Fish Passage Center

Weekly Report #11 - 05

April 15, 2011

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Summary of Events:

Water Supply: Precipitation throughout the Columbia Basin has varied between 80% and 271% of average at individual sub-basins over April. Precipitation above The Dalles has been 178% of average over April. Over the 2011 water year, precipitation has ranged between 101% and 140% of average.

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

Location	Water Year 2011 April 1-11, 2011		Water Year 2011 October 1, 2010 to April 11, 2011	
	Observed (inches)	% Average	Observed (inches)	% Average
Columbia Above Coulee	1.25	207	17.71	119
Snake River Above Ice Harbor	0.93	173	13.45	124
Columbia Above The Dalles	1.22	203	17.89	120
Kootenai	1.41	220	17.94	118
Clark Fork	0.98	217	12.04	127
Flathead	1.48	256	17.10	134
Pend Oreille/ Spokane	1.91	230	24.94	119
Central Washington	0.19	80	6.30	102
Snake River Plain	0.47	122	8.06	124
Salmon/Boise/ Payette	3.54	209	15.04	113
Clearwater	0.78	133	24.72	126
SW Washington Cascades/Cowlitz	3.58	183	59.03	106
Willamette Valley	2.76	155	49.45	105

Snowpack in the Columbia River for basins above the Snake River confluence is 117% of average, for Snake River Basins snowpack is 116% of average, and for lower Columbia Basins between McNary and Bonneville Dam snowpack is 119% of average.

Table 2 displays the March Final and April Final runoff volume forecasts for multiple reservoirs. The April Final forecast at The Dalles between January and July is 117000 Kaf (109% of average).

Table 2. March Final and April Final Runoff Volume Forecasts for various reservoirs within the Columbia and Snake River Basins.

Location	March Final		April Final	
	% Average (1971 -2000)	Probable Runoff Volume (Kaf)	% Average (1971 -2000)	Probable Runoff Volume (Kaf)
The Dalles (Jan-July)	102	109000	109	117000
Grand Coulee (Jan-July)	104	65600	108	68200
Libby Res. Inflow, MT (Apr-Aug)	105	6550 7105*	109	6800 7191*
Hungry Horse Res. Inflow, MT (Jan-July)	123	2730	128	2840
Lower Granite Res. Inflow (Apr- July)	100	21600	116	25100
Brownlee Res. Inflow (Apr-July)	90	5690	119	7510
Dworshak Res. Inflow (Apr-July)	110	2900 3329*	116	3060 3387*

* Denotes COE Forecast

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 8-14 have averaged 107.3 Kcfs.

Based on the April Final Water Supply Forecast, the Spring Biological Opinion Flow Objectives will be 260 Kcfs at McNary Dam (begins April 10th) and 135 Kcfs at Priest Rapids Dam (begins April 10th). For April 10-14, 2011 average flows were 289.7 Kcfs at McNary Dam and 168.6 Kcfs at Priest Rapids Dam.

Grand Coulee Reservoir is at 1233.9 feet (4-14-11) and drafted 8.6 feet over the last week. Drum gate maintenance is currently being performed at Grand Coulee which requires a maximum reservoir elevation of 1255 feet. The end of April FC Elevation at Grand Coulee is 1220.2 feet (based on the April Final WSF). Outflows at Grand Coulee have ranged between 139.4 and 157.3 Kcfs over the last week.

The Libby Reservoir is currently at elevation 2359.5 feet (4-14-11) and has drafted 4.3 feet last week. The end of April FC Elevation at Libby is 2359.2 feet (based on the April Final WSF). Outflows at Libby Dam have been 9-14 Kcfs last week.

Hungry Horse is currently at an elevation of 3489.46 feet (4-14-11) and has drafted 6.34 feet last week. The end of April Elevation at Hungry Horse is 3479.5 feet (based on the April Final WSF). Outflows at Hungry Horse have been 10.6 Kcfs last week.

Dworshak is currently at an elevation of 1451.26 feet (4-14-11) and has drafted 18.74 feet last week. The end of April Flood Control elevation is 1471.6 ft. Outflows from Dworshak have been 18.8 to 24.9 Kcfs last week. Inflows have ranged between 7.3 and 12.7 Kcfs last week.

The Brownlee Reservoir was at an elevation of 2020.8 feet on April 14th, 2011 drafting 2.2 feet last week. The end of April FC Elevation at Brownlee is 2017.4 feet (based on the April Final WSF). Over the last week, outflows at Hells Canyon Dam have ranged between 45.4 and 45.8 Kcfs.

Spill:

Spill occurred at Dworshak Dam over the past week as the project was drafted to flood control. 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 decreased from the high levels observed last week. As flow decreased, spill levels and TDG also decreased over the week. There are presently two units out at Lower Granite Dam, limiting hydraulic capacity and causing forced spill that is in excess of the 20 Kcfs specified in the Court Order. The two units are expected out through April, and one unit will be out until mid May. The forebay TDG exceeded the 115% at Little Goose Dam earlier in the week, when spill in excess of hydraulic capacity was high at Lower Granite. 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 113% to 116%, below the 120% TDG waiver. At Lower Monumental Dam the COE gradually increased the level of spill to the gas cap volume and then adjusted downward to address TDG at the Ice Harbor Dam forebay. At Ice Harbor Dam the Court Order calls for 45 Kcfs spill during the day and gas cap spill at night. Spill levels have generally been at the 45 Kcfs during the daytime, but the provision of spill to the gas cap was at times limited by the operation of one turbine unit during nighttime hours.

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. This level will be changed to alternating 30% and 40% levels during the upcoming test period. At The Dalles Dam, spill has met the 40% objective. TDG at the Bonneville forebay exceeded the 115% criteria on two days, but given that spill volumes were decreasing and TDG upstream was considerably below the waivers, it is unlikely that this was due to spill. At Bonneville Dam, spill met the 100 Kcfs in the Court Order.

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 and Bonneville dams. There were no fish observed with signs of GBT at the Snake River projects, and two fish (one on each day of sampling) were observed at Bonneville Dam.

Smolt Monitoring:

Sampling is ongoing at all Smolt Monitoring Program sites except McNary Dam. Steelhead passage in the Snake River has been well ahead of historic average and that early timing was a function of early hatchery releases in the Clearwater River Basin that coincided with unusually high flows. Again this week there were relatively large numbers of sockeye (likely kokanee) in the samples at Snake River sites this past week. Bonneville Dam had large passage of subyearling Chinook passing the during the past week as releases from Spring Creek NFH and Little White Salmon NFH reached the project. At the SMP traps large numbers of smolts have been collected over the past week as tributary flows remained relatively high due to regional increases in precipitation and runoff. High debris has also made it difficult to sample at the Imnaha River Trap in the past week.

At the Salmon River Trap, located at River km 103, and operated by Idaho Department of Fish and Game, sampling began on March 6. The trap has mainly yearling Chinook to this point. Of the nearly 4,000 smolts collected in the past week over 3,700 were yearling Chinook and more than 90% were hatchery origin. Steelhead collection numbers began to increase this week as they have historically at this time. Steelhead peak passage at the trap is typically in the first week of May. Flows in the Salmon River at White Bird, dropped from 11000 cfs to 8500 cfs from April 8 to April 15; flows dropped below the historic average for this time of year on April 13. Historically median flows rose to 10,000 cfs by April 15.

The Grande Ronde Trap, operated by the Oregon Department of Fish and Wildlife, located at river mile two in the Grande Ronde River, began sampling March 7. Over the past several days of sampling the numbers of yearling Chinook increased to over 300 fish per day with the highest collection to date of 471 occurring on April 13. About 80% of the Chinook collection were hatchery origin based on clips and coded wire tags. Steelhead collections have also increased in the past week with over 200 fish sampled on April 14. Historically steelhead passage increases rapidly at this time of the season with hatchery releases. And the increased passage occurring now was the result of the release of 740,000 hatchery steelhead in the past week in the Grande Ronde River system. Flows in the Grande Ronde River have dropped rapidly over the past week from above 10,000 cfs on April 8 to near historic median of 6,000 cfs on April 15.

The Imnaha River Trap, operated by the Nez Perce Tribe, provides data to the SMP, on their fish collection. The trap has been operating since mid-February. The Imnaha Trap collected over 12,000 yearling Chinook and 700 steelhead in the past week. The yearling Chinook collections were high despite high debris, trap repairs and cattle crossing causing the trap to be out of service for some periods of time throughout the week. The yearling Chinook were nearly all (98% clipped) hatchery origin in the past week. A large release of yearling Chinook, 252,000 smolts were sent out of the acclimation facility on the Imnaha River with the last day of the volitional release on April 14. Flows in the Imnaha River began the week at about 700 cfs—about average--but then dropped back to 600 cfs by April 15 which was about 60% of historic average flows for that date.

At the Lewiston Trap, operated by IDFG, located at River km 225 on the Snake River, just above the confluence with the Clearwater River, collections of yearling Chinook have dropped off over the past week but still were back to about average for this time of year. Steelhead collections have been low—which is normal for this site at this time of year. The total collection of nearly 800 yearling Chinook collected in the past week was about 90% of the historic average. The collections of yearling Chinook decreased rapidly over the past week as flows in the Snake River decreased. The Lewiston trap typically collects fish more effectively at higher flows and flows at the USGS gage at Anatone have been between 60 and 70 Kcfs over the past week which was 30% to 40% above historic average.

At Lower Granite Dam steelhead had predominated in the sample in the past two weeks of

sampling but this week yearling Chinook and steelhead collections were about even. The yearling Chinook average daily passage index was 24,000 per day while steelhead averaged 25,000. Sockeye or rather kokanee in the sample are likely fish washing out from Dworshak Reservoir. The first research transport barge was loaded on April 7: an estimated 24,000 steelhead and 8,200 yearling Chinook were transported. A second research barge was loaded on April 14 with an estimated 14,000 yearling Chinook, 12,000 steelhead and 400 sockeye.

At Little Goose Dam, which is sampling for condition only, every 5 days, the first sample was predominated by steelhead—mirroring the pattern seen at Lower Granite Dam. And as with Lower Granite Dam yearling Chinook now are beginning to predominate at Little Goose with the last estimated collection on April 14 at over 8,000 fish compared to about 5,000 steelhead. Lower Monumental Dam is sampling every third day and is collecting small numbers of fish for condition information.

The start of sampling at McNary Dam has been delayed due to a motor failure on the debris removing brushes on the screens for water intake for the juvenile fish sampling facility. If the screens became loaded with debris the COE contends that the sampling facility could become dewatered stranding any fish in the sampling facility. Sampling began on April 13. Steelhead predominated in passage at the site on the first day of sampling, with the passage index at 27,000 compared to 2,400 for yearling Chinook.

At John Day Dam sampling has been ongoing. Relatively large numbers of yearling Chinook, steelhead and lamprey have been collected over the past two weeks. The collection of lamprey averaged over 8,600 over the past week with a peak collection of 12867 on April 11. The site has been monitoring condition of lamprey as part of a pilot study to ascertain the relative condition of these fish using similar external measures of fish conditions that are being used to describe salmon smolts.

