



Fish Passage Center

Weekly Report #12 - 06

April 20, 2012

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Summary of Events:

Water Supply: Precipitation throughout the Columbia Basin has varied between 57% and 92% of average at individual sub-basins over the first portion of April. Precipitation above The Dalles has been 81% of average over April. Over the 2012 water year, precipitation has ranged between 81% and 114% of average.

Table 1. Summary of April precipitation and cumulative October through April 16, 2012 precipitation with respect to average (1971-2000), at select locations within the Columbia and Snake River Basins.

Location	Water Year 2012 April 1-16, 2012		Water Year 2012 October 1, 2011 to April 16, 2012	
	Observed (inches)	% Average	Observed (inches)	% Average
Columbia Above Coulee	0.69	78	16.92	112
Snake River Above Ice Harbor	0.57	73	11.20	101
Columbia Above The Dalles	0.71	81	16.28	107
Kootenai	0.77	83	17.37	112
Clark Fork	0.51	77	11.04	114
Flathead	0.68	80	14.15	109
Pend Oreille/ Spokane	0.99	82	23.33	109
Central Washington	0.24	71	5.06	81
Snake River Plain	0.32	57	6.64	100
Salmon/Boise/ Payette	0.56	65	13.69	100
Clearwater	1.14	80	21.93	109
SW Washington Cascades/ Cowlitz	2.23	78	54.92	98
Willamette Valley	2.37	92	50.42	105

Average snowpack in the Columbia River for basins above the Snake River confluence is 111% of average, for Snake River Basins the average snowpack is 77% of average, and for lower Columbia Basins between McNary and Bonneville Dam average snowpack is 110% of average.

The NWRFC has eliminated the distribution of their Multiple Linear Regression Water Supply Forecasts as their “Official” forecast and are now producing ESP (Ensemble Streamflow Prediction) forecasts at least once per week. The “Official” April ESP forecast was produced on April 5, 2012.

Table 2 displays the April 5th and April 17th ESP runoff volume forecasts for multiple reservoirs. The April 5th “Official” forecast at The Dalles between January and July is 114135 Kaf (106% of average).

Table 2. April 5, 2012 “Official” and April ESP Runoff Volume Forecasts for various reservoirs within the Columbia and Snake River Basins.

Location	April 5, 2012 ESP		April 17, 2012 ESP	
	% Average (1971 -2000)	Runoff Volume (Kaf)	% Average (1971 -2000)	Runoff Volume (Kaf)
The Dalles (Jan-July)	106	114135	104	112068
Grand Coulee (Jan-July)	110	69099	107	67114
Libby Res. Inflow, MT (Apr-Aug)	117	7312 6872*	110	6854 6872*
Hungry Horse Res. Inflow, MT (Jan-July)	103	2285	98	2174
Lower Granite Res. Inflow (Apr- July)	106	22825	101	21783
Brownlee Res. Inflow (Apr-July)	103	6512	95	5993
Dworshak Res. Inflow (Apr-July)	109	2874 2966*	108	2864 2966*

* Denotes COE Forecast

Grand Coulee Reservoir is at 1233.2 feet (4-19-12) and drafted 9.2 feet over the last week. Outflows at Grand Coulee have ranged between 144.2 and 177.4 Kcfs over the last week. The end of April FC Elevation at Grand Coulee is 1220.2 feet.

The Libby Reservoir is currently at elevation 2382.3 feet (4-19-12) and has drafted 6.9 feet last week. The end of April FC Elevation at Libby is 2377.3 feet. Outflows at Libby Dam have been between 18 and 25 Kcfs last week.

Hungry Horse is currently at an elevation of 3523.9 feet (4-19-12) and has drafted 1.8 feet last week. Outflows at Hungry Horse have ranged between 9.2 and 10.9 Kcfs last week. The end of April FC Elevation at Hungry Horse is 3521.7 feet.

Dworshak is currently at an elevation of 1511.0 feet (4-19-12) and has drafted 4.2 feet last week. The end of April System Flood Control Elevation is 1499.6 feet. Outflows from Dworshak have been 19.4 Kcfs over the past week.

The Brownlee Reservoir was at an elevation of 2023.4 feet on April 17th, 2012 drafting 4.8 feet last week. Over the last week, outflows at Brownlee have ranged between 32.1 and 42.3 Kcfs. The end of April FC Elevation at Brownlee is 2014.3 feet.

The Biological Opinion flow period began on April 3rd in the lower Snake River (Lower Granite). According to the April Final Water Supply Forecast, the flow objective this spring is 100 Kcfs at Lower Granite. Flows at Lower Granite Dam from April 3-19 have averaged 104.4 Kcfs.

Based on the April Final Water Supply Forecast, the Spring Biological Opinion Flow Objectives will be 260 Kcfs at McNary Dam (began April 10th) and 135 Kcfs at Priest Rapids Dam (began April 10th). Flows at McNary Dam have averaged 292.5 Kcfs between April 10-19. Flows at Priest Rapids Dam have averaged 179.8 Kcfs between April 10-19.

Spill:

Spill occurred at Dworshak Dam over the past week as the continued to draft to its end of April flood control elevation. Spill for fish passage began on April 3rd at the lower Snake River projects, and on April 10th at the lower Columbia River projects.

In general, flows have remained high over the past week. At several hydro projects in the FCRPS, there are turbine units out of service limiting the hydraulic capacities of the projects, and potentially causing additional spill.

At Lower Granite Dam spill has met the Court Ordered 20 Kcfs, and exceeded that level during some nighttime hours. At Little Goose Dam, spill has been provided to the 30% of instantaneous flow level as specified in the Court Order over the past week. The tailrace TDG has consistently been around 114% to 116.5%, below the 120% TDG waiver. At Lower Monumental Dam the COE implemented a downward adjustment to 26 Kcfs to address TDG at the tailrace and at Ice Harbor Dam forebay. This lower spill level is based on continuing to spill with a bulk spill pattern (according to the rolled-over Fishery Operations Plan), while the fishery agencies and tribes prefer a uniform pattern at the present flow levels. At Ice Harbor Dam the Court Order calls for 45 Kcfs spill during the day and gas cap spill at night, until the “test-like” spill amounts are implemented. Spill has met the 45 Kcfs/gas cap specifications.

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

Spill for fish passage at the Lower Columbia projects began on April 10th. Spill at McNary Dam was in excess of the Court Order as a result of spill in excess of hydraulic capacity due to unit outages. Spill at John Day Dam was 30% of instantaneous flow with some hours of higher spill during nighttime hours. This level will be changed to alternating 30% and 40% levels during the upcoming test period. At The Dalles Dam, spill has not met the 40% objective due to TDG at the Bonneville forebay exceeding the 115% criteria. At Bonneville Dam spill has consistently been below the 100 Kcfs in the Court Order due to the COE’s TDG management. The 100 Kcfs spill level was not provided during the passage of the Spring Creek NFH release last Friday.

Project	Day/Night Spill
McNary	40%/40%
John Day	Pre-test: 30%/30% Testing: 30%/30% vs. 40%/40%
The Dalles	40%/40%
Bonneville	100 Kcfs/100 Kcfs

Gas bubble trauma samples were taken this past week at Lower Granite, Little Goose, Lower Monumental, McNary and Bonneville dams. There were no fish observed with signs of GBT at the projects, with the exception of McNary Dam where two fish (1.9% of the sample) were observed with Rank 1 signs of GBT on April 16th.

Smolt Monitoring:

Smolt monitoring is ongoing at all seven SMP dams (BON, JDA, MCN, LGR, LGS, LMN, and RIS), and the four SMP traps.

The passage index for yearling Chinook at BON continued to increase this week. The daily average passage index at BON for yearling Chinook this week was about 10,400 per day compared to a daily average of nearly 1,100 last week. Subyearling Chinook numbers increased substantially again this week. This is due to the release of nearly 8.0 million subyearling fall Chinook tules into the Bonneville Pool. Of these 8.0 million subyearlings, nearly 1.0 million were released on Wednesday, April 11th from Spring Creek NFH and 7.0 million were released from Spring Creek and Little White NFH on Friday, April 13th. The fish from the April 11th release were first encountered at BON at 0040 on April 12th. Subsequent to their arrival, mortality rates of subyearling Chinook began to increase. The sample ending on April 13th had a daily mortality of 15.2% for subyearling Chinook. Due to these high mortalities, and the release of 7.0 million additional subyearlings on April 13th, the salmon managers submitted a System Operational Request (SOR) for a special operation at BON during the peak passage of the subyearling Chinook released on April 13th. In this request, the salmon managers requested that the turbines in the BON second powerhouse be operated at the mid-point of the 1% best efficiency range. With all turbine units operating at this level, this would be hydraulic capacity for the second powerhouse. Flows above this hydraulic capacity would be spilled, until the spill amount lead to TDG exceedences below BON. If this occurred, the first powerhouse at BON could then be operated at Open Geometry outside the 1% best efficiency range. This SOR was rejected by the Action Agencies. However, the COE proposed an alternative operation, which called for operating the second powerhouse at or below the mid-point of the 1% best efficiency range while operating powerhouse one at Open Geometry and not providing additional spill if needed to maintain powerhouse two operations.

The salmon managers did not object to this alternative proposal. This operation was implemented on the afternoon of April 13th through Tuesday, April 17th. Subyearling fall Chinook from the April 13th releases were first encountered in the sample at BON at about 0100 on April 14th. The average daily passage index for subyearling Chinook at BON this week was 217,661, with a peak passage of over 1.02 million subyearlings on April 14th. From April 14th to April 17th, the daily sample mortality for subyearling Chinook ranged from 0.5 to 3.7%. Since the alternative operation ended, the daily sample mortality for subyearling Chinook has increased to 5.0% on April 18th and 5.9% on April 19th. The passage indices of coho and steelhead also increased this week. Finally, there was an increase in the collection counts of juvenile lamprey this week. The daily average collection for pacific lamprey macrophthalmia this week 1,276 per day, compared to 767 last week.

Yearling Chinook continue to be the dominate species of salmonid, with an average daily passage index of 5,934 per day over the past week. Steelhead passage at JDA increased this week, with a daily passage index of nearly 2,404 steelhead juveniles per day. The collection counts of juvenile lamprey decreased at JDA this week, with a daily average collection of 594 pacific macrophthalmia per day and very few pacific ammocoetes. Yearling Chinook continue to be the dominate species of salmonid at MCN as well. The daily average passage index for yearling Chinook at MCN was 6,773 per day. Steelhead were the second most abundant species, with an estimated daily passage index of 3,751 per day. MCN has also collected subyearling Chinook (fry), coho, sockeye, and pacific lamprey macrophthalmia since their first sample on April 11th.

Compared to last week's samples, steelhead numbers at LGR increased substantially this week. The daily average passage index for steelhead at LGR this week is over 78,500 per day. Steelhead were the dominate species passing LGR this week. Yearling Chinook passage at LGR also increased this week, with an average daily passage index of 62,597 per day. The majority of the steelhead and yearling Chinook sampled at LGR this week were of hatchery origin. LGR continued to collect relatively few subyearling Chinook (fry), coho, and sockeye/kokanee over the past week. Finally, the collection counts of juvenile lamprey at LGR have averaged about 29 per day for pacific macrophthalmia. No pacific lamprey ammocoetes were

collected at LGR this week. Sampling at LGS and LMN is limited and for condition monitoring only. Yearling Chinook and steelhead continued to be the dominant salmonid species at these two projects this week.

Rock Island Dam continued to collect very few juveniles this week. However, yearling Chinook numbers have increased over the past couple of days. Prior to April 18th, the highest passage index for yearling Chinook was 18. The passage index for yearling Chinook on April 18th and 19th was 139 and 883, respectively.

The Grande Ronde Trap continues to collect mostly yearling Chinook. Compared to last week, the collection of yearling Chinook increased, with a daily average collection of nearly 1,170 fish per day. Of the yearling Chinook collected over the past week, the proportion that are of known hatchery origin has increased in recent samples. This is likely due to the releases of hatchery yearling Chinook from various locations in the Grande Ronde basin over the past week. Collections of steelhead have also increased over the past week. Of the steelhead collected over the past week, the proportion that are of known hatchery origin has been in the 0.81 to 0.97 range.

