



Fish Passage Center

Weekly Report #09 - 04

April 3, 2009

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Summary of Events:

Precipitation throughout the Columbia Basin has varied between 95% and 149% of average at individual sub-basins over March. Precipitation above The Dalles has been 127% of average over March. Over the entire water year, precipitation has generally been near average.

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

Location	Water Year 2009 March 1-30		Water Year 2009 October 1, 2008 to March 30, 2009	
	Observed (inches)	% Average	Observed (inches)	% Average
Columbia Above Coulee	2.12	122	13.54	95
Sneke River Above Ice Harbor	2.06	129	10.76	105
Columbia Above The Dalles	2.36	127	14.02	99
Kootenai	2.07	120	13.03	90
Clark Fork	1.76	152	10.62	119
Flathead	2.06	131	11.96	99
Pend Oreille/ Spokane	3.22	120	18.41	92
Central Washington	0.97	121	5.19	88
Sneke River Plain	1.04	95	5.79	95
Salmon/Boise/ Payette	2.57	137	11.33	89
Clearwater	4.05	149	21.35	115
SW Washington Cascades/ Cowlitz	7.10	104	46.41	87
Willamette Valley	6.14	99	36.34	81

Snowpack within the Columbia Basin has generally increased over the past month. Average

snowpack in the Columbia River for the Snake River above Palisades is 103% of average, for the Clearwater and Salmon Basins the average snowpack is 115% of average, and for lower Columbia Basins between McNary and Bonneville Dam average snowpack is 118% of average.

Table 2 displays the March Final and April Early Bird runoff volume forecasts for multiple reservoirs. Water Supply Forecasts have generally increased between the March Final and April Early Bird forecasts. The current forecast at The Dalles between January and July is 88500 Kaf (82% of average).

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

Location	March Final		April Early Bird	
	% Average (1971- 2000)	Probable Runoff Volume (Kaf)	% Average (1971- 2000)	Probable Runoff Volume (Kaf)
The Dalles (Jan-July)	80	86200	82	88500
Grand Coulee (Jan-July)	87	54900	86	54400
Libby Res. Inflow, MT (Apr-Aug)	84 84*	5250 5296*	82	5150
Hungry Horse Res. Inflow, MT (Jan-July)	90	2010	98	2190
Lower Granite Res. Inflow (Apr- July)	75	16200	89	19200
Brownlee Res. Inflow (Apr-July)	53	3350	68	4280
Dworshak Res. Inflow (Apr-July)	82 92*	2170 2461*	98	2600

* Denotes COE Forecast

Grand Coulee Reservoir is at 1281.4 feet (4-02-09) and has drafted 2.3 feet in the last week. The Salmon Managers and the Action agencies have agreed to a DWR/GCL shift. The end of March shifted FC elevation is 1281.6 feet at Grand Coulee. Outflows at Grand Coulee have ranged between 43.2 and 104.6 Kcfs over the last week.

The Libby Reservoir is currently at elevation 2403.3 feet (4-02-09) and drafted 0.6 feet last week. The end of March VarQ FC elevation at Libby is 2442.6 feet, therefore Libby is currently 39.3 feet below the end of March VarQ FC elevation at Libby. Outflows at Libby have been 4.0 Kcfs.

Hungry Horse is currently at an elevation of 3508.5 ft (4-02-09) and has drafted 0.6 feet last week. Outflows at Hungry Horse have been 2.1–2.3 Kcfs last week; Hungry Horse has been operating to Columbia Falls Minimum outflows. Hungry Horse’s end of March VarQ FC elevation is 3539.5 feet, therefore Hungry Horse is currently 31 feet below the end of March VarQ FC elevation at Hungry Horse.

Dworshak is currently at an elevation of 1538.3 feet (4-02-09) and refilled 0.7 feet last week; outflows at Dworshak were 1.6 Kcfs for much of the last week until March 31, when outflows were increased from Dworshak. Outflows reached 14 Kcfs on April 2, 2009 in response to an increased runoff volume forecast that established an end of April flood control elevation of 1516.6 Feet.

The Brownlee Reservoir was at an elevation of 2057.3 feet on April 2nd, 2009, refilling 0.4 feet last week. The end of March FC elevation is 2074.6 feet at Brownlee Dam, therefore Brownlee is currently 17.3 feet below its end of March FC elevation. Outflows at Brownlee Dam have been 10.4 to 17.2 Kcfs over the last week.

Spill:

Flows were increased at Dworshak Dam in response to the latest runoff volume forecast. Spill of about 3.6 Kcfs has been occurring at this project since 1800 hours on April 1, 2009. The 2009 planned spring spill program at the lower Snake River Projects began on April 3 at 0001 hours and will continue through June 20, 2009. The following table shows the planned operations for 2009.