At Bonneville Dam the largest collections over the past week have been hatchery subyearling Chinook. The daily index for subyearlings reached 933,000 on April 13 as the first wave of Spring Creek NFH released fish arrived at the project. A release of 6.4 million fish occurred on April 12. An additional release of 2.3 million subyearling Chinook were released from Little White Salmon NFH on April 14.

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. There were several releases of yearling fall Chinook juveniles scheduled to begin this week. In all, these releases were expected to total approximately 946,000 juveniles. Of these, approximately 49% were scheduled for release from Lyons Ferry Hatchery, which is below Little Goose Dam. The remaining 51% were scheduled for release from three acclimation facilities that are located above Lower Granite Dam. These acclimation facilities are the Captain Johns Rapids and Pittsburg Landing acclimation ponds on the Snake River and the Big Canyon Creek acclimation ponds on the Clearwater River. The only release of yearling spring Chinook that was scheduled to begin this week was a release of approximately 1.34 million juveniles to the Salmon River. This release was expected to begin on April 11th. Many releases of yearling spring Chinook that began in previous weeks were scheduled to end this week.

There were no new releases of summer Chinook scheduled to begin this week. However, a volitional release of nearly 1.07 million yearling summer Chinook from Pahsimeroi Hatchery that was scheduled to begin on March 31st was scheduled to end this week. There were several releases of summer steelhead that were scheduled to begin this week. In all, nearly 3.8 million steelhead juveniles were scheduled to be released this week. These steelhead releases were spread throughout this river zone; including releases into the Clearwater, Grande Ronde, Pahsimeroi, Salmon, Snake, Tucannon, and Wallowa rivers.

Many of the releases of juvenile salmonids that began this week are volitional and are expected to run for the next couple of weeks. In addition to these, there are a few releases of juvenile salmonids that are scheduled to begin over the next two weeks. The first of these releases is a release of approximately 63,000 yearling spring Chinook to the Wallowa River, which is scheduled to begin on or around April 19th. Approximately 1.06 million summer steelhead are scheduled for release to this zone over the next two weeks. These summer steelhead releases are scheduled to take place on the Salmon (64%), Clearwater (25%), and Imnaha (11%) rivers.

Mid-Columbia Zone: The Mid-Columbia Zone encompasses the area of the Columbia River and its tributaries from McNary Dam to Chief Joseph

Dam. Several releases of yearling spring Chinook were scheduled to begin this week. In all, these releases were expected to total nearly 1.8 million spring Chinook juveniles. Of these, approximately 57% were scheduled for release into the Methow River. These Methow River releases are 100% unclipped, but have coded-wire tags. The remaining spring Chinook releases from this week were scheduled to take place on the Okanogan (29%) and Walla Walla (14%) rivers. In addition to the spring Chinook releases, over 1.1 million yearling summer Chinook were scheduled for release into this zone this week. These releases were scheduled to take place throughout this river zone; including the Mid-Columbia (~38%), Methow (36%), Entiat (~14%), and Okanogan (~13%) rivers.

Approximately 425,000 coho juveniles are scheduled for release into the Yakima River this week. These coho releases are part of a Yakama Tribal program to reintroduce coho to the Yakima, Methow, and Wenatchee rivers. Releases for this program are expected to increase in frequency over the next several weeks, with nearly 2.4 million total coho juveniles scheduled for release in 2011. Most of the coho juveniles that are released under this program are unclipped, but have either coded-wire or blank-wire tags. Over the next two weeks, approximately 1.42 million coho juveniles will be released to this zone, as part of this program. These future releases are scheduled for the Yakima, Wenatchee, Methow, and mid-Columbia rivers.

Over 646,000 summer steelhead were scheduled for release into this zone this week. Of these, approximately 50% were scheduled for release into the Methow River. The remaining 50% were scheduled for release into the Mid-Columbia (24%), Walla Walla (15%), and Touchet (11%), rivers.

There are three releases of subyearling fall Chinook to the Yakima River scheduled to begin over the next two weeks. In all, these releases are expected total about 3.0 million juveniles. Of these, approximately 43% are unmarked. In addition, approximately 100,000 subyearling summer Chinook are scheduled to be released to the Yakima River on April 18th.

Approximately 1.67 million yearling spring Chinook scheduled for release into the Wenatchee River over the next two weeks. In addition, about 1.01 million yearling summer Chinook are scheduled for release into this zone over the next two weeks. Of these, approximately 81% are scheduled for release into the Wenatchee River while 19% will be released into the Mid-Columbia River.

Finally, just over 227,000 summer steelhead juveniles are scheduled for release into this zone over the next two weeks. Of these, approximately 53% are scheduled for release into the Okanogan River and 47% are scheduled for release into the Methow River.

Lower Columbia Zone: The Lower Columbia Zone is defined as the Columbia River and its tributaries from Bonneville Dam to McNary Dam. Approximately 8.13 million subyearling fall Chinook tules were released into this zone this week. Specifically, over 6.4 million were released from Spring Creek NFH on April 12th and about 1.7 million were released from Little White Salmon NFH on or around April 14th. Approximately 2.53 million yearling spring Chinook juveniles were scheduled for release to this zone this week. The majority of these spring Chinook juveniles were scheduled for release into the Wind (42%) and Little White Salmon (40%) rivers. The remaining 18% were scheduled for release into the Umatilla (16%), Deschutes (1%), and Hood (1%) rivers.

Two releases of yearling spring Chinook to Hood River are scheduled to take place over the next two weeks. In all, these releases are expected to total about 82,000 spring Chinook juveniles. In addition, about 138,000 summer steelhead are scheduled for release into the Umatilla River, beginning on or around April 25th. Finally, approximately 20,000 winter steelhead are scheduled for release into the White Salmon River on or around April 25th. These are the only releases that are currently scheduled for this zone over the next two weeks.

Adult Fish Passage:

The historical counting schedule at Bonneville began March 15th and continues through November 15th. This counting schedule allows for comparison of current year counts with historical data. The historical counting schedule began on March 1st at Lower Granite Dam. Counting began on April 1st for The Dalles Dam, John Day Dam, McNary Dam, Lower Monumental Dam, and Little Goose Dam. Willamette Falls Dam counts adult salmon throughout the entire year.

Adult counts at Bonneville Dam have been updated through April 14th. Daily adult spring Chinook counts at Bonneville Dam ranged from 66 to 85 adult salmon per day. Between March 15th and April 14th, 900 adult spring Chinook have been counted at Bonneville Dam. In 2010, 15,348 adult spring Chinook were counted at Bonneville Dam for

the same time period. The 2011 adult spring Chinook count at Bonneville Dam is 5.9% of the 2010 count and only about 3.2% of the 10 year average of 28,186. At Willamette Falls Dam 61 adult spring Chinook have been counted so far this year. At The Dalles Dam the 2011 adult spring Chinook is 198 and at McNary Dam 73 adult spring Chinook have been counted.

The Bonneville Dam 2011 steelhead count of 1,685 is about 59.7% of the 2010 count of 2,821. The 2011 steelhead count has 17 fewer fish than the 10-year average of 1,702. 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 200 to 414 adults per day last week. This year's Lower Granite steelhead count of 9,473 is about 1.18 times greater than the 2010 count of 8,043 and 1.21 times greater than the 10 year average of 7,851. The 2011 Lower Granite wild steelhead count as of April 14th was 3,892. At Willamette Falls Dam, the 2011 count for steelhead was 6,377, as of April 12th. This year's steelhead count is about 89.5% of the 2010 count of 7,125 at Willamette Falls Dam for the same date range.

At Bonneville Dam, daily counts of adult salmon and steelhead found on the separator and by passed are being tracked this year for the period of March 1st to April 20th. From March 15th to April 14th, daily adult steelhead by passed counts ranged from 1 to 8. A total of 96 adult steelhead have been by passed so far this year.

Hatchery Releases Last Two Weeks

Hatchery Release Summary

From: **4/1/2011** **to** **04/14/11**

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SP	2011	413,000	04-06-11	04-07-11	Powell Acclim Pond	Lochsa River
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SP	2011	1,117,000	03-29-11	04-05-11	Red River	S Fk Clearwater River
Idaho Dept. of Fish and Game	Clearwater Hatchery	ST	SU	2011	213,000	04-12-11	04-19-11	S Fk Clearwater River	Clearwater River M F
Idaho Dept. of Fish and Game	Clearwater Hatchery	ST	SU	2011	268,000	04-12-11	04-19-11	S Fk Clearwater River	Clearwater River M F
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2011	90,000	04-06-11	04-06-11	Shoup Br (Salmon R)	Salmon River (ID)
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2011	120,000	04-04-11	04-06-11	Salmon River (ID)	Salmon River (ID)
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2011	120,000	04-06-11	04-08-11	Salmon River (ID)	Salmon River (ID)
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2011	190,000	04-11-11	04-15-11	Little Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2011	220,000	04-11-11	04-14-11	Little Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Game	Niagara Springs	ST	SU	2011	100,000	03-31-11	04-05-11	Little Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Game	Niagara Springs	ST	SU	2011	345,000	04-06-11	05-04-11	Little Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Game	Niagara Springs	ST	SU	2011	830,000	04-13-11	05-03-11	Pahsimeroi River	Pahsimeroi River
Idaho Dept. of Fish and Game	Pahsimeroi Hatchery	CH1	SU	2011	1,067,000	03-31-11	04-12-11	Pahsimeroi Hatchery	Pahsimeroi River
Idaho Dept. of Fish and Game	Rapid River Hatchery	CH1	SP	2011	2,511,000	03-14-11	04-22-11	Rapid River Hatchery	Little Salmon River
Idaho Dept. of Fish and Game	Sawtooth Hatchery	CH1	SP	2011	1,340,000	04-11-11	04-11-11	Salmon River (ID)	Salmon River (ID)
Idaho Dept. of Fish and Game Total					**8,944,000**				
Nez Perce Tribe	Clearwater Hatchery	ST	SU	2011	85,600	04-10-11	04-20-11	Crooked River	S Fk Clearwater River
Nez Perce Tribe	Clearwater Hatchery	ST	SU	2011	135,000	04-11-11	04-13-11	Newsome Creek	S Fk Clearwater River
Nez Perce Tribe	Clearwater Hatchery	ST	SU	2011	153,500	04-10-11	04-20-11	Red River	S Fk Clearwater River
Nez Perce Tribe	Dworshak NFH	CO	UN	2011	313,000	03-15-11	04-08-11	Kooskia Hatchery	Clearwater River M F
Nez Perce Tribe	Dworshak NFH	ST	SU	2011	103,700	04-10-11	04-20-11	Newsome Creek	S Fk Clearwater River
Nez Perce Tribe	Kooskia NFH	CH1	SP	2011	657,000	03-24-11	04-04-11	Kooskia Hatchery	Clearwater River M F
Nez Perce Tribe	Lyons Ferry Hatchery	CH1	FA	2011	155,000	04-10-11	04-20-11	Cpt John Acclim Pond	Snake River
Nez Perce Tribe	Lyons Ferry Hatchery	CH1	FA	2011	164,000	04-10-11	04-20-11	Big Canyon (Clearwater River)	Clearwater River M F
Nez Perce Tribe	Lyons Ferry Hatchery	CH1	FA	2011	167,000	04-10-11	04-20-11	Pittsburg Landing Acclim Pond	Snake River
Nez Perce Tribe	Nez Perce Tribal Hatchery	CH1	SP	2011	240,000	04-01-11	04-15-11	Nez Perce Tribal Hatchery	Clearwater River M F
Nez Perce Tribe Total					**2,173,800**				
Oregon Dept. of Fish and Wildlife	Irrigon Hatchery Complex	ST	SU	2011	168,000	04-12-11	04-12-11	Big Canyon Acclim.Pd (Grande Ronde)	Grande Ronde River
Oregon Dept. of Fish and Wildlife	Irrigon Hatchery Complex	ST	SU	2011	378,000	04-12-11	04-12-11	Wallowa Acclim Pond	Wallowa River
Oregon Dept. of Fish and Wildlife	Lookingglass Hatchery	CH1	SP	2011	103,000	04-01-11	04-14-11	Lookingglass Creek	Grande Ronde River
Oregon Dept. of Fish and Wildlife	Lookingglass Hatchery	CH1	SP	2011	252,000	03-30-11	04-14-11	Imnaha Acclim Pond	Imnaha River
Oregon Dept. of Fish and Wildlife Total					**901,000**				