Yearling Chinook continue dominate the collection at the Salmon River Trap. The daily average collection for yearling Chinook has increased over the past week. The daily average collection for yearling Chinook this week was nearly 3,500 per day. Due to high collection counts from April 13th to April 16th, the Salmon River Trap was moved to a new location on April 16th. This new location is further away from the shore, which results in lower collection counts. The decrease in collection counts since this time is likely due to this move. Of the yearling Chinook being collected at this trap this week, approximately 29% were unmarked. Daily steelhead collections at this trap increased this week, with a daily average collection of 78 per day.

Collections of yearling Chinook at the Snake River Trap increased this week and yearling Chinook are still the dominate species of salmonids at this site. The daily average collection for yearling Chinook was 191 fish per day this week. Of the yearling Chinook collected at this trap this week, approximately 67% were unmarked. Although still relatively low, steelhead collections also increased this week. The daily average collection for steelhead this week was 42 fish per day, compared to a daily average collection

of 4 per day last week. To date, the peak steelhead collection count at the Snake River Trap was Thursday, April 19th, at 86 fish.

Over the past week of available data, yearling Chinook have been the dominant species of salmonid collected at the Imnaha Trap, with a daily average collection of 108 fish per day. Collections from the past week of available data indicate a continuing trend in decreasing yearling Chinook numbers since early April. The daily average collection for steelhead over the past week of available data is 58 fish per day. As with yearling Chinook, it appears that steelhead numbers have also decreased since early April.

Adult Fish Passage:

Adult counts at Bonneville Dam have been updated through April 19th. From March 15th through April 19th, daily adult spring Chinook counts at Bonneville Dam ranged from 78 to 365 adult salmon per day. As of April 19th, using the historical counting schedule, 1,430 spring Chinook have been counted at Bonneville Dam. In 2011, 1,754 adult spring Chinook were counted at Bonneville Dam for the same time period. The 2012 adult spring Chinook count at Bonneville Dam is 81.5% of the 2011 count and only 5.9% of the 10 year average of 24,123. At Willamette Falls Dam 265 adult spring Chinook has been counted so far this year. At The Dalles Dam, 342 adult spring Chinook have been counted and at McNary Dam 25 adult spring Chinook have been counted so far this season. The Dalles Dam 2012 adult spring Chinook count is 87.7% of the 2011 count and only 2.7% of the 10 year average count. The 2012 McNary Dam adult spring Chinook count is about 23.1% of the 2011 count.

The Bonneville Dam 2012 steelhead count of 2,184 is about 1.18 times greater than the 2011 count of 1,842 and 1.13 times greater than the 10 year average count of 1,934. The 2012 Bonneville wild adult steelhead count of 665 is about 85% of the 2011 count of 782, while being about 1.12 times greater than the 10 year average count of 593. At upriver sites, adult steelhead continue to move through the hydro system to reach their tributaries and spawning sites. The majority of these fish over-wintered in pools and will complete their trip to their spawning grounds in March through early May. Daily adult steelhead counts at Lower Granite Dam ranged from 93 to 153 adults per day last week. This year's Lower Granite steelhead count of 7,558 is about 73.2% of the 2011 count of 10,320 and 84.9% of the 10 year average of 8,896. The 2012 Lower

Granite wild adult steelhead count of 3,015 is about 68.6% of the 2011 count of 4,394, while being about 1.21 times greater than the 10 year average count of 2,483. At Willamette Falls Dam, the 2012 count for steelhead was 5,738, as of April 18th. This year's steelhead count is about 86.8% of the 2011 count of 6,613 and about 73.6% of the 10 year average count. At Bonneville Dam, daily counts of adult salmon and steelhead found on the separator and bypassed are being tracked this year for the period of March 1st to April 20th. Daily adult steelhead bypassed counts have ranged from 0 to 6. A total of 73 adult steelhead and 6 salmon have been bypassed so far this year.

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. Several volitional releases of yearling spring and fall Chinook that were scheduled to begin in previous weeks were scheduled to end this week. In addition, several new releases of yearling spring Chinook were scheduled to begin this week. In all, these releases were expected to total over 318,000 spring Chinook juveniles. Of these, approximately 62% were scheduled for release into the Yankee Fork of the Salmon River and 38% were scheduled for release into the Grande Ronde River. Finally, nearly 2.28million summer steelhead were scheduled for release into this zone this week. Of these, about 53% were scheduled for release into the Clearwater River and 41% were scheduled for release into the Salmon River. The remaining 6% were scheduled for direct release from Lyons Ferry Hatchery, which is located below Little Goose Dam.

Approximately 30,000 spring Chinook pre-smolts are scheduled for release into the Tucannon River in May. These pre-smolts are not likely to out-migrate until spring of 2013. The only other species of salmonid that has scheduled releases over the next two weeks is summer steelhead. In all, 881,500 summer steelhead are scheduled to be released to this zone over the next two weeks. These summer steelhead are scheduled to be released throughout this zone, including: the Salmon River (54%), the Pahsimeroi River (20%), the Grande Ronde River (20%), and the Imnaha River (6%).

Mid-Columbia Zone: The Mid-Columbia Zone encompasses the area of the Columbia River and its tributaries from McNary Dam to Chief Joseph Dam. Approximately 2.0 million yearling spring

Chinook were scheduled for release into this zone this week. These summer Chinook were scheduled for release to the Wenatchee (58%) and Methow (42%) rivers. Nearly all of the spring Chinook juveniles that were scheduled to be released to the Methow River this week are unclipped, but are tagged with coded-wire tags. In addition to the spring Chinook releases this week, nearly 175,000 summer Chinook were scheduled for release into the Entiat River this week. Approximately 1.16 million juveniles were scheduled for release into this zone this week. These coho juveniles were to be released into the Wenatchee (51%) and Yakima (49%) rivers. All of the coho that are scheduled for release into the Wenatchee are unclipped but are tagged with coded-wire-tags. Finally, several releases of summer steelhead juveniles were scheduled to begin this week. In all, these steelhead releases were expected to total about 511,500 juveniles to various locations throughout this river zone. The release locations for these steelhead releases include: the Methow River (63%), the Walla Walla River (20%), the Touchet River (10%), and the Okanogan River (7%).

Approximately 183,300 yearling spring Chinook are scheduled for release into the Methow River on or around April 25th. All of these spring Chinook are going to be unclipped but are tagged with coded-wire-tags. In addition, nearly 66,000 coho juveniles are scheduled for release into the Wenatchee River in early May. This is a volitional release that will likely run through early June. Finally, nearly 155,000 summer steelhead juveniles are scheduled for release for this zone over the next two weeks. Of these, 65% are scheduled for release into the Mid-Columbia River, 19% are scheduled for release into the Okanogan River, and 16% are scheduled for release into the Wenatchee River.

Lower Columbia Zone: The Lower Columbia Zone is defined as the Columbia River and its tributaries from Bonneville Dam to McNary Dam. Several releases of yearling spring Chinook were scheduled to begin this week. In all, these releases were expected to total nearly 2.2 million juveniles. The majority (99%) of these spring Chinook juveniles were scheduled for release from federal hatcheries on the Wind (53%) and Little White Salmon (46%) rivers. The remaining 1% of the spring Chinook juveniles scheduled for release this week were to be released to the Deschutes River. In addition, approximately 103,500 summer steelhead were scheduled for release into this zone this week. Of these, approximately 87% were scheduled for release into the Klickitat River while 13% were scheduled for

release into the Deschutes River.

Approximately 660,000 yearling spring Chinook are scheduled for release into this zone over the next two weeks. All of these spring Chinook are scheduled to be released into the Umatilla River. In addition, beginning in or around May 1st, the Yakama Tribe will release about 1.08 million coho from the Klickitat Hatchery into the Klickitat River. Finally, 200,000 steelhead juveniles are scheduled for release into this zone over the next two weeks. Of these, 150,000 are summer steelhead that are scheduled to be released into the Umatilla River. The remaining 50,000 steelhead juveniles that are scheduled for release over the next two weeks are winter steelhead that are scheduled for release into Hood River.

Hatchery Releases Last Two Weeks

Hatchery Release Summary									
From:		4/6/2012	to	04/19/12					
Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
Colville Tribe	Wells Hatchery	ST	SU	2012	15,000	04-15-12	04-18-12	Omak Creek	Okanogan River
Colville Tribe	Wells Hatchery	ST	SU	2012	20,000	04-15-12	04-18-12	Omak Creek	Okanogan River
Colville Tribe Total					35,000				
Idaho Dept. of Fish and Game	Clearwater Hatchery	ST	SU	2012	120,000	04-11-12	04-12-12	Newsome Creek	S Fk Clearwater River
Idaho Dept. of Fish and Game	Clearwater Hatchery	ST	SU	2012	178,800	04-10-12	04-10-12	Meadow Creek - CLES Redhouse (SFk	S Fk Clearwater River
Idaho Dept. of Fish and Game	Clearwater Hatchery	ST	SU	2012	179,000	04-12-12	04-13-12	ClearH20 R)	S Fk Clearwater River
Idaho Dept. of Fish and Game	Clearwater Hatchery	ST	SU	2012	249,500	04-09-12	04-09-12	Meadow Creek - CLES	S Fk Clearwater River
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2012	90,000	04-09-12	04-09-12	Salmon River (ID)	Salmon River (ID)
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2012	90,000	04-10-12	04-10-12	Shoup Br (Salmon R)	Salmon River (ID)
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2012	90,000	04-11-12	04-11-12	Salmon River (ID)	Salmon River (ID)
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2012	120,000	04-12-12	04-13-12	McNabb/Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2012	200,000	04-13-12	04-17-12	Little Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2012	215,000	04-18-12	04-19-12	Little Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Game	Niagara Springs	ST	SU	2012	170,000	04-16-12	04-18-12	Little Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Game	Niagara Springs	ST	SU	2012	275,000	04-19-12	04-25-12	Little Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Game	Niagara Springs	ST	SU	2012	830,000	03-27-12	04-13-12	Pahsimeroi River	Pahsimeroi River
Idaho Dept. of Fish and Game	Pahsimeroi Hatchery	CH1	SU	2012	180,000	04-01-12	04-22-12	Pahsimeroi Hatchery	Pahsimeroi River
Idaho Dept. of Fish and Game	Pahsimeroi Hatchery	CH1	SU	2012	853,000	04-01-12	04-22-12	Pahsimeroi Hatchery	Pahsimeroi River
Idaho Dept. of Fish and Game	Rapid River Hatchery	CH1	SP	2012	2,500,000	03-12-12	04-27-12	Rapid River Hatchery	Little Salmon River
Idaho Dept. of Fish and Game	Sawtooth Hatchery	CH1	SP	2012	197,000	04-19-12	04-20-12	Yankee Fk (Salmon R)	Salmon River (ID)
Idaho Dept. of Fish and Game Total					6,537,300				
Nez Perce Tribe	Dworshak NFH	CO	UN	2012	300,000	04-01-12	04-15-12	Kooskia Hatchery Big Canyon (Clearwater	Clearwater River M F
Nez Perce Tribe	Lyons Ferry Hatchery	CH1	FA	2012	150,000	04-10-12	04-20-12	River)	Clearwater River M F
Nez Perce Tribe	Lyons Ferry Hatchery	CH1	FA	2012	150,000	04-10-12	04-20-12	Cpt John Acclim Pond Pittsburg Landing	Snake River
Nez Perce Tribe	Lyons Ferry Hatchery	CH1	FA	2012	150,000	04-10-12	04-20-12	Acclim Pond Nez Perce Tribal	Snake River
Nez Perce Tribe	Nez Perce Tribal Hatchery	CH1	SP	2012	195,058	04-01-12	04-15-12	Hatchery	Clearwater River M F
Nez Perce Tribe Total					945,058				
Oregon Dept. of Fish and Wildlife	Irrigon Hatchery Complex	ST	SU	2012	160,000	04-11-12	04-11-12	Big Canyon Acclim.Pd (Grande Ronde)	Grande Ronde River
Oregon Dept. of Fish and Wildlife	Irrigon Hatchery Complex	ST	SU	2012	165,000	03-27-12	04-29-12	Little Sheep Creek	Imnaha River
Oregon Dept. of Fish and Wildlife	Irrigon Hatchery Complex	ST	SU	2012	360,000	04-10-12	04-10-12	Wallowa Acclim Pond	Wallowa River
Oregon Dept. of Fish and Wildlife	Lookingglass Hatchery	CH1	SP	2012	219,425	03-30-12	04-13-12	Lookingglass Creek	Grande Ronde River
Oregon Dept. of Fish and Wildlife	Opal Springs Hatchery	ST	SU	2012	5,500	04-14-12	04-14-12	Wychus Creek	Deschutes River
Oregon Dept. of Fish and Wildlife	Opal Springs Hatchery	ST	SU	2012	8,000	04-14-12	04-14-12	Crooked River (OR)	Deschutes River
Oregon Dept. of Fish and Wildlife	Round Butte Hatchery	CH1	SP	2012	240,000	04-10-12	05-10-12	Deschutes River	Deschutes River
Oregon Dept. of Fish and Wildlife	Round Butte Hatchery	ST	SU	2012	162,000	04-07-12	04-07-12	Deschutes River	Deschutes River
Oregon Dept. of Fish and Wildlife	Wizard Falls Hatchery	CH1	SP	2012	7,500	04-14-12	04-14-12	Crooked River (OR)	Deschutes River
Oregon Dept. of Fish and Wildlife	Wizard Falls Hatchery	CH1	SP	2012	12,000	04-14-12	04-14-12	Metolius River	Deschutes River
Oregon Dept. of Fish and Wildlife Total					1,339,425				
U.S. Fish and Wildlife Service	Carson NFH	CH1	SP	2012	1,170,000	04-19-12	04-19-12	Carson Hatchery	Wind River
U.S. Fish and Wildlife Service	Dworshak NFH	ST	SU	2012	1,200,000	04-16-12	04-20-12	Dworshak Hatchery	Clearwater River M F
U.S. Fish and Wildlife Service	Entiat Hatchery	CH1	SU	2012	174,700	04-17-12	04-17-12	Entiat Hatchery	Entiat River
U.S. Fish and Wildlife Service	Hagerman NFH	ST	SU	2012	754,000	04-13-12	04-29-12	S Fk Salmon River Little White Salmon	Salmon River (ID)
U.S. Fish and Wildlife Service	Little White Salmon NFH	CH0	FA	2012	1,678,676	04-13-12	04-13-12	Hatchery	Little White Salmon River
U.S. Fish and Wildlife Service	Little White Salmon NFH	CH1	SP	2012	759,377	04-19-12	04-19-12	Hatchery	Little White Salmon River
U.S. Fish and Wildlife Service	Spring Creek NFH	CH0	FA	2012	925,391	04-11-12	04-11-12	Spring Creek Hatchery	L Col R (D/s McN Dam)
U.S. Fish and Wildlife Service	Spring Creek NFH	CH0	FA	2012	5,346,391	04-13-12	04-13-12	Spring Creek Hatchery Warm Springs	L Col R (D/s McN Dam)
U.S. Fish and Wildlife Service	Warm Springs NFH	CH1	SP	2012	481,751	04-01-12	04-30-12	Hatchery	Deschutes River Little White Salmon
U.S. Fish and Wildlife Service	Willard Hatchery	CH1	SP	2012	250,000	04-19-12	04-19-12	Willard Hatchery	River
U.S. Fish and Wildlife Service	Winthrop NFH	CH1	SP	2012	551,700	04-15-12	04-30-12	Winthrop Hatchery	Methow River
U.S. Fish and Wildlife Service Total					13,291,986				
Umatilla Tribe	Lookingglass Hatchery	CH1	SP	2012	54,492	04-16-12	04-16-12	Catherine Creek	Grande Ronde River
Umatilla Tribe	Lookingglass Hatchery	CH1	SP	2012	66,956	04-16-12	04-16-12	Grande Ronde River	Grande Ronde River

