



# Fish Passage Center

## Weekly Report #10 - 06

April 23, 2010

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### Summary of Events:

**Water Supply:** Precipitation throughout the Columbia Basin has varied between 85% and 151% of average at individual sub-basins over April. Precipitation above The Dalles has been 102% of average over April. Over the 2010 water year, precipitation has ranged between 72% and 87% 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 2010 April 1-19		Water Year 2010 October 1, 2009 to April 19, 2010	
	Observed (inches)	% Average	Observed (inches)	% Average
	Columbia Above Coulee	1.06	101	11.91
Snake River Above Ice Harbor	0.88	95	9.00	80
Columbia Above The Dalles	1.06	102	12.40	81
Kootenai	1.01	91	12.68	81
Clark Fork	0.86	109	7.05	72
Flathead	1.30	130	10.77	82
Pend Oreille/Spokane	1.33	93	16.34	76
Central Washington	0.61	151	5.49	87
Snake River Plain	0.56	85	5.35	79
Salmon/Boise/Payette	0.92	90	11.45	83
Clearwater	1.47	87	15.45	76
SW Washington Cascades/ Cowlitz	3.40	100	47.43	83
Willamette Valley	3.84	125	40.91	85

Snowpack within the Columbia Basin has been below average. Average snowpack in the Columbia River for basins above the Snake River confluence is 68% of average, for Snake River Basins the average snowpack is 64% of average, and for lower Columbia Basins between McNary and Bonneville Dam average snowpack is 69% of average.

Table 2 displays the April Final and April Mid-Month runoff volume forecasts for multiple reservoirs. The current forecast at The Dalles between January and July is 68800 Kaf (64% of average).

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

Location	April Final		April Mid-Month	
	% Average (1971 -2000)	Probable Runoff Volume (Kaf)	% Average (1971 -2000)	Probable Runoff Volume (Kaf)
The Dalles (Jan-July)	65	69700	64	68800
Grand Coulee (Jan-July)	73	46000	72	45600
Libby Res. Inflow, MT (Apr-Aug)	68 81*	4270 5103*	68	4260
Hungry Horse Res. Inflow, MT (Jan-July)	69	1540	68	1510
Lower Granite Res. Inflow (Apr- July)	56	12000	54	11700
Brownlee Res. Inflow (Apr-July)	41	2590	40	2540
Dworshak Res. Inflow (Apr-July)	50 52*	1330 1398*	49	1300

\* 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 85 Kcfs at Lower Granite. Flows at Lower Granite Dam from April 3-22 have averaged 34.3 Kcfs. Flows at Lower Granite have been increasing over the last week with flows reaching 62.6 Kcfs as a day average on April 22, 2010.

The Biological Opinion flow period began on April 10th in the mid and lower Columbia River (Priest Rapids and McNary Dams). According to the April Final Water Supply Forecast, the flow objective this spring is 220 Kcfs at McNary and 135 Kcfs at Priest Rapids. Flows from April 10-22 have averaged 110.8 Kcfs at McNary Dam and 68.7 Kcfs at Priest Rapids Dam. Outflows from Grand Coulee were increased on April 20, 2010 in attempt to achieve flows of 90 Kcfs at Priest Rapids Dam. On April 22, 2010 flows at Priest Rapids Dam were 97.3 Kcfs and flows at McNary reached 169.6 Kcfs.

Grand Coulee Reservoir is at 1270.0 feet (4-22-10) and drafted 3.2 feet over the last week. Outflows at Grand Coulee have ranged between 48.1 and 82.9 Kcfs over the last week. The end of April FC elevation at Grand Coulee is 1283.3 feet.

The Libby Reservoir is currently at elevation 2403.4 feet (4-22-10) and has refilled 0.9 feet last week. Outflows at Libby are currently 4.0 Kcfs. The end of April FC Elevation at Libby is 2447.5 feet.

Hungry Horse is currently at an elevation of 3524.0 feet (4-22-10) and has refilled 3.7 feet last week. Outflows at Hungry Horse have been approximately 0.8-1.3 Kcfs last week. The end of April FC Elevation at Hungry Horse is 3555.1 feet.

Dworshak is currently at an elevation of 1538.8 feet (4-22-10) and has refilled approximately 6.8 feet last week, inflows to Dworshak increased to 14 Kcfs on April 22, 2010. Over the last week outflows at Dworshak were 1.2 Kcfs. The end of April System FC Elevation at Dworshak is 1597.4 feet.

The Brownlee Reservoir was at an elevation of 2067.4 feet on April 22, 2010 refilling 4.5 feet last week. The end of April FC Elevation at Brownlee is 2077 feet.

Over the last week, outflows at Brownlee have ranged between 10.8-15.6 Kcfs.

**Spill:**

The 2010 planned spring spill program at the lower Snake River Projects began on April 3 at 0001 hours. The following table shows the planned

operations for spring 2010.

<b>Project</b>	<b>Day/Night Spill</b>
Lower Granite	20Kcfs/20Kcfs
Little Goose	30%/30%
Lower Monumental	Gas Cap/Gas Cap
Ice Harbor	April 3-April 28: 45 kcfs/Gas Cap April 28-June 20: 30%/30% vs. 45 kcfs/Gas Cap

Flows have increased over the past week in the Snake River and more projects have achieved their planned spill levels. Spill at Lower Granite Dam met the 20 Kcfs instantaneous level. Spill at Little Goose Dam achieved the 30% of instantaneous flow and has ranged from a daily average of 9.6 to 18.8 Kcfs. Spill to the gas cap at Lower Monumental Dam has been constrained based on the TDG at the downstream forebay monitor at Ice Harbor Dam. Daily average spill varied between 16.9 and 24.3 Kcfs over the past week. Spill at Ice Harbor Dam occurred as all flow in excess of that required to operate one turbine unit until midday on April 21<sup>st</sup>. Presently, the project is spilling 45 Kcfs during daytime hours, and all flow in excess of that required to operate one turbine unit during nighttime hours.

The 2010 spill program at the lower Columbia River projects began at 0001 hours on April 10<sup>th</sup>. The following table shows the planned operations for spring 2010.

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

The planned spill levels have been met at McNary, John Day and The Dalles dams, since spill is provided as a percentage of total flow. However, spill at Bonneville Dam did not meet the planned spill levels due to low flows and total dissolved gas constraints. On April 15 the Action Agencies proposed the following operation at Bonneville Dam in response to elevated TDG at the Camas/Washougal gage: “operate

Bonneville Dam with a spill cap of 75 kcfs and continue to manage to the Camas-Washougal and Cascade Island gages. The 75 kcfs spill cap will be reconsidered if Camas-Washougal or Cascade Island readings exceed 120% TDG. In that case, the spill cap would be reduced accordingly. Once TDG levels measured at Camas-Washougal return to within state standards, the gas cap will be adjusted according to normal business practices to remain within state water quality standards. This proposed operation is in response to the unusual conditions present at the project. The Corps believes these conditions may persist until mid-next week (~April 23).”

Although it is not a point of compliance for the TDG waiver, when the TDG at the Camas/Washougal gage decreased to below 115% on April 21<sup>st</sup>, the Corps gradually increased spill and it was near 100 Kcfs on the 22<sup>nd</sup>.

At present, GBT monitoring is being implemented with some sites collecting too few fish to meet their target sample numbers. However, no sites reported signs of fin GBT this past week.

All total dissolved gas levels have been below the waiver amounts over the past week at the required monitoring sites, with the exception of the Ice Harbor forebay. The TDG levels at this site decreased to less than the 115% by April 22<sup>nd</sup>.

#### **Smolt Monitoring:**

Fish collections at most dams have remained relatively low over the last two weeks of sampling. Collections at Lower Granite Dam have begun to increase rapidly over the past few days coinciding with a modest increase in flows out of the Snake River tributaries that reached Lower Granite in the past few days. Flows in the Snake River tributaries rose to an early season peak on April 22 and 23. Bonneville Dam and Rock Island Dam are the only dams where smolt collections have been near normal numbers. At the SMP traps large numbers of smolts have been collected over the last few weeks of sampling as tributary hatchery populations emigrate toward the hydro-system.

At the Salmon River Trap, located at River km 103, and operated by Idaho Department of Fish and Game, sampling began on March 7. Over the past week a large increase in collections occurred as flows increased in the Salmon River. More than 90 percent of the Chinook collected at the trap were clipped—indicating hatchery origin. PIT-tag detections indicate the releases from McCall and Rapid River hatcheries were both passing the trap at that time. Steelhead

collections increased this week with 186 in the sample on April 20; most of the steelhead were fin clipped as well. Flows in the Salmon River at White Bird have increased rapidly over the past week. Flows exceeded historic median on April 19, and were 72% above normal on April 23, when flows reached 23 kcfs. Historically median flows ranged between 10000 and 13000 cfs for this time period.

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 two weeks the collections have increased rapidly, with a peak collection for the year of 3,574 yearling Chinook on April 22. Hatchery origin yearling Chinook continued to predominate in the catch over the past week, with more than 80% either adipose clipped or coded wire tagged. Flows in the Grande Ronde River have increased rapidly this past week, with flows reaching and exceeding historic median flows on April 22, with flows near 7000 cfs on April 23. Historic median flows for the April 23 were about 6200 cfs.

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 has been collecting relatively large numbers of yearling Chinook the past two weeks. Flows in the Imnaha have increased to nearly twice historic median for this time of year and the trap has been collecting large amounts of debris as well as fish. The collection has been nearly 100% hatchery origin fish the past several days. A small portion of the collection was wild origin, since the hatchery release above the trap was 100% adipose clipped fish. Flows in the Imnaha River rose to over 2000 cfs on April 21. The median historic flows for this date were 900 cfs, as measured at the gage at river mile 19.3.

Collections at the Lewiston Trap, operated by IDFG, increased substantially on April 22, when over 1,200 yearling Chinook were sampled. Since the trap fishes best at higher flows, it is not surprising that catch has increased with the increase in flows. Snake River flows measured at Anatone Gage, were just over 50 kcfs on April 23, and were forecast to recede over the next few days.

Collections at Lower Granite Dam have increased rapidly over the past week. Passage indices remained below 1000 yearling Chinook per day through April 18, and then increased to a daily index of over

30,000 on April 23. Based on PIT-tag detections most of the yearling spring Chinook were from the Clearwater basin releases; Dworshak and Clear Creek on the Selway River, being the largest sources of detected fish. A large number of yearling fall Chinook released from acclimation sites were also detected in the past few days. And a small number of holdover fall Chinook were also detected – fish released as subyearling fall Chinook in July of 2009.

At Bonneville Dam the largest collections over the past two weeks have been subyearling Chinook, as the recent Spring Creek Hatchery release passed. But hatchery yearling Chinook predominated in the sample. Based on PIT-tags these fish appear to be a combination of releases from Little White Salmon, Carson, Warm Springs, and Klickitat Hatcheries. At Rock Island Dam, unclipped sockeye and Chinook fry continued to predominate in the sample the past week. Small but increasing numbers of yearling Chinook and steelhead were captured over the past week. Sockeye collections peaked at over 680 fish on April 20.

#### **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. The volitional release of about 2.5 million yearling spring Chinook from Rapid River Hatchery was scheduled to end this week. This release began on March 5<sup>th</sup>. In addition, 404,000 yearling spring Chinook juveniles were scheduled for release into Yankee Fork of the Salmon River on April 19<sup>th</sup>. Several releases of summer steelhead that began last week were scheduled to end this week. In all, these releases totaled nearly 503,000 and took place throughout the Snake River Zone. In addition to these past releases, nearly 1.82 million summer steelhead were scheduled for release this week. Of these, 1.24 million were reared at Dworshak NFH and were to be released into the Clearwater River and its tributaries. The remaining 575,000 were reared at Magic Valley Hatchery and were to be released into tributaries of the Salmon River.