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

The 2009 spill program is scheduled to begin at the lower Columbia River projects on April 10th.

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 2nd. Daily adult spring Chinook counts at Bonneville Dam ranged from 6 to 23 adult salmon per day. Between March 15th and April 2nd, 163 spring Chinook have been counted at Bonneville Dam. In 2008, 199 adult spring Chinook were counted at Bonneville Dam for the same time period. The 2009 adult spring Chinook count at Bonneville Dam is 81.9% of the 2008 count. The Bonneville spring Chinook adult count is only about 3.4% of the 10 year average of 4740. At Willamette Falls Dam 15 adult spring Chinook have been counted so far this year. At The Dalles Dam the 2009 adult spring Chinook is 10 and at McNary Dam 6 adult spring Chinook have been counted.

The Bonneville Dam 2009 steelhead count of 609 is about 1.1 times greater than the 2008 count of 550. The 2009 steelhead count is about 73.6% of the 10-year average of 827. 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 92 to 107 adults per day last week. This year’s Lower Granite steelhead count of 3784 is 95.1% of the 2008 count of 3979 and 75.8% of the 10 year average of 4989.

The 2009 wild steelhead count as of April 2nd was 855. At Willamette Falls Dam, the 2009 count for steelhead was 1902, as of March 28th. This year's steelhead count is only about 59.5% of the 2008 count of 3195 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 10th. Three adult salmon were by passed on March 15th. From March 15th to April 1st, daily adult steelhead by passed counts ranged from 1 to 6. A total of 53 adult steelhead and 2 adult Chinook have been by passed. Additionally, 4 unknown adult salmonids have been by passed during the same date range.

Stansell et al. reported that as of March 27th, 17 California sea lions and 25 Steller sea lions have been counted at Bonneville Dam. Sea lion trapping began on March 10th. To date, a total of 5 sea lions have been trapped and removed. The traps will continue to be used to mark sea lions not previously seen at the dam and to remove animals that meet the removal criteria granted to the states by NOAA Fisheries under Section 120 of the Marine Mammal Protection Act. Hazing from boats began in January has been conducted on most days through March 25th.

Stansell, Robert; Tackley, Sean; and Gibbons, Karrie. 2009. Status Report – Pinniped Predation and Deterrent Activities at Bonneville Dam, 2009. Fisheries Field Unit, US Army Corps of Engineers, Bonneville Lock and Dam, Cascade Locks, Oregon. Available online at <http://www.nwd-wc.usace.army.mil/tmt/documents/fish/2009/update20090327.pdf>.

Smolt Monitoring:

Sampling for smolt monitoring has begun at all sites except McNary Dam, where installation of screens was delayed to allow juvenile lamprey passage prior to juvenile salmon passage. Large numbers of hatchery origin yearling Chinook are passing the traps this week reflecting the passage of large releases from tributary hatcheries.

At the Imnaha River Trap, operated by the Nez Perce Tribe, large numbers of yearling Chinook were collected as acclimation released fish began passing; collection of hatchery fish increased to nearly 1,000 on April 1. At the same time the number of wild yearling Chinook being captured has decreased over the past week, averaging near 100 fish per day compared to over 200 per day last week. The Salmon River Trap, operated by Idaho Department of Fish and Game, has also been

capturing large numbers of hatchery yearling Chinook over the past two weeks as recent hatchery releases pass down stream. Flows in the Salmon River have not increased as of April 1 due to low temperatures so that flows have dropped well below historic median flows as measured at USGS gage at Riggins, Idaho. Wild yearling Chinook collection numbers remained low but steady over the past week at the Salmon Trap, numbers will likely increase as flows increase. At the Grande Ronde Trap, operated by the Oregon Department of Fish and Wildlife, about 100 yearling Chinook per day were captured this past week. Most fish collected at the trap this week were hatchery origin fish, likely released from a volitional release out of the Lostine Acclimation facility that ended March 31. The Lewiston Trap on the Snake River has been capturing small numbers of yearling and sub-yearling Chinook as well as steelhead. Flows are well below historic median in the Snake River at Anatone for this time period. Flows fluctuated between 24 and 34 Kcfs this past week while historic flows averaged nearly 40 Kcfs for the same time period.

Sampling has begun at Lower Granite, Little Goose and Lower Monumental dams in the Lower Snake River. Predominantly holdover yearling Chinook have been collected in the sample at all three sites. A small number of sockeye were also captured at each of the sites, with these likely being kokanee from Dworshak Reservoir.

Sampling has also begun at Rock Island and John Day dams, while at Bonneville Dam sampling has been underway since early March. At Rock Island only a few fish have been captured in the first two days of sampling. At Bonneville Dam relatively large numbers of subyearling Chinook have been captured over the past week, with the daily index averaging nearly 1,000 fish per day over the past week. Most of the subyearling Chinook captured were fry (fish less than 60mm).