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

Date	Grand Coulee		Chief Joseph		Wells		Rocky Reach		Rock Island		Wanapum		Priest Rapids	
	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill
04/06/2012	160.4	7.8	165.7	49.1	170.5	14.5	166.5	10.0	166.3	4.4	180.4	49.2	180.0	60.6
04/07/2012	155.0	3.2	151.1	33.6	162.9	11.1	162.4	11.5	163.0	7.6	173.4	47.8	175.4	53.3
04/08/2012	152.8	1.8	148.4	28.6	153.7	6.6	152.0	11.8	155.7	6.4	167.8	68.9	169.4	68.9
04/09/2012	166.5	8.2	169.8	32.0	173.9	11.8	173.3	35.3	172.2	6.9	183.7	69.7	183.5	91.7
04/10/2012	164.0	0.0	166.6	32.5	171.5	12.6	172.9	2.1	173.7	3.5	193.8	61.6	204.7	97.4
04/11/2012	161.6	2.4	159.8	33.7	166.7	13.2	159.2	5.8	158.5	8.0	170.3	70.0	173.1	69.0
04/12/2012	168.2	0.0	164.7	36.9	172.1	17.4	167.8	14.4	168.5	17.1	175.5	56.9	170.2	63.1
04/13/2012	170.2	0.0	166.4	29.9	170.8	16.0	167.6	17.6	169.3	20.0	185.8	73.8	187.1	62.8
04/14/2012	144.2	0.0	140.9	6.0	147.4	11.5	143.3	10.0	145.9	3.7	169.3	47.7	173.0	47.2
04/15/2012	151.0	1.3	153.7	24.5	163.9	15.7	166.0	16.5	169.2	11.4	175.3	57.3	171.3	71.7
04/16/2012	162.3	4.8	166.1	31.0	172.9	22.3	163.6	11.3	162.0	21.3	167.5	55.9	168.6	52.7
04/17/2012	164.9	4.7	160.8	26.8	178.7	16.6	177.9	27.0	180.9	28.4	193.0	69.0	190.4	65.2
04/18/2012	168.6	0.0	167.2	36.4	187.7	29.8	168.3	22.5	171.4	21.9	185.8	60.1	179.8	56.5
04/19/2012	177.4	5.6	177.7	38.1	---	---	180.5	28.4	184.1	30.9	185.4	74.8	179.6	73.1

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

Date	Dworshak		Brownlee Canyon		Hells Granite		Lower Granite		Little Goose		Lower Monumental		Ice Harbor	
	Flow	Spill	Inflow	Outflow	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill
04/06/2012	19.4	8.7	35.5	46.0	106.3	20.3	102.8	30.9	109.9	27.9	111.2	65.6		
04/07/2012	19.3	8.5	33.7	42.0	99.9	23.2	96.1	30.2	101.4	28.0	105.3	64.8		
04/08/2012	19.4	8.6	34.3	42.0	95.3	20.3	93.5	28.0	99.0	28.1	99.0	66.2		
04/09/2012	19.4	8.5	34.6	42.0	92.6	20.3	88.6	26.6	94.7	28.0	96.1	66.4		
04/10/2012	19.4	8.5	32.7	42.1	92.3	20.0	89.3	26.8	92.1	27.1	94.8	66.5		
04/11/2012	19.4	8.6	34.1	42.2	97.3	20.2	93.5	27.9	97.2	26.4	99.0	67.3		
04/12/2012	19.4	8.5	34.9	42.3	103.0	23.4	98.3	30.6	102.5	28.4	104.9	66.6		
04/13/2012	19.3	8.4	34.8	42.4	112.1	21.5	108.0	32.7	113.1	30.0	116.0	75.8		
04/14/2012	19.3	8.4	33.4	40.6	111.2	28.6	106.6	37.1	113.4	29.1	114.7	77.5		
04/15/2012	19.4	8.5	32.8	35.2	104.8	26.1	100.2	32.4	105.3	26.1	107.6	72.9		
04/16/2012	19.5	8.6	31.0	34.9	100.1	21.1	95.3	28.9	100.0	26.0	101.1	66.5		
04/17/2012	19.4	8.6	31.4	34.8	99.8	20.1	96.7	28.9	101.9	25.9	103.3	68.9		
04/18/2012	19.4	8.5	---	34.9	101.3	21.2	96.4	29.5	102.1	26.6	103.5	67.5		
04/19/2012	19.4	8.4	---	---	104.3	24.4	101.7	32.4	106.6	25.9	106.7	67.6		

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

Date	McNary		John Day		The Dalles		Bonneville		PH1	PH2
	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill		
04/06/2012	296.2	146.7	300.0	134.0	289.4	100.2	301.0	84.4	94.5	109.7
04/07/2012	306.9	157.2	311.2	116.5	299.9	101.1	337.6	108.8	93.8	122.6
04/08/2012	280.5	130.5	298.8	126.8	290.2	116.7	326.8	99.0	94.3	121.2
04/09/2012	276.1	131.1	276.1	97.4	265.0	64.2	296.7	81.6	93.2	109.4
04/10/2012	281.4	135.8	272.6	81.9	258.3	103.0	258.9	99.1	66.9	80.5
04/11/2012	296.5	151.5	304.4	91.3	285.7	114.2	316.1	115.1	93.8	94.8
04/12/2012	289.1	145.0	296.4	93.0	280.5	111.8	310.1	101.3	90.1	106.3
04/13/2012	301.5	156.7	290.1	88.6	276.2	104.9	302.9	94.2	96.8	99.5
04/14/2012	292.6	150.0	300.2	110.4	292.6	113.4	321.3	92.7	115.7	100.4
04/15/2012	294.5	144.4	300.7	101.7	282.9	104.4	303.1	93.0	101.3	96.4
04/16/2012	278.7	131.9	280.3	83.8	268.2	104.5	290.4	90.5	91.5	92.1
04/17/2012	288.3	142.0	289.1	86.3	281.5	108.5	309.1	94.9	94.5	107.3
04/18/2012	302.6	151.4	303.1	93.4	287.2	107.4	312.4	95.0	92.0	113.0
04/19/2012	299.6	151.9	304.2	108.3	295.7	103.8	323.3	94.7	93.3	122.9