Approximately 1 million subyearling fall Chinook are scheduled for release into the Snake River, below Hells Canyon Dam, in early May. These subyearling fall Chinook were reared at Umatilla Hatchery in Oregon (800,000) and Oxbow Hatchery in Idaho (200,000). Also scheduled for release in early May are approximately 179,000 sockeye smolts. Of these sockeye smolts, about 63% will be released into the Salmon River while the remaining 37% are to be

released into Redfish Lake Creek. This year is the first year that these sockeye smolts are not adipose clipped. However, they are all tagged with coded-wire-tags. There are several releases of summer steelhead scheduled to begin over the next two weeks. In all, these releases are expected to total over 1.31 million summer steelhead juveniles. Nearly all of these steelhead are scheduled for release above Lower Granite Dam into the Salmon (692,338), Wallowa (332,000), Imnaha (182,000), and Pahsimeroi (96,000) rivers. About 9,500 of the total summer steelhead scheduled for release over the next two weeks are to be released below Little Goose Dam, into the Tucannon River.

**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 1.2 million subyearling fall Chinook were scheduled for release into the Yakima River this week. These fall Chinook juveniles were reared at Little White Salmon NFH and transferred to the Prosser Acclimation Ponds for acclimation and release. In addition, nearly 1.8 million yearling spring Chinook were scheduled for release into this zone this week. Of these, 1.25 million were to be released from Leavenworth NFH into the Wenatchee River. The remaining 541,000 were to be released from the Methow Hatchery into the Methow River. The spring Chinook juveniles released into the Methow River are all unclipped but are marked with coded-wire-tags. Methow Hatchery was also scheduled to release approximately 400,000 yearling summer Chinook into the Methow River. These summer Chinook juveniles were acclimated in the Carlton Acclimation Ponds and are 100% adipose clipped.

Several volitional releases of coho to the Yakima and Mid-Columbia rivers that began last week continued this week. These volitional coho releases are expected to run through late May or early June. Finally, about 385,000 summer steelhead juveniles were scheduled for release into the Mid-Columbia zone this week. Of these, about 280,000 were scheduled for release into the Methow River while 105,000 were scheduled for release into the Okanogan River.

Approximately 202,000 subyearling summer Chinook are scheduled for release into the Naches River, a tributary of the Yakima River, on April 29<sup>th</sup>. In addition, over 1.2 million yearling summer Chinook are scheduled for release into this zone over the next two weeks. Of these, 950,000 are to be released into

the Wenatchee River while 257,000 are to be released directly into the Mid-Columbia River. There are also many releases of yearling summer Chinook that began in early to mid-April that are scheduled to end over the next two weeks. About 150,000 yearling spring Chinook are scheduled for release into the Wenatchee River, beginning May 1<sup>st</sup>.

Several Yakama Tribal releases of coho to the Wenatchee and Methow rivers are scheduled to begin over the next two weeks. In all, over 912,000 coho juveniles are scheduled to be released into the Wenatchee River over the next two weeks, while over 408,000 are scheduled for release into the Methow River. Finally, about 800,000 summer steelhead are scheduled for release into this zone over the next two weeks. Of these, about 415,000 are to be released into the Wenatchee River, 280,000 are to be released into the Methow River, and 105,000 are to be released into the Okanogan River.

**Lower Columbia Zone:** The Lower Columbia Zone is defined as the Columbia River and its tributaries from Bonneville Dam to McNary Dam. A volitional release of 700,000 coho juveniles to the Umatilla River, which began in late March, was scheduled to end this week. These coho juveniles were released from the Pendleton Acclimation Facility. In addition, nearly 110,000 summer steelhead were scheduled for release this week into the Umatilla River. These are volitional releases from two acclimation facilities on the Umatilla River and which are expected to run through April 27<sup>th</sup>.

Beginning on or around April 26<sup>th</sup>, approximately 150,000 yearling spring Chinook juveniles will be released into Hood River. These releases are to occur from several acclimation facilities on Hood River. Approximately 764,000 summer steelhead are scheduled for release into the Lower Columbia River Zone over the next two weeks. About 600,000 of these summer steelhead are scheduled for release into the Deschutes River, beginning May 1<sup>st</sup>. The remaining 164,000 are to be released to the Klickitat (55%), Umatilla (30%), and White Salmon (15%) rivers. In addition, about 57,500 winter steelhead are scheduled for release to this zone over the next two weeks. Of these, 37,500 are scheduled for release into Hood River while 20,000 are scheduled for release into the White Salmon River.

**Adult Fish Passage:**

Adult counts at Bonneville Dam have been updated through April 21<sup>st</sup>. Daily adult spring Chinook counts at Bonneville Dam ranged from 6528 to 11697

adult salmon per day. Between March 15<sup>th</sup> and April 21<sup>st</sup>, 68371 spring Chinook have been counted at Bonneville Dam. In 2009, 4353 adult spring Chinook were counted at Bonneville Dam for the same time period. The 2010 adult spring Chinook count at Bonneville Dam is about 15.7 times greater than the 2009 count. The Bonneville spring Chinook adult count is about 1.18 times greater than the 10 year average of 57799. At Willamette Falls Dam 3977 adult spring Chinook have been counted so far this year. At The Dalles Dam the 2010 adult spring Chinook count is 35107 and at McNary Dam 13556 adult spring Chinook have been counted. The Dalles Dam 2010 adult spring Chinook count is about 31.5 times greater than the 2009 count of 1115 and is about 1.07 times greater than the 10 year average of 32863. The 2010 McNary Dam adult spring Chinook count is 75.3 times greater than the 2009 count of 180. However, it is about 88.4% of the 10 year average count of 15336.

The Bonneville Dam 2010 steelhead count of 3506 is about 2 times greater than the 2009 count of 1753. The 2010 steelhead count is about 1.85 times greater than the 10-year average of 1889. 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 110 to 161 adults per day last week. This year's Lower Granite steelhead count of 8993 is about 96% of the 2009 count of 9363 and 1.14 times greater than the 10 year average of 7886. The 2010 Lower Granite wild steelhead count as of April 21<sup>st</sup> was 3272. At Rock Island Dam, as of April 21<sup>st</sup>, 48 adult steelhead have been counted and at Rocky Reach Dam, 147 adult steelhead have been counted so far this season. At Willamette Falls Dam, the 2010 count for steelhead was 6927, as of April 18<sup>th</sup>. This year's steelhead count is about 2.7 times greater than the 2009 count of 2603 at Willamette Falls Dam for the same date range.

### Hatchery Releases Last Two Weeks

**Hatchery Release Summary**

From: 4/9/2010 to 04/22/10

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
Colville Tribe	Ringold Springs Hatchery	CH1	SU	2010	190,000	04-10-10	04-30-10	Bonaparte Acclimation Pond	Okanogan River
<b>Colville Tribe Total</b>					<b>190,000</b>				
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SP	2010	229,600	03-23-10	04-14-10	Clear Creek	Clearwater River M F
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SP	2010	413,300	03-23-10	04-14-10	Powell Acclim Pond	Lochsa River
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SP	2010	1,209,150	03-23-10	04-14-10	Red River	S Fk Clearwater River
Idaho Dept. of Fish and Game	Clearwater Hatchery	ST	SU	2010	144,900	04-15-10	04-26-10	Clear Creek	Clearwater River M F
Idaho Dept. of Fish and Game	Clearwater Hatchery	ST	SU	2010	176,400	04-15-10	04-26-10	S Fk Clearwater River Redhouse (SFk	Clearwater River M F
Idaho Dept. of Fish and Game	Clearwater Hatchery	ST	SU	2010	186,600	04-15-10	04-26-10	ClearH20 R)	S Fk Clearwater River
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2010	182,902	04-09-10	04-13-10	Little Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2010	250,000	04-21-10	04-23-10	Squaw Cr Acclim Pond	Salmon River (ID)
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2010	279,671	04-13-10	04-15-10	Little Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2010	325,000	04-19-10	04-21-10	East Fk Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Game	Niagara Springs	ST	SU	2010	830,000	04-12-10	05-03-10	Pahsimeroi River	Pahsimeroi River
Idaho Dept. of Fish and Game	Rapid River Hatchery	CH1	SP	2010	2,500,000	03-05-10	04-23-10	Rapid River Hatchery	Little Salmon River
Idaho Dept. of Fish and Game	Sawtooth Hatchery	CH1	SP	2010	404,000	04-19-10	04-23-10	Yankee Fk (Salmon R)	Salmon River (ID)
<b>Idaho Dept. of Fish and Game Total</b>					<b>7,131,523</b>				
Nez Perce Tribe	Clearwater Hatchery	CH1	SP	2010	402,300	04-01-10	04-10-10	Meadow Creek - SELW	Selway River
Nez Perce Tribe	Clearwater Hatchery	ST	SU	2010	85,600	04-10-10	04-20-10	Crooked River	S Fk Clearwater River
Nez Perce Tribe	Clearwater Hatchery	ST	SU	2010	103,700	04-13-10	04-17-10	Newsome Creek	S Fk Clearwater River
Nez Perce Tribe	Clearwater Hatchery	ST	SU	2010	153,500	04-10-10	04-20-10	Red River	S Fk Clearwater River
Nez Perce Tribe	Dworshak NFH	ST	SU	2010	60,000	04-19-10	04-19-10	Lolo Creek	Clearwater River M F
Nez Perce Tribe	Dworshak NFH	ST	SU	2010	150,000	04-19-10	04-19-10	S Fk Clearwater River	Clearwater River M F
Nez Perce Tribe	Lookingglass Hatchery	CH1	SP	2010	124,000	04-10-10	04-11-10	Lostine Accim Pond	Wallowa River
Nez Perce Tribe	Lyons Ferry Hatchery	CH1	FA	2010	140,000	04-14-10	04-15-10	Pittsburg Landing Acclim Pond	Snake River
Nez Perce Tribe	Lyons Ferry Hatchery	CH1	FA	2010	150,000	04-15-10	04-15-10	Big Canyon (Clearwater River)	Clearwater River M F
Nez Perce Tribe	Nez Perce Tribal Hatchery	CH1	SP	2010	200,000	04-01-10	04-15-10	Nez Perce Tribal Hatchery	Clearwater River M F
Nez Perce Tribe	Nez Perce Tribal Hatchery	CO	UN	2011	30,000	04-01-10	04-30-10	Orofino Creek	Clearwater River M F
<b>Nez Perce Tribe Total</b>					<b>1,599,100</b>				
Oregon Dept. of Fish and Wildlife	Irrigon Hatchery Complex	ST	SU	2010	156,000	04-16-10	04-16-10	Big Canyon Acclim.Pd (Grande Ronde)	Grande Ronde River
Oregon Dept. of Fish and Wildlife	Lookingglass Hatchery	CH1	SP	2010	262,911	03-31-10	04-14-10	Lookingglass Creek	Grande Ronde River
Oregon Dept. of Fish and Wildlife	Lookingglass Hatchery	CH1	SP	2010	390,064	04-01-10	04-14-10	Imnaha Acclim Pond	Imnaha River
Oregon Dept. of Fish and Wildlife	Round Butte Hatchery	CH1	SP	2010	212,760	04-13-10	06-01-10	Deschutes River	Deschutes River
Oregon Dept. of Fish and Wildlife	Round Butte Hatchery	ST	SU	2010	14,500	04-15-10	04-15-10	Deschutes River	Deschutes River
Oregon Dept. of Fish and Wildlife	Wizard Falls Hatchery	CH1	SP	2010	19,500	04-15-10	04-15-10	Deschutes River	Deschutes River
<b>Oregon Dept. of Fish and Wildlife Total</b>					<b>1,055,735</b>				
U.S. Fish and Wildlife Service	Carson NFH	CH1	SP	2010	1,278,702	04-13-10	04-13-10	Carson Hatchery	Wind River
U.S. Fish and Wildlife Service	Dworshak NFH	ST	SU	2010	1,030,000	04-19-10	04-19-10	Dworshak Hatchery	Clearwater River M F
U.S. Fish and Wildlife Service	Hagerman NFH	ST	SU	2010	69,869	04-12-10	04-12-10	Salmon River (ID)	Salmon River (ID)
U.S. Fish and Wildlife Service	Hagerman NFH	ST	SU	2010	833,919	04-13-10	04-28-10	Salmon River (ID)	Salmon River (ID)
U.S. Fish and Wildlife Service	Leavenworth NFH	CH1	SP	2010	1,250,000	04-22-10	04-22-10	Leavenworth Hatchery	Wenatchee River
U.S. Fish and Wildlife Service	Little White Salmon NFH	CH0	FA	2010	1,700,000	04-15-10	04-15-10	Little White Salmon Hatchery	Little White Salmon River
U.S. Fish and Wildlife Service	Little White Salmon NFH	CH1	SP	2010	575,000	04-15-10	04-15-10	Little White Salmon Hatchery	Little White Salmon River
U.S. Fish and Wildlife Service	Spring Creek NFH	CH0	FA	2010	6,200,388	04-12-10	04-12-10	Spring Creek Hatchery	L Col R (D/s McN Dam)
U.S. Fish and Wildlife Service	Winthrop NFH	CH1	SP	2010	505,000	04-15-10	04-15-10	Winthrop Hatchery	Methow River
U.S. Fish and Wildlife Service	Winthrop NFH	ST	SU	2010	29,000	04-20-10	04-30-10	Winthrop Hatchery	Methow River
U.S. Fish and Wildlife Service	Winthrop NFH	ST	SU	2010	71,000	04-20-10	04-30-10	Winthrop Hatchery	Methow River
<b>U.S. Fish and Wildlife Service Total</b>					<b>13,542,878</b>				