Hatchery Releases Last Two Weeks - (Continued)

U.S. Fish and Wildlife Service	Carson NFH	CH1	SP	2011	1,059,327	04-14-11	04-14-11	Carson Hatchery	Wind River
U.S. Fish and Wildlife Service	Entiat Hatchery	CH1	SU	2011	150,500	04-13-11	04-14-11	Entiat Hatchery	Entiat River
U.S. Fish and Wildlife Service	Hagerman NFH	ST	SU	2011	739,346	04-11-11	04-11-11	Salmon River (ID)	Salmon River (ID)
U.S. Fish and Wildlife Service	Little White Salmon NFH	CH0	FA	2011	1,700,000	04-14-11	04-14-11	Little White Salmon Hatchery	Little White Salmon River
U.S. Fish and Wildlife Service	Little White Salmon NFH	CH1	SP	2011	600,000	04-14-11	04-14-11	Little White Salmon Hatchery	Little White Salmon River
U.S. Fish and Wildlife Service	Spring Creek NFH	CH0	FA	2011	6,434,037	04-12-11	04-12-11	Spring Creek Hatchery	L Col R (D/s McN Dam)
U.S. Fish and Wildlife Service	Warm Springs NFH	CH1	SP	2011	538,388	04-04-11	04-27-11	Warm Springs Hatchery	Deschutes River
U.S. Fish and Wildlife Service	Willard Hatchery	CH1	SP	2011	400,000	04-14-11	04-14-11	Willard Hatchery	Little White Salmon River
U.S. Fish and Wildlife Service Total					**11,621,598**				
Umatilla Tribe	Carson NFH	CH1	SP	2011	247,196	04-11-11	04-12-11	Walla Walla River	Walla Walla River
Umatilla Tribe	Lookingglass Hatchery	CH1	SP	2011	50,237	04-05-11	04-14-11	Catherine Cr Acclim Pond	Grande Ronde River
Umatilla Tribe	Lookingglass Hatchery	CH1	SP	2011	58,748	03-30-11	04-14-11	Catherine Cr Acclim Pond	Grande Ronde River
Umatilla Tribe	Lookingglass Hatchery	CH1	SP	2011	134,398	04-06-11	04-14-11	Grande Ronde Acclim Pond	Grande Ronde River
Umatilla Tribe	Umatilla Hatchery	CH1	SP	2011	180,710	04-11-11	04-11-11	Umatilla River	Umatilla River
Umatilla Tribe	Umatilla Hatchery	CH1	SP	2011	234,000	04-13-11	04-19-11	Thornhollow Acclim Pond	Umatilla River
Umatilla Tribe Total					**905,289**				
Warm Springs Tribe	Round Butte Hatchery	CH1	SP	2011	37,500	04-09-11	04-09-11	W Fk Hood River	Hood River
Warm Springs Tribe Total					**37,500**				
Washington Dept. of Fish and Wildlife	Eastbank Hatchery	CH1	SP	2011	520,000	04-13-11	05-13-11	Similkameen Acclim Pd	Okanogan River
Washington Dept. of Fish and Wildlife	Eastbank Hatchery	CH1	SU	2011	140,000	04-12-11	04-12-11	Bonaparte Acclimation Pond	Okanogan River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	CH1	FA	2011	460,000	04-10-11	04-20-11	Lyons Ferry Hatchery	Snake River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2011	6,400	04-10-11	04-20-11	Baileysburg Bridge	Touchet River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2011	8,000	04-10-11	04-20-11	Baileysburg Bridge	Touchet River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2011	85,000	04-01-11	04-15-11	Dayton Acclim Pond	Touchet River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2011	100,000	04-10-11	04-20-11	Walla Walla River	Walla Walla River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2011	160,000	04-10-11	04-20-11	Lyons Ferry Hatchery	Snake River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2011	197,000	04-01-11	04-10-11	Cottonwood Acclim Pond	Grande Ronde River
Washington Dept. of Fish and Wildlife	Methow Hatchery	CH1	SU	2011	400,000	04-12-11	05-12-11	Carlton Acclim Pond	Methow River
Washington Dept. of Fish and Wildlife	Ringold Springs Hatchery	ST	SU	2011	158,000	04-14-11	04-21-11	Ringold Springs Hatchery	Mid-Columbia River
Washington Dept. of Fish and Wildlife	Tucannon Hatchery	CH1	SP	2011	113,000	04-01-11	04-30-11	Curl Lake Acclim Pond	Tucannon River
Washington Dept. of Fish and Wildlife	Tucannon Hatchery	CH1	SP	2011	118,000	04-01-11	04-30-11	Curl Lake Acclim Pond	Tucannon River
Washington Dept. of Fish and Wildlife	Tucannon Hatchery	ST	SU	2011	77,000	04-10-11	04-20-11	Tucannon Hatchery	Tucannon River
Washington Dept. of Fish and Wildlife	Washougal Hatchery	CO	NO	2011	2,500,000	04-01-11	04-07-11	Klickitat River	Klickitat River
Washington Dept. of Fish and Wildlife Total					**5,042,400**				
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2011	273,539	03-15-11	05-14-11	Jack Creek Acclim Pond	Yakima River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2011	279,639	03-15-11	05-14-11	Clark Flat Acclim Pond	Yakima River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2011	282,335	03-15-11	05-14-11	Easton Pond	Yakima River
Yakama Tribe Total					**835,513**				
Grand Total					**30,461,100**				

Hatchery Releases Next Two Weeks

Hatchery Release Summary

From: **4/15/2011** **to** **4/28/2011**

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
Idaho Dept. of Fish and Game	Clearwater Hatchery	ST	SU	2011	213,000	04-12-11	04-19-11	S Fk Clearwater River	Clearwater River M F
Idaho Dept. of Fish and Game	Clearwater Hatchery	ST	SU	2011	262,000	04-20-11	04-21-11	S Fk Clearwater River	Clearwater River M F
Idaho Dept. of Fish and Game	Clearwater Hatchery	ST	SU	2011	268,000	04-12-11	04-19-11	S Fk Clearwater River	Clearwater River M F
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2011	120,000	04-27-11	04-28-11	McNabb/Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2011	190,000	04-11-11	04-15-11	Little Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2011	280,000	04-18-11	04-22-11	East Fk Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2011	280,000	04-22-11	04-27-11	Squaw Creek	Salmon River (ID)
Idaho Dept. of Fish and Game	Niagara Springs	ST	SU	2011	345,000	04-06-11	05-04-11	Little Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Game	Niagara Springs	ST	SU	2011	830,000	04-13-11	05-03-11	Pahsimeroi River	Pahsimeroi River
Idaho Dept. of Fish and Game	Rapid River Hatchery	CH1	SP	2011	2,511,000	03-14-11	04-22-11	Rapid River Hatchery	Little Salmon River
Idaho Dept. of Fish and Game Total					**5,299,000**				
Nez Perce Tribe	Clearwater Hatchery	ST	SU	2011	85,600	04-10-11	04-20-11	Crooked River	S Fk Clearwater River
Nez Perce Tribe	Clearwater Hatchery	ST	SU	2011	153,500	04-10-11	04-20-11	Red River	S Fk Clearwater River
Nez Perce Tribe	Dworshak NFH	ST	SU	2011	60,000	04-15-11	04-15-11	Lolo Creek	Clearwater River M F
Nez Perce Tribe	Dworshak NFH	ST	SU	2011	103,700	04-10-11	04-20-11	Newsome Creek	S Fk Clearwater River
Nez Perce Tribe	Lookingglass Hatchery	CH1	SP	2011	63,110	04-19-11	04-19-11	Lostine Accim Pond	Wallowa River
Nez Perce Tribe	Lyons Ferry Hatchery	CH1	FA	2011	155,000	04-10-11	04-20-11	Cpt John Acclim Pond	Snake River
Nez Perce Tribe	Lyons Ferry Hatchery	CH1	FA	2011	164,000	04-10-11	04-20-11	Big Canyon (Clearwater River)	Clearwater River M F
Nez Perce Tribe	Lyons Ferry Hatchery	CH1	FA	2011	167,000	04-10-11	04-20-11	Pittsburg Landing Acclim Pond	Snake River
Nez Perce Tribe	Nez Perce Tribal Hatchery	CH1	SP	2011	240,000	04-01-11	04-15-11	Nez Perce Tribal Hatchery	Clearwater River M F
Nez Perce Tribe Total					**1,191,910**				
Oregon Dept. of Fish and Wildlife	Irrigon Hatchery Complex	ST	SU	2011	44,000	04-26-11	04-26-11	Little Sheep Creek	Imnaha River
Oregon Dept. of Fish and Wildlife	Irrigon Hatchery Complex	ST	SU	2011	74,000	04-26-11	04-26-11	L Sheep Acclim Pond	Imnaha River
Oregon Dept. of Fish and Wildlife	Umatilla Hatchery	ST	SU	2011	46,000	04-25-11	04-25-11	Meacham Creek	Umatilla River
Oregon Dept. of Fish and Wildlife	Wizard Falls Hatchery	CH1	SP	2011	7,500	04-15-11	04-15-11	Deschutes River	Deschutes River
Oregon Dept. of Fish and Wildlife	Wizard Falls Hatchery	CH1	SP	2011	12,000	04-15-11	04-15-11	Deschutes River	Deschutes River
Oregon Dept. of Fish and Wildlife Total					**183,500**				
U.S. Fish and Wildlife Service	Leavenworth NFH	CH1	SP	2011	1,230,000	04-18-11	04-22-11	Leavenworth Hatchery	Wenatchee River
U.S. Fish and Wildlife Service	Warm Springs NFH	CH1	SP	2011	538,388	04-04-11	04-27-11	Warm Springs Hatchery	Deschutes River
U.S. Fish and Wildlife Service	Winthrop NFH	CH1	SP	2011	461,000	04-15-11	04-20-11	Winthrop Hatchery	Methow River
U.S. Fish and Wildlife Service	Winthrop NFH	ST	SU	2011	43,200	04-20-11	04-30-11	Winthrop Hatchery	Methow River
U.S. Fish and Wildlife Service	Winthrop NFH	ST	SU	2011	64,000	04-20-11	04-30-11	Winthrop Hatchery	Methow River
U.S. Fish and Wildlife Service Total					**2,336,588**				
Umatilla Tribe	Umatilla Hatchery	CH1	SP	2011	234,000	04-13-11	04-19-11	Thornhollow Acclim Pond	Umatilla River
Umatilla Tribe	Umatilla Hatchery	ST	SU	2011	46,000	04-25-11	04-25-11	Minthorn Acclimation Pond	Umatilla River
Umatilla Tribe	Umatilla Hatchery	ST	SU	2011	46,000	04-25-11	04-25-11	Pendelton Acclim Pond	Umatilla River
Umatilla Tribe Total					**326,000**				