Hatchery Releases Last Two Weeks

Umatilla Tribe	Lookingglass Hatchery	CH1	SP	2012	72,192	04-09-12	04-14-12	Grande Ronde Acclim Pond	Grande Ronde River
Umatilla Tribe	Lookingglass Hatchery	CH1	SP	2012	106,882	03-22-12	04-14-12	Catherine Cr Acclim Pond	Grande Ronde River
Umatilla Tribe	Lookingglass Hatchery	CH1	SP	2012	146,509	03-21-12	04-14-12	Grande Ronde Acclim Pond	Grande Ronde River
Umatilla Tribe	Umatilla Hatchery	CH1	SP	2012	164,764	04-11-12	04-11-12	Corporation Guard Station	Umatilla River
Umatilla Tribe Total					611,795				
Warm Springs Tribe	Round Butte Hatchery	CH1	SP	2012	75,000	04-08-12	04-23-12	W Fk Hood River	Hood River
Warm Springs Tribe Total					75,000				
Washington Dept. of Fish and Wildlife	Chelan Hatchery	CH1	SU	2012	570,000	04-12-12	04-12-12	Chelan Falls	Mid-Columbia River
Washington Dept. of Fish and Wildlife	Eastbank Hatchery	CH1	SU	2012	584,000	04-12-12	05-05-12	Similkameen Acclim Pd	Okanogan River
Washington Dept. of Fish and Wildlife	Eastbank Hatchery	CH1	SU	2012	864,000	04-12-12	04-25-12	Dryden Acclim Pond	Wenatchee River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	CH1	FA	2012	490,000	04-10-12	04-15-12	Lyons Ferry Hatchery	Snake River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2012	89,000	04-10-12	04-30-12	Dayton Acclim Pond	Touchet River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2012	100,000	04-15-12	04-20-12	Walla Walla River	Walla Walla River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2012	140,500	04-15-12	04-20-12	Lyons Ferry Hatchery	Snake River
Washington Dept. of Fish and Wildlife	Methow Hatchery	CH1	SP	2012	183,300	04-15-12	04-25-12	Chewuch River	Methow River
Washington Dept. of Fish and Wildlife	Methow Hatchery	CH1	SU	2012	400,000	04-12-12	05-25-12	Carlton Acclim Pond	Methow River
Washington Dept. of Fish and Wildlife	Ringold Springs Hatchery	ST	SU	2012	180,000	04-12-12	04-20-12	Ringold Springs Hatchery	Mid-Columbia River
Washington Dept. of Fish and Wildlife	Skamania Hatchery	ST	SU	2012	90,000	04-15-12	05-15-12	Klickitat River	Klickitat River
Washington Dept. of Fish and Wildlife	Tucannon Hatchery	CH1	SP	2012	101,000	04-01-12	04-30-12	Curl Lake Acclim Pond	Tucannon River
Washington Dept. of Fish and Wildlife	Tucannon Hatchery	CH1	SP	2012	101,000	04-01-12	04-30-12	Curl Lake Acclim Pond	Tucannon River
Washington Dept. of Fish and Wildlife	Tucannon Hatchery	ST	SU	2012	51,000	04-05-12	05-01-12	Tucannon Hatchery	Tucannon River
Washington Dept. of Fish and Wildlife	Wells Hatchery	CH1	SU	2012	320,000	04-12-12	04-12-12	Wells Hatchery	Mid-Columbia River
Washington Dept. of Fish and Wildlife Total					4,263,800				
Yakama Tribe	Cascade Hatchery	CO	UN	2012	197,989	04-16-12	04-16-12	Leavenworth Hatchery	Wenatchee River
Yakama Tribe	Cascade Hatchery	CO	UN	2012	268,671	04-17-12	04-17-12	Leavenworth Hatchery	Wenatchee River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2012	264,721	03-15-12	05-15-12	Clark Flat Acclim Pond	Yakima River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2012	265,151	03-15-12	05-15-12	Easton Pond	Yakima River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2012	267,107	03-15-12	05-15-12	Jack Creek Acclim Pond	Yakima River
Yakama Tribe	Eagle Creek NFH	CO	UN	2012	64,114	04-16-12	07-01-12	Stiles Pond	Yakima River
Yakama Tribe	Eagle Creek NFH	CO	UN	2012	67,858	04-16-12	07-01-12	Stiles Pond	Yakima River
Yakama Tribe	Eagle Creek NFH	CO	UN	2012	78,892	04-16-12	07-01-12	Easton Pond	Yakima River
Yakama Tribe	Eagle Creek NFH	CO	UN	2012	82,621	04-16-12	07-01-12	Holmes Pond	Yakima River
Yakama Tribe	Eagle Creek NFH	CO	UN	2012	93,312	04-16-12	07-01-12	Easton Pond	Yakima River
Yakama Tribe	Methow Hatchery	CH1	SP	2012	60,000	04-19-12	05-02-12	Biddle Pond	Methow River
Yakama Tribe	Prosser Acclim. Pond	CO	UN	2012	100,000	03-02-12	07-01-12	Prosser Acclim Pond	Yakima River
Yakama Tribe	Willard Hatchery	CH1	SP	2012	50,000	04-15-12	04-26-12	Winthrop Hatchery	Methow River
Yakama Tribe	Willard Hatchery	CO	UN	2012	53,019	04-11-12	04-11-12	Winthrop Hatchery	Methow River
Yakama Tribe	Willard Hatchery	CO	UN	2012	57,474	04-06-12	05-01-12	Nason Wetlands	Wenatchee River
Yakama Tribe	Willard Hatchery	CO	UN	2012	122,063	04-17-12	04-17-12	Leavenworth Hatchery	Wenatchee River
Yakama Tribe	Willard Hatchery	CO	UN	2012	126,629	04-11-12	04-11-12	Wells Hatchery	Mid-Columbia River
Yakama Tribe	Winthrop NFH	CO	UN	2012	267,710	04-11-12	04-11-12	Winthrop Hatchery	Methow River
Yakama Tribe Total					2,487,331				
Grand Total					29,586,695				

Hatchery Releases Next Two Weeks

Hatchery Release Summary									
From:					4/20/2012	to	5/3/2012		
Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2012	85,000	05-01-12	05-02-12	Pahsimeroi River	Pahsimeroi River
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2012	95,000	04-30-12	04-30-12	Pahsimeroi River	Pahsimeroi River
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2012	275,000	04-20-12	04-24-12	East Fk Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2012	280,000	04-25-12	04-27-12	Squaw Creek	Salmon River (ID)
Idaho Dept. of Fish and Game	Niagara Springs	ST	SU	2012	275,000	04-19-12	04-25-12	Little Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Game	Pahsimeroi Hatchery	CH1	SU	2012	180,000	04-01-12	04-22-12	Pahsimeroi Hatchery	Pahsimeroi River
Idaho Dept. of Fish and Game	Pahsimeroi Hatchery	CH1	SU	2012	853,000	04-01-12	04-22-12	Pahsimeroi Hatchery	Pahsimeroi River
Idaho Dept. of Fish and Game	Rapid River Hatchery	CH1	SP	2012	2,500,000	03-12-12	04-27-12	Rapid River Hatchery	Little Salmon River
Idaho Dept. of Fish and Game	Sawtooth Hatchery	CH1	SP	2012	197,000	04-19-12	04-20-12	Yankee Fk (Salmon R)	Salmon River (ID)
Idaho Dept. of Fish and Game Total					4,740,000				
Nez Perce Tribe	Lyons Ferry Hatchery	CH1	FA	2012	150,000	04-10-12	04-20-12	Big Canyon (Clearwater River)	Clearwater River M F
Nez Perce Tribe	Lyons Ferry Hatchery	CH1	FA	2012	150,000	04-10-12	04-20-12	Cpt John Acclim Pond Pittsburg Landing	Snake River
Nez Perce Tribe	Lyons Ferry Hatchery	CH1	FA	2012	150,000	04-10-12	04-20-12	Acclim Pond	Snake River
Nez Perce Tribe Total					450,000				
Oregon Dept. of Fish and Wildlife	Irrigon Hatchery Complex	ST	SU	2012	50,000	04-29-12	04-29-12	Big Sheep Creek	Imnaha River
Oregon Dept. of Fish and Wildlife	Irrigon Hatchery Complex	ST	SU	2012	165,000	03-27-12	04-29-12	Little Sheep Creek	Imnaha River
Oregon Dept. of Fish and Wildlife	Round Butte Hatchery	CH1	SP	2012	240,000	04-10-12	05-10-12	Deschutes River	Deschutes River
Oregon Dept. of Fish and Wildlife	Round Butte Hatchery	ST	SU	2013	300,000	05-01-12	05-01-12	Crooked River (OR)	Deschutes River
Oregon Dept. of Fish and Wildlife	Round Butte Hatchery	ST	SU	2013	300,000	05-01-12	05-01-12	Wychus Creek	Deschutes River
Oregon Dept. of Fish and Wildlife	Umatilla Hatchery	ST	SU	2012	50,000	04-24-12	04-24-12	Meacham Creek	Umatilla River
Oregon Dept. of Fish and Wildlife Total					1,105,000				
U.S. Fish and Wildlife Service	Dworshak NFH	ST	SU	2012	1,200,000	04-16-12	04-20-12	Dworshak Hatchery	Clearwater River M F
U.S. Fish and Wildlife Service	Hagerman NFH	ST	SU	2012	195,000	05-03-12	05-05-12	East Fk Salmon River	Salmon River (ID)
U.S. Fish and Wildlife Service	Hagerman NFH	ST	SU	2012	754,000	04-13-12	04-29-12	S Fk Salmon River	Salmon River (ID)
U.S. Fish and Wildlife Service	Leavenworth NFH	CH1	SP	2012	1,160,000	04-20-12	04-20-12	Leavenworth Hatchery Warm Springs	Wenatchee River
U.S. Fish and Wildlife Service	Warm Springs NFH	CH1	SP	2012	481,751	04-01-12	04-30-12	Hatchery	Deschutes River
U.S. Fish and Wildlife Service	Winthrop NFH	CH1	SP	2012	551,700	04-15-12	04-30-12	Winthrop Hatchery	Methow River
U.S. Fish and Wildlife Service	Winthrop NFH	ST	SU	2012	60,200	04-20-12	04-30-12	Winthrop Hatchery	Methow River
U.S. Fish and Wildlife Service	Winthrop NFH	ST	SU	2012	63,300	04-20-12	04-30-12	Winthrop Hatchery	Methow River
U.S. Fish and Wildlife Service Total					4,465,951				
Umatilla Tribe	Umatilla Hatchery	CH1	SP	2012	217,500	04-23-12	04-30-12	Thornhollow Acclim Pond	Umatilla River
Umatilla Tribe	Umatilla Hatchery	CH1	SP	2012	442,500	04-23-12	04-30-12	Imeques Acclim Pond Minthorn Acclimation	Umatilla River
Umatilla Tribe	Umatilla Hatchery	ST	SU	2012	50,000	04-23-12	04-30-12	Pond	Umatilla River
Umatilla Tribe	Umatilla Hatchery	ST	SU	2012	50,000	04-23-12	04-30-12	Pendelton Acclim Pond	Umatilla River
Umatilla Tribe Total					760,000				
Warm Springs Tribe	Oak Springs Hatchery	ST	WI	2012	25,000	04-29-12	04-29-12	E Fk Irrig Dist Sand Trap	Hood River
Warm Springs Tribe	Oak Springs Hatchery	ST	WI	2012	25,000	04-29-12	05-13-12	Parkdale Acclim Pond	Hood River
Warm Springs Tribe	Round Butte Hatchery	CH1	SP	2012	75,000	04-08-12	04-23-12	W Fk Hood River	Hood River
Warm Springs Tribe Total					125,000				
Washington Dept. of Fish and Wildlife	Eastbank Hatchery	CH1	SU	2012	584,000	04-12-12	05-05-12	Similkameen Acclim Pd	Okanogan River
Washington Dept. of Fish and Wildlife	Eastbank Hatchery	CH1	SU	2012	864,000	04-12-12	04-25-12	Dryden Acclim Pond	Wenatchee River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	CH0	SP	2013	30,000	05-01-12	05-15-12	Tucannon River	Tucannon River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2012	53,000	04-20-12	04-30-12	Baileysburg Bridge	Touchet River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2012	89,000	04-10-12	04-30-12	Dayton Acclim Pond	Touchet River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2012	100,000	04-15-12	04-20-12	Walla Walla River	Walla Walla River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2012	140,500	04-15-12	04-20-12	Lyons Ferry Hatchery Cottonwood Acclim	Snake River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2012	176,500	04-25-12	05-01-12	Pond	Grande Ronde River
Washington Dept. of Fish and Wildlife	Methow Hatchery	CH1	SP	2012	183,300	04-15-12	04-25-12	Chewuch River	Methow River
Washington Dept. of Fish and Wildlife	Methow Hatchery	CH1	SP	2012	183,300	04-25-12	04-30-12	Twisp Acclim Pond	Methow River
Washington Dept. of Fish and Wildlife	Methow Hatchery	CH1	SU	2012	400,000	04-12-12	05-25-12	Carlton Acclim Pond Ringold Springs	Methow River
Washington Dept. of Fish and Wildlife	Ringold Springs Hatchery	ST	SU	2012	180,000	04-12-12	04-20-12	Hatchery	Mid-Columbia River
Washington Dept. of Fish and Wildlife	Skamania Hatchery	ST	SU	2012	90,000	04-15-12	05-15-12	Klickitat River	Klickitat River
Washington Dept. of Fish and Wildlife	Tucannon Hatchery	CH1	SP	2012	101,000	04-01-12	04-30-12	Curl Lake Acclim Pond	Tucannon River
Washington Dept. of Fish and Wildlife	Tucannon Hatchery	CH1	SP	2012	101,000	04-01-12	04-30-12	Curl Lake Acclim Pond	Tucannon River
Washington Dept. of Fish and Wildlife	Tucannon Hatchery	ST	SU	2012	51,000	04-05-12	05-01-12	Tucannon Hatchery	Tucannon River
Washington Dept. of Fish and Wildlife	Wells Hatchery	ST	SU	2012	30,000	04-25-12	05-10-12	Omak Creek	Okanogan River
Washington Dept. of Fish and Wildlife	Wells Hatchery	ST	SU	2012	100,000	04-25-12	05-10-12	Wells Hatchery	Mid-Columbia River