**Hatchery Releases Last Two Weeks (Continued)**

Umatilla Tribe	Cascade Hatchery	CO	UN	2010	770,000	03-29-10	04-20-10	Pendelton Acclim Pond Catherine Cr Acclim	Umatilla River
Umatilla Tribe	Lookingglass Hatchery	CH1	SP	2010	34,111	03-29-10	04-12-10	Pond	Grande Ronde River
Umatilla Tribe	Lookingglass Hatchery	CH1	SP	2010	41,819	03-30-10	04-13-10	Pond	Grande Ronde River
Umatilla Tribe	Lookingglass Hatchery	CH1	SP	2010	64,663	03-30-10	04-13-10	Pond	Grande Ronde River
Umatilla Tribe	Lookingglass Hatchery	CH1	SP	2010	110,242	03-29-10	04-12-10	Pond	Grande Ronde River
Umatilla Tribe	Umatilla Hatchery	ST	SU	2010	54,750	04-20-10	04-27-10	Pendelton Acclim Pond Minthorn Acclimation	Umatilla River
Umatilla Tribe	Umatilla Hatchery	ST	SU	2010	54,780	04-20-10	04-27-10	Pond	Umatilla River
<b>Umatilla Tribe Total</b>					<b>1,130,365</b>				
Washington Dept. of Fish and Wildlife	Chelan Hatchery	CH1	SU	2010	200,000	04-01-10	04-30-10	Chelan Falls	Mid-Columbia River
Washington Dept. of Fish and Wildlife	Chiwawa Hatchery	CH1	SP	2010	610,000	04-15-10	05-15-10	Chiwawa River	Wenatchee River
Washington Dept. of Fish and Wildlife	Eastbank Hatchery	CH1	SU	2010	350,000	04-10-10	05-05-10	Similkameen Acclim Pd	Okanogan River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	CH1	FA	2010	479,000	04-12-10	04-14-10	Lyons Ferry Hatchery	Snake River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2010	5,600	04-12-10	04-12-10	Baileysburg Bridge	Touchet River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2010	50,000	04-12-10	04-26-10	Baileysburg Bridge	Touchet River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2010	60,000	04-15-10	04-20-10	Lyons Ferry Hatchery	Snake River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2010	85,000	04-06-10	04-14-10	Dayton Acclim Pond	Touchet River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2010	100,000	04-15-10	04-20-10	Tucannon River	Tucannon River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2010	100,000	04-15-10	04-20-10	Walla Walla River Cottonwood Acclim	Walla Walla River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2010	160,000	04-05-10	04-16-10	Pond	Grande Ronde River
Washington Dept. of Fish and Wildlife	Methow Hatchery	CH1	SP	2010	79,000	04-20-10	04-30-10	Twisp Acclim Pond	Methow River
Washington Dept. of Fish and Wildlife	Methow Hatchery	CH1	SP	2010	202,000	04-20-10	04-30-10	Twisp River	Methow River
Washington Dept. of Fish and Wildlife	Methow Hatchery	CH1	SP	2010	260,000	04-20-10	04-30-10	Chewuch Acclim Pond	Methow River
Washington Dept. of Fish and Wildlife	Methow Hatchery	CH1	SU	2010	400,000	04-20-10	05-01-10	Carlton Acclim Pond Ringold Springs	Methow River
Washington Dept. of Fish and Wildlife	Ringold Springs Hatchery	ST	SU	2010	137,051	04-09-10	04-15-10	Hatchery	Mid-Columbia River
Washington Dept. of Fish and Wildlife	Tucannon Hatchery	CH1	SP	2010	86,000	04-01-10	04-12-10	Curl Lake Acclim Pond	Tucannon River
Washington Dept. of Fish and Wildlife	Tucannon Hatchery	CH1	SP	2010	87,000	04-01-10	04-12-10	Curl Lake Acclim Pond	Tucannon River
Washington Dept. of Fish and Wildlife	Tucannon Hatchery	ST	SU	2010	29,912	04-12-10	04-13-10	Tucannon Hatchery	Tucannon River
Washington Dept. of Fish and Wildlife	Turtle Rock Hatchery	ST	SU	2010	50,000	04-10-10	05-15-10	Wenatchee River	Wenatchee River
Washington Dept. of Fish and Wildlife	Wells Hatchery	CH1	SU	2010	335,000	04-15-10	06-01-10	Wells Hatchery	Mid-Columbia River
Washington Dept. of Fish and Wildlife	Wells Hatchery	ST	SU	2010	105,000	04-20-10	05-05-10	Okanogan River	Okanogan River
Washington Dept. of Fish and Wildlife	Wells Hatchery	ST	SU	2010	180,000	04-20-10	05-05-10	Methow River	Methow River
<b>Washington Dept. of Fish and Wildlife Total</b>					<b>4,150,563</b>				
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2010	280,960	03-15-10	05-14-10	Clark Flat Acclim Pond Jack Creek Acclim	Yakima River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2010	282,011	03-15-10	05-14-10	Pond	Yakima River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2010	288,342	03-15-10	05-14-10	Easton Pond	Yakima River
Yakama Tribe	Eagle Creek NFH	CO	UN	2010	15,846	04-07-10	06-01-10	Holmes Pond	Yakima River
Yakama Tribe	Eagle Creek NFH	CO	UN	2010	37,806	04-12-10	06-01-10	Boone Pond	Yakima River
Yakama Tribe	Eagle Creek NFH	CO	UN	2010	45,060	04-12-10	06-01-10	Prosser Acclim Pond Lost Creek Acclim	Yakima River
Yakama Tribe	Eagle Creek NFH	CO	UN	2010	134,850	04-12-10	06-01-10	Pond	Yakima River
Yakama Tribe	Eagle Creek NFH	CO	UN	2010	135,086	04-12-10	06-01-10	Naches River	Yakima River
Yakama Tribe	Eagle Creek NFH	CO	UN	2010	205,926	04-12-10	06-01-10	Easton Pond	Yakima River
Yakama Tribe	Little White Salmon NFH	CH0	FA	2010	480,000	04-16-10	04-16-10	Prosser Acclim Pond	Yakima River
Yakama Tribe	Prosser Acclim. Pond	CH0	FA	2010	280,000	04-16-10	04-16-10	Prosser Acclim Pond Lost Creek Acclim	Yakima River
Yakama Tribe	Prosser Acclim. Pond	CO	UN	2010	38,159	04-12-10	06-01-10	Pond	Yakima River
Yakama Tribe	Prosser Acclim. Pond	CO	UN	2010	74,342	04-07-10	06-01-10	Holmes Pond	Yakima River
Yakama Tribe	Prosser Acclim. Pond	CO	UN	2010	74,438	04-12-10	06-01-10	Naches River	Yakima River
Yakama Tribe	Prosser Acclim. Pond	CO	UN	2010	137,659	04-12-10	06-01-10	Prosser Acclim Pond	Yakima River
Yakama Tribe	Willard Hatchery	CO	UN	2010	131,777	04-15-10	04-25-10	Wells Hatchery	Mid-Columbia River
<b>Yakama Tribe Total</b>					<b>2,642,262</b>				
<b>Grand Total</b>					<b>31,442,426</b>				

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

### Hatchery Releases Next Two Weeks

Hatchery Release Summary									
From:	4/23/2010		to		5/6/2010				
Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
Colville Tribe	Ringold Springs Hatchery	CH1	SU	2010	190,000	04-10-10	04-30-10	Bonaparte Acclimation Pond	Okanogan River
<b>Colville Tribe Total</b>					<b>190,000</b>				
Idaho Dept. of Fish and Game	Clearwater Hatchery	ST	SU	2010	144,900	04-15-10	04-26-10	Clear Creek	Clearwater River M F
Idaho Dept. of Fish and Game	Clearwater Hatchery	ST	SU	2010	176,400	04-15-10	04-26-10	S Fk Clearwater River Redhouse (SFk ClearH20 R)	Clearwater River M F
Idaho Dept. of Fish and Game	Clearwater Hatchery	ST	SU	2010	186,600	04-15-10	04-26-10	ClearH20 R)	S Fk Clearwater River
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2010	96,000	04-30-10	04-30-10	Pahsimeroi River	Pahsimeroi River
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2010	119,000	04-26-10	04-30-10	McNabb/Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2010	250,000	04-21-10	04-23-10	Squaw Cr Acclim Pond	Salmon River (ID)
Idaho Dept. of Fish and Game	Niagara Springs	ST	SU	2010	830,000	04-12-10	05-03-10	Pahsimeroi River	Pahsimeroi River
Idaho Dept. of Fish and Game	Oxbow-Idaho	CH0	FA	2010	200,000	05-01-10	05-01-10	Hells Canyon Dam	Snake River
Idaho Dept. of Fish and Game	Oxbow-Oregon	SO	UN	2010	66,500	05-01-10	05-01-10	Redfish Lake Creek	Salmon River (ID)
Idaho Dept. of Fish and Game	Rapid River Hatchery	CH1	SP	2010	2,500,000	03-05-10	04-23-10	Rapid River Hatchery	Little Salmon River
Idaho Dept. of Fish and Game	Sawtooth Hatchery	CH1	SP	2010	404,000	04-19-10	04-23-10	Yankee Fk (Salmon R)	Salmon River (ID)
Idaho Dept. of Fish and Game	Sawtooth Hatchery	SO	UN	2010	112,500	05-01-10	05-01-10	Salmon River (ID)	Salmon River (ID)
<b>Idaho Dept. of Fish and Game Total</b>					<b>5,085,900</b>				
Oregon Dept. of Fish and Wildlife	Irrigon Hatchery Complex	ST	SU	2010	182,000	04-27-10	04-27-10	L Sheep Acclim Pond	Imnaha River
Oregon Dept. of Fish and Wildlife	Irrigon Hatchery Complex	ST	SU	2010	332,000	04-29-10	04-29-10	Wallowa Acclim Pond	Wallowa River
Oregon Dept. of Fish and Wildlife	Round Butte Hatchery	CH1	SP	2010	212,760	04-13-10	06-01-10	Deschutes River	Deschutes River
Oregon Dept. of Fish and Wildlife	Round Butte Hatchery	ST	SU	2011	300,000	05-01-10	05-01-10	Deschutes River	Deschutes River
Oregon Dept. of Fish and Wildlife	Round Butte Hatchery	ST	SU	2011	300,000	05-01-10	05-01-10	Deschutes River	Deschutes River
Oregon Dept. of Fish and Wildlife	Umatilla Hatchery	CH0	FA	2010	800,000	05-01-10	05-01-10	Hells Canyon Dam	Snake River
Oregon Dept. of Fish and Wildlife	Umatilla Hatchery	ST	SU	2010	50,000	04-27-10	04-27-10	Meacham Creek	Umatilla River
<b>Oregon Dept. of Fish and Wildlife Total</b>					<b>2,176,760</b>				
U.S. Fish and Wildlife Service	Hagerman NFH	ST	SU	2010	125,068	04-29-10	05-04-10	East Fk Salmon River	Salmon River (ID)
U.S. Fish and Wildlife Service	Hagerman NFH	ST	SU	2010	216,749	05-05-10	05-13-10	Yankee Fk (Salmon R)	Salmon River (ID)
U.S. Fish and Wildlife Service	Hagerman NFH	ST	SU	2010	231,521	05-05-10	05-13-10	Yankee Fk (Salmon R)	Salmon River (ID)
U.S. Fish and Wildlife Service	Hagerman NFH	ST	SU	2010	833,919	04-13-10	04-28-10	Salmon River (ID)	Salmon River (ID)
U.S. Fish and Wildlife Service	Winthrop NFH	ST	SU	2010	29,000	04-20-10	04-30-10	Winthrop Hatchery	Methow River
U.S. Fish and Wildlife Service	Winthrop NFH	ST	SU	2010	71,000	04-20-10	04-30-10	Winthrop Hatchery	Methow River
<b>U.S. Fish and Wildlife Service Total</b>					<b>1,507,257</b>				
Umatilla Tribe	Umatilla Hatchery	ST	SU	2010	54,750	04-20-10	04-27-10	Pendelton Acclim Pond	Umatilla River
Umatilla Tribe	Umatilla Hatchery	ST	SU	2010	54,780	04-20-10	04-27-10	Minthorn Acclimation Pond	Umatilla River
<b>Umatilla Tribe Total</b>					<b>109,530</b>				
Warm Springs Tribe	Carson NFH	CH1	SP	2010	45,000	04-26-10	04-26-10	Blackberry Acclim Pond	Hood River
Warm Springs Tribe	Oak Springs Hatchery	ST	WI	2010	12,500	04-30-10	04-30-10	Parkdale Acclim Pond	Hood River
Warm Springs Tribe	Oak Springs Hatchery	ST	WI	2010	25,000	04-30-10	04-30-10	E Fk Irrig Dist Sand Trap	Hood River
Warm Springs Tribe	Parkdale Acclim. Pond	CH1	SP	2010	30,000	04-26-10	04-26-10	Parkdale Acclim Pond	Hood River
Warm Springs Tribe	Round Butte Hatchery	CH1	SP	2010	37,500	04-26-10	04-26-10	Blackberry Acclim Pond	Hood River
Warm Springs Tribe	Round Butte Hatchery	CH1	SP	2010	37,500	04-26-10	04-26-10	Parkdale Acclim Pond	Hood River
<b>Warm Springs Tribe Total</b>					<b>187,500</b>				