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. Beginning in early April, approximately 447,500 yearling fall Chinook were scheduled for release directly into the Snake River from Lyons Ferry Hatchery. In addition, there were several releases of yearling spring Chinook juveniles scheduled to begin this week. In all these releases are expected to total about 815,400 juveniles. Of these, about 36% were to be released into the Imnaha River, 18% to the Grande

Ronde River, 16% to the Clearwater River, 15% to the Wallowa River, and 14% to the Tucannon River. In addition to the releases of spring Chinook juveniles beginning over the past week, several releases of yearling spring Chinook that began weeks ago ended this week. These releases totaled about 2.6 million juveniles. Of these, 2.5 million were being released from Rapid River Hatchery into the Little Salmon River and 124,500 were being released to the Wallowa River. Approximately 871,000 yearling summer Chinook were scheduled to be released from Pahsimeroi Hatchery into the Pahsimeroi River. This release is expected to run through mid-April. Finally, just over 2.1 million summer steelhead juveniles were scheduled for release into the Snake River Zone this week. Of these, about 39% were scheduled for release into the Clearwater River and its tributaries, 28% were scheduled for release into the Salmon River and its tributaries, 25% were scheduled for release into the Snake River below Hells Canyon Dam, and 8% were scheduled for release into the Grand Rhonde River.

Beginning in mid-April, approximately 442,000 yearling fall Chinook from Lyons Ferry Hatchery will be released from acclimation facilities on the Snake and Clearwater rivers, above Lower Granite Dam. Of these, 66% will be released into the Snake River and 34% will be released into the Clearwater River. Approximately 286,000 yearling spring Chinook are scheduled for release into the Grande Rhonde River on April 13th. Finally, releases totaling nearly 3.55 million summer steelhead juveniles to the Snake River Zone are scheduled to begin over the next two weeks. Of these, about 41% are scheduled for release into the Salmon River and its tributaries, 24% to the Pahsimeroi River, and 21% to the Clearwater River and its tributaries. The remaining 13% will be split between the Wallowa (7%), Tucannon (3%), Snake (2%), and Imnaha (1%) 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. Approximately 250,000 yearling spring Chinook juveniles from Carson NFH were scheduled for release into the Walla Walla River, beginning April 1st. The Yakama Tribal Program to re-establish Coho runs in the Yakima, Methow, and Wenatchee basins began its releases this week, with a release of nearly 39,000 coho to Nason Creek, a tributary of the Wenatchee River. The Yakima River releases are scheduled to on or around April 6th and the Methow River releases are

scheduled to begin on or around April 15th.

Approximately 318,000 subyearling fall Chinook juveniles are scheduled for release into the Yakima River, beginning in mid-April. In addition to these subyearlings, about 8,300 yearling fall Chinook will also be released into the Yakima River. Also beginning in mid-April are several releases of yearling spring Chinook to the Methow River. In all, these spring Chinook releases are expected to total nearly 731,000 juveniles. Several of these releases are expected to run through the end of April. Nearly 2 million yearling summer Chinook are scheduled for release throughout this zone over the next two weeks. Of these, about 32% are scheduled for release into the Okanogan River, 24% into the Wenatchee River, 22% into the Methow River, and 22% into the mid-Columbia River.

As mentioned above, the Yakama Tribal Program to re-establish Coho runs in the Yakima and Methow basins is scheduled to begin over the next two weeks. The Yakima River releases are scheduled to begin on April 6th, with several releases from various acclimation ponds throughout the Yakima River Basin. In all, just over 1 million juvenile coho will be released into the Yakima River over the next two weeks. One release of just over 285,000 coho juveniles to the Methow River is scheduled to begin on or around April 15th. Finally, several releases totaling just over 1.1 million summer steelhead are anticipated to begin within the next two weeks. Of these, about 30% are scheduled for release into the Wenatchee River, 20% to the Methow River, 16% to the Mid-Columbia, and 13% to the Okanogan River. The remaining 21% will be split between the Touchet (12%) and Walla Walla (9%) rivers.

Lower Columbia Zone: The Lower Columbia Zone is defined as the Columbia River and its tributaries from Bonneville Dam to McNary Dam. Approximately 2.5 million coho juveniles from Washougal Hatchery were scheduled for release into the Klickitat River this week. This release is anticipated to run through mid-April. Nearly 98% of these coho juveniles are unmarked. In addition, about 12,400 summer steelhead juveniles were scheduled for release into Lake Billy Chinook on the Deschutes River this week.