Hatchery Releases Next Two Weeks

Washington Dept. of Fish and Wildlife	Wells Hatchery	ST	SU	2012	200,000	04-20-12	05-20-12	Methow River	Methow River
Washington Dept. of Fish and Wildlife Total					3,656,600			Butcher Creek Acclim. Pond	
Yakama Tribe	Cascade Hatchery	CO	UN	2012	65,662	05-02-12	06-30-12	Pond	Wenatchee River
Yakama Tribe	Chelan Hatchery	ST	SU	2012	25,000	05-02-12	07-01-12	Rolfings Acclim Pond	Wenatchee River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2012	264,721	03-15-12	05-15-12	Clark Flat Acclim Pond	Yakima River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2012	265,151	03-15-12	05-15-12	Easton Pond	Yakima River
								Jack Creek Acclim Pond	
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2012	267,107	03-15-12	05-15-12	Pond	Yakima River
Yakama Tribe	Eagle Creek NFH	CO	UN	2012	64,114	04-16-12	07-01-12	Stiles Pond	Yakima River
Yakama Tribe	Eagle Creek NFH	CO	UN	2012	67,858	04-16-12	07-01-12	Stiles Pond	Yakima River
Yakama Tribe	Eagle Creek NFH	CO	UN	2012	78,892	04-16-12	07-01-12	Easton Pond	Yakima River
Yakama Tribe	Eagle Creek NFH	CO	UN	2012	82,621	04-16-12	07-01-12	Holmes Pond	Yakima River
Yakama Tribe	Eagle Creek NFH	CO	UN	2012	93,312	04-16-12	07-01-12	Easton Pond	Yakima River
Yakama Tribe	Klickitat Hatchery	CO	NO	2012	1,080,000	05-01-12	05-01-12	Klickitat Hatchery	Klickitat River
Yakama Tribe	Methow Hatchery	CH1	SP	2012	60,000	04-19-12	05-02-12	Biddle Pond	Methow River
Yakama Tribe	Prosser Acclim. Pond	CO	UN	2012	91,112	04-20-12	07-01-12	Easton Pond	Yakima River
Yakama Tribe	Prosser Acclim. Pond	CO	UN	2012	97,073	04-20-12	07-01-12	Holmes Pond	Yakima River
Yakama Tribe	Prosser Acclim. Pond	CO	UN	2012	100,000	03-02-12	07-01-12	Prosser Acclim Pond	Yakima River
Yakama Tribe	Willard Hatchery	CH1	SP	2012	50,000	04-15-12	04-26-12	Winthrop Hatchery	Methow River
Yakama Tribe	Willard Hatchery	CO	UN	2012	57,474	04-06-12	05-01-12	Nason Wetlands	Wenatchee River
Yakama Tribe Total					2,810,097				
Grand Total					18,112,648				

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

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

Total Dissolved Gas Saturation Data at Upper Columbia River Sites

Date	<u>Hungry H. Dnst</u>			<u>Boundary</u>			<u>Grand Coulee</u>			<u>Grand C. Tlwr</u>			<u>Chief Joseph</u>							
	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>					
	<u>Avg</u>	<u>Avg</u>		<u>High</u>	<u>Avg</u>		<u>Avg</u>	<u>High</u>		<u>Avg</u>	<u>Avg</u>		<u>High</u>	<u>Avg</u>		<u>Avg</u>	<u>High</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>
4/6	106.3	106.7	107.0	24	107.0	107.6	108.1	22	102.9	103.2	103.8	24	107.2	109.6	110.9	22	114.7	114.7	118.0	11
4/7	105.9	106.0	106.1	24	106.7	107.7	108.9	21	103.6	104.8	105.9	24	104.0	106.0	108.3	21	111.3	112.2	112.5	24
4/8	105.8	106.0	106.2	24	105.6	106.3	107.1	22	104.0	105.0	106.1	24	103.7	105.4	108.1	22	107.4	109.9	111.4	24
4/9	105.9	106.1	106.3	24	106.2	106.8	107.7	18	104.9	105.6	106.9	24	108.0	110.5	113.7	18	105.5	106.7	108.1	24
4/10	104.6	104.9	106.2	24	106.8	107.4	108.2	18	106.7	107.6	108.3	24	104.2	104.5	104.9	18	106.8	108.3	112.1	24
4/11	104.6	104.9	105.1	24	108.0	109.1	109.8	20	107.6	108.1	111.5	24	106.5	107.6	116.0	20	108.9	111.6	112.6	24
4/12	102.8	104.7	104.8	24	109.6	110.5	112.9	21	107.1	107.4	108.0	23	105.0	105.2	105.6	21	104.8	105.1	107.7	24
4/13	97.2	97.3	97.5	23	108.3	109.1	111.8	22	107.9	108.8	110.8	24	105.0	105.3	105.6	22	107.3	108.6	110.0	24
4/14	97.0	97.2	97.3	24	108.6	109.8	110.7	22	107.4	107.6	107.7	24	104.6	105.0	105.5	22	104.9	105.0	105.2	24
4/15	96.1	96.2	96.6	23	110.9	111.8	113.9	23	107.2	107.4	107.7	24	105.5	106.4	109.5	23	104.8	105.0	105.1	24
4/16	96.5	96.8	96.9	24	111.4	112.8	114.9	24	107.9	108.2	108.5	24	108.6	112.4	114.7	24	105.9	106.3	108.3	24
4/17	97.3	97.7	98.1	24	112.6	113.5	115.6	20	107.7	107.9	108.1	24	111.6	114.6	115.3	20	106.6	107.4	108.7	24
4/18	102.1	105.2	105.3	24	113.6	115.3	116.9	24	108.2	108.4	108.5	24	105.8	106.0	106.3	24	111.1	114.7	115.8	24
4/19	105.1	105.2	105.4	24	117.0	117.9	118.5	20	108.0	108.1	108.4	24	106.3	106.8	113.4	20	111.0	114.5	116.2	24

Total Dissolved Gas Saturation Data at Mid Columbia River Sites

Date	<u>Chief J. Dnst</u>			<u>Wells</u>			<u>Wells Dwnstrm</u>			<u>Rocky Reach</u>			<u>Rocky R. Tlwr</u>							
	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>					
	<u>Avg</u>	<u>Avg</u>		<u>High</u>	<u>Avg</u>		<u>Avg</u>	<u>High</u>		<u>Avg</u>	<u>Avg</u>		<u>High</u>	<u>Avg</u>		<u>Avg</u>	<u>High</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>
4/6	116.6	118.2	119.1	18	116.2	116.2	117.3	8	116.3	116.3	119.8	8	108.7	109.2	109.8	24	107.1	107.4	107.9	24
4/7	113.8	115.5	118.7	24	114.1	115.1	116.3	24	115.8	116.7	120.5	24	108.5	109.5	112.0	24	106.9	107.9	109.1	24
4/8	113.3	115.8	118.5	24	111.5	112.6	113.4	24	112.8	113.6	114.6	24	115.1	115.6	115.8	24	109.2	110.2	111.1	24
4/9	111.2	113.1	114.3	24	110.7	112.4	113.1	24	113.0	114.7	116.5	24	115.0	115.3	115.4	24	113.1	113.6	114.2	24
4/10	112.1	113.4	113.7	24	108.3	109.2	109.6	23	110.5	111.4	112.0	23	114.0	114.6	115.0	24	111.1	112.0	113.4	24
4/11	112.6	114.2	115.2	24	109.8	111.1	112.2	24	111.8	112.7	114.4	24	112.1	112.4	113.2	24	109.8	110.2	111.2	24
4/12	112.6	113.7	114.6	24	108.3	109.7	111.6	24	111.4	112.5	113.2	24	110.8	111.0	111.3	23	110.1	111.0	111.6	23
4/13	110.9	112.4	118.5	24	107.8	108.8	109.6	24	110.2	110.9	111.7	24	111.4	111.7	112.0	24	111.6	112.0	112.4	24
4/14	105.8	107.1	109.8	24	106.9	108.2	109.3	24	109.6	110.8	111.5	24	109.9	110.1	110.3	24	110.3	111.3	112.2	24
4/15	109.7	113.3	118.1	24	104.8	105.6	106.6	24	107.7	108.0	109.6	24	109.5	109.9	110.2	24	110.9	111.9	113.1	24
4/16	110.4	112.5	112.7	24	106.3	107.5	108.7	24	110.0	110.8	112.8	24	108.5	108.8	109.0	24	108.2	108.9	111.0	24
4/17	109.9	111.1	112.3	24	106.6	107.6	108.2	24	110.8	112.0	113.7	24	108.2	109.0	110.1	24	110.4	111.1	112.5	24
4/18	113.3	114.4	114.8	24	106.7	107.0	107.8	24	109.2	109.6	110.6	24	111.0	111.5	111.9	24	111.8	112.5	113.0	24
4/19	114.8	115.8	117.7	24	111.6	112.9	113.2	24	114.7	117.4	119.5	24	109.4	109.8	110.6	24	111.2	112.0	113.3	24

Total Dissolved Gas Saturation at Mid Columbia River Sites

Date	<u>Rock Island</u>			<u>Rock I. Tlwr</u>			<u>Wanapum</u>			<u>Wanapum Tlwr</u>			<u>Priest Rapids</u>							
	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>					
	<u>Avg</u>	<u>Avg</u>		<u>High</u>	<u>Avg</u>		<u>Avg</u>	<u>High</u>		<u>Avg</u>	<u>Avg</u>		<u>High</u>	<u>Avg</u>		<u>Avg</u>	<u>High</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>
4/6	108.3	109.1	109.7	24	109.1	109.8	110.1	24	105.1	106.2	106.5	24	108.4	108.6	108.7	24	107.7	108.2	108.6	24
4/7	108.4	108.9	109.1	24	109.3	109.7	110.2	24	107.3	107.9	108.3	24	109.8	110.7	112.3	24	109.0	109.9	110.3	24
4/8	113.4	115.9	116.3	24	114.0	116.4	117.1	24	108.2	108.6	108.9	24	112.7	114.2	115.4	24	110.6	111.4	112.1	24
4/9	115.9	117.0	122.1	24	116.4	117.2	122.2	24	110.0	110.8	111.1	24	114.1	115.5	117.7	24	114.1	114.8	115.5	24
4/10	113.9	114.9	116.1	24	114.5	115.3	116.4	24	114.3	115.6	116.0	24	114.5	115.3	116.7	24	113.8	115.2	117.5	24
4/11	111.2	112.5	113.8	24	112.5	113.2	114.2	24	116.1	116.4	116.6	24	116.9	118.5	120.3	24	114.3	114.8	116.2	24
4/12	110.7	111.1	111.6	24	112.2	112.9	113.4	24	112.9	113.4	114.8	24	113.4	113.8	116.4	24	114.7	116.0	116.9	24
4/13	111.7	112.7	113.6	24	113.4	114.2	115.0	24	111.2	111.5	111.8	24	114.4	115.3	115.9	24	113.0	114.0	114.5	24
4/14	110.2	110.6	111.3	24	110.9	111.5	112.9	24	110.6	110.8	110.9	24	112.2	112.9	114.8	24	112.4	113.6	114.8	24
4/15	110.2	111.7	112.4	24	111.2	113.3	113.9	24	110.4	111.0	111.2	24	113.6	115.0	116.6	24	112.3	115.1	117.3	24
4/16	108.0	108.5	109.9	24	110.2	110.9	111.9	24	110.0	110.4	110.7	24	112.8	114.5	116.8	24	111.2	112.1	114.3	24
4/17	109.5	110.6	111.5	24	112.7	113.3	114.1	24	109.5	109.9	110.4	24	113.7	115.9	119.9	24	114.2	116.7	119.3	24
4/18	111.3	112.4	113.0	24	113.7	114.5	115.0	24	110.4	111.3	111.5	24	112.2	113.0	114.2	24	111.2	111.5	111.9	24
4/19	110.4	111.1	112.6	24	113.5	114.6	115.8	24	111.2	111.7	112.0	24	115.2	117.5	119.4	24	111.6	112.0	114.6	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