Hatchery Releases Next Two Weeks - (Continued)

Warm Springs Tribe	Carson NFH	CH1	SP	2011	44,604	04-21-11	04-21-11	Blackberry Acclim Pond	Hood River
Warm Springs Tribe	Round Butte Hatchery	CH1	SP	2011	37,500	04-24-11	04-24-11	W Fk Hood River	Hood River
Warm Springs Tribe Total					**82,104**				
Washington Dept. of Fish and Wildlife	Chelan Hatchery	CH1	SU	2011	190,000	04-25-11	04-25-11	Chelan Falls	Mid-Columbia River
Washington Dept. of Fish and Wildlife	Chiwawa Hatchery	CH1	SP	2011	440,000	04-20-11	05-16-11	Chiwawa River	Wenatchee River
Washington Dept. of Fish and Wildlife	Eastbank Hatchery	CH1	SP	2011	520,000	04-13-11	05-13-11	Similkameen Acclim Pd	Okanogan River
Washington Dept. of Fish and Wildlife	Eastbank Hatchery	CH1	SU	2011	820,000	04-26-11	05-09-11	Dryden Acclim Pond	Wenatchee River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	CH1	FA	2011	460,000	04-10-11	04-20-11	Lyons Ferry Hatchery	Snake River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2011	6,400	04-10-11	04-20-11	Baileysburg Bridge	Touchet River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2011	8,000	04-10-11	04-20-11	Baileysburg Bridge	Touchet River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2011	54,000	04-15-11	05-15-11	Baileysburg Bridge	Touchet River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2011	85,000	04-01-11	04-15-11	Dayton Acclim Pond	Touchet River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2011	100,000	04-10-11	04-20-11	Walla Walla River	Walla Walla River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2011	160,000	04-10-11	04-20-11	Lyons Ferry Hatchery	Snake River
Washington Dept. of Fish and Wildlife	Methow Hatchery	CH1	SP	2011	67,300	04-15-11	04-20-11	Twisp Acclim Pond	Methow River
Washington Dept. of Fish and Wildlife	Methow Hatchery	CH1	SP	2011	90,100	04-15-11	04-20-11	Chewuch Acclim Pond	Methow River
Washington Dept. of Fish and Wildlife	Methow Hatchery	CH1	SP	2011	408,100	04-15-11	04-20-11	Methow Hatchery	Methow River
Washington Dept. of Fish and Wildlife	Methow Hatchery	CH1	SU	2011	400,000	04-12-11	05-12-11	Carlton Acclim Pond	Methow River
Washington Dept. of Fish and Wildlife	Ringold Springs Hatchery	ST	SU	2011	158,000	04-14-11	04-21-11	Ringold Springs Hatchery	Mid-Columbia River
Washington Dept. of Fish and Wildlife	Skamania Hatchery	ST	WI	2011	20,000	04-25-11	05-05-11	White Salmon River	White Salmon River
Washington Dept. of Fish and Wildlife	Tucannon Hatchery	CH1	SP	2011	113,000	04-01-11	04-30-11	Curl Lake Acclim Pond	Tucannon River
Washington Dept. of Fish and Wildlife	Tucannon Hatchery	CH1	SP	2011	118,000	04-01-11	04-30-11	Curl Lake Acclim Pond	Tucannon River
Washington Dept. of Fish and Wildlife	Tucannon Hatchery	ST	SU	2011	77,000	04-10-11	04-20-11	Tucannon Hatchery	Tucannon River
Washington Dept. of Fish and Wildlife	Wells Hatchery	CH1	SU	2011	420,000	04-15-11	04-25-11	Wells Hatchery	Mid-Columbia River
Washington Dept. of Fish and Wildlife	Wells Hatchery	ST	SU	2011	120,000	04-20-11	05-15-11	Okanogan River	Okanogan River
Washington Dept. of Fish and Wildlife	Wells Hatchery	ST	SU	2011	320,000	04-15-11	05-15-11	Methow River	Methow River
Washington Dept. of Fish and Wildlife Total					**5,154,900**				
Yakama Tribe	Cascade Hatchery	CO	UN	2011	69,321	04-19-11	04-19-11	Icicle Creek	Wenatchee River
Yakama Tribe	Cascade Hatchery	CO	UN	2011	138,648	04-22-11	04-22-11	Icicle Creek	Wenatchee River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2011	273,539	03-15-11	05-14-11	Jack Creek Acclim Pond	Yakima River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2011	279,639	03-15-11	05-14-11	Clark Flat Acclim Pond	Yakima River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2011	282,335	03-15-11	05-14-11	Easton Pond	Yakima River
Yakama Tribe	Eagle Creek NFH	CO	UN	2011	37,000	04-20-11	06-01-11	Boone Pond	Yakima River
Yakama Tribe	Eagle Creek NFH	CO	UN	2011	79,015	04-15-11	06-01-11	Holmes Pond	Yakima River
Yakama Tribe	Eagle Creek NFH	CO	UN	2011	88,175	04-20-11	06-01-11	Stiles Pond	Yakima River
Yakama Tribe	Eagle Creek NFH	CO	UN	2011	88,942	04-20-11	06-01-11	Lost Creek Acclim Pond	Yakima River
Yakama Tribe	Eagle Creek NFH	CO	UN	2011	90,498	04-20-11	06-01-11	Easton Pond	Yakima River
Yakama Tribe	Eastbank Hatchery	CH0	SU	2011	100,000	04-18-11	05-14-11	Stiles Pond	Yakima River
Yakama Tribe	Little White Salmon NFH	CH0	FA	2011	1,700,000	04-23-11	04-23-11	Prosser Acclim Pond	Yakima River
Yakama Tribe	Priest Rapids Hatchery	CH0	FA	2011	500,000	04-16-11	04-16-11	Prosser Acclim Pond	Yakima River
Yakama Tribe	Prosser Acclim. Pond	CH0	FA	2011	800,000	04-16-11	04-16-11	Prosser Acclim Pond	Yakima River
Yakama Tribe	Prosser Acclim. Pond	CO	UN	2011	50,000	04-20-11	06-01-11	Stiles Pond	Yakima River
Yakama Tribe	Prosser Acclim. Pond	CO	UN	2011	100,000	04-20-11	06-01-11	Easton Pond	Yakima River
Yakama Tribe	Prosser Acclim. Pond	CO	UN	2011	100,297	04-20-11	06-01-11	Lost Creek Acclim Pond	Yakima River
Yakama Tribe	Prosser Acclim. Pond	CO	UN	2011	100,671	04-15-11	06-01-11	Holmes Pond	Yakima River
Yakama Tribe	Prosser Acclim. Pond	CO	UN	2011	245,455	04-15-11	06-01-11	Prosser Acclim Pond	Yakima River
Yakama Tribe	Willard Hatchery	CO	UN	2011	51,119	04-28-11	04-29-11	Nason Wetlands	Wenatchee River
Yakama Tribe	Willard Hatchery	CO	UN	2011	51,854	04-21-11	04-21-11	Wells Hatchery	Mid-Columbia River
Yakama Tribe	Willard Hatchery	CO	UN	2011	77,835	04-22-11	04-22-11	Icicle Creek	Wenatchee River
Yakama Tribe	Willard Hatchery	CO	UN	2011	229,620	04-19-11	04-20-11	Icicle Creek	Wenatchee River
Yakama Tribe	Winthrop NFH	CO	UN	2011	248,757	04-23-11	04-23-11	Winthrop Hatchery	Methow River
Yakama Tribe Total					**5,782,720**				
Grand Total					**20,356,722**				

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
04/01/2011	142.9	0.0	141.0	0.0	142.9	8.5	142.8	11.8	150.7	14.4	163.4	27.4	175.5	17.8
04/02/2011	142.7	0.0	145.6	17.0	150.5	6.2	150.1	6.9	156.6	22.0	170.2	60.0	160.4	59.3
04/03/2011	145.6	2.9	146.1	58.7	153.2	13.4	151.4	10.3	152.3	24.5	172.2	46.9	174.7	48.8
04/04/2011	143.8	0.8	143.7	14.6	151.7	8.5	157.3	10.3	162.4	20.7	192.2	59.4	200.5	65.8
04/05/2011	145.3	0.0	146.7	9.1	146.7	0.5	145.5	1.4	148.4	8.7	174.0	53.7	181.2	46.0
04/06/2011	153.6	2.9	152.8	39.4	152.8	1.3	149.2	0.0	153.1	0.0	170.3	45.4	168.9	56.9
04/07/2011	149.5	1.4	152.9	26.3	157.8	17.4	154.4	13.4	157.6	0.0	131.9	28.9	131.0	20.8
04/08/2011	155.3	2.4	153.2	18.9	158.6	2.8	162.5	5.3	165.8	0.0	179.4	64.1	180.4	66.3
04/09/2011	149.9	3.6	156.5	26.7	165.1	7.1	165.3	0.0	165.7	7.9	177.8	65.5	181.9	69.9
04/10/2011	157.7	5.5	156.7	38.8	158.1	0.0	158.5	0.0	160.0	4.9	175.8	56.2	181.7	61.4
04/11/2011	146.4	0.8	147.2	8.8	151.2	0.0	153.1	0.0	156.5	0.0	170.9	52.2	174.7	52.2
04/12/2011	154.7	0.0	158.6	0.0	157.5	10.0	154.7	0.0	157.5	0.0	161.2	44.1	167.2	24.2
04/13/2011	140.0	0.0	151.0	0.0	155.5	10.7	155.1	0.0	158.1	0.0	169.0	37.2	168.2	30.6
04/14/2011	139.4	0.0	141.5	0.0	145.2	10.0	145.7	0.0	150.4	0.0	156.9	20.5	154.0	14.4