**Hatchery Releases Next Two Weeks (Continued)**

Washington Dept. of Fish and Wildlife	Chelan Hatchery	CH1	SU	2010	200,000	04-01-10	04-30-10	Chelan Falls	Mid-Columbia River
Washington Dept. of Fish and Wildlife	Chiwawa Hatchery	CH1	SP	2010	610,000	04-15-10	05-15-10	Chiwawa River	Wenatchee River
Washington Dept. of Fish and Wildlife	Eastbank Hatchery	CH1	SP	2010	150,000	05-01-10	05-07-10	Lake Wenatchee	Wenatchee River
Washington Dept. of Fish and Wildlife	Eastbank Hatchery	CH1	SU	2010	350,000	04-10-10	05-05-10	Similkameen Acclim Pd	Okanogan River
Washington Dept. of Fish and Wildlife	Eastbank Hatchery	CH1	SU	2010	950,000	04-25-10	05-05-10	Dryden Acclim Pond	Wenatchee River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2010	50,000	04-12-10	04-26-10	Baileysburg Bridge	Touchet River
Washington Dept. of Fish and Wildlife	Methow Hatchery	CH1	SP	2010	79,000	04-20-10	04-30-10	Twisp Acclim Pond	Methow River
Washington Dept. of Fish and Wildlife	Methow Hatchery	CH1	SP	2010	202,000	04-20-10	04-30-10	Twisp River	Methow River
Washington Dept. of Fish and Wildlife	Methow Hatchery	CH1	SP	2010	260,000	04-20-10	04-30-10	Chewuch Acclim Pond	Methow River
Washington Dept. of Fish and Wildlife	Methow Hatchery	CH1	SU	2010	400,000	04-20-10	05-01-10	Carlton Acclim Pond	Methow River
Washington Dept. of Fish and Wildlife	Skamania Hatchery	ST	SU	2010	24,000	04-25-10	05-05-10	White Salmon River	White Salmon River
Washington Dept. of Fish and Wildlife	Skamania Hatchery	ST	SU	2010	90,000	05-01-10	05-07-10	Klickitat River	Klickitat River
Washington Dept. of Fish and Wildlife	Skamania Hatchery	ST	WI	2010	20,000	04-25-10	05-05-10	White Salmon River	White Salmon River
Washington Dept. of Fish and Wildlife	Tucannon Hatchery	ST	SU	2010	9,500	04-29-10	04-29-10	Tucannon Hatchery	Tucannon River
Washington Dept. of Fish and Wildlife	Turtle Rock Hatchery	CH1	SU	2010	257,000	04-25-10	05-05-10	Turtle Rock Hatchery	Mid-Columbia River
Washington Dept. of Fish and Wildlife	Turtle Rock Hatchery	ST	SU	2010	50,000	04-10-10	05-15-10	Wenatchee River	Wenatchee River
Washington Dept. of Fish and Wildlife	Turtle Rock Hatchery	ST	SU	2010	115,000	05-01-10	05-07-10	Chiwawa River	Wenatchee River
Washington Dept. of Fish and Wildlife	Turtle Rock Hatchery	ST	SU	2010	144,000	05-01-10	05-07-10	Nason Creek	Wenatchee River
Washington Dept. of Fish and Wildlife	Turtle Rock Hatchery	ST	SU	2010	156,000	05-01-10	05-07-10	Wenatchee River	Wenatchee River
Washington Dept. of Fish and Wildlife	Wells Hatchery	CH1	SU	2010	335,000	04-15-10	06-01-10	Wells Hatchery	Mid-Columbia River
Washington Dept. of Fish and Wildlife	Wells Hatchery	ST	SU	2010	105,000	04-20-10	05-05-10	Okanogan River	Okanogan River
Washington Dept. of Fish and Wildlife	Wells Hatchery	ST	SU	2010	180,000	04-20-10	05-05-10	Methow River	Methow River
<b>Washington Dept. of Fish and Wildlife Total</b>					<b>4,736,500</b>				
Yakama Tribe	Cascade Hatchery	CO	UN	2010	59,963	05-01-10	05-07-10	Coulter Creek Butcher Creek Acclim.	Wenatchee River
Yakama Tribe	Cascade Hatchery	CO	UN	2010	118,001	05-01-10	05-07-10	Pond	Wenatchee River
Yakama Tribe	Cascade Hatchery	CO	UN	2010	118,241	05-01-10	05-07-10	Wenatchee River	Wenatchee River
Yakama Tribe	Cascade Hatchery	CO	UN	2010	219,746	04-24-10	04-30-10	Icicle Creek	Wenatchee River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2010	280,960	03-15-10	05-14-10	Clark Flat Acclim Pond Jack Creek Acclim	Yakima River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2010	282,011	03-15-10	05-14-10	Pond	Yakima River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2010	288,342	03-15-10	05-14-10	Easton Pond	Yakima River
Yakama Tribe	Eagle Creek NFH	CO	UN	2010	15,846	04-07-10	06-01-10	Holmes Pond	Yakima River
Yakama Tribe	Eagle Creek NFH	CO	UN	2010	37,806	04-12-10	06-01-10	Boone Pond	Yakima River
Yakama Tribe	Eagle Creek NFH	CO	UN	2010	45,060	04-12-10	06-01-10	Prosser Acclim Pond Lost Creek Acclim	Yakima River
Yakama Tribe	Eagle Creek NFH	CO	UN	2010	134,850	04-12-10	06-01-10	Pond	Yakima River
Yakama Tribe	Eagle Creek NFH	CO	UN	2010	135,086	04-12-10	06-01-10	Naches River	Yakima River
Yakama Tribe	Eagle Creek NFH	CO	UN	2010	205,926	04-12-10	06-01-10	Easton Pond	Yakima River
Yakama Tribe	Entiat Hatchery	CO	UN	2010	209,754	04-24-10	04-30-10	Icicle Creek	Wenatchee River
Yakama Tribe	Little White Salmon NFH	CH0	FA	2010	1,200,000	04-23-10	04-23-10	Prosser Acclim Pond Lost Creek Acclim	Yakima River
Yakama Tribe	Prosser Acclim. Pond	CO	UN	2010	38,159	04-12-10	06-01-10	Pond	Yakima River
Yakama Tribe	Prosser Acclim. Pond	CO	UN	2010	74,342	04-07-10	06-01-10	Holmes Pond	Yakima River
Yakama Tribe	Prosser Acclim. Pond	CO	UN	2010	74,438	04-12-10	06-01-10	Naches River	Yakima River
Yakama Tribe	Prosser Acclim. Pond	CO	UN	2010	137,659	04-12-10	06-01-10	Prosser Acclim Pond	Yakima River
Yakama Tribe	Wells Hatchery	CH0	SU	2010	202,000	04-29-10	04-29-10	Naches River	Yakima River
Yakama Tribe	Willard Hatchery	CO	UN	2010	10,060	05-01-10	05-07-10	Coulter Creek Butcher Creek Acclim.	Wenatchee River
Yakama Tribe	Willard Hatchery	CO	UN	2010	29,189	05-01-10	05-07-10	Pond	Wenatchee River
Yakama Tribe	Willard Hatchery	CO	UN	2010	57,870	05-01-10	05-07-10	Winthrop Hatchery	Methow River
Yakama Tribe	Willard Hatchery	CO	UN	2010	131,777	04-15-10	04-25-10	Wells Hatchery	Mid-Columbia River
Yakama Tribe	Willard Hatchery	CO	UN	2010	147,604	04-24-10	04-30-10	Icicle Creek	Wenatchee River
Yakama Tribe	Winthrop NFH	CO	UN	2010	89,213	04-24-10	04-30-10	Twisp Acclim Pond	Methow River
Yakama Tribe	Winthrop NFH	CO	UN	2010	261,180	04-24-10	04-30-10	Winthrop Hatchery	Methow River
<b>Yakama Tribe Total</b>					<b>4,605,083</b>				
<b>Grand Total</b>					<b>18,598,530</b>				

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

**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
04/09/2010	53.1	0.0	55.9	0.0	46.8	0.0	44.5	0.0	44.6	0.0	67.3	0.0	61.0	0.0
04/10/2010	44.3	0.0	44.4	0.0	48.5	0.0	52.0	0.0	52.5	0.0	57.7	0.0	61.0	0.0
04/11/2010	33.5	0.0	37.8	0.0	35.9	0.0	36.3	0.0	37.0	0.0	56.8	0.0	61.5	0.0
04/12/2010	63.8	0.0	62.8	0.0	64.3	5.8	63.1	0.0	64.6	0.0	71.1	0.0	61.7	0.0
04/13/2010	56.5	0.0	55.7	0.0	55.1	4.6	55.6	0.0	56.7	0.0	64.4	0.0	61.5	0.0
04/14/2010	65.0	0.0	65.3	0.0	76.6	5.6	73.4	0.0	73.8	0.0	61.0	0.0	61.5	0.0
04/15/2010	60.0	0.0	59.2	0.0	74.7	5.4	72.2	0.0	73.4	0.0	75.6	0.0	61.5	0.0
04/16/2010	49.8	0.0	57.6	0.0	57.7	4.5	55.2	0.0	57.1	0.0	63.3	0.0	61.3	0.0
04/17/2010	48.1	0.0	48.9	0.0	53.7	4.1	48.5	0.0	51.5	5.5	60.4	0.0	61.8	0.0
04/18/2010	65.8	0.0	60.5	0.0	57.7	4.3	58.6	0.0	62.0	6.8	62.7	0.0	62.1	0.0
04/19/2010	78.8	0.0	79.6	0.0	78.5	5.8	74.4	0.0	77.8	7.4	72.8	0.0	66.8	0.0
04/20/2010	82.9	0.0	85.5	0.0	86.0	6.6	83.2	0.0	84.4	9.1	88.1	0.0	85.4	0.0
04/21/2010	81.3	0.0	82.1	0.0	91.4	7.2	93.7	0.0	98.6	9.1	94.5	0.0	90.3	0.0
04/22/2010	80.5	0.0	81.0	0.0	89.8	6.6	87.0	0.0	92.4	9.1	99.5	8.4	97.3	0.0