Date	Priest R. Dnst			Pasco			Dworshak			Clrwtr-Peck			Anatone							
	24 h	12 h	#	24 h	12 h	#	24 h	12 h	#	24 h	12 h	#	24 h	12 h	#					
	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High					
4/6	113.6	114.1	114.5	24	109.4	109.8	110.2	24	112.1	112.3	112.4	24	106.4	106.6	106.8	24	105.9	106.3	106.6	24
4/7	113.7	114.6	115.5	24	109.7	110.6	111.1	24	111.8	112.1	112.6	24	106.9	107.6	108.2	24	106.1	106.7	107.4	24
4/8	116.0	116.6	117.0	24	110.5	111.4	112.1	24	112.2	112.6	112.9	24	107.6	108.3	108.7	24	106.2	107.0	107.5	24
4/9	118.6	119.4	120.4	24	112.4	113.2	113.6	24	112.9	113.6	113.8	24	108.1	108.5	108.9	24	106.7	107.3	107.8	24
4/10	119.2	119.7	120.2	24	114.6	115.4	115.9	24	114.5	115.1	115.4	24	108.8	109.6	110.1	24	106.6	107.1	107.6	24
4/11	118.4	119.4	120.9	24	113.9	114.5	115.1	24	115.8	116.3	116.8	24	109.4	109.8	110.6	24	106.0	106.5	107.3	24
4/12	117.9	118.9	120.0	24	111.6	112.5	112.8	24	115.2	115.5	115.7	24	107.6	108.1	108.3	24	105.2	105.8	106.5	24
4/13	116.9	117.7	118.3	24	112.6	113.3	113.7	24	114.1	114.4	114.6	24	106.7	107.3	107.7	24	105.7	106.4	106.9	24
4/14	115.8	117.0	118.6	24	112.3	113.1	113.6	24	114.0	114.2	114.5	24	113.4	113.4	141.2	5	105.7	106.4	107.0	24
4/15	116.9	117.6	118.2	24	110.8	111.3	112.1	24	113.8	114.0	114.2	24	141.1	141.1	141.1	1	104.8	105.2	105.5	24
4/16	115.3	116.1	116.8	24	111.2	111.5	111.5	24	114.0	114.2	114.5	24	107.8	107.8	108.1	11	104.4	104.7	104.8	24
4/17	117.6	118.4	119.8	24	109.9	111.0	111.9	24	114.1	114.4	114.6	24	107.7	108.4	108.9	24	104.8	105.6	106.1	24
4/18	115.4	116.0	116.6	24	112.6	113.4	114.3	24	113.6	113.8	114.2	24	107.3	107.7	107.9	24	104.5	104.9	105.6	24
4/19	116.2	117.4	119.2	24	110.6	111.3	111.6	24	113.4	113.7	113.8	24	107.1	107.6	107.9	24	104.2	104.8	105.1	24

Total Dissolved Gas Saturation Data at Snake River Sites

Date	Clrwtr-Lewiston			Lower Granite			L. Granite Tlwr			Little Goose			L. Goose Tlwr							
	24 h	12 h	#	24 h	12 h	#	24 h	12 h	#	24 h	12 h	#	24 h	12 h	#					
	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High					
4/6	103.3	103.7	104.0	24	103.1	103.2	103.4	24	109.0	109.1	109.4	24	105.8	106.0	106.4	24	112.7	113.1	113.3	24
4/7	104.2	105.4	106.3	24	104.1	104.6	105.4	24	110.5	111.8	116.4	24	105.9	106.2	106.4	24	112.4	113.0	114.8	24
4/8	104.7	105.8	106.8	24	105.3	105.9	106.4	24	109.9	110.2	110.5	24	106.6	106.9	107.3	24	112.1	112.4	112.6	24
4/9	105.0	105.9	106.6	24	106.9	107.5	108.1	24	110.6	111.0	111.4	24	108.0	108.5	109.2	24	112.4	113.0	113.4	24
4/10	105.2	106.0	106.8	24	107.8	108.1	108.5	24	110.4	110.7	110.9	24	110.9	111.1	111.4	24	113.6	114.1	114.9	24
4/11	105.8	106.8	107.6	24	108.1	108.3	108.6	24	110.9	111.1	111.5	24	111.6	111.9	112.3	24	113.8	114.2	114.6	24
4/12	105.2	106.0	107.1	24	106.7	106.9	107.1	24	111.9	113.0	116.8	24	110.5	110.7	110.9	24	113.7	114.4	116.0	24
4/13	104.6	105.5	106.3	24	105.9	106.0	106.2	24	112.1	113.1	117.5	24	109.9	110.1	110.2	24	114.4	115.0	115.3	24
4/14	104.7	105.6	106.6	24	105.2	105.4	105.6	24	113.1	115.3	117.5	24	110.1	110.8	111.3	24	115.3	116.4	118.4	24
4/15	104.6	105.4	105.9	24	104.6	104.7	104.9	24	112.2	114.0	116.4	24	108.9	109.3	110.1	24	113.9	114.8	115.3	24
4/16	104.3	104.5	104.8	24	104.9	105.1	105.2	24	110.3	110.7	114.7	24	108.4	108.8	109.4	24	113.2	113.7	115.5	24
4/17	105.0	106.0	106.8	24	104.9	105.2	105.5	24	110.1	110.3	110.4	24	108.8	109.7	110.2	24	113.5	113.9	114.2	24
4/18	104.9	105.6	106.4	24	104.9	105.1	105.5	24	110.2	110.6	115.5	24	106.5	106.9	107.2	24	113.4	113.9	117.0	24
4/19	104.5	105.3	106.0	24	105.3	105.5	105.8	24	112.2	113.6	116.7	24	106.0	106.2	106.4	24	114.0	114.8	115.4	24

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

Date	Lower Mon.			L. Mon. Tlwr			Ice Harbor			Ice Harbor Tlwr			McNary-Oregon							
	24 h	12 h	#	24 h	12 h	#	24 h	12 h	#	24 h	12 h	#	24 h	12 h	#					
	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High	Avg	Avg	High					
4/6	110.4	110.5	110.7	24	118.2	118.4	118.8	24	111.4	112.0	112.2	24	117.4	118.8	119.2	24	---	---	---	0
4/7	110.9	111.3	111.5	24	118.6	118.8	119.3	24	112.1	112.6	112.8	24	117.1	118.4	119.1	24	---	---	---	0
4/8	112.2	112.5	112.7	24	118.8	119.2	119.3	24	113.1	113.7	114.3	24	117.2	118.4	119.0	24	---	---	---	0
4/9	113.1	113.3	113.7	24	119.0	119.2	119.6	24	114.5	115.0	115.8	24	117.4	118.8	119.4	24	---	---	---	0
4/10	113.4	113.4	113.6	24	119.4	119.6	120.0	24	116.2	116.5	116.9	24	117.6	119.0	119.3	24	---	---	---	0
4/11	114.1	114.3	114.5	24	119.1	119.5	119.9	24	116.6	116.8	117.0	24	118.0	119.4	120.1	24	---	---	---	0
4/12	113.0	113.2	113.9	24	119.1	119.7	120.9	24	114.5	114.8	115.5	24	118.0	119.6	120.0	24	---	---	---	0
4/13	113.4	113.8	114.5	24	118.8	119.4	119.7	24	114.2	114.7	114.9	24	119.1	119.8	120.3	24	---	---	---	0
4/14	114.0	114.3	114.5	24	118.9	119.5	119.7	24	114.5	114.8	115.1	24	118.9	119.4	119.7	24	---	---	---	0
4/15	112.9	113.2	113.9	24	118.4	118.7	118.9	24	114.3	114.7	115.1	24	118.4	119.1	119.4	24	---	---	---	0
4/16	115.2	115.5	116.0	24	119.3	119.7	120.3	24	114.7	114.8	115.1	24	117.6	118.9	119.2	24	---	---	---	0
4/17	112.0	112.4	113.5	24	118.3	118.7	119.7	24	113.8	114.3	114.5	24	118.2	119.2	119.9	24	---	---	---	0
4/18	112.9	113.3	113.8	24	118.8	119.2	119.6	24	114.6	114.9	115.1	24	118.2	119.7	120.0	24	---	---	---	0
4/19	112.5	112.7	113.2	24	118.4	118.7	118.9	24	114.1	114.3	114.6	24	118.0	119.7	120.4	24	---	---	---	0

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

Total Dissolved Gas Saturation Data at Lower Columbia River Sites

Date	<u>McNary-Wash</u>			#	<u>McNary Tlwr</u>			#	<u>John Day</u>			#	<u>John Day Tlwr</u>			#	<u>The Dalles</u>			#
	<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>			<u>24h</u>	<u>12h</u>			<u>24h</u>	<u>12h</u>			<u>24h</u>	<u>12h</u>		
	<u>Avg</u>	<u>Avg</u>	<u>High</u>		<u>Avg</u>	<u>Avg</u>	<u>High</u>		<u>Avg</u>	<u>Avg</u>	<u>High</u>		<u>Avg</u>	<u>Avg</u>	<u>High</u>		<u>Avg</u>	<u>Avg</u>	<u>High</u>	
4/6	109.3	109.6	109.9	24	119.9	120.2	120.4	24	110.7	111.0	111.5	24	120.5	120.7	121.0	24	115.3	115.6	116.2	24
4/7	109.5	109.9	110.2	24	120.3	120.7	120.9	24	109.5	109.7	109.9	24	120.1	120.7	120.9	24	114.2	114.9	115.6	24
4/8	110.6	112.0	113.3	24	119.1	119.3	119.8	24	109.9	110.6	111.3	24	120.3	120.9	121.3	24	114.1	115.0	118.1	24
4/9	113.0	113.9	114.6	24	119.4	119.9	120.6	24	112.1	112.8	113.7	24	119.8	119.9	120.1	24	115.3	116.6	118.8	24
4/10	114.0	114.9	115.8	24	117.6	117.9	119.0	24	114.7	115.4	115.8	24	118.1	120.1	120.6	24	114.2	114.6	115.2	24
4/11	115.0	115.3	115.7	24	118.1	118.4	118.6	24	116.3	116.6	116.9	24	116.3	116.8	118.4	24	113.2	113.4	113.6	24
4/12	113.7	114.0	114.1	24	117.5	117.6	117.8	24	115.5	115.5	115.6	24	116.3	116.9	118.9	24	113.3	113.8	114.0	24
4/13	112.5	113.2	113.8	24	118.1	118.4	118.5	24	115.3	115.4	115.7	24	116.3	117.1	117.8	24	113.7	114.0	114.1	24
4/14	113.0	113.8	114.2	24	117.7	117.9	118.0	24	113.5	114.1	114.8	24	117.2	118.2	119.1	24	111.8	112.4	113.7	24
4/15	113.3	113.8	114.4	24	117.3	117.7	117.8	24	111.9	112.1	112.3	24	117.0	117.6	118.4	24	112.2	113.2	113.6	24
4/16	113.4	113.6	113.9	24	116.8	117.4	117.6	24	112.5	112.7	112.8	24	115.1	115.8	116.4	24	112.2	112.7	112.9	24
4/17	111.8	112.5	112.8	24	116.9	117.4	117.5	24	112.5	112.9	113.0	24	115.6	116.1	116.4	24	111.6	112.3	112.7	24
4/18	112.1	112.5	112.7	24	117.5	117.6	117.7	24	113.4	113.8	114.1	24	116.4	117.3	118.2	24	112.4	112.6	112.9	24
4/19	112.8	113.6	113.9	24	117.4	117.5	118.0	24	113.4	113.5	113.6	24	117.1	117.9	118.7	24	112.9	113.8	115.0	24