Beginning April 13th, approximately 7.75 million subyearling fall Chinook juveniles will be released into the Lower Columbia River Zone. These subyearling fall Chinook releases are part of the

agreement to “re-program” Spring Creek NFH in order to eliminate the need for a March release. Of the 7.5 million juveniles to be released, 78% will be released from Spring Creek NFH and 22% will be released from Little White Salmon NFH. Nearly 1.68 million yearling spring Chinook are scheduled for release into this zone over the next two weeks. Of these, about 73% are scheduled for release into the Wind River, 25% into the Little White Salmon River, and 2% into Hood River. In addition to the 2.5 million coho juveniles that were released into the Klickitat River this week, 500,000 coho juveniles are anticipated for release into the Umatilla River, beginning on or around April 5th. Approximately 356,000 summer steelhead are scheduled for release to this zone over the next two weeks. Of these, about 46% are scheduled for release into the Deschutes River, 42% to the Umatilla River, 7% to the White Salmon River, and 6% to Hood River. Finally, about 20,000 winter steelhead juveniles are scheduled for release into the White Salmon River, beginning on or around April 15th.

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
03/20/2009	53.8	0.0	62.0	0.0	58.2	0.0	53.7	0.0	55.0	0.0	65.5	0.0	63.2	0.0
03/21/2009	46.0	0.0	39.5	0.0	49.3	0.0	53.2	0.0	54.6	0.0	64.7	0.0	62.3	0.0
03/22/2009	41.4	0.0	44.1	0.0	40.0	0.0	35.8	0.0	37.9	0.0	58.4	0.0	62.0	0.0
03/23/2009	77.2	0.0	76.0	0.0	76.3	0.0	74.8	0.0	73.4	0.0	69.4	0.0	64.0	0.0
03/24/2009	63.1	0.0	58.5	0.0	62.9	0.0	67.3	0.0	70.4	0.0	58.6	0.0	63.4	0.0
03/25/2009	84.9	0.0	91.1	0.0	92.0	0.0	88.0	0.0	88.4	0.0	84.5	0.0	73.8	0.0
03/26/2009	86.6	0.0	86.4	0.0	91.0	0.0	89.4	0.0	91.2	0.0	95.3	0.0	96.5	0.0
03/27/2009	96.3	0.0	94.6	0.0	93.8	0.0	90.0	0.0	91.4	0.0	88.8	0.0	84.8	0.0
03/28/2009	104.6	0.0	96.7	0.0	102.7	0.0	104.4	0.0	107.0	0.0	119.5	0.0	118.3	0.0
03/29/2009	63.8	0.0	67.9	0.0	71.7	0.0	73.3	0.0	76.4	0.0	83.7	0.0	84.1	0.0
03/30/2009	91.4	0.0	94.6	0.0	92.4	0.0	85.8	0.0	87.7	0.0	91.9	0.0	94.6	0.0
03/31/2009	108.7	0.0	113.3	0.0	117.8	6.3	118.3	13.5	113.0	0.0	104.0	10.6	95.1	6.5
04/01/2009	69.2	0.0	58.5	0.0	75.1	0.0	86.7	2.5	92.0	0.0	109.6	3.9	111.7	3.6
04/02/2009	43.2	0.0	57.1	0.0	52.4	0.0	47.2	0.0	47.8	0.0	51.4	0.0	65.4	0.0

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

Date	Dworshak		Hells Brownlee Canyon		Lower Granite		Little Goose		Lower Monumental		Ice Harbor	
	Flow	Spill	Inflow	Outflow	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill
03/20/2009	1.6	0.0	15.3	15.8	33.1	0.0	32.0	0.0	35.3	0.0	33.5	0.0
03/21/2009	1.6	0.0	16.1	14.7	41.3	0.0	38.6	2.4	41.2	0.0	41.5	0.0
03/22/2009	1.6	0.0	15.7	10.9	45.4	0.0	44.0	1.4	47.2	0.0	46.5	0.0
03/23/2009	1.6	0.0	17.9	15.9	49.5	0.0	39.0	1.4	45.1	0.0	49.3	0.0
03/24/2009	1.6	0.0	15.3	10.9	48.4	0.0	47.3	1.4	55.1	0.0	58.2	0.0
03/25/2009	3.1	0.0	14.9	10.8	49.8	0.0	49.9	1.4	54.6	0.0	54.8	0.0
03/26/2009	3.0	0.0	16.0	14.7	50.0	0.0	47.4	1.2	52.8	0.0	52.3	0.0
03/27/2009	1.6	0.0	13.9	16.2	44.9	0.0	39.1	0.0	41.6	0.0	43.7	0.0
03/28/2009	1.6	0.0	13.0	13.9	39.7	0.0	38.0	0.0	41.2	0.0	41.4	0.0
03/29/2009	1.6	0.0	13.0	11.6	43.7	0.0	48.7	0.0	51.9	0.0	52.9	0.0
03/30/2009	1.6	0.0	14.2	15.6	42.7	0.0	44.1	0.2	50.1	0.0	51.1	0.0
03/31/2009	2.5	0.0	12.9	11.3	54.6	0.0	50.1	0.0	56.5	0.0	53.1	0.0
04/01/2009	11.3	1.1	12.5	11.4	53.5	0.0	51.0	0.0	60.9	0.0	59.8	0.0
04/02/2009	14.0	3.6	---	---	58.7	0.0	58.5	0.1	64.2	0.0	68.3	0.1