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
04/01/2011	17.7	7.2	30.7	34.1	123.9	50.6	113.9	10.6	130.2	16.1	132.8	107.0
04/02/2011	18.0	7.7	37.6	34.2	130.6	57.4	123.3	31.2	136.8	28.2	137.7	87.1
04/03/2011	17.8	7.6	46.3	35.2	137.8	64.3	130.7	31.5	143.3	31.2	149.3	91.1
04/04/2011	18.8	8.4	47.9	39.7	124.3	51.2	118.3	32.8	125.9	26.4	125.1	72.4
04/05/2011	21.0	10.4	44.6	45.4	138.6	65.2	129.7	37.8	138.5	27.6	141.9	79.6
04/06/2011	21.7	11.2	42.8	45.4	137.4	64.5	132.4	40.0	144.3	33.3	147.0	87.7
04/07/2011	22.0	11.4	44.1	45.4	127.3	54.8	121.8	36.5	131.5	29.8	136.1	74.8
04/08/2011	23.5	12.8	43.2	45.6	117.0	44.5	111.4	33.5	116.9	28.9	120.6	67.6
04/09/2011	24.0	13.4	42.9	45.8	113.2	42.4	108.5	35.0	113.4	27.9	113.9	71.1
04/10/2011	24.1	13.4	42.4	45.7	108.9	40.3	107.0	35.5	112.1	26.1	116.1	68.4
04/11/2011	24.4	13.8	42.1	45.8	105.3	33.2	99.4	29.9	100.5	25.0	103.5	64.4
04/12/2011	24.9	14.1	45.0	45.9	106.7	34.5	104.2	31.1	108.6	26.2	110.0	67.0
04/13/2011	19.7	9.0	44.5	45.8	101.0	29.0	98.3	29.4	100.5	27.9	104.4	65.7
04/14/2011	18.8	8.2	---	---	98.8	26.9	95.6	28.6	98.3	27.0	100.1	66.6

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
04/01/2011	307.3	158.3	303.1	88.5	293.2	32.9	288.8	52.7	93.4	130.3
04/02/2011	319.7	170.9	330.9	108.8	319.5	77.1	331.4	99.8	92.2	127.0
04/03/2011	345.3	196.5	359.2	121.1	354.2	108.8	375.1	147.0	91.6	124.1
04/04/2011	336.5	187.7	359.9	127.7	351.3	125.7	369.1	142.1	90.5	124.1
04/05/2011	349.8	206.0	385.6	154.3	374.8	167.6	390.5	166.8	91.0	120.4
04/06/2011	332.4	193.3	350.2	122.6	348.1	127.8	367.4	148.0	91.2	115.8
04/07/2011	306.5	164.5	305.0	72.7	303.6	66.1	337.8	116.7	91.8	117.0
04/08/2011	282.1	132.9	285.0	60.6	278.6	59.6	307.8	75.2	92.9	127.4
04/09/2011	298.7	150.3	327.1	101.5	314.1	107.4	319.9	87.3	93.0	127.2
04/10/2011	308.4	159.6	329.8	103.8	319.3	126.6	331.4	99.6	92.1	127.2
04/11/2011	296.1	151.3	300.4	89.9	289.1	115.6	323.4	99.6	91.3	120.2
04/12/2011	283.4	145.2	310.4	93.0	299.6	119.4	315.7	99.5	89.3	114.5
04/13/2011	290.2	154.8	285.3	85.5	278.7	111.4	303.3	99.6	90.2	101.0
04/14/2011	270.4	139.8	273.2	82.0	261.0	104.4	283.2	99.5	77.9	93.4

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			
Date	24 h Avg	12 h Avg	High	# hr	24 h Avg	12 h Avg	High	# hr	24 h Avg	12 h Avg	High	# hr	24 h Avg	12 h Avg	High	# hr	24 h Avg	12 h Avg	High	# hr
4/1	102.5	103.6	104.3	24	104.2	105.5	106.8	22	104.6	105.2	105.6	24	103.1	103.7	104.1	22	103.2	103.5	103.5	24
4/2	105.4	106.0	106.5	24	104.1	104.7	106.0	24	105.4	105.7	105.9	24	103.8	104.1	104.4	24	103.5	103.8	103.9	24
4/3	107.6	108.0	108.3	24	104.8	106.7	108.4	22	104.1	104.3	104.8	24	107.0	109.6	111.2	22	102.6	102.9	103.1	24
4/4	108.8	109.0	109.3	24	110.7	113.9	115.4	21	105.1	105.6	106.0	24	105.2	106.2	110.7	21	103.3	103.7	104.9	24
4/5	107.3	109.4	109.7	24	112.8	113.4	114.0	22	105.6	105.8	106.0	24	104.1	104.3	104.5	22	107.4	108.5	109.3	24
4/6	94.9	95.0	95.1	23	113.2	113.7	114.3	21	105.9	106.1	106.9	24	107.3	109.4	111.8	21	105.8	106.7	107.3	24
4/7	97.9	100.3	100.5	23	114.7	116.0	117.2	21	105.5	105.6	105.8	24	107.4	108.5	110.9	21	103.4	103.6	103.8	24
4/8	107.6	112.0	112.3	24	115.5	116.9	117.8	22	105.3	105.6	106.1	24	109.0	110.2	111.8	22	106.8	108.9	109.2	24
4/9	112.0	112.1	112.2	24	113.3	114.5	115.0	24	106.4	106.9	107.7	24	109.4	110.8	112.6	24	106.7	107.9	108.9	24
4/10	111.8	111.9	112.0	23	111.8	112.7	114.0	20	105.5	105.6	105.9	24	108.7	110.3	114.5	20	107.3	108.6	109.4	24
4/11	111.8	111.9	111.9	24	112.9	113.3	113.5	23	105.2	105.5	105.5	24	107.2	108.7	111.3	23	107.4	108.0	108.8	24
4/12	111.8	111.9	112.0	24	111.5	112.3	112.6	24	105.4	106.2	106.6	24	105.5	105.9	106.1	24	107.3	108.5	109.0	24
4/13	111.9	112.0	112.3	21	111.2	111.9	113.4	18	105.9	106.0	106.2	24	105.9	106.1	106.5	18	105.1	106.0	106.9	24
4/14	111.7	111.8	111.9	23	110.0	110.4	111.0	19	105.2	105.3	105.7	24	105.4	105.6	106.0	19	103.2	103.3	103.3	24

Total Dissolved Gas Saturation Data at Mid Columbia River Sites

	Chief J. Dnst				Wells				Wells Dwnstrm				Rocky Reach				Rocky R. Tlwr			
Date	24 h Avg	12 h Avg	High	# hr	24 h Avg	12 h Avg	High	# hr	24 h Avg	12 h Avg	High	# hr	24 h Avg	12 h Avg	High	# hr	24 h Avg	12 h Avg	High	# hr
4/1	103.0	103.4	103.7	24	---	---	---	0	---	---	---	0	107.1	107.4	108.2	16	107.7	107.9	110.5	16
4/2	107.7	112.1	115.8	24	---	---	---	0	---	---	---	0	106.6	107.4	108.4	24	109.1	110.7	113.4	24
4/3	110.1	115.4	119.2	24	---	---	---	0	---	---	---	0	104.8	105.0	105.1	24	106.6	108.4	113.0	24
4/4	101.0	104.7	113.6	24	---	---	---	0	---	---	---	0	106.0	106.9	107.0	24	109.7	111.8	114.2	24
4/5	104.6	106.1	111.1	24	---	---	---	0	---	---	---	0	110.0	111.5	111.9	24	109.0	110.0	110.4	24
4/6	110.4	115.6	117.3	24	---	---	---	0	---	---	---	0	108.5	109.4	111.2	24	108.2	108.9	110.0	24
4/7	109.7	113.1	115.5	24	112.8	113.2	113.9	21	108.9	110.3	114.2	21	106.0	106.6	106.9	24	108.6	110.6	115.3	24
4/8	110.7	112.0	113.9	24	109.2	111.8	113.0	22	105.9	107.0	110.6	22	109.6	111.2	111.8	24	109.9	110.6	111.9	24
4/9	111.0	113.8	116.2	24	108.0	108.7	109.1	24	108.9	110.2	110.5	24	108.3	109.3	109.9	24	107.9	108.6	108.8	24
4/10	110.7	115.0	116.3	24	107.7	109.2	112.0	24	107.6	108.6	110.7	24	107.1	108.1	108.9	24	106.2	106.8	107.3	24
4/11	108.8	110.5	115.6	24	106.9	108.3	111.7	24	107.4	108.9	111.3	24	107.5	108.3	109.1	24	106.7	107.3	107.8	24
4/12	107.2	108.6	109.5	24	106.8	107.5	108.9	24	108.7	109.3	109.9	24	107.5	108.0	108.2	24	106.7	107.1	107.4	24
4/13	104.7	105.5	106.7	24	106.6	107.5	108.9	23	109.0	110.0	111.2	23	108.3	108.9	109.2	24	107.2	107.7	108.3	24
4/14	103.5	103.9	104.3	24	103.2	103.7	104.8	22	106.0	106.5	107.4	22	108.6	109.0	109.2	24	107.5	107.9	108.2	24

Total Dissolved Gas Saturation at Mid Columbia River Sites

	Rock Island				Rock I. Tlwr				Wanapum				Wanapum Tlwr				Priest Rapids			
Date	24 h Avg	12 h Avg	High	# hr	24 h Avg	12 h Avg	High	# hr	24 h Avg	12 h Avg	High	# hr	24 h Avg	12 h Avg	High	# hr	24 h Avg	12 h Avg	High	# hr
4/1	107.4	108.0	109.5	16	109.3	110.4	114.2	16	---	---	---	0	---	---	---	0	---	---	---	0
4/2	106.7	107.2	108.0	24	110.1	111.8	113.4	24	---	---	---	0	---	---	---	0	---	---	---	0
4/3	104.3	105.2	106.6	24	107.7	110.4	111.2	24	---	---	---	0	---	---	---	0	---	---	---	0
4/4	107.0	108.3	109.4	24	110.0	111.5	113.5	24	---	---	---	0	---	---	---	0	---	---	---	0
4/5	107.2	109.0	110.7	24	108.6	109.6	110.7	24	---	---	---	0	---	---	---	0	---	---	---	0
4/6	109.0	110.1	111.0	24	109.1	110.3	111.2	24	108.5	109.1	109.6	24	111.2	112.1	113.3	24	110.7	111.2	112.1	24
4/7	106.3	107.6	110.1	24	106.5	107.9	110.5	24	108.4	109.4	110.3	24	110.6	111.3	115.1	24	110.3	111.3	111.9	24
4/8	108.5	110.7	112.1	24	108.6	111.0	112.4	24	107.5	108.1	108.6	24	111.6	112.6	113.4	24	111.1	112.6	113.2	24
4/9	107.9	108.8	110.1	24	109.1	110.2	112.0	24	106.7	106.9	107.1	24	111.4	112.4	113.2	24	110.2	110.8	111.4	24
4/10	105.3	105.9	106.8	24	106.4	107.8	111.4	24	107.8	108.5	108.9	24	110.8	111.5	112.8	24	110.4	110.8	111.3	24
4/11	106.9	107.3	107.5	24	107.1	107.4	107.6	24	107.0	107.3	107.7	24	110.3	111.5	112.8	24	109.7	110.4	110.6	24
4/12	106.5	107.9	108.4	24	106.7	108.0	108.6	24	106.2	107.3	107.7	24	109.6	110.8	112.9	24	109.2	109.5	110.0	24
4/13	106.7	107.4	107.7	24	106.8	107.5	107.9	24	---	---	---	0	---	---	---	0	---	---	---	0
4/14	107.5	108.2	108.8	24	107.6	108.3	108.8	24	---	---	---	0	---	---	---	0	---	---	---	0