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

Date	Dworshak		Hells Canyon		Lower Granite		Little Goose		Lower Monumental		Ice Harbor	
	Flow	Spill	Inflow	Outflow	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill
04/09/2010	1.2	0.0	12.2	16.0	26.1	13.5	26.8	7.9	25.9	13.8	26.0	16.6
04/10/2010	1.2	0.0	11.9	12.5	30.1	17.5	28.6	8.5	29.4	17.3	30.7	21.3
04/11/2010	1.2	0.0	11.1	13.4	24.3	11.7	24.1	7.2	25.0	12.9	26.5	17.1
04/12/2010	1.2	0.0	14.5	15.2	24.6	11.8	24.2	7.1	24.2	12.1	25.0	15.5
04/13/2010	1.2	0.0	13.2	15.2	29.2	16.5	27.0	8.1	27.9	15.4	30.4	20.8
04/14/2010	1.2	0.0	14.4	12.0	28.0	15.4	27.5	8.2	28.1	16.0	28.1	18.4
04/15/2010	1.2	0.0	15.3	16.7	32.1	19.3	32.2	9.6	32.0	19.9	32.2	22.7
04/16/2010	1.2	0.0	13.4	12.7	34.5	20.3	31.9	9.6	32.5	20.4	33.5	23.9
04/17/2010	1.2	0.0	14.5	16.0	33.2	20.3	32.8	10.1	32.0	19.9	32.6	22.9
04/18/2010	1.3	0.0	15.4	15.3	39.4	20.5	37.6	11.6	38.1	24.3	39.9	30.0
04/19/2010	1.3	0.0	16.8	16.6	45.2	20.4	43.6	13.0	44.3	22.0	46.0	36.1
04/20/2010	1.3	0.0	17.3	12.3	48.4	20.5	46.0	13.8	45.3	16.9	46.4	36.4
04/21/2010	1.2	0.0	20.3	12.8	51.4	20.2	50.0	15.0	50.2	16.9	54.7	42.1
04/22/2010	1.2	0.0	24.1	16.7	62.6	20.3	62.8	18.8	60.3	19.1	61.1	47.5

**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		
04/09/2010	79.6	0.3	87.1	0.0	89.7	0.0	95.9	1.6	0.0	82.0
04/10/2010	98.3	39.5	105.2	20.5	103.1	40.9	116.6	72.3	20.2	11.8
04/11/2010	93.0	37.4	97.9	29.5	97.8	39.2	123.2	80.2	0.0	30.7
04/12/2010	95.8	38.5	101.0	30.3	98.6	39.6	110.2	67.3	0.0	30.4
04/13/2010	101.0	40.5	98.3	29.6	94.5	37.6	109.9	67.0	0.0	30.4
04/14/2010	96.7	38.9	100.0	30.1	96.5	39.3	111.8	69.0	0.0	30.4
04/15/2010	93.9	37.6	100.7	30.2	96.1	38.5	114.7	72.0	0.0	30.3
04/16/2010	99.4	40.0	100.1	30.2	97.8	39.4	115.0	72.2	0.0	30.4
04/17/2010	98.9	39.8	101.0	30.5	97.3	38.8	115.0	72.2	0.0	30.4
04/18/2010	104.1	41.9	102.9	31.1	94.5	37.4	116.2	73.3	0.0	30.5
04/19/2010	112.9	45.3	111.3	33.5	107.1	42.4	123.6	74.2	0.0	37.0
04/20/2010	135.4	54.4	133.2	40.3	128.8	51.6	141.0	74.3	6.0	51.9
04/21/2010	141.9	56.8	149.2	44.8	141.7	56.3	161.9	81.0	0.0	73.5
04/22/2010	169.6	68.1	171.3	51.5	162.4	64.9	166.6	95.6	0.0	62.2

## 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	Hungry H. Dnst			#	Boundary			#	Grand Coulee			#	Grand C. Tlwr			#	Chief Joseph			#
	24 h	12 h	High		24 h	12 h	High		24 h	12 h	High		24 h	12 h	High		24 h	12 h	High	
	Avg	Avg	hr		Avg	Avg	hr		Avg	Avg	hr		Avg	Avg	hr		Avg	Avg	hr	
4/9	97.3	97.6	98.1	24	102.5	103.8	104.5	23	103.5	103.7	103.8	24	102.5	102.8	103.0	23	104.6	104.8	105.1	24
4/10	97.3	97.8	98.4	24	102.4	103.5	105.1	22	103.9	104.4	105.0	24	102.9	103.7	104.2	22	104.4	104.7	104.8	24
4/11	96.8	97.0	97.4	24	102.6	104.1	106.5	23	105.0	105.3	105.7	24	105.4	106.1	107.4	23	105.1	105.6	105.8	24
4/12	97.1	97.4	98.1	24	104.3	106.3	107.5	23	105.9	106.0	106.1	24	105.7	106.2	106.7	23	105.5	105.5	105.6	24
4/13	97.0	97.1	97.5	21	103.0	104.4	105.6	20	105.7	105.8	106.0	24	104.0	104.3	104.8	20	105.1	105.2	105.4	24
4/14	96.7	96.9	97.2	21	103.6	105.6	106.8	23	105.3	105.7	105.9	24	103.2	103.4	103.7	23	104.8	105.1	105.4	24
4/15	96.6	97.0	97.5	23	102.3	103.3	104.8	22	105.2	105.3	105.6	24	103.3	103.5	103.9	22	105.2	105.8	106.1	24
4/16	97.2	97.7	98.4	24	104.0	106.2	106.8	24	105.5	105.7	105.9	24	103.9	104.1	104.2	24	106.2	106.6	106.9	24
4/17	97.2	97.6	97.9	24	102.5	103.8	105.2	22	105.8	106.0	107.3	24	104.0	104.6	105.0	22	105.9	106.0	106.2	24
4/18	97.6	98.2	98.8	24	104.3	106.5	107.7	23	105.6	106.0	106.8	24	104.6	104.7	105.0	23	105.8	106.2	106.4	24
4/19	98.4	98.9	99.9	23	105.9	108.9	109.3	24	106.4	106.6	107.4	24	104.5	104.9	105.5	24	106.7	107.3	107.5	24
4/20	99.2	99.9	100.9	23	105.5	107.7	108.7	22	107.3	107.8	108.4	24	106.4	107.1	107.7	22	107.7	107.9	108.0	24
4/21	99.8	100.8	102.2	24	105.6	107.9	108.5	24	106.7	107.4	108.1	24	106.8	107.2	108.0	24	107.6	107.8	108.0	24
4/22	99.4	99.7	100.4	23	106.4	107.0	107.4	24	106.5	106.9	107.6	24	105.8	106.2	107.0	24	106.6	106.9	107.2	24

### Total Dissolved Gas Saturation Data at Mid Columbia River Sites

Date	Chief J. Dnst			#	Wells			#	Wells Dwnstrm			#	Rocky Reach			#	Rocky R. Tlwr			#
	24 h	12 h	High		24 h	12 h	High		24 h	12 h	High		24 h	12 h	High		24 h	12 h	High	
	Avg	Avg	hr		Avg	Avg	hr		Avg	Avg	hr		Avg	Avg	hr		Avg	Avg	hr	
4/9	105.2	105.9	106.9	24	---	---	---	0	93.7	93.9	94.2	24	104.3	104.6	105.0	24	104.2	104.5	104.8	24
4/10	104.2	105.1	105.8	24	---	---	---	0	93.9	94.3	94.5	24	104.8	105.2	105.5	24	104.6	104.9	105.3	24
4/11	106.0	106.9	107.7	24	---	---	---	0	94.7	95.0	95.2	24	105.8	106.3	106.5	24	105.4	105.7	105.8	24
4/12	105.7	106.2	107.2	24	---	---	---	0	95.0	95.1	95.4	24	106.1	106.2	106.3	24	106.0	106.1	106.3	24
4/13	105.6	106.2	107.0	24	---	---	---	0	100.1	105.4	108.4	24	106.3	106.4	106.6	24	106.0	106.1	106.4	24
4/14	105.4	106.4	107.4	24	---	---	---	0	106.4	106.9	107.7	24	106.1	106.3	106.5	24	105.8	105.9	106.1	24
4/15	104.5	105.1	105.7	24	---	---	---	0	106.1	106.8	107.2	24	106.7	107.0	107.3	24	106.3	106.6	106.9	24
4/16	105.3	106.2	106.5	24	---	---	---	0	106.7	107.6	108.3	24	107.7	108.1	108.5	24	107.4	107.7	108.0	24
4/17	104.9	105.3	105.7	24	---	---	---	0	107.3	107.8	108.3	24	108.3	108.5	108.8	24	107.7	107.8	108.0	24
4/18	105.1	106.3	107.2	24	---	---	---	0	107.8	108.9	109.5	24	108.1	108.7	110.4	24	107.4	107.8	108.3	24
4/19	106.0	107.1	107.8	24	108.2	108.2	109.3	13	108.6	109.3	109.7	24	108.9	109.4	109.7	24	108.3	108.8	109.4	24
4/20	107.8	108.1	108.6	24	108.1	108.3	108.7	24	109.3	109.6	110.0	24	109.8	110.1	110.5	24	109.2	109.4	109.7	24
4/21	107.8	108.2	108.4	24	107.9	108.3	108.7	24	109.3	109.7	110.5	24	109.9	110.2	110.4	24	109.3	109.5	109.7	24
4/22	106.5	107.1	107.5	24	107.0	107.5	108.2	24	108.4	109.0	109.7	24	109.0	109.2	109.4	24	107.9	108.5	108.8	24

### Total Dissolved Gas Saturation at Mid Columbia River Sites

Date	Rock Island			#	Rock I. Tlwr			#	Wanapum			#	Wanapum Tlwr			#	Priest Rapids			#
	24 h	12 h	High		24 h	12 h	High		24 h	12 h	High		24 h	12 h	High		24 h	12 h	High	
	Avg	Avg	hr		Avg	Avg	hr		Avg	Avg	hr		Avg	Avg	hr		Avg	Avg	hr	
4/9	100.6	100.7	100.7	24	104.5	105.0	105.5	24	103.3	103.5	103.7	24	103.5	104.0	104.7	24	104.5	105.4	106.0	24
4/10	100.6	100.7	100.7	24	104.9	105.7	106.1	24	104.0	104.6	104.9	24	104.3	105.0	105.2	24	104.9	105.5	105.8	24
4/11	100.6	100.6	100.7	24	106.1	106.8	107.2	24	105.2	105.7	106.2	24	105.3	105.8	106.3	24	106.1	106.7	107.6	24
4/12	100.5	100.5	100.5	24	106.4	106.7	107.1	24	105.8	106.0	106.1	24	105.7	105.9	106.3	24	107.1	107.5	107.7	24
4/13	105.9	110.8	113.6	24	106.0	106.3	106.4	24	105.3	105.5	105.7	24	105.2	105.5	105.8	24	106.0	106.4	106.8	24
4/14	106.6	107.5	109.3	24	106.0	106.3	106.5	24	104.9	105.8	107.1	24	104.3	104.6	104.8	24	105.2	105.8	106.6	24
4/15	106.5	106.7	106.8	24	106.3	106.6	107.0	24	106.6	107.7	109.2	24	105.1	105.7	106.1	24	105.8	106.0	106.5	24
4/16	107.6	108.1	108.2	24	107.6	108.1	108.2	24	109.1	110.3	112.2	24	106.8	107.4	107.7	24	106.8	107.7	108.5	24
4/17	108.6	109.0	109.4	24	110.8	111.7	113.7	24	108.0	108.5	108.8	24	107.3	107.6	108.0	24	108.1	108.8	109.5	24
4/18	108.1	108.6	109.0	24	112.4	113.4	114.5	24	109.3	111.7	113.7	24	107.2	108.0	108.2	24	108.1	108.7	109.1	24
4/19	109.1	109.7	110.1	24	112.4	114.0	115.9	24	111.5	112.5	113.8	24	108.9	109.8	110.5	24	109.7	110.4	111.0	24
4/20	109.6	109.7	109.9	24	112.6	113.8	116.1	24	---	---	---	0	---	---	---	0	---	---	---	0
4/21	108.6	108.8	109.2	24	111.4	112.5	114.5	24	---	---	---	0	---	---	---	0	---	---	---	0
4/22	107.9	108.1	108.5	24	110.8	111.8	114.2	24	---	---	---	0	---	---	---	0	---	---	---	0