Total Dissolved Gas Saturation Data at Lower Columbia River Sites

Date	<u>The Dalles Dnst</u>			#	<u>Bonneville</u>			#	<u>Warrendale</u>			#	<u>Camas\Washougal</u>			#	<u>Cascade Island</u>			#
	<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>			<u>24h</u>	<u>12h</u>			<u>24h</u>	<u>12h</u>			<u>24h</u>	<u>12h</u>		
	<u>Avg</u>	<u>Avg</u>	<u>High</u>		<u>Avg</u>	<u>Avg</u>	<u>High</u>		<u>Avg</u>	<u>Avg</u>	<u>High</u>		<u>Avg</u>	<u>Avg</u>	<u>High</u>		<u>Avg</u>	<u>Avg</u>	<u>High</u>	
4/6	117.7	118.1	118.7	24	116.6	116.7	116.7	24	116.9	117.3	117.4	24	114.5	115.3	115.6	24	117.9	118.8	120.2	24
4/7	117.3	117.6	118.2	24	116.3	116.7	117.0	24	117.5	117.8	118.2	24	115.0	115.3	115.6	24	120.1	121.3	123.4	24
4/8	118.8	120.3	121.6	24	116.6	116.8	117.0	24	117.4	117.5	118.7	24	114.3	114.7	115.1	24	118.9	119.3	123.0	24
4/9	117.4	119.0	120.9	24	118.7	119.9	120.5	24	118.0	118.9	119.3	24	115.9	116.6	117.0	24	117.8	118.0	118.2	24
4/10	118.4	119.2	119.7	24	118.0	119.6	120.5	24	118.6	119.1	119.7	24	117.7	118.0	118.4	24	118.2	118.7	119.1	24
4/11	117.7	118.0	118.2	24	115.8	116.4	116.6	24	117.0	117.8	118.1	24	116.1	116.8	117.5	24	120.1	121.1	122.8	24
4/12	117.7	118.0	118.2	24	115.3	115.8	116.3	24	116.3	116.6	117.0	24	115.4	116.1	116.6	24	120.4	121.2	121.8	24
4/13	117.5	117.9	118.1	24	116.2	116.4	116.6	24	116.6	116.8	117.1	24	115.0	115.8	116.7	24	119.8	120.8	121.5	24
4/14	116.7	117.6	119.6	24	114.3	115.4	116.2	24	115.2	115.7	116.1	24	114.5	115.1	115.6	24	118.9	119.3	120.4	24
4/15	116.4	116.8	117.2	24	112.9	113.7	115.5	24	114.0	114.4	115.7	24	113.5	114.1	114.8	24	118.9	119.6	120.7	24
4/16	116.9	117.2	117.3	24	115.1	115.3	115.5	24	115.9	116.1	116.4	24	113.5	113.9	114.5	24	119.2	119.6	120.1	24
4/17	116.1	116.5	116.7	24	115.0	115.2	115.6	24	115.8	115.9	116.1	24	114.1	114.6	115.0	24	119.2	120.0	120.2	24
4/18	116.6	117.0	117.5	24	115.7	115.9	116.0	24	116.3	116.3	116.4	24	114.7	115.3	115.9	24	118.9	119.6	120.4	24
4/19	116.6	116.9	117.5	24	115.4	115.7	115.9	24	116.0	116.2	116.4	24	113.8	114.1	114.8	24	118.3	118.7	120.5	24

Two-Week Summary of Passage Indices

COMBINED YEARLING CHINOOK											
Date	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (INDEX)	LGS (INDEX)	LMN (INDEX)	RIS (INDEX)	MCN (INDEX)	JDA (INDEX)	BO2 (INDEX)
04/06/2012	*	1,434	440	816	70	18,203	---	59	0	---	434
04/07/2012	*	1,617	508	896	42	11,828	---	---	0	---	529
04/08/2012	*	1,274	775	609	8	10,243	---	---	3	---	818
04/09/2012	*	462	224	330	16	13,443	---	120	0	---	872
04/10/2012	*	553	107	260	10	13,964	2,840	---	0	---	1,185
04/11/2012	*	460	105	264	16	24,242	---	---	0	1,044	1,588
04/12/2012	*	1,263	211	371	23	18,265	---	217	2	---	2,267
04/13/2012	*	2,508	70	528	101	27,909	---	---	4	1,386	2,356
04/14/2012	*	7,063	97	654	149	33,060	---	---	10	---	1,549
04/15/2012	*	5,303	112	585	289	51,498	13,878	55	3	6,109	611
04/16/2012	*	4,870	51	1,708	150	64,186	---	---	18	---	1,096
04/17/2012	*	1,513	---	1,810	107	90,384	---	---	10	8,347	5,794
04/18/2012	*	1,732	---	1,544	186	87,886	---	106	138	---	24,805
04/19/2012	*	1,297	---	1,356	358	83,253	---	---	883	11,248	36,696
04/20/2012	*	---	---	---	---	---	---	---	---	---	30,809
Total:		31,349	2,700	11,731	1,525	548,364	16,718	557	1,071	28,134	111,409
# Days:		14	11	14	14	14	2	5	14	5	15
Average:		2,239	245	838	109	39,169	8,359	111	77	5,627	7,427
YTD		54,604	9,654	23,393	3,012	718,125	27,287	628	1,082	28,134	138,134

COMBINED SUBYEARLING CHINOOK											
Date	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (INDEX)	LGS (INDEX)	LMN (INDEX)	RIS (INDEX)	MCN (INDEX)	JDA (INDEX)	BO2 (INDEX)
04/06/2012	*	0	0	0	0	123	---	3	2	---	3,117
04/07/2012	*	0	0	0	2	62	---	---	0	---	3,375
04/08/2012	*	0	0	0	0	0	---	---	0	---	2,700
04/09/2012	*	0	0	0	0	0	---	1	2	---	1,219
04/10/2012	*	0	0	0	0	72	---	---	2	---	2,170
04/11/2012	*	0	0	0	2	0	---	---	2	120	3,446
04/12/2012	*	0	0	0	0	0	---	0	0	---	104,842
04/13/2012	*	0	0	0	0	128	---	---	4	205	73,614
04/14/2012	*	0	0	0	0	250	---	---	0	---	1,024,655
04/15/2012	*	0	0	0	0	0	3	1	8	124	205,979
04/16/2012	*	0	0	0	0	2,265	---	---	9	---	62,483
04/17/2012	*	0	---	0	0	0	---	---	0	77	65,909
04/18/2012	*	0	---	0	0	0	---	0	4	---	58,668
04/19/2012	*	0	---	0	0	0	---	---	2	122	32,317
04/20/2012	*	---	---	---	---	---	---	---	---	---	21,229
Total:		0	0	0	4	2,828	75	5	35	648	1,665,723
# Days:		14	11	14	14	14	2	5	14	5	15
Average:		0	0	0	0	202	38	1	3	130	111,048
YTD		0	2	31	7	3,250	125	5	38	648	1,768,409

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)	
04/06/2012	*	0	0	0	2	0	---	0	0	---	0	1,392
04/07/2012	*	0	0	0	0	0	---	---	2	---	0	1,809
04/08/2012	*	0	0	0	1	0	---	---	0	---	14	2,104
04/09/2012	*	0	0	0	0	0	---	0	0	---	0	2,364
04/10/2012	*	0	0	0	1	0	0	---	0	---	0	2,458
04/11/2012	*	0	0	0	0	64	---	---	0	40	20	3,544
04/12/2012	*	0	0	0	0	0	---	0	0	---	14	4,742
04/13/2012	*	0	0	0	0	0	---	---	2	41	0	3,641
04/14/2012	*	0	0	0	0	125	---	---	0	---	0	4,646
04/15/2012	*	0	0	0	1	143	0	0	6	62	0	6,112
04/16/2012	*	0	0	0	0	0	---	---	0	---	29	940
04/17/2012	*	0	---	0	0	0	---	---	0	154	71	1,883
04/18/2012	*	0	---	0	0	0	---	0	25	---	57	1,672
04/19/2012	*	0	---	0	0	268	---	---	14	203	38	4,063
04/20/2012	*	---	---	---	---	---	---	---	---	---	265	7,637
Total:		0	0	0	5	600	0	0	49	500	508	49,007
# Days:		14	11	14	14	14	2	5	14	5	15	15
Average:		0	0	0	0	43	0	0	4	100	34	3,267
YTD		0	0	0	35	700	0	0	51	500	508	50,142

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)	
04/06/2012	*	11	139	6	8	4,690	---	83	0	---	698	111
04/07/2012	*	27	40	0	7	4,273	---	---	0	---	1,022	121
04/08/2012	*	16	99	1	2	4,071	---	---	0	---	1,008	74
04/09/2012	*	10	51	3	1	5,033	---	83	0	---	816	158
04/10/2012	*	4	10	42	2	7,464	1,827	---	0	---	1,159	210
04/11/2012	*	1	25	338	7	17,990	---	---	0	442	1,257	160
04/12/2012	*	19	56	96	2	7,558	---	76	4	---	1,590	249
04/13/2012	*	70	78	103	12	15,052	---	---	2	1,208	1,897	286
04/14/2012	*	80	71	84	17	18,214	---	---	3	---	2,115	0
04/15/2012	*	97	95	37	49	156,492	14,828	111	0	4,582	1,803	611
04/16/2012	*	37	72	42	12	150,271	---	---	20	---	2,040	783
04/17/2012	*	73	---	145	39	61,187	---	---	14	1,624	2,586	1,593
04/18/2012	*	58	---	219	80	98,904	---	199	9	---	2,884	557
04/19/2012	*	134	---	159	86	49,791	---	---	16	7,592	3,504	580
04/20/2012	*	---	---	---	---	---	---	---	---	---	3,705	388
Total:		637	736	1,275	324	600,990	16,655	552	68	15,448	28,084	5,881
# Days:		14	11	14	14	14	2	5	14	5	15	15
Average:		46	67	91	23	42,928	8,328	110	5	3,090	1,872	392
YTD		769	2,213	1,317	424	634,494	22,830	645	70	15,448	29,562	6,321

Two-Week Summary of Passage Indices

Date	COMBINED SOCKEYE											
	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (INDEX)	LGS (INDEX)	LMN (INDEX)	RIS (INDEX)	MCN (INDEX)	JDA (INDEX)	BO2 (INDEX)	
04/06/2012	*	0	0	0	0	0	---	3	0	---	8	0
04/07/2012	*	0	0	0	0	0	---	---	0	---	0	11
04/08/2012	*	0	0	0	0	0	---	---	0	---	8	0
04/09/2012	*	0	0	0	0	0	---	1	0	---	0	0
04/10/2012	*	0	0	0	0	0	---	---	0	---	0	22
04/11/2012	*	0	0	0	0	64	---	---	0	0	0	0
04/12/2012	*	0	0	0	0	126	---	0	0	---	0	0
04/13/2012	*	0	0	0	0	0	---	---	0	20	29	0
04/14/2012	*	0	0	0	0	0	---	---	0	---	0	0
04/15/2012	*	0	0	0	0	0	---	1	31	62	0	0
04/16/2012	*	0	0	0	0	0	---	---	46	---	0	0
04/17/2012	*	0	---	0	0	0	---	---	20	38	57	0
04/18/2012	*	0	---	0	0	0	---	3	19	---	0	0
04/19/2012	*	0	---	0	0	0	---	---	32	81	0	0
04/20/2012	*	---	---	---	---	---	---	---	---	---	52	0
Total:		0	0	0	0	190	72	8	148	201	154	33
# Days:		14	11	14	14	14	2	5	14	5	15	15
Average:		0	0	0	0	14	36	2	11	40	10	2
YTD		0	0	0	0	838	135	11	150	201	154	33

Date	COMBINED LAMPREY JUVENILES											
	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR ⁺ (Coll)	LGS (Coll)	LMN (Coll)	RIS (Coll)	MCN (Coll)	JDA (Coll)	BO2 (Coll)	
04/06/2012	*	0	0	0	0	0	---	1	2	---	6,164	128
04/07/2012	*	0	0	0	0	0	---	---	1	---	10,500	144
04/08/2012	*	0	0	0	0	50	---	---	3	---	32,611	360
04/09/2012	*	0	0	0	0	0	---	2	5	---	11,300	184
04/10/2012	*	0	0	0	0	0	---	---	1	---	3,906	312
04/11/2012	*	0	0	0	0	0	---	---	0	20	1,547	1,760
04/12/2012	*	0	0	0	0	0	---	1	2	---	620	2,497
04/13/2012	*	0	0	0	0	0	---	---	1	130	710	3,375
04/14/2012	*	0	0	0	0	0	---	---	1	---	740	2,400
04/15/2012	*	0	0	0	0	0	---	2	4	290	560	2,800
04/16/2012	*	0	0	0	0	0	---	---	1	---	600	150
04/17/2012	*	0	---	0	0	200	---	---	1	520	740	50
04/18/2012	*	0	---	0	0	0	---	0	2	---	440	150
04/19/2012	*	0	---	0	0	0	---	---	3	220	375	60
04/20/2012	*	---	---	---	---	---	---	---	---	---	433	200
Total:		0	0	0	0	250	0	6	27	1,180	71,246	14,570
# Days:		14	11	14	14	14	2	5	14	5	15	15
Average:		0	0	0	0	18	0	1	2	236	4,750	971
YTD		6	0	0	0	2,515	140	6	28	1,180	85,154	21,569

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, pacific lamprey macrophthalmia, and unidentified lamprey species.