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

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

	Priest R. Dnst				Pasco				Dworshak				Clrwtr-Peck				Anatone			
Date	24 h Avg	12 h Avg	High	# hr	24 h Avg	12 h Avg	High	# hr	24 h Avg	12 h Avg	High	# hr	24 h Avg	12 h Avg	High	# hr	24 h Avg	12 h Avg	High	# hr
4/1	---	---	---	0	106.5	107.9	109.5	24	114.6	115.1	115.4	24	104.8	105.6	105.8	24	103.3	103.9	104.3	24
4/2	---	---	---	0	107.2	108.4	109.5	24	115.4	115.6	116.2	24	104.3	104.7	105.5	24	102.4	102.8	103.1	24
4/3	---	---	---	0	107.3	108.9	109.4	24	114.0	114.4	114.9	24	103.7	104.1	104.4	24	102.3	102.8	103.2	24
4/4	---	---	---	0	108.9	109.8	110.1	24	115.3	116.4	117.1	24	104.9	105.7	106.2	24	103.2	103.6	103.8	24
4/5	---	---	---	0	109.0	109.6	110.2	24	117.6	118.2	118.5	24	105.7	106.0	106.2	24	103.6	103.9	104.4	24
4/6	113.9	115.4	116.3	24	108.1	108.9	109.3	24	118.4	118.5	118.6	24	106.3	106.6	106.8	24	103.7	103.9	104.1	24
4/7	110.7	111.7	116.9	24	108.8	110.4	111.1	24	118.3	118.5	118.7	24	107.3	108.3	108.5	24	103.9	104.3	104.8	24
4/8	116.1	117.1	117.8	24	108.3	109.2	110.5	24	119.1	119.5	119.6	24	108.8	109.5	109.8	24	104.5	105.1	105.6	24
4/9	116.3	116.6	117.0	24	111.1	111.8	112.4	24	119.5	119.7	119.9	24	109.9	110.4	110.7	24	105.0	105.7	106.3	24
4/10	115.3	115.9	116.4	24	109.9	110.3	110.5	24	119.1	119.2	119.5	24	110.0	110.3	110.5	24	104.8	105.2	105.4	24
4/11	113.4	114.7	115.9	24	109.1	109.9	110.5	24	120.4	121.2	122.1	18	110.9	111.7	112.0	24	105.1	105.4	106.1	24
4/12	109.5	110.2	111.7	24	108.5	109.2	109.7	24	121.7	121.9	122.1	24	112.1	112.9	113.2	24	105.6	106.5	107.2	24
4/13	---	---	---	0	106.8	107.3	108.8	24	117.1	117.3	117.5	24	108.7	109.0	111.5	24	105.3	105.6	105.8	24
4/14	---	---	---	0	106.4	106.8	106.9	24	116.6	117.9	118.1	24	108.7	109.5	110.0	24	105.1	105.8	106.3	24

Total Dissolved Gas Saturation Data at Snake River Sites

	Clrwtr-Lewiston				Lower Granite				L. Granite Tlwr				Little Goose				L. Goose Tlwr			
Date	24 h Avg	12 h Avg	High	# hr	24 h Avg	12 h Avg	High	# hr	24 h Avg	12 h Avg	High	# hr	24 h Avg	12 h Avg	High	# hr	24 h Avg	12 h Avg	High	# hr
4/1	103.7	104.6	105.2	24	105.2	106.0	106.7	24	118.9	121.0	122.5	24	104.5	105.9	106.8	24	107.4	110.6	113.9	24
4/2	103.2	103.4	104.0	15	105.9	106.5	107.0	24	120.7	122.5	126.2	24	107.2	108.0	111.5	24	113.5	115.3	117.2	24
4/3	102.4	102.8	103.0	23	102.6	103.2	104.4	24	121.9	123.1	123.6	24	111.2	111.5	112.0	24	114.6	115.4	116.2	24
4/4	103.2	103.5	103.9	20	102.8	103.4	104.3	24	118.7	119.3	119.9	24	113.3	114.6	116.2	24	115.1	115.7	116.3	24
4/5	103.5	103.8	104.1	19	104.0	104.2	104.3	24	122.3	123.6	123.8	24	115.1	115.5	115.9	24	115.9	116.1	116.6	24
4/6	104.0	104.2	104.6	22	104.4	104.5	104.6	15	123.2	123.5	124.2	24	114.0	114.4	115.2	24	115.8	116.2	117.1	24
4/7	104.3	105.0	105.4	24	105.0	105.0	105.2	11	120.9	121.2	122.7	24	116.2	116.7	117.0	24	116.0	116.2	116.6	24
4/8	105.2	105.9	106.5	24	105.0	105.3	105.5	24	117.6	118.1	118.4	24	117.3	117.7	117.9	24	116.2	116.4	116.5	24
4/9	106.3	107.1	108.2	24	105.5	105.7	105.8	24	117.2	117.7	118.2	24	117.3	117.5	117.7	24	116.1	116.6	118.2	24
4/10	105.9	106.3	106.5	24	105.3	105.5	105.8	24	116.5	117.4	118.1	24	114.6	115.1	116.0	24	115.5	116.3	117.3	24
4/11	106.2	106.7	107.3	24	105.5	105.7	105.9	24	115.0	115.9	116.4	24	112.8	113.2	113.5	24	113.9	114.5	115.1	24
4/12	107.5	108.7	109.4	24	105.7	106.2	106.5	24	115.5	116.4	116.9	24	112.5	112.9	113.1	24	114.3	114.5	114.9	24
4/13	105.3	106.2	107.1	24	106.7	106.9	107.0	24	114.0	115.1	116.1	24	112.5	112.7	113.0	24	113.5	113.9	114.1	24
4/14	105.0	106.0	106.6	24	106.4	106.6	106.7	24	113.1	114.0	115.0	24	111.4	111.7	111.9	24	113.1	113.3	113.5	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			
Date	24 h Avg	12 h Avg	High	# hr	24 h Avg	12 h Avg	High	# hr	24 h Avg	12 h Avg	High	# hr	24 h Avg	12 h Avg	High	# hr	24 h Avg	12 h Avg	High	# hr
4/1	104.1	105.0	105.7	24	109.2	112.5	115.6	24	103.8	104.8	105.5	24	124.0	126.3	126.9	24	---	---	---	0
4/2	105.2	105.7	106.6	24	113.5	116.5	123.2	24	105.2	105.4	105.6	24	119.7	121.4	124.6	24	---	---	---	0
4/3	108.0	109.0	110.9	24	117.1	118.1	118.6	24	105.6	106.5	108.1	24	120.3	121.0	123.5	24	---	---	---	0
4/4	112.4	113.0	113.4	24	117.6	117.9	118.1	24	110.2	110.9	111.4	24	118.7	119.6	120.0	24	---	---	---	0
4/5	113.2	113.4	113.7	24	118.6	119.3	119.7	24	111.3	111.4	111.5	24	119.2	120.2	121.1	24	---	---	---	0
4/6	114.3	114.6	114.9	24	119.7	120.0	120.2	24	111.9	112.2	112.5	24	120.3	121.0	121.4	24	---	---	---	0
4/7	114.4	114.7	115.0	24	119.8	120.0	120.1	24	113.2	113.6	113.9	24	118.8	119.2	120.1	24	---	---	---	0
4/8	115.9	116.6	116.9	24	120.0	120.4	120.7	24	114.3	114.9	115.4	24	118.2	118.8	119.1	24	---	---	---	0
4/9	116.7	116.9	117.1	24	119.3	119.5	119.9	24	116.1	116.4	116.8	24	118.2	118.9	119.3	24	---	---	---	0
4/10	115.4	115.8	116.4	24	117.0	118.5	119.0	24	115.1	115.3	115.9	24	117.9	118.8	119.4	24	---	---	---	0
4/11	115.0	115.3	115.6	24	114.8	115.3	116.2	24	113.9	114.6	115.1	24	117.1	118.1	118.8	24	---	---	---	0
4/12	113.7	114.1	114.4	24	116.9	118.3	119.1	24	113.5	114.0	114.7	24	117.9	119.2	120.4	24	---	---	---	0
4/13	114.9	115.2	115.6	24	118.9	119.1	119.5	24	115.3	115.6	115.7	24	117.6	118.9	120.5	24	---	---	---	0
4/14	113.1	113.5	114.5	24	118.3	119.1	119.4	24	113.9	114.1	114.6	24	117.5	119.0	119.5	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			
Date	24 h Avg	12 h Avg	High	# hr	24 h Avg	12 h Avg	High	# hr	24h Avg	12h Avg	High	# hr	24h Avg	12h Avg	High	# hr	24h Avg	12h AVG	High	# hr
4/1	105.1	106.4	107.4	24	120.5	121.3	121.6	24	105.7	106.7	107.1	24	118.1	120.5	120.7	24	106.5	107.8	110.3	24
4/2	106.4	106.8	107.4	24	120.8	121.0	121.7	24	105.2	105.8	106.4	24	119.8	120.2	120.6	24	109.5	110.2	110.9	24
4/3	105.2	106.0	106.6	24	122.1	122.4	122.6	24	103.5	103.8	104.0	24	120.6	120.7	120.8	24	108.0	109.3	110.5	24
4/4	107.5	108.3	109.7	24	121.7	122.2	123.8	24	106.1	107.4	107.8	24	121.0	121.6	123.9	24	110.7	111.6	112.1	24
4/5	108.4	109.1	110.0	24	122.8	123.2	123.7	24	107.6	108.0	109.0	24	122.5	123.3	123.9	24	113.3	114.1	114.5	24
4/6	108.5	109.1	109.4	24	122.4	122.8	123.1	24	110.9	111.5	111.9	24	121.3	123.2	124.4	24	114.8	116.4	117.1	24
4/7	109.7	110.1	110.7	24	120.8	121.1	121.4	24	111.6	111.8	112.0	24	117.8	119.5	121.1	24	112.0	112.6	112.9	24
4/8	109.3	110.6	111.7	24	119.9	120.0	120.2	24	111.7	112.0	112.3	24	116.1	116.3	116.7	24	110.3	110.6	110.9	24
4/9	111.7	112.0	112.1	24	120.2	121.1	121.4	24	111.8	112.0	112.1	24	119.4	120.7	121.2	24	110.0	110.7	111.4	24
4/10	110.7	111.5	112.1	24	117.9	118.1	118.3	24	112.0	112.6	113.0	24	118.5	119.8	120.3	24	112.8	113.6	114.6	24
4/11	110.2	110.8	111.6	24	117.3	117.7	117.9	24	111.6	112.2	112.7	24	115.7	116.4	117.7	24	111.3	111.8	112.6	24
4/12	110.4	111.6	112.5	24	117.6	118.2	118.4	24	111.2	111.7	112.2	24	116.2	116.9	117.7	24	111.2	112.0	112.6	24
4/13	111.2	111.6	112.0	24	118.2	118.4	118.6	24	112.0	112.2	112.4	24	115.2	116.4	117.2	24	111.5	112.1	112.6	24
4/14	110.1	110.5	110.8	24	117.5	117.8	118.2	24	111.0	111.2	111.4	24	114.6	115.2	116.0	24	110.3	111.0	111.4	24