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		
03/20/2009	103.0	0.0	109.1	0.0	110.0	0.0	124.1	1.3	19.3	97.5
03/21/2009	107.8	0.0	107.3	0.0	112.1	0.0	122.3	1.3	16.3	98.5
03/22/2009	110.1	0.0	112.4	0.0	111.8	0.0	122.8	1.3	16.4	98.7
03/23/2009	122.4	0.0	135.8	0.0	137.9	0.0	149.3	1.3	37.3	104.3
03/24/2009	129.6	0.0	149.2	0.0	150.7	0.0	167.7	1.3	55.7	104.3
03/25/2009	126.7	0.0	128.0	0.0	129.8	0.0	139.5	1.3	29.8	102.0
03/26/2009	148.6	0.0	161.3	0.0	163.2	0.0	173.2	1.3	57.4	108.1
03/27/2009	154.4	0.0	159.3	0.0	159.0	0.0	175.2	1.3	61.8	105.7
03/28/2009	146.8	0.0	144.8	0.0	144.6	0.0	152.3	1.3	42.2	102.3
03/29/2009	153.1	0.0	158.8	0.0	156.0	0.0	165.9	1.4	52.6	105.5
03/30/2009	169.8	0.1	176.3	0.0	179.7	0.0	197.8	1.3	74.4	115.7
03/31/2009	120.4	0.0	151.9	0.0	157.9	0.0	170.7	1.3	58.4	104.6
04/01/2009	156.2	0.0	159.1	0.0	150.9	0.0	160.6	1.3	48.6	104.2
04/02/2009	148.4	0.0	141.1	0.0	148.9	0.0	168.7	1.5	55.5	105.2