† 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 = $\text{Collection Counts} / \{ \text{Powerhouse Flow} / (\text{Powerhouse Flow} + \text{Spill}) \}$

LGS (Index) = Little Goose Bypass Collection System : Passage Index Counts

Passage Index = $\text{Collection Counts} / \{ \text{Powerhouse Flow} / (\text{Powerhouse Flow} + \text{Spill}) \}$

LMN (Index) = Lower Monumental Dam Bypass Collection System : Passage Index Counts

Passage Index = $\text{Collection Counts} / \{ \text{Powerhouse Flow} / (\text{Powerhouse Flow} + \text{Spill}) \}$

RIS (Index) = Rock Island Dam Second Powerhouse Bypass Trap : Passage Index Counts

Passage Index = $\text{Collection Counts} / \{ \text{Powerhouse 2 Flow} / (\text{Powerhouse 1 \& 2 Flow} + \text{Spill}) \}$

MCN (Index) = McNary Dam Bypass Collection System : Passage Index Counts

Passage Index = $\text{Collection Counts} / \{ \text{Powerhouse Flow} / (\text{Powerhouse Flow} + \text{Spill}) \}$

JDA (Index) = John Day Dam Bypass Collection System : Passage Index Counts

Passage Index = $\text{Collection Counts} / \{ \text{Powerhouse Flow} / (\text{Powerhouse Flow} + \text{Spill}) \}$

BO2 (Index) = Bonneville Dam Second Powerhouse Bypass Collection System : Passage Index Counts

Passage Index = $\text{Collection Counts} / \{ \text{Powerhouse 2 Flow} / (\text{Powerhouse 1 \& 2 Flow} + \text{Spill}) \}$

JDA and BO2 data collected for the FPC by Pacific States Marine Fisheries Commission.

RIS data collected for the FPC by Chelan Co. PUD/Washington Dept. of Fish and Wildlife.

LGR, LMN, and MCN data collected for the FPC by Washington Dept. of Fish and Wildlife.

LGS and GRN data collected for the FPC by Oregon Dept. of Fish and Wildlife.

IMN data collected for the FPC by the Nez Perce Tribe.

Cumulative Adult Passage at Mainstem Dams Through: 04/20

DAM	EndDate	Spring Chinook						Summer Chinook						Fall Chinook					
		2012		2011		10-Yr Avg.		2012		2011		10-Yr Avg.		2012		2011		10-Yr Avg.	
		Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack
BON	04/19	1,430	18	1,754	8	24,123	76	0	0	0	0	0	0	0	0	0	0	0	0
TDA	04/20	342	3	390	2	12,584	26	0	0	0	0	0	0	0	0	0	0	0	0
JDA	04/21	115	16	225	1	8,380	17	0	0	0	0	0	0	0	0	0	0	0	0
MCN	04/22	25	1	108	0	5,198	16	0	0	0	0	0	0	0	0	0	0	0	0
IHR	04/23	19	0	83	0	3,322	6	0	0	0	0	0	0	0	0	0	0	0	0
LMN	04/24	1	0	29	0	2,025	0	0	0	0	0	0	0	0	0	0	0	0	0
LGS	04/25	4	1	30	0	1,442	2	0	0	0	0	0	0	0	0	0	0	0	0
LGR	04/26	1	0	15	0	681	0	0	0	0	0	0	0	0	0	0	0	0	0
PRD	04/17	0	0	12	0	165	0	0	0	0	0	0	0	0	0	0	0	0	0
RIS	04/18	0	0	2	0	28	0	0	0	0	0	0	0	0	0	0	0	0	0
RRH	04/19	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
WEL	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WFA	04/18	265	4	144	0	2,243	0	0	0	0	0	0	0	0	0	0	0	0	0

DAM	Coho						Sockeye			Steelhead					
	2012		2011		10-Yr Avg.		2012	2011	10-Yr Avg.	10-Yr			Wild	Wild	10-Yr
	Adult	Jack	Adult	Jack	Adult	Jack				Avg.	2012	2011	Avg.	2012	2011
BON	0	0	0	0	0	0	0	0	0	2,184	1,842	1,934	665	782	593
TDA	0	0	0	0	0	0	0	0	0	491	939	982	274	547	429
JDA	0	0	0	0	0	0	0	0	0	1,224	2,100	2,028	826	1,349	951
MCN	-1	0	0	0	0	0	0	0	0	1,096	1,957	1,723	633	1,201	741
IHR	0	0	0	0	0	0	0	0	0	1,580	2,096	2,170	685	734	732
LMN	0	0	0	0	0	0	0	0	0	2,419	2,481	2,386	1,218	1,225	1,034
LGS	0	0	0	0	0	0	0	0	0	2,546	4,242	2,450	1,440	2,004	977
LGR	0	0	0	0	0	0	0	0	0	7,558	10,320	8,896	3,015	4,394	2,483
PRD	0	0	0	0	0	0	0	0	0	12	1	3	0	0	0
RIS	0	0	0	0	0	0	0	0	0	14	6	12	9	0	7
RRH	0	0	0	0	0	0	0	0	0	104	58	48	88	0	34
WEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WFA	0	0	0	0	0	0	0	0	0	5,738	6,613	7,794	0	0	0

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: 04/20/12

BON counts from January 1, 2012 to March 13, 2012 (historical counts begin March 15):

Year	Chinook Adult	Chinook Jack	Steelhead	Wild Steelhead
2012	12	1	1,471	497
2011	47	0	1,370	580

Two Week Transportation Summary

Source: Fish Passage Center

Updated:

4/20/12 10:56 AM

04/06/12 TO 04/20/12

Site	Data	Species					Grand Total
		CH0	CH1	CO	ST	SO	
LGR	Sum of NumberCollected	2,250	425,963	450	460,037	150	888,850
	Sum of NumberBarged	0	52,937	16	45,332	34	98,319
	Sum of NumberBypassed	2,250	372,743	432	414,685	115	790,225
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of SampleMorts	0	52	1	13	0	66
	Sum of FacilityMorts	0	223	1	5	1	230
	Sum of ResearchMorts	0	8	0	2	0	10
	Sum of TotalProjectMorts	0	283	2	20	1	306
LGS	Sum of NumberCollected	52	10,763		10,654	50	21,519
	Sum of NumberBarged	0	0		0	0	0
	Sum of NumberBypassed	50	10,755		10,649	49	21,503
	Sum of Numbertrucked	0	0		0	0	0
	Sum of SampleMorts	0	2		0	1	3
	Sum of FacilityMorts	2	6		5	0	13
	Sum of ResearchMorts	0	0		0	0	0
	Sum of TotalProjectMorts	2	8		5	1	16
LMN	Sum of NumberCollected	4	404		403	6	817
	Sum of NumberBarged	0	0		0	0	0
	Sum of NumberBypassed	4	395		403	6	808
	Sum of Numbertrucked	0	0		0	0	0
	Sum of SampleMorts	0	9		0	0	9
	Sum of FacilityMorts	0	0		0	0	0
	Sum of ResearchMorts	0	0		0	0	0
	Sum of TotalProjectMorts	0	9		0	0	9
MCN	Sum of NumberCollected	320	14,035	250	7,614	100	22,319
	Sum of NumberBarged	0	0	0	0	0	0
	Sum of NumberBypassed	318	14,022	250	7,613	100	22,303
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of SampleMorts	2	9	0	1	0	12
	Sum of FacilityMorts	0	4	0	0	0	4
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	2	13	0	1	0	16
Total Sum of NumberCollected		2,626	451,165	700	478,708	306	933,505
Total Sum of NumberBarged		0	52,937	16	45,332	34	98,319
Total Sum of NumberBypassed		2,622	397,915	682	433,350	270	834,839
Total Sum of Numbertrucked		0	0	0	0	0	0
Total Sum of SampleMorts		2	72	1	14	1	90
Total Sum of FacilityMorts		2	233	1	10	1	247
Total Sum of ResearchMorts		0	8	0	2	0	10
Total Sum of TotalProjectMorts		4	313	2	26	2	347

YTD Transportation Summary

Source: Fish Passage Center

Updated: 4/20/12 10:56 AM

TO: 04/20/12

		Species					
Site	Data	CH0	CH1	CO	SO	ST	Grand Total
LGR	Sum of NumberCollected	2,580	565,983	535	695	488,467	1,058,260
	Sum of NumberBarged	0	52,937	16	34	45,332	98,319
	Sum of NumberBypassed	2,580	512,727	517	658	443,115	959,597
	Sum of NumberTrucked	0	0	0	0	0	0
	Sum of SampleMorts	0	88	1	2	13	104
	Sum of FacilityMorts	0	223	1	1	5	230
	Sum of ResearchMorts	0	8	0	0	2	10
	Sum of TotalProjectMorts	0	319	2	3	20	344
LGS	Sum of NumberCollected	92	18,545		93	15,383	34,113
	Sum of NumberBarged	0	0		0	0	0
	Sum of NumberBypassed	90	18,489		89	15,367	34,035
	Sum of NumberTrucked	0	0		0	0	0
	Sum of SampleMorts	0	8		1	2	11
	Sum of FacilityMorts	2	48		3	14	67
	Sum of ResearchMorts	0	0		0	0	0
	Sum of TotalProjectMorts	2	56		4	16	78
LMN	Sum of NumberCollected	4	457		8	472	941
	Sum of NumberBarged	0	0		0	0	0
	Sum of NumberBypassed	4	448		7	472	931
	Sum of NumberTrucked	0	0		0	0	0
	Sum of SampleMorts	0	9		1	0	10
	Sum of FacilityMorts	0	0		0	0	0
	Sum of ResearchMorts	0	0		0	0	0
	Sum of TotalProjectMorts	0	9		1	0	10
MCN	Sum of NumberCollected	320	14,035	250	100	7,614	22,319
	Sum of NumberBarged	0	0	0	0	0	0
	Sum of NumberBypassed	318	14,022	250	100	7,613	22,303
	Sum of NumberTrucked	0	0	0	0	0	0
	Sum of SampleMorts	2	9	0	0	1	12
	Sum of FacilityMorts	0	4	0	0	0	4
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	2	13	0	0	1	16
Total Sum of NumberCollected		2,996	599,020	785	896	511,936	1,115,633
Total Sum of NumberBarged		0	52,937	16	34	45,332	98,319
Total Sum of NumberBypassed		2,992	545,686	767	854	466,567	1,016,866
Total Sum of NumberTrucked		0	0	0	0	0	0
Total Sum of SampleMorts		2	114	1	4	16	137
Total Sum of FacilityMorts		2	275	1	4	19	301
Total Sum of ResearchMorts		0	8	0	0	2	10
Total Sum of TotalProjectMorts		4	397	2	8	37	448

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											
	04/12/12	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
	04/19/12	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
Little Goose Dam											
	04/09/12	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
	04/14/12	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
	04/19/12	Chinook + Steelhead	101	0	0	0.00%	0.00%	0	0	0	0
Lower Monumental Dam											
	04/11/12	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
	04/18/12	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
McNary Dam											
	04/12/12	Chinook + Steelhead	37	3	3	8.11%	0.00%	3	0	0	0
	04/16/12	Chinook + Steelhead	101	2	2	1.98%	0.00%	2	0	0	0
Bonneville Dam											
	04/07/12	Chinook + Steelhead	19	0	0	0.00%	0.00%	0	0	0	0
	04/10/12	Chinook + Steelhead	35	0	0	0.00%	0.00%	0	0	0	0
	04/18/12	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
Rock Island Dam											
	04/18/12	Chinook + Steelhead	76	0	0	0.00%	0.00%	0	0	0	0
	04/19/12	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0