Total Dissolved Gas Saturation Data at Lower Columbia River Sites

	The Dalles Dnst				Bonneville				Warrendale				Camas\Washougal				Cascade Island			
Date	24 h Avg	12 h Avg	High	# hr	24 h Avg	12 h Avg	High	# hr	24h Avg	12h Avg	High	# hr	24h Avg	12h Avg	High	# hr	24h Avg	12h Avg	High	# hr
4/1	107.6	109.4	111.2	24	106.1	107.4	108.0	24	107.6	109.5	110.1	24	106.0	106.8	107.1	24	114.9	116.9	117.6	24
4/2	112.5	114.3	115.9	24	106.2	106.9	107.8	24	110.2	110.6	110.9	24	107.6	108.0	108.8	24	117.7	118.0	118.4	24
4/3	112.1	113.4	114.4	24	109.5	110.0	110.4	24	115.0	115.7	116.0	24	111.1	114.1	115.1	24	121.4	121.7	122.8	24
4/4	115.3	116.6	119.0	24	112.4	113.6	114.1	24	116.4	116.6	117.0	24	114.7	115.1	115.6	24	121.2	121.5	122.0	24
4/5	119.1	119.8	120.2	24	114.1	114.6	115.8	24	117.9	118.3	118.9	24	114.9	115.8	116.1	24	122.1	122.3	122.6	24
4/6	118.7	119.5	120.2	24	117.7	118.7	118.9	24	119.5	119.8	120.8	24	116.7	117.7	118.2	24	121.7	122.4	122.8	24
4/7	114.4	115.5	116.0	24	116.9	117.8	118.8	24	118.3	119.6	120.3	24	117.7	118.3	118.8	24	121.1	122.7	129.1	24
4/8	112.6	112.9	113.4	24	113.5	114.2	115.1	24	114.6	115.1	115.9	24	115.1	115.8	116.9	24	118.3	118.6	118.8	24
4/9	114.4	115.4	116.0	24	110.8	111.4	112.3	24	112.7	113.0	113.3	24	112.1	112.6	113.5	24	118.2	118.7	118.8	24
4/10	117.4	117.9	118.4	24	111.7	113.3	114.4	24	113.3	114.4	115.1	24	111.0	111.3	112.0	24	118.6	118.7	119.0	24
4/11	116.7	117.0	117.6	24	114.4	114.7	114.9	24	115.0	115.2	115.5	24	112.5	113.1	113.4	24	118.6	118.9	119.2	24
4/12	117.0	117.6	118.2	24	115.3	116.2	116.9	24	116.0	116.6	116.8	24	114.5	115.3	115.6	24	119.4	120.1	120.5	24
4/13	116.9	117.6	118.0	24	116.3	117.0	117.2	24	116.7	117.1	117.3	24	115.1	115.3	115.5	24	120.2	120.5	120.8	24
4/14	116.3	116.9	117.3	24	113.9	114.1	114.4	24	115.1	115.3	115.5	24	113.3	113.7	114.2	24	118.7	119.0	120.0	24

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)
04/01/2011	*	1,928	124	1	822	4,361	---	52	3	---	314	661
04/02/2011	*	1,661	---	35	772	5,172	---	---	4	---	491	770
04/03/2011	*	1,546	---	---	269	9,297	---	---	5	---	566	939
04/04/2011	*	2,240	845	---	300	19,508	1,676	29	9	---	1,301	1,126
04/05/2011	*	2,936	452	255	658	23,869	---	---	3	---	1,722	912
04/06/2011	*	1,004	473	---	492	18,275	---	---	12	---	1,571	1,100
04/07/2011	*	852	---	123	283	28,321	---	31	5	---	1,555	937
04/08/2011	*	849	---	236	269	38,658	---	---	7	---	2,123	1,366
04/09/2011	*	1,074	---	256	92	20,786	11,283	---	9	---	1,849	2,029
04/10/2011	*	415	321	377	153	18,282	---	124	1	---	1,804	1,937
04/11/2011	*	562	---	332	81	29,125	---	---	4	---	2,715	2,168
04/12/2011	*	398	3,382	274	35	17,638	---	---	5	---	3,543	2,111
04/13/2011	*	395	---	471	73	19,765	---	170	4	2,367	3,936	4,041
04/14/2011	*	296	4,855	290	106	25,734	11,964	---	6	---	3,505	1,580
04/15/2011	*	---	---	---	---	---	---	---	---	---	---	---
Total:		**16,156**	**10,452**	**2,650**	**4,405**	**278,791**	**24,923**	**406**	**77**	**2,367**	**26,995**	**21,677**
# Days:		**14**	**7**	**11**	**14**	**14**	**3**	**5**	**14**	**1**	**14**	**14**
Average:		**1,154**	**1,493**	**241**	**315**	**19,914**	**8,308**	**81**	**6**	**2,367**	**1,928**	**1,548**
YTD		**23,521**	**15,456**	**3,275**	**4,624**	**294,332**	**24,923**	**406**	**77**	**2,367**	**26,995**	**44,441**

				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)
04/01/2011	*	0	0	0	2	65	---	0	34	---	4	2,550
04/02/2011	*	0	---	0	0	172	---	---	18	---	0	2,451
04/03/2011	*	0	---	---	0	0	---	---	12	---	0	2,985
04/04/2011	*	0	2	---	1	361	0	0	16	---	6	1,821
04/05/2011	*	0	0	0	0	0	---	---	15	---	0	1,315
04/06/2011	*	0	0	---	1	231	---	---	9	---	7	1,931
04/07/2011	*	0	---	0	0	0	---	0	6	---	22	1,725
04/08/2011	*	0	---	0	1	172	---	---	7	---	10	1,210
04/09/2011	*	0	---	0	0	0	0	---	12	---	64	1,519
04/10/2011	*	0	0	0	2	165	---	0	19	---	92	1,182
04/11/2011	*	0	---	0	2	302	---	---	15	---	143	918
04/12/2011	*	0	0	0	0	0	---	---	14	---	343	1,630
04/13/2011	*	0	---	0	2	147	---	0	33	632	429	933,041
04/14/2011	*	0	0	0	0	0	9	---	18	---	358	526,510
04/15/2011	*	---	---	---	---	---	---	---	---	---	---	---
Total:		**0**	**2**	**0**	**11**	**1,615**	**9**	**0**	**228**	**632**	**1,478**	**1,480,788**
# Days:		**14**	**7**	**11**	**14**	**14**	**3**	**5**	**14**	**1**	**14**	**14**
Average:		**0**	**0**	**0**	**1**	**115**	**3**	**0**	**16**	**632**	**106**	**105,771**
YTD		**9**	**6**	**10**	**45**	**1,727**	**9**	**0**	**228**	**632**	**1,478**	**1,514,992**

Two-Week Summary of Passage Indices

				COMBINED COHO								
		WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date		(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
04/01/2011	*	0	0	0	16	33	---	0	3	---	4	1,305
04/02/2011	*	0	---	0	3	172	---	---	4	---	12	1,005
04/03/2011	*	0	---	---	1	291	---	---	12	---	0	538
04/04/2011	*	0	0	---	2	0	0	0	7	---	24	168
04/05/2011	*	0	0	0	0	341	---	---	9	---	6	95
04/06/2011	*	0	0	---	1	463	---	---	0	---	13	166
04/07/2011	*	0	---	0	2	0	---	0	3	---	14	2,034
04/08/2011	*	0	---	0	1	344	---	---	6	---	27	8,059
04/09/2011	*	0	---	0	1	0	0	---	1	---	49	10,202
04/10/2011	*	0	0	0	0	165	---	0	3	---	0	11,601
04/11/2011	*	0	---	0	0	151	---	---	0	---	0	11,760
04/12/2011	*	0	0	0	0	0	---	---	0	---	0	13,681
04/13/2011	*	0	---	0	0	0	---	0	1	252	0	9,493
04/14/2011	*	0	0	0	2	0	143	---	3	---	0	3,907
04/15/2011	*	---	---	---	---	---	---	---	---	---	---	---
Total:		**0**	**0**	**0**	**29**	**1,960**	**143**	**0**	**52**	**252**	**149**	**74,014**
# Days:		**14**	**7**	**11**	**14**	**14**	**3**	**5**	**14**	**1**	**14**	**14**
Average:		**0**	**0**	**0**	**2**	**140**	**48**	**0**	**4**	**252**	**11**	**5,287**
YTD		**0**	**0**	**0**	**47**	**2,213**	**143**	**0**	**52**	**252**	**149**	**75,330**

				COMBINED STEELHEAD								
		WTB	IMN	GRN	LEW	LGR	LGS	LMN	RIS	MCN	JDA	BO2
Date		(Coll)	(Coll)	(Coll)	(Coll)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)	(INDEX)
04/01/2011	*	2	10	35	31	25,514	---	57	0	---	103	42
04/02/2011	*	1	---	7	17	72,670	---	---	7	---	209	47
04/03/2011	*	6	---	---	23	311,390	---	---	5	---	495	32
04/04/2011	*	6	404	---	12	76,588	182,492	352	4	---	968	84
04/05/2011	*	2	133	38	15	77,063	---	---	2	---	1,644	249
04/06/2011	*	0	168	---	22	47,198	---	---	4	---	2,534	409
04/07/2011	*	0	---	36	8	34,941	---	235	14	---	3,752	320
04/08/2011	*	1	---	18	6	62,025	---	---	4	---	5,725	590
04/09/2011	*	3	---	16	5	18,707	33,353	---	4	---	10,254	887
04/10/2011	*	4	117	13	5	31,788	---	219	0	---	22,082	1,152
04/11/2011	*	12	---	5	3	17,354	---	---	3	---	23,466	995
04/12/2011	*	30	37	11	6	18,971	---	---	2	---	29,487	1,817
04/13/2011	*	20	---	57	5	13,598	---	133	3	27,273	25,332	1,379
04/14/2011	*	43	25	118	21	15,772	7,064	---	2	---	23,818	2,161
04/15/2011	*	---	---	---	---	---	---	---	---	---	---	---
Total:		**130**	**894**	**354**	**179**	**823,579**	**222,909**	**996**	**54**	**27,273**	**149,869**	**10,164**
# Days:		**14**	**7**	**11**	**14**	**14**	**3**	**5**	**14**	**1**	**14**	**14**
Average:		**9**	**128**	**32**	**13**	**58,827**	**74,303**	**199**	**4**	**27,273**	**10,705**	**726**
YTD		**136**	**1,589**	**386**	**185**	**856,243**	**222,909**	**996**	**54**	**27,273**	**149,869**	**10,420**