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

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

Date	<u>Priest R. Dnst</u>			<u>Pasco</u>			<u>Dworshak</u>			<u>Clwrtr-Peck</u>			<u>Anatone</u>			#				
	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>					
	<u>Avg</u>	<u>Avg</u>		<u>Avg</u>	<u>Avg</u>		<u>Avg</u>	<u>Avg</u>		<u>Avg</u>	<u>Avg</u>		<u>Avg</u>	<u>Avg</u>			<u>Avg</u>	<u>Avg</u>		
4/9	103.0	103.6	103.8	24	102.1	103.0	103.5	24	105.9	106.4	106.9	24	100.7	103.4	104.8	24	101.3	102.7	103.9	24
4/10	103.9	104.3	104.6	24	103.5	104.7	105.2	24	106.4	107.2	107.8	24	102.0	104.4	106.0	22	102.1	103.4	104.5	24
4/11	104.8	105.3	105.7	24	104.8	105.7	106.1	24	106.9	107.9	108.6	24	102.0	103.4	104.4	23	102.0	103.0	104.1	24
4/12	105.5	105.7	105.9	24	105.2	105.6	106.0	24	106.4	106.7	107.3	24	101.3	102.3	104.4	23	101.2	101.6	102.1	24
4/13	105.1	105.3	105.4	24	104.7	105.1	105.8	24	105.5	105.9	106.4	24	100.5	100.9	101.4	18	101.3	102.3	103.5	24
4/14	104.5	104.9	105.2	24	104.6	105.4	105.8	24	105.6	106.4	107.2	24	101.2	102.5	104.0	22	101.3	102.6	103.6	24
4/15	104.4	104.7	104.9	24	105.1	105.9	106.3	24	106.5	107.2	107.7	24	102.2	103.5	104.9	24	101.6	102.8	104.2	24
4/16	105.5	106.3	106.6	24	106.3	107.3	107.8	24	106.2	107.2	108.2	24	102.4	103.7	105.1	24	102.2	103.4	104.7	24
4/17	106.6	107.0	107.3	24	106.3	107.1	107.5	24	105.8	107.5	108.7	24	102.1	102.8	103.9	24	101.8	102.8	104.1	24
4/18	106.8	107.3	107.5	24	106.7	107.6	108.0	24	107.3	108.1	108.9	24	101.6	102.3	103.3	24	101.9	102.9	104.1	24
4/19	108.3	109.1	109.4	24	108.1	109.0	109.3	24	106.5	108.0	109.4	24	101.4	102.1	103.1	24	102.2	103.2	104.2	24
4/20	---	---	---	0	108.9	109.6	110.3	24	106.5	108.1	109.8	24	101.5	102.2	102.9	24	102.0	102.8	103.6	24
4/21	---	---	---	0	106.8	107.3	108.0	24	106.0	107.1	108.0	24	100.4	100.7	101.5	23	100.8	101.0	101.2	24
4/22	---	---	---	0	105.6	106.3	106.8	24	105.3	105.6	106.2	24	99.1	99.4	99.8	23	101.1	101.5	102.1	24

### Total Dissolved Gas Saturation Data at Snake River Sites

Date	<u>Clwrtr-Lewiston</u>			<u>Lower Granite</u>			<u>L. Granite Tlwr</u>			<u>Little Goose</u>			<u>L. Goose Tlwr</u>			#				
	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>					
	<u>Avg</u>	<u>Avg</u>		<u>Avg</u>	<u>Avg</u>		<u>Avg</u>	<u>Avg</u>		<u>Avg</u>	<u>Avg</u>		<u>Avg</u>	<u>Avg</u>			<u>Avg</u>	<u>Avg</u>		
4/9	101.3	103.7	105.0	24	99.2	99.3	99.4	24	113.5	114.0	114.3	24	99.0	99.3	99.7	24	108.1	108.7	109.0	24
4/10	103.0	105.9	107.9	24	100.3	100.8	101.2	24	111.9	112.5	114.3	24	100.5	101.0	101.4	24	109.2	110.0	110.8	24
4/11	103.3	105.1	106.9	23	101.4	101.6	102.1	24	113.1	114.7	115.3	24	102.0	102.6	104.1	24	109.8	110.3	110.7	24
4/12	101.9	102.9	104.4	24	102.0	102.3	102.7	24	112.2	113.8	114.6	24	104.0	104.2	104.5	24	109.9	110.1	110.5	24
4/13	101.0	102.1	103.2	23	101.9	102.1	102.2	24	111.8	112.8	113.1	24	103.9	104.1	104.4	24	110.0	110.2	110.7	24
4/14	102.1	104.4	106.2	23	101.0	101.2	101.6	24	111.2	111.6	112.1	24	103.8	104.0	104.3	24	110.1	110.3	110.6	24
4/15	102.7	104.8	106.9	23	101.1	101.4	101.8	24	112.2	112.7	113.1	24	104.3	104.4	104.5	24	110.6	111.0	111.5	24
4/16	103.2	105.6	107.7	24	102.5	102.9	103.6	24	112.4	112.6	112.7	24	105.1	105.6	105.9	24	111.3	111.9	112.3	24
4/17	103.3	105.1	107.1	22	101.4	101.7	101.9	24	112.3	112.5	112.7	24	107.4	107.8	108.9	24	112.0	112.4	113.0	24
4/18	102.4	104.4	106.2	24	101.5	101.8	102.1	24	112.1	112.3	112.5	24	109.5	110.5	111.4	24	112.4	112.8	113.1	24
4/19	102.7	104.6	106.2	23	103.4	103.9	104.2	24	111.8	112.0	112.4	24	112.6	114.4	115.8	24	112.9	113.2	113.5	24
4/20	102.7	104.3	105.6	23	103.9	104.2	104.4	24	111.5	111.7	112.3	24	114.3	114.7	114.9	24	112.9	113.4	113.9	24
4/21	100.6	100.9	101.7	22	102.9	103.3	104.0	24	111.1	111.5	112.6	24	112.0	112.5	113.5	24	111.9	112.1	112.4	24
4/22	100.7	101.1	102.0	20	102.1	102.3	102.6	24	110.1	110.5	111.2	24	110.0	110.3	111.1	24	111.3	111.5	112.0	24

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

Date	<u>Lower Mon.</u>			<u>L. Mon. Tlwr</u>			<u>Ice Harbor</u>			<u>Ice Harbor Tlwr</u>			<u>McNary-Oregon</u>			#				
	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>	<u>24 h</u>	<u>12 h</u>	<u>High</u>					
	<u>Avg</u>	<u>Avg</u>		<u>Avg</u>	<u>Avg</u>		<u>Avg</u>	<u>Avg</u>		<u>Avg</u>	<u>Avg</u>		<u>Avg</u>	<u>Avg</u>			<u>Avg</u>	<u>Avg</u>		
4/9	102.5	102.9	103.8	24	112.4	113.5	118.0	24	105.4	105.9	106.2	24	110.8	112.0	113.6	24	---	---	---	0
4/10	104.3	104.8	105.2	24	115.0	116.2	118.2	24	107.2	108.0	108.7	24	112.9	113.8	114.0	24	---	---	---	0
4/11	105.1	105.4	106.1	24	112.6	113.0	113.4	24	108.8	109.5	110.2	24	112.2	113.6	114.6	24	---	---	---	0
4/12	106.0	106.3	106.5	24	112.1	112.3	112.5	24	109.2	109.4	109.9	24	110.6	111.1	111.7	24	---	---	---	0
4/13	105.5	105.6	105.8	24	113.7	115.4	118.2	24	108.5	108.7	108.8	24	111.4	112.9	113.8	24	---	---	---	0
4/14	104.9	105.1	105.4	24	113.9	115.1	117.4	24	108.9	109.6	110.3	24	112.3	114.1	114.9	24	---	---	---	0
4/15	105.9	106.4	107.2	24	112.8	113.4	113.7	24	110.4	111.0	111.7	24	112.7	114.4	114.8	24	---	---	---	0
4/16	107.1	107.6	108.1	24	115.3	117.1	118.5	24	111.0	111.4	112.1	24	113.0	114.0	114.6	24	---	---	---	0
4/17	107.3	107.7	108.1	24	116.0	117.4	118.3	24	111.1	111.6	112.1	24	112.7	113.4	113.7	24	---	---	---	0
4/18	108.6	109.2	110.2	24	117.2	118.0	118.4	24	114.1	115.2	116.7	24	113.4	114.3	115.1	24	---	---	---	0
4/19	110.5	111.0	111.3	24	117.6	118.3	119.2	24	116.3	116.6	117.2	24	114.0	114.4	115.2	24	---	---	---	0
4/20	111.6	111.8	112.3	24	116.8	117.1	117.9	24	117.4	117.7	118.1	24	113.4	113.9	114.3	24	---	---	---	0
4/21	112.2	112.3	112.4	24	116.9	117.2	118.0	24	116.3	117.0	117.8	24	113.6	114.6	115.4	24	---	---	---	0
4/22	110.9	111.2	111.7	24	115.6	116.5	116.9	24	113.6	114.3	115.2	24	114.9	115.5	115.8	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	McNary-Wash			#	McNary Tlwr			#	John Day			#	John Day Tlwr			#	The Dalles			#
	24 h	12 h			24 h	12 h			24h	12h			24h	12h			24h	12h		
	Avg	Avg	High		Avg	Avg	High		Avg	Avg	High		Avg	Avg	High		Avg	Avg	High	
4/9	102.8	102.9	103.1	24	101.6	102.3	102.8	24	100.8	101.1	101.2	24	100.7	101.1	101.4	24	101.7	102.0	102.4	22
4/10	103.6	104.0	104.4	24	113.3	114.7	115.2	24	102.1	102.8	103.2	24	107.9	111.4	112.5	24	102.6	103.1	103.6	22
4/11	104.7	105.8	107.2	24	114.4	114.8	115.2	24	103.8	104.8	105.5	24	110.8	111.0	111.4	24	104.4	105.6	106.8	22
4/12	105.8	106.5	107.4	24	114.2	114.6	114.8	24	104.1	104.8	105.4	24	110.9	111.2	111.5	24	107.5	108.7	109.9	19
4/13	104.8	105.0	105.4	24	114.1	114.3	114.5	24	102.7	102.9	103.2	24	110.6	111.3	112.5	24	108.9	109.2	109.7	22
4/14	105.1	105.7	105.9	24	113.9	114.5	115.0	24	102.7	103.6	104.8	24	109.6	109.9	110.1	24	107.7	108.1	108.3	24
4/15	106.2	106.3	106.9	24	113.5	114.2	114.7	24	103.0	103.4	104.0	24	109.2	109.5	109.7	24	108.1	109.1	109.6	24
4/16	107.8	108.1	108.4	24	114.1	114.5	114.7	24	103.4	103.7	104.1	24	109.2	109.4	109.8	24	109.7	110.1	110.4	24
4/17	107.5	107.8	108.6	24	113.9	114.7	115.6	24	103.1	103.4	103.7	24	109.0	109.2	109.4	24	109.3	109.6	109.8	24
4/18	108.5	109.4	111.5	24	114.4	115.2	115.6	24	104.3	105.4	107.2	24	109.1	109.7	110.0	24	109.1	109.8	110.2	24
4/19	112.1	112.8	114.2	24	114.9	115.2	115.8	24	106.0	106.7	107.5	24	111.1	112.9	114.5	24	110.6	111.4	111.9	24
4/20	111.0	111.2	111.4	24	115.6	116.1	116.8	24	107.2	107.6	108.2	24	113.3	113.8	114.2	24	110.0	110.5	111.2	24
4/21	110.0	110.3	110.6	24	114.6	114.8	115.0	24	106.9	107.2	107.5	24	113.5	114.0	114.8	24	106.7	107.4	108.1	24
4/22	108.4	109.2	109.6	24	114.8	115.4	116.0	24	105.7	106.2	106.6	24	113.6	114.1	114.4	24	105.3	105.7	106.0	24

