0**	**0**	**0**	**0**	**66**	**834**	**164**	**12428**	**12055**	**10235**	**5814**
PRD	**0**	**0**	**0**	**2**	**0**	**0**	**33461**	**238659**	**76755**	**112**	**734**	**491**	**-**
RIS	**0**	**0**	**0**	**0**	**0**	**0**	**7187**	**126414**	**44302**	**90**	**364**	**298**	**62**
RRH	**0**	**0**	**0**	**0**	**1**	**0**	**4054**	**85396**	**28435**	**573**	**461**	**375**	**503**
WEL	**0**	**0**	**0**	**0**	**0**	**0**	**1693**	**60557**	**21961**	**129**	**168**	**107**	**100**
WFA	**0**	**0**	**0**	**0**	**-**	**-**	**0**	**0**	**-**	**23714**	**29126**	**26264**	**-**

PRD does not post 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: 07/08/11

BON counts from January 1, 2011 to March 14, 2011 (historical counts begin March 15):

Year	Chinook Adult	Chinook Jack	Steelhead	Wild Steelhead
2011	49	1	1,419	600
2010	39	0	2,318	657