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)
04/01/2011	*	0	0	0	0	1,204	---	71	0	---	9	0
04/02/2011	*	0	---	0	0	1,293	---	---	0	---	0	9
04/03/2011	*	0	---	---	0	2,034	---	---	0	---	12	21
04/04/2011	*	0	0	---	0	2,890	2,351	35	0	---	18	0
04/05/2011	*	0	0	0	0	2,046	---	---	0	---	19	0
04/06/2011	*	0	0	---	0	1,388	---	---	0	---	60	38
04/07/2011	*	0	---	0	0	736	---	21	0	---	36	12
04/08/2011	*	0	---	0	0	0	---	---	0	---	71	93
04/09/2011	*	0	---	0	0	799	874	---	1	---	96	179
04/10/2011	*	0	0	0	0	1,153	---	62	0	---	275	116
04/11/2011	*	0	---	0	0	453	---	---	0	---	286	153
04/12/2011	*	0	0	0	0	593	---	---	0	---	104	107
04/13/2011	*	0	---	0	0	441	---	45	3	674	429	247
04/14/2011	*	0	0	0	0	968	429	---	0	---	429	0
04/15/2011	*	---	---	---	---	---	---	---	---	---	---	---
Total:		**0**	**0**	**0**	**0**	**15,998**	**3,654**	**234**	**4**	**674**	**1,844**	**975**
# Days:		**14**	**7**	**11**	**14**	**14**	**3**	**5**	**14**	**1**	**14**	**14**
Average:		**0**	**0**	**0**	**0**	**1,143**	**1,218**	**47**	**0**	**674**	**132**	**70**
YTD		**0**	**0**	**0**	**0**	**20,937**	**3,654**	**234**	**4**	**674**	**1,844**	**1,201**

				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)
04/01/2011	*	0	0	0	0	50	---	0	4	---	636	120
04/02/2011	*	0	---	0	0	100	---	---	10	---	376	116
04/03/2011	*	0	---	---	0	0	---	---	1	---	1,392	68
04/04/2011	*	0	0	---	0	0	550	0	3	---	2,400	60
04/05/2011	*	0	0	0	0	400	---	---	4	---	4,760	40
04/06/2011	*	0	0	---	0	710	---	---	2	---	2,128	96
04/07/2011	*	0	---	0	0	1,000	---	0	0	---	4,819	60
04/08/2011	*	0	---	0	0	500	---	---	1	---	5,946	204
04/09/2011	*	0	---	0	0	300	2,001	---	0	---	4,650	308
04/10/2011	*	0	0	0	0	200	---	0	1	---	10,060	438
04/11/2011	*	0	---	0	0	0	---	---	0	---	12,867	560
04/12/2011	*	0	0	0	0	0	---	---	0	---	12,127	1,170
04/13/2011	*	0	---	0	0	0	---	0	0	6,100	6,250	1,994
04/14/2011	*	0	0	0	0	0	100	---	0	---	8,650	4,171
04/15/2011	*	---	---	---	---	---	---	---	---	---	---	---
Total:		**0**	**0**	**0**	**0**	**3,260**	**2,651**	**0**	**26**	**6,100**	**77,061**	**9,405**
# Days:		**14**	**7**	**11**	**14**	**14**	**3**	**5**	**14**	**1**	**14**	**14**
Average:		**0**	**0**	**0**	**0**	**233**	**884**	**0**	**2**	**6,100**	**5,504**	**672**
YTD		**0**	**0**	**0**	**0**	**3,327**	**2,651**	**0**	**26**	**6,100**	**77,061**	**12,694**

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.

Cumulative Adult Passage at Mainstem Dams Through: 04/14

		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	**04/14**	**900**	**0**	**15348**	**47**	**28186**	**53**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
TDA	**04/14**	**198**	**0**	**7261**	**12**	**13591**	**12**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
JDA	**04/14**	**127**	**0**	**4412**	**16**	**8560**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
MCN	**04/14**	**73**	**0**	**1014**	**12**	**4788**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
IHR	**04/14**	**49**	**0**	**497**	**7**	**2426**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
LMN	**04/14**	**11**	**0**	**146**	**2**	**1324**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
LGS	**04/14**	**12**	**0**	**26**	**0**	**741**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
LGR	**04/14**	**7**	**0**	**11**	**0**	**383**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
PRD	**--**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
RIS	**--**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
RRH	**--**	**0**	**0**	**0**	**0**	**0**	**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	**04/12**	**61**	**0**	**425**	**0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**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**	**0**	**0**	**0**	**1685**	**2821**	**1702**	**731**
TDA	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**845**	**1097**	**774**	**500**
JDA	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1872**	**1107**	**1601**	**1188**
MCN	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1712**	**1011**	**1337**	**1031**
IHR	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1602**	**1770**	**1709**	**505**
LMN	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1758**	**2003**	**1822**	**782**
LGS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3194**	**1348**	**1768**	**1399**
LGR	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**9473**	**8043**	**7851**	**3892**
PRD	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
RIS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
RRH	**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**
WFA	**0**	**0**	**0**	**0**	**-**	**-**	**-**	**-**	**-**	**6377**	**7125**	**-**	**-**

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: 04/14/11

BON counts from January 1, 2009 to March 15, 2010 (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

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											
	04/12/11	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
Little Goose Dam											
	04/08/11	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
	04/13/11	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
Lower Monumental Dam											
	04/07/11	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
Bonneville Dam											
	04/09/11	Chinook + Steelhead	63	1	1	1.59%	0.00%	0	1	0	0
	04/12/11	Chinook + Steelhead	100	1	1	1.00%	0.00%	1	0	0	0

Two Week Transportation Summary

Source: Fish Passage Center Updated: 4/15/11 9:18 AM

04/01/11 TO 04/15/11

		Species					
Site	Data	**CH0**	**CH1**	CO	ST	SO	**Grand Total**
LGR	Sum of NumberCollected	968	170,668	1,116	469,302	9,561	651,615
	Sum of NumberBarged	99	22,244	160	36,326	1,064	59,893
	Sum of NumberBypassed	867	148,393	956	432,961	8,453	591,630
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of SampleMorts	2	11	0	11	20	44
	Sum of FacilityMorts	0	20	0	4	24	48
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	2	31	0	15	44	92
LGS	Sum of NumberCollected		17,425	100	164,132	2,658	184,315
	Sum of NumberBarged		0	0	0	0	0
	Sum of NumberBypassed		17,422	100	164,127	2,649	184,298
	Sum of Numbertrucked		0	0	0	0	0
	Sum of SampleMorts		1	0	0	1	2
	Sum of FacilityMorts		2	0	5	8	15
	Sum of ResearchMorts		0	0	0	0	0
	Sum of TotalProjectMorts		3	0	5	9	17
LMN	Sum of NumberCollected		248		663	156	1,067
	Sum of NumberBarged		0		0	0	0
	Sum of NumberBypassed		248		663	156	1,067
	Sum of Numbertrucked		0		0	0	0
	Sum of SampleMorts		0		0	0	0
	Sum of FacilityMorts		0		0	0	0
	Sum of ResearchMorts		0		0	0	0
	Sum of TotalProjectMorts		0		0	0	0
MCN	Sum of NumberCollected	301	1,127	120	12,983	321	14,852
	Sum of NumberBarged	0	0	0	0	0	0
	Sum of NumberBypassed	296	1,119	120	12,979	320	14,834
	Sum of Numbertrucked	0	0	0	0	0	0
	Sum of SampleMorts	4	1	0	1	0	6
	Sum of FacilityMorts	1	7	0	3	1	12
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	5	8	0	4	1	18
Total Sum of NumberCollected		1,269	189,468	1,336	647,080	12,696	851,849
Total Sum of NumberBarged		99	22,244	160	36,326	1,064	59,893
Total Sum of NumberBypassed		1,163	167,182	1,176	610,730	11,578	791,829
Total Sum of Numbertrucked		0	0	0	0	0	0
Total Sum of SampleMorts		6	13	0	12	21	52
Total Sum of FacilityMorts		1	29	0	12	33	75
Total Sum of ResearchMorts		0	0	0	0	0	0
Total Sum of TotalProjectMorts		7	42	0	24	54	127

YTD Transportation Summary

Source: Fish Passage Center Updated: 4/15/11 9:19 AM

TO: 04/15/11

		Species					
Site	Data	**CH0**	**CH1**	CO	SO	ST	**Grand Total**
LGR	Sum of NumberCollected	1,075	185,403	1,359	14,389	500,401	702,627
	Sum of NumberBarged	99	22,244	160	1,064	36,326	59,893
	Sum of NumberBypassed	970	163,121	1,198	13,252	464,056	642,597
	Sum of NumberTrucked	0	0	0	0	0	0
	Sum of SampleMorts	6	18	1	48	15	88
	Sum of FacilityMorts	0	20	0	25	4	49
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	6	38	1	73	19	137
LGS	Sum of NumberCollected		17,425	100	2,658	164,132	184,315
	Sum of NumberBarged		0	0	0	0	0
	Sum of NumberBypassed		17,422	100	2,649	164,127	184,298
	Sum of NumberTrucked		0	0	0	0	0
	Sum of SampleMorts		1	0	1	0	2
	Sum of FacilityMorts		2	0	8	5	15
	Sum of ResearchMorts		0	0	0	0	0
	Sum of TotalProjectMorts		3	0	9	5	17
LMN	Sum of NumberCollected		248		156	663	1,067
	Sum of NumberBarged		0		0	0	0
	Sum of NumberBypassed		248		156	663	1,067
	Sum of NumberTrucked		0		0	0	0
	Sum of SampleMorts		0		0	0	0
	Sum of FacilityMorts		0		0	0	0
	Sum of ResearchMorts		0		0	0	0
	Sum of TotalProjectMorts		0		0	0	0
MCN	Sum of NumberCollected	301	1,127	120	321	12,983	14,852
	Sum of NumberBarged	0	0	0	0	0	0
	Sum of NumberBypassed	296	1,119	120	320	12,979	14,834
	Sum of NumberTrucked	0	0	0	0	0	0
	Sum of SampleMorts	4	1	0	0	1	6
	Sum of FacilityMorts	1	7	0	1	3	12
	Sum of ResearchMorts	0	0	0	0	0	0
	Sum of TotalProjectMorts	5	8	0	1	4	18
Total Sum of NumberCollected		1,376	204,203	1,579	17,524	678,179	902,861
Total Sum of NumberBarged		99	22,244	160	1,064	36,326	59,893
Total Sum of NumberBypassed		1,266	181,910	1,418	16,377	641,825	842,796
Total Sum of NumberTrucked		0	0	0	0	0	0
Total Sum of SampleMorts		10	20	1	49	16	96
Total Sum of FacilityMorts		1	29	0	34	12	76
Total Sum of ResearchMorts		0	0	0	0	0	0
Total Sum of TotalProjectMorts		11	49	1	83	28	172