Hatchery Releases Last Two Weeks

Hatchery Release Summary

From: 3/20/2009 **to** 04/02/09

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SP	2009	333,914	03-15-09	04-15-09	Lochsa River	Clearwater River M F
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SP	2009	404,155	03-15-09	04-15-09	Lochsa River	Clearwater River M F
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SP	2009	404,989	03-15-09	04-15-09	Red River	S Fk Clearwater River
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SP	2009	703,326	03-15-09	04-15-09	Crooked River	S Fk Clearwater River
Idaho Dept. of Fish and Game	Clearwater Hatchery	ST	SU	2009	100,686	04-01-09	04-30-09	Red River	S Fk Clearwater River
Idaho Dept. of Fish and Game	Clearwater Hatchery	ST	SU	2009	165,457	04-01-09	04-30-09	Crooked River	S Fk Clearwater River
Idaho Dept. of Fish and Game	Clearwater Hatchery	ST	SU	2009	264,219	04-01-09	04-30-09	S Fk Clearwater River	Clearwater River M F
Idaho Dept. of Fish and Game	McCall Hatchery	CH1	SU	2009	1,106,000	03-23-09	03-26-09	S Fk Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Game	Niagara Springs	ST	SU	2009	170,000	04-01-09	05-01-09	Little Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Game	Niagara Springs	ST	SU	2009	275,000	04-01-09	04-08-09	Little Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Game	Niagara Springs	ST	SU	2009	525,000	03-23-09	04-01-09	Hells Canyon Dam	Snake River
Idaho Dept. of Fish and Game	Pahsimeroi Hatchery	CH1	SU	2009	871,110	03-30-09	04-15-09	Pahsimeroi River	Pahsimeroi River
Idaho Dept. of Fish and Game	Rapid River Hatchery	CH1	SP	2009	2,500,000	03-16-09	04-02-09	Rapid River Hatchery	Little Salmon River
Idaho Dept. of Fish and Game Total					7,823,856				
Nez Perce Tribe	Clearwater Hatchery	CH1	SP	2009	399,953	03-15-09	04-15-09	Selway River	Clearwater River M F
Nez Perce Tribe	Clearwater Hatchery	ST	SU	2009	25,360	04-01-09	04-30-09	Meadow Creek - CLES	S Fk Clearwater River
Nez Perce Tribe	Clearwater Hatchery	ST	SU	2009	25,360	04-01-09	04-30-09	Mill Cr Bridge	S Fk Clearwater River
Nez Perce Tribe	Clearwater Hatchery	ST	SU	2009	50,271	04-01-09	04-30-09	Lolo Creek	Clearwater River M F
Nez Perce Tribe	Clearwater Hatchery	ST	SU	2009	73,324	04-01-09	04-30-09	Crooked River	S Fk Clearwater River
Nez Perce Tribe	Clearwater Hatchery	ST	SU	2009	131,939	04-01-09	04-30-09	Red River	S Fk Clearwater River
Nez Perce Tribe	Hagerman NFH	ST	SU	2009	160,000	03-30-09	04-03-09	Little Salmon River	Salmon River (ID)
Nez Perce Tribe	Kooskia NFH	CH1	SP	2009	162,000	03-23-09	03-23-09	Kooskia Hatchery	Clearwater River M F
Nez Perce Tribe	Kooskia NFH	CH1	SP	2009	443,000	03-23-09	03-23-09	Kooskia Hatchery	Clearwater River M F
Nez Perce Tribe	Lookingglass Hatchery	CH1	SP	2009	61,800	03-31-09	03-31-09	Lostine Accim Pond	Wallowa River
Nez Perce Tribe	Lookingglass Hatchery	CH1	SP	2009	62,100	03-31-09	03-31-09	Lostine Accim Pond	Wallowa River
Nez Perce Tribe	Lookingglass Hatchery	CH1	SP	2009	124,500	03-18-09	03-31-09	Lostine Accim Pond Nez Perce Tribal	Wallowa River
Nez Perce Tribe	Nez Perce Tribal Hatchery	CH1	SP	2009	133,000	04-01-09	04-15-09	Hatchery	Clearwater River M F
Nez Perce Tribe Total					1,852,607				
Oregon Dept. of Fish and Wildlife	Lookingglass Hatchery	CH1	SP	2009	150,000	04-01-09	04-14-09	Lookingglass Creek	Grande Ronde River
Oregon Dept. of Fish and Wildlife	Lookingglass Hatchery	CH1	SP	2009	294,500	03-31-09	04-15-09	Imnaha Acclim Pond	Imnaha River
Oregon Dept. of Fish and Wildlife	Oak Springs Hatchery	ST	SU	2009	12,400	04-01-09	04-01-09	Deschutes River	Deschutes River
Oregon Dept. of Fish and Wildlife Total					456,900				
U.S. Fish and Wildlife Service	Dworshak NFH	CH1	SP	2009	1,025,000	03-25-09	03-26-09	Dworshak Hatchery	Clearwater River M F
U.S. Fish and Wildlife Service	Hagerman NFH	ST	SU	2009	100,000	03-25-09	03-27-09	Little Salmon River Warm Springs	Salmon River (ID)
U.S. Fish and Wildlife Service	Warm Springs NFH	CH1	SP	2009	570,000	03-20-09	04-20-09	Hatchery	Deschutes River
U.S. Fish and Wildlife Service Total					1,695,000				
Umatilla Tribe	Carson NFH	CH1	SP	2009	250,000	04-01-09	04-08-09	Walla Walla River	Walla Walla River
Umatilla Tribe	Umatilla Hatchery	CH1	SP	2009	460,000	03-02-09	04-15-09	Imeques Acclim Pond	Umatilla River
Umatilla Tribe Total					710,000				
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	CH1	FA	2009	447,500	04-01-09	04-15-09	Lyons Ferry Hatchery Cottonwood Acclim	Snake River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2009	168,000	04-01-09	04-30-09	Pond	Grande Ronde River
Washington Dept. of Fish and Wildlife	Tucannon Hatchery	CH1	SP	2009	55,000	04-01-09	04-21-09	Curl Lake Acclim Pond	Tucannon River
Washington Dept. of Fish and Wildlife	Tucannon Hatchery	CH1	SP	2009	59,000	04-01-09	04-21-09	Curl Lake Acclim Pond	Tucannon River
Washington Dept. of Fish and Wildlife	Washougal Hatchery	CO	NO	2009	2,500,000	04-01-09	04-15-09	Klickitat River	Klickitat River
Washington Dept. of Fish and Wildlife Total					3,229,500				
Yakama Tribe	Cascade Hatchery	CO	UN	2009	38,869	04-01-09	04-15-09	Nason Creek Jack Creek Acclim	Wenatchee River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2009	251,067	03-16-09	05-15-09	Pond	Yakima River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2009	254,889	03-16-09	05-15-09	Easton Pond	Yakima River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2009	266,044	03-16-09	05-15-09	Clark Flat Acclim Pond	Yakima River
Yakama Tribe Total					810,869				
Grand Total					16,578,732				