### Total Dissolved Gas Saturation Data at Lower Columbia River Sites

Date	The Dalles Dnst			#	Bonneville			#	Warrendale			#	Camas\Washougal			#	Cascade Island			#
	24 h	12 h			24 h	12 h			24h	12h			24h	12h			24h	12h		
	Avg	Avg	High		Avg	Avg	High		Avg	Avg	High		Avg	Avg	High		Avg	Avg	High	
4/9	103.0	103.2	103.4	24	102.4	102.8	103.1	24	109.8	110.7	111.2	24	107.2	109.0	110.1	24	111.2	113.4	116.8	24
4/10	109.5	111.7	112.2	24	103.9	104.1	104.2	24	111.2	112.5	115.3	24	106.8	107.8	109.4	24	113.9	115.4	117.0	24
4/11	111.8	112.3	113.0	24	105.0	106.1	106.7	24	115.9	116.2	116.4	24	112.1	115.3	116.5	24	114.2	115.0	117.0	24
4/12	112.7	113.3	113.7	24	106.0	106.3	106.7	24	116.3	117.0	117.7	24	114.2	114.6	114.8	24	113.2	113.4	113.6	24
4/13	113.6	113.9	114.3	24	108.8	109.6	110.0	24	117.0	117.7	118.8	24	114.6	115.3	116.2	24	113.3	113.4	113.5	24
4/14	113.4	113.8	114.1	24	109.5	109.8	110.0	24	117.8	118.7	119.3	24	116.2	117.9	119.2	24	113.4	113.6	113.7	24
4/15	112.9	113.5	113.8	24	109.7	110.5	111.2	24	117.5	118.4	119.0	24	117.1	118.6	119.1	24	113.5	113.6	113.8	24
4/16	113.9	114.2	114.4	24	111.2	111.5	111.9	24	117.5	118.2	118.6	24	117.3	118.4	119.0	24	113.7	113.8	113.8	24
4/17	113.6	113.9	114.2	24	112.0	112.4	112.6	24	117.8	118.4	119.0	24	117.9	118.7	119.6	24	113.7	113.8	113.9	24
4/18	113.4	114.0	114.6	24	112.2	112.5	112.7	24	118.0	118.7	119.2	24	117.7	118.2	118.5	24	113.4	113.6	113.8	24
4/19	114.4	115.1	115.5	24	112.8	113.0	113.3	24	116.8	117.6	118.0	24	117.0	118.0	118.3	24	113.3	113.4	113.8	24
4/20	114.5	114.9	115.3	24	111.8	112.6	113.0	24	115.3	116.5	116.9	24	115.6	116.4	117.2	24	113.7	114.1	114.3	24
4/21	112.8	113.3	114.2	24	107.8	108.4	109.6	24	112.8	113.1	113.4	24	110.1	111.0	112.4	24	114.7	115.4	115.7	24
4/22	112.2	112.9	113.2	24	105.3	105.7	106.3	24	113.2	113.9	114.4	24	110.1	111.6	112.7	24	115.7	116.1	116.3	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)
04/09/2010 *	1,139	4,857	46	1	245	---	---	3	51	28	298
04/10/2010 *	1,906	9,280	111	3	238	---	---	15	---	57	307
04/11/2010 *	720	5,038	55	0	892	---	0	18	0	85	273
04/12/2010 *	450	4,024	21	1	461	50	---	15	---	115	416
04/13/2010 *	1,003	7,035	71	1	554	---	---	15	64	103	608
04/14/2010 *	379	8,685	232	2	911	---	5	21	---	92	895
04/15/2010 *	316	4,234	347	7	661	---	---	19	121	121	3,077
04/16/2010 *	154	5,347	926	14	685	14	---	23	---	63	6,347
04/17/2010 *	326	5,409	2,178	10	984	---	81	14	217	92	9,114
04/18/2010 *	1,833	2,569	1,816	5	815	---	---	36	---	155	4,884
04/19/2010 *	3,006	---	1,487	14	2,794	---	---	46	1,062	294	5,654
04/20/2010 *	4,424	1,233	1,236	112	6,676	---	215	22	---	264	7,527
04/21/2010 *	3,760	235	1,418	110	9,933	---	---	25	4,626	2,551	28,850
04/22/2010 *	2,867	---	3,574	1,214	30,986	---	---	90	---	1,778	22,997
04/23/2010	---	---	---	---	---	---	---	---	---	---	---
<b>Total:</b>	<b>22,283</b>	<b>57,946</b>	<b>13,518</b>	<b>1,494</b>	<b>56,835</b>	<b>64</b>	<b>301</b>	<b>362</b>	<b>6,141</b>	<b>5,798</b>	<b>91,247</b>
<b># Days:</b>	<b>14</b>	<b>12</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>2</b>	<b>4</b>	<b>14</b>	<b>7</b>	<b>14</b>	<b>14</b>
<b>Average:</b>	<b>1,592</b>	<b>4,829</b>	<b>966</b>	<b>107</b>	<b>4,060</b>	<b>32</b>	<b>75</b>	<b>26</b>	<b>877</b>	<b>414</b>	<b>6,518</b>
<b>YTD</b>	<b>46,403</b>	<b>74,791</b>	<b>15,848</b>	<b>1,525</b>	<b>58,199</b>	<b>71</b>	<b>308</b>	<b>402</b>	<b>6,161</b>	<b>6,017</b>	<b>99,980</b>

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)
04/09/2010 *	0	0	0	0	31	---	---	69	10	0	627
04/10/2010 *	0	0	0	8	23	---	---	67	---	0	331
04/11/2010 *	0	0	0	15	23	---	0	67	9	0	4,288
04/12/2010 *	0	8	0	11	19	0	---	56	---	0	1,953
04/13/2010 *	0	0	0	0	60	---	---	50	0	0	905
04/14/2010 *	0	0	0	1	166	---	0	77	---	0	129,787
04/15/2010 *	0	0	0	4	68	---	---	66	17	0	429,540
04/16/2010 *	0	0	0	5	92	0	---	139	---	11	169,247
04/17/2010 *	0	1	0	8	61	---	0	47	9	0	71,027
04/18/2010 *	0	0	0	7	49	---	---	104	---	0	31,784
04/19/2010 *	0	---	0	1	16	---	---	16	17	6	28,198
04/20/2010 *	0	4	1	13	309	---	0	28	---	29	15,370
04/21/2010 *	0	0	0	6	181	---	---	157	0	12	11,599
04/22/2010 *	0	---	1	6	315	---	---	116	---	0	7,670
04/23/2010	---	---	---	---	---	---	---	---	---	---	---
<b>Total:</b>	<b>0</b>	<b>13</b>	<b>2</b>	<b>85</b>	<b>1,413</b>	<b>0</b>	<b>0</b>	<b>1,059</b>	<b>62</b>	<b>58</b>	<b>902,326</b>
<b># Days:</b>	<b>14</b>	<b>12</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>2</b>	<b>4</b>	<b>14</b>	<b>7</b>	<b>14</b>	<b>14</b>
<b>Average:</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>6</b>	<b>101</b>	<b>0</b>	<b>0</b>	<b>76</b>	<b>9</b>	<b>4</b>	<b>64,452</b>
<b>YTD</b>	<b>0</b>	<b>17</b>	<b>3</b>	<b>162</b>	<b>1,446</b>	<b>0</b>	<b>0</b>	<b>1,193</b>	<b>62</b>	<b>58</b>	<b>929,066</b>

Two-Week Summary of Passage Indices

Date	COMBINED COHO										
	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (INDEX)	LGS (INDEX)	LMN (INDEX)	RIS (INDEX)	MCN (INDEX)	JDA (INDEX)	BO2 (INDEX)
04/09/2010 *	0	0	0	0	0	---	---	1	0	0	562
04/10/2010 *	0	0	0	0	0	---	---	0	---	0	374
04/11/2010 *	0	0	0	0	0	---	0	3	0	5	521
04/12/2010 *	0	0	0	0	0	0	---	1	---	0	589
04/13/2010 *	0	0	0	0	0	---	---	0	0	0	432
04/14/2010 *	0	0	0	0	0	---	0	1	---	0	316
04/15/2010 *	0	0	0	0	0	---	---	3	0	0	499
04/16/2010 *	0	0	0	0	0	0	---	1	---	0	685
04/17/2010 *	0	0	0	0	0	---	0	0	17	0	471
04/18/2010 *	0	0	0	2	0	---	---	1	---	0	71
04/19/2010 *	0	---	0	0	0	---	---	3	95	6	573
04/20/2010 *	0	0	0	1	0	---	0	0	---	6	1,075
04/21/2010 *	0	0	0	0	0	---	---	11	162	12	6,378
04/22/2010 *	0	---	0	8	0	---	---	38	---	0	6,415
04/23/2010	---	---	---	---	---	---	---	---	---	---	---
<b>Total:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>11</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>63</b>	<b>274</b>	<b>29</b>	<b>18,961</b>
<b># Days:</b>	<b>14</b>	<b>12</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>2</b>	<b>4</b>	<b>14</b>	<b>7</b>	<b>14</b>	<b>14</b>
<b>Average:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>39</b>	<b>2</b>	<b>1,354</b>
<b>YTD</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>65</b>	<b>274</b>	<b>33</b>	<b>25,399</b>

Date	COMBINED STEELHEAD										
	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (INDEX)	LGS (INDEX)	LMN (INDEX)	RIS (INDEX)	MCN (INDEX)	JDA (INDEX)	BO2 (INDEX)
04/09/2010 *	4	707	1	2	204	---	---	0	40	24	169
04/10/2010 *	10	250	1	5	238	---	---	3	---	26	289
04/11/2010 *	3	241	0	0	237	---	2	1	35	95	248
04/12/2010 *	10	75	2	1	259	266	---	0	---	75	57
04/13/2010 *	10	50	89	3	302	---	---	3	21	23	135
04/14/2010 *	4	42	15	7	449	---	2	4	---	29	195
04/15/2010 *	17	61	53	0	444	---	---	4	52	46	499
04/16/2010 *	24	91	13	4	395	34	---	4	---	69	0
04/17/2010 *	26	238	19	12	393	---	23	8	232	46	237
04/18/2010 *	124	307	15	6	729	---	---	3	---	40	71
04/19/2010 *	102	---	34	54	2,403	---	---	35	2,505	144	72
04/20/2010 *	186	1,047	19	48	2,520	---	67	28	---	121	443
04/21/2010 *	64	435	26	74	6,141	---	---	42	3,420	1,025	1,839
04/22/2010 *	44	---	275	215	10,224	---	---	76	---	810	2,228
04/23/2010	---	---	---	---	---	---	---	---	---	---	---
<b>Total:</b>	<b>628</b>	<b>3,544</b>	<b>562</b>	<b>431</b>	<b>24,938</b>	<b>300</b>	<b>94</b>	<b>211</b>	<b>6,305</b>	<b>2,573</b>	<b>6,482</b>
<b># Days:</b>	<b>14</b>	<b>12</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>2</b>	<b>4</b>	<b>14</b>	<b>7</b>	<b>14</b>	<b>14</b>
<b>Average:</b>	<b>45</b>	<b>295</b>	<b>40</b>	<b>31</b>	<b>1,781</b>	<b>150</b>	<b>24</b>	<b>15</b>	<b>901</b>	<b>184</b>	<b>463</b>
<b>YTD</b>	<b>652</b>	<b>5,221</b>	<b>564</b>	<b>483</b>	<b>25,693</b>	<b>309</b>	<b>98</b>	<b>217</b>	<b>6,395</b>	<b>2,760</b>	<b>7,205</b>