Hatchery Releases Next Two Weeks

Hatchery Release Summary									
From:	4/3/2009		to		4/16/2009				
Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
Colville Tribe	Cassimer Bar Hatchery	ST	SU	2009	2,000	04-15-09	04-30-09	Okanogan River	Okanogan River
Colville Tribe	Cassimer Bar Hatchery	ST	SU	2009	14,000	04-15-09	04-30-09	Omak Creek Bonaparte Acclimation Pond	Okanogan River
Colville Tribe	Eastbank Hatchery	CH1	SU	2009	100,000	04-15-09	04-30-09		Okanogan River
Colville Tribe Total					116,000				
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SP	2009	333,914	03-15-09	04-15-09	Lochsa River	Clearwater River M F
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SP	2009	404,155	03-15-09	04-15-09	Lochsa River	Clearwater River M F
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SP	2009	404,989	03-15-09	04-15-09	Red River	S Fk Clearwater River
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SP	2009	703,326	03-15-09	04-15-09	Crooked River	S Fk Clearwater River
Idaho Dept. of Fish and Game	Clearwater Hatchery	ST	SU	2009	100,686	04-01-09	04-30-09	Red River	S Fk Clearwater River
Idaho Dept. of Fish and Game	Clearwater Hatchery	ST	SU	2009	165,457	04-01-09	04-30-09	Crooked River	S Fk Clearwater River
Idaho Dept. of Fish and Game	Clearwater Hatchery	ST	SU	2009	264,219	04-01-09	04-30-09	S Fk Clearwater River	Clearwater River M F
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2009	31,000	04-11-09	04-17-09	Pahsimeroi River	Pahsimeroi River
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2009	93,000	04-11-09	04-17-09	Salmon River (ID)	Salmon River (ID)
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2009	125,000	04-11-09	04-17-09	Salmon River (ID)	Salmon River (ID)
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2009	126,000	04-06-09	04-09-09	Salmon River (ID)	Salmon River (ID)
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2009	218,000	04-06-09	04-09-09	Little Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Game	Niagara Springs	ST	SU	2009	170,000	04-01-09	05-01-09	Little Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Game	Niagara Springs	ST	SU	2009	275,000	04-01-09	04-08-09	Little Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Game	Niagara Springs	ST	SU	2009	830,000	04-09-09	04-28-09	Pahsimeroi River	Pahsimeroi River
Idaho Dept. of Fish and Game	Pahsimeroi Hatchery	CH1	SU	2009	871,110	03-30-09	04-15-09	Pahsimeroi River	Pahsimeroi River
Idaho Dept. of Fish and Game Total					5,115,856				
Nez Perce Tribe	Clearwater Hatchery	CH1	SP	2009	399,953	03-15-09	04-15-09	Selway River	Clearwater River M F
Nez Perce Tribe	Clearwater Hatchery	ST	SU	2009	25,360	04-01-09	04-30-09	Meadow Creek - CLES	S Fk Clearwater River
Nez Perce Tribe	Clearwater Hatchery	ST	SU	2009	25,360	04-01-09	04-30-09	Mill Cr Bridge	S Fk Clearwater River
Nez Perce Tribe	Clearwater Hatchery	ST	SU	2009	50,271	04-01-09	04-30-09	Lolo Creek	Clearwater River M F
Nez Perce Tribe	Clearwater Hatchery	ST	SU	2009	73,324	04-01-09	04-30-09	Crooked River	S Fk Clearwater River
Nez Perce Tribe	Clearwater Hatchery	ST	SU	2009	131,939	04-01-09	04-30-09	Red River	S Fk Clearwater River
Nez Perce Tribe	Dworshak NFH	ST	SU	2009	115,000	04-13-09	04-17-09	American River	S Fk Clearwater River
Nez Perce Tribe	Dworshak NFH	ST	SU	2009	115,000	04-13-09	04-17-09	Newsome Creek	S Fk Clearwater River
Nez Perce Tribe	Hagerman NFH	ST	SU	2009	40,000	04-06-09	04-06-09	Little Salmon River	Salmon River (ID)
Nez Perce Tribe	Hagerman NFH	ST	SU	2009	160,000	03-30-09	04-03-09	Little Salmon River	Salmon River (ID)
Nez Perce Tribe	Lyons Ferry Hatchery	CH1	FA	2009	142,000	04-15-09	04-15-09	Cpt John Acclim Pond Pittsburg Landing	Snake River
Nez Perce Tribe	Lyons Ferry Hatchery	CH1	FA	2009	150,000	04-14-09	04-15-09	Acclim Pond Big Canyon (Clearwater River)	Snake River
Nez Perce Tribe	Lyons Ferry Hatchery	CH1	FA	2009	150,000	04-15-09	04-15-09	Nez Perce Tribal Hatchery	Clearwater River M F
Nez Perce Tribe	Nez Perce Tribal Hatchery	CH1	SP	2009	133,000	04-01-09	04-15-09		Clearwater River M F
Nez Perce Tribe Total					1,711,207				
Oregon Dept. of Fish and Wildlife	Irrigon Hatchery Complex	ST	SU	2009	46,000	04-10-09	04-10-09	Big Sheep Creek	Imnaha River
Oregon Dept. of Fish and Wildlife	Irrigon Hatchery Complex	ST	SU	2009	258,000	04-14-09	04-14-09	Wallowa Acclim Pond	Wallowa River
Oregon Dept. of Fish and Wildlife	Lookingglass Hatchery	CH1	SP	2009	150,000	04-01-09	04-14-09	Lookingglass Creek	Grande Ronde River
Oregon Dept. of Fish and Wildlife	Lookingglass Hatchery	CH1	SP	2009	294,500	03-31-09	04-15-09	Imnaha Acclim Pond	Imnaha River
Oregon Dept. of Fish and Wildlife	Round Butte Hatchery	ST	SU	2009	162,000	04-08-09	04-08-09	Deschutes River	Deschutes River
Oregon Dept. of Fish and Wildlife	Umatilla Hatchery	ST	SU	2009	50,000	04-16-09	04-16-09	Meacham Creek	Umatilla River
Oregon Dept. of Fish and Wildlife Total					960,500				