## 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)	
04/09/2010	*	0	0	0	0	0	---	---	6	0	0	0
04/10/2010	*	0	0	0	0	0	---	---	75	---	0	6
04/11/2010	*	0	0	0	0	0	---	0	95	0	5	0
04/12/2010	*	0	0	0	0	0	---	---	116	---	6	0
04/13/2010	*	0	0	0	0	0	---	---	61	0	0	0
04/14/2010	*	0	0	0	0	0	---	0	53	---	0	0
04/15/2010	*	0	0	0	0	11	---	---	46	9	6	0
04/16/2010	*	0	0	0	0	0	---	---	91	---	0	0
04/17/2010	*	0	0	0	0	0	---	0	221	9	0	0
04/18/2010	*	0	0	0	0	0	---	---	132	---	0	0
04/19/2010	*	0	---	0	0	0	---	---	217	35	0	0
04/20/2010	*	0	0	0	0	0	---	0	833	---	0	0
04/21/2010	*	0	0	0	0	0	---	---	211	60	6	91
04/22/2010	*	0	---	0	0	0	---	---	463	---	0	0
04/23/2010		---	---	---	---	---	---	---	---	---	---	---
<b>Total:</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>11</b>	<b>0</b>	<b>0</b>	<b>2,620</b>	<b>113</b>	<b>23</b>	<b>97</b>
<b># Days:</b>		<b>14</b>	<b>12</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>2</b>	<b>4</b>	<b>14</b>	<b>7</b>	<b>14</b>	<b>14</b>
<b>Average:</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>187</b>	<b>16</b>	<b>2</b>	<b>7</b>
<b>YTD</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>17</b>	<b>0</b>	<b>0</b>	<b>2,672</b>	<b>113</b>	<b>39</b>	<b>128</b>

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

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

### Definitions for Smolt Index Counts

- WTB (Collection) = Salmon River Trap at Whitebird : Collection Counts
- IMN (Collection) = Imnaha River Trap : Collection Counts
- GRN (Collection) = Grande Ronde River Trap : Collection Counts
- LEW (Collection) = Snake River Trap at Lewiston : Collection Counts
- LGR (Index) = Lower Granite Dam Bypass Collection System : Passage Index Counts  
Passage Index = Collection Counts / {Powerhouse Flow / (Powerhouse Flow + Spill)}
- LGS (Index) = Little Goose Bypass Collection System : Passage Index Counts  
Passage Index = Collection Counts / {Powerhouse Flow / (Powerhouse Flow + Spill)}
- LMN (Index) = Lower Monumental Dam Bypass Collection System : Passage Index Counts  
Passage Index = Collection Counts / {Powerhouse Flow / (Powerhouse Flow + Spill)}
- RIS (Index) = Rock Island Dam Second Powerhouse Bypass Trap : Passage Index Counts  
Passage Index = Collection Counts / {Powerhouse 2 Flow / (Powerhouse 1 & 2 Flow + Spill)}
- MCN (Index) = McNary Dam Bypass Collection System : Passage Index Counts  
Passage Index = Collection Counts / {Powerhouse Flow / (Powerhouse Flow + Spill)}
- JDA (Index) = John Day Dam Bypass Collection System : Passage Index Counts  
Passage Index = Collection Counts / {Powerhouse Flow / (Powerhouse Flow + Spill)}
- BO2 (Index) = Bonneville Dam Second Powerhouse Bypass Collection System : Passage Index Counts  
Passage Index = Collection Counts / {Powerhouse 2 Flow / (Powerhouse 1 & 2 Flow + Spill)}

JDA and BO2 data collected for the FPC by Pacific States Marine Fisheries Commission.  
 RIS data collected for the FPC by Chelan Co. PUD/Washington Dept. of Fish and Wildlife.  
 LGR, LMN, and MCN data collected for the FPC by Washington Dept. of Fish and Wildlife.  
 LGS and GRN data collected for the FPC by Oregon Dept. of Fish and Wildlife.  
 IMN data collected for the FPC by the Nez Perce Tribe.



### Two Week Transportation Summary

Source: Fish Passage Center

Updated:

4/23/10 9:34 AM

		04/09/10 TO 04/23/10						
		Species						
Site	Data	CH0	CH1	CO	ST	SO	Grand Total	
<b>LGR</b>	Sum of NumberCollected	738	33,162		14,103	5	48,008	
	Sum of NumberBarged	108	6,288		3,178	0	9,574	
	Sum of NumberBypassed	629	26,834		10,925	5	38,393	
	Sum of Numbertrucked	0	0		0	0	0	
	Sum of SampleMorts	1	13		0	0	14	
	Sum of FacilityMorts	0	27		0	0	27	
	Sum of ResearchMorts	0	0		0	0	0	
	Sum of TotalProjectMorts	1	40		0	0	41	
<b>LGS</b>	Sum of NumberCollected		45		210		255	
	Sum of NumberBarged		0		0		0	
	Sum of NumberBypassed		43		210		253	
	Sum of Numbertrucked		0		0		0	
	Sum of SampleMorts		2		0		2	
	Sum of FacilityMorts		0		0		0	
	Sum of ResearchMorts		0		0		0	
	Sum of TotalProjectMorts		2		0		2	
<b>LMN</b>	Sum of NumberCollected		165		52		217	
	Sum of NumberBarged		0		0		0	
	Sum of NumberBypassed		163		51		214	
	Sum of Numbertrucked		0		0		0	
	Sum of SampleMorts		0		0		0	
	Sum of FacilityMorts		0		0		0	
	Sum of ResearchMorts		0		0		0	
	Sum of TotalProjectMorts		0		0		0	
<b>MCN</b>	Sum of NumberCollected	40	3,602	160	3,687	65	7,554	
	Sum of NumberBarged	0	0	0	0	0	0	
	Sum of NumberBypassed	40	3,597	160	3,686	65	7,548	
	Sum of Numbertrucked	0	0	0	0	0	0	
	Sum of SampleMorts	0	2	0	1	0	3	
	Sum of FacilityMorts	0	3	0	0	0	3	
	Sum of ResearchMorts	0	0	0	0	0	0	
	Sum of TotalProjectMorts	0	5	0	1	0	6	
Total Sum of NumberCollected		778	36,974	160	18,052	70	56,034	
Total Sum of NumberBarged		108	6,288	0	3,178	0	9,574	
Total Sum of NumberBypassed		669	30,637	160	14,872	70	46,408	
Total Sum of Numbertrucked		0	0	0	0	0	0	
Total Sum of SampleMorts		1	17	0	1	0	19	
Total Sum of FacilityMorts		0	30	0	0	0	30	
Total Sum of ResearchMorts		0	0	0	0	0	0	
Total Sum of TotalProjectMorts		1	47	0	1	0	49	

### YTD Transportation Summary

Source: Fish Passage Center

Updated:

4/23/10 9:34 AM

TO: 04/23/10

Site	Data	Species					Grand Total	
		CH0	CH1	CO	SO	ST		
<b>LGR</b>	Sum of NumberCollected	758	33,947			10	14,558	49,273
	Sum of NumberBarged	108	6,288			0	3,178	9,574
	Sum of NumberBypassed	649	27,619			10	11,379	39,657
	Sum of NumberTrucked	0	0			0	0	0
	Sum of SampleMorts	1	13			0	1	15
	Sum of FacilityMorts	0	27			0	0	27
	Sum of ResearchMorts	0	0			0	0	0
	Sum of TotalProjectMorts	1	40			0	1	42
<b>LGS</b>	Sum of NumberCollected		50				216	266
	Sum of NumberBarged		0				0	0
	Sum of NumberBypassed		48				216	264
	Sum of NumberTrucked		0				0	0
	Sum of SampleMorts		2				0	2
	Sum of FacilityMorts		0				0	0
	Sum of ResearchMorts		0				0	0
	Sum of TotalProjectMorts		2				0	2
<b>LMN</b>	Sum of NumberCollected		171				54	225
	Sum of NumberBarged		0				0	0
	Sum of NumberBypassed		169				53	222
	Sum of NumberTrucked		0				0	0
	Sum of SampleMorts		0				0	0
	Sum of FacilityMorts		0				0	0
	Sum of ResearchMorts		0				0	0
	Sum of TotalProjectMorts		0				0	0
<b>MCN</b>	Sum of NumberCollected	40	3,622	160		65	3,777	7,664
	Sum of NumberBarged	0	0	0		0	0	0
	Sum of NumberBypassed	40	3,617	160		65	3,776	7,658
	Sum of NumberTrucked	0	0	0		0	0	0
	Sum of SampleMorts	0	2	0		0	1	3
	Sum of FacilityMorts	0	3	0		0	0	3
	Sum of ResearchMorts	0	0	0		0	0	0
	Sum of TotalProjectMorts	0	5	0		0	1	6
Total Sum of NumberCollected		798	37,790	160		75	18,605	57,428
Total Sum of NumberBarged		108	6,288			0	3,178	9,574
Total Sum of NumberBypassed		689	31,453	160		75	15,424	47,801
Total Sum of NumberTrucked		0	0	0		0	0	0
Total Sum of SampleMorts		1	17	0		0	2	20
Total Sum of FacilityMorts		0	30	0		0	0	30
Total Sum of ResearchMorts		0	0	0		0	0	0
Total Sum of TotalProjectMorts		1	47	0		0	2	50

Cumulative Adult Passage at Mainstem Dams Through: 04/22

DAM	EndDate	Spring Chinook						Summer Chinook						Fall Chinook					
		2010		2009		10-Yr Avg.		2010		2009		10-Yr Avg.		2010		2009		10-Yr Avg.	
		Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack
BON	04/21	68371	304	4353	63	57799	338	0	0	0	0	0	0	0	0	0	0	0	0
TDA	04/21	35107	119	1115	10	32863	134	0	0	0	0	0	0	0	0	0	0	0	0
JDA	04/21	26670	179	388	9	22033	50	0	0	0	0	0	0	0	0	0	0	0	0
MCN	04/21	13556	100	180	1	15336	43	0	0	0	0	0	0	0	0	0	0	0	0
IHR	04/21	4901	33	123	2	9087	18	0	0	0	0	0	0	0	0	0	0	0	0
LMN	04/21	2620	11	53	0	6757	9	0	0	0	0	0	0	0	0	0	0	0	0
LGS	04/21	1001	36	28	0	4912	31	0	0	0	0	0	0	0	0	0	0	0	0
LGR	04/21	433	12	7	1	3651	3	0	0	0	0	0	0	0	0	0	0	0	0
PRD	--	571	0	6	1	1130	0	0	0	0	0	0	0	0	0	0	0	0	0
RIS	--	86	1	1	0	287	0	0	0	0	0	0	0	0	0	0	0	0	0
RRH	--	9	1	0	0	21	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	3977	5	218	0	-	-	-	-	-	-	-	-	0	0	0	0	-	-

DAM	Coho						Sockeye			Steelhead			Wild 2010
	2010		2009		10-Yr Avg.		2010	2009	10-Yr Avg.	2010	2009	10-Yr Avg.	
	Adult	Jack	Adult	Jack	Adult	Jack							
BON	0	0	0	0	0	0	0	0	0	3506	1753	1889	1085
TDA	0	0	0	0	0	0	0	0	0	1624	902	871	825
JDA	0	0	0	0	0	0	0	0	0	1830	2186	2102	1088
MCN	0	0	0	0	0	0	0	0	0	1609	1842	1598	836
IHR	0	0	0	0	0	0	0	0	0	2248	2607	1995	853
LMN	0	0	0	0	0	0	0	0	0	2985	3679	2173	1548
LGS	0	0	0	0	0	0	0	0	0	2056	3988	2176	953
LGR	0	0	0	0	0	0	0	0	0	8993	9363	7886	3272
PRD	0	0	0	0	0	0	0	0	0	34	9	4	0
RIS	0	0	0	0	0	0	0	0	0	48	35	21	30
RRH	0	0	0	0	0	0	0	0	0	147	166	81	104
WEL	0	0	0	0	0	0	0	0	0	0	0	0	0
WFA	0	0	0	0	-	-	-	-	-	6927	2603	-	-

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: 04/23/10

BON counts from January 1, 2009 to March 14, 2010 (historical counts begin March 15):

Year	Chinook Adult	Chinook Jack	Steelhead	Wild Steelhead
2010	39	0	2,318	657
2009	19	-1	321	109

## 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
<b>Little Goose Dam</b>											
	04/20/10	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
<b>Lower Monumental Dam</b>											
	04/17/10	Chinook + Steelhead	22	0	0	0.00%	0.00%	0	0	0	0
<b>McNary Dam</b>											
	04/18/10	Chinook + Steelhead	100	0	0	0.00%	0.00%	0	0	0	0
<b>Bonneville Dam</b>											
	04/21/10	Chinook + Steelhead	102	0	0	0.00%	0.00%	0	0	0	0
<b>Rock Island Dam</b>											
	04/20/10	Chinook + Steelhead	41	0	0	0.00%	0.00%	0	0	0	0
	04/22/10	Chinook + Steelhead	50	1	0	0.00%	0.00%	0	0	0	0