Hatchery Releases Next Two Weeks - Continued

Hatchery Release Summary									
From:	4/3/2009		to		4/16/2009				
Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
Colville Tribe	Cassimer Bar Hatchery	ST	SU	2009	2,000	04-15-09	04-30-09	Okanogan River	Okanogan River
Colville Tribe	Cassimer Bar Hatchery	ST	SU	2009	14,000	04-15-09	04-30-09	Omak Creek	Okanogan River
Colville Tribe	Eastbank Hatchery	CH1	SU	2009	100,000	04-15-09	04-30-09	Bonaparte Acclimation Pond	Okanogan River
Colville Tribe Total					116,000				
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SP	2009	333,914	03-15-09	04-15-09	Lochsa River	Clearwater River M F
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SP	2009	404,155	03-15-09	04-15-09	Lochsa River	Clearwater River M F
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SP	2009	404,989	03-15-09	04-15-09	Red River	S Fk Clearwater River
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SP	2009	703,326	03-15-09	04-15-09	Crooked River	S Fk Clearwater River
Idaho Dept. of Fish and Game	Clearwater Hatchery	ST	SU	2009	100,686	04-01-09	04-30-09	Red River	S Fk Clearwater River
Idaho Dept. of Fish and Game	Clearwater Hatchery	ST	SU	2009	165,457	04-01-09	04-30-09	Crooked River	S Fk Clearwater River
Idaho Dept. of Fish and Game	Clearwater Hatchery	ST	SU	2009	264,219	04-01-09	04-30-09	S Fk Clearwater River	Clearwater River M F
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2009	31,000	04-11-09	04-17-09	Pahsimeroi River	Pahsimeroi River
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2009	93,000	04-11-09	04-17-09	Salmon River (ID)	Salmon River (ID)
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2009	125,000	04-11-09	04-17-09	Salmon River (ID)	Salmon River (ID)
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2009	126,000	04-06-09	04-09-09	Salmon River (ID)	Salmon River (ID)
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2009	218,000	04-06-09	04-09-09	Little Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Game	Niagara Springs	ST	SU	2009	170,000	04-01-09	05-01-09	Little Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Game	Niagara Springs	ST	SU	2009	275,000	04-01-09	04-08-09	Little Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Game	Niagara Springs	ST	SU	2009	830,000	04-09-09	04-28-09	Pahsimeroi River	Pahsimeroi River
Idaho Dept. of Fish and Game	Pahsimeroi Hatchery	CH1	SU	2009	871,110	03-30-09	04-15-09	Pahsimeroi River	Pahsimeroi River
Idaho Dept. of Fish and Game Total					5,115,856				
Nez Perce Tribe	Clearwater Hatchery	CH1	SP	2009	399,953	03-15-09	04-15-09	Selway River	Clearwater River M F
Nez Perce Tribe	Clearwater Hatchery	ST	SU	2009	25,360	04-01-09	04-30-09	Meadow Creek - CLES	S Fk Clearwater River
Nez Perce Tribe	Clearwater Hatchery	ST	SU	2009	25,360	04-01-09	04-30-09	Mill Cr Bridge	S Fk Clearwater River
Nez Perce Tribe	Clearwater Hatchery	ST	SU	2009	50,271	04-01-09	04-30-09	Lolo Creek	Clearwater River M F
Nez Perce Tribe	Clearwater Hatchery	ST	SU	2009	73,324	04-01-09	04-30-09	Crooked River	S Fk Clearwater River
Nez Perce Tribe	Clearwater Hatchery	ST	SU	2009	131,939	04-01-09	04-30-09	Red River	S Fk Clearwater River
Nez Perce Tribe	Dworshak NFH	ST	SU	2009	115,000	04-13-09	04-17-09	American River	S Fk Clearwater River
Nez Perce Tribe	Dworshak NFH	ST	SU	2009	115,000	04-13-09	04-17-09	Newsome Creek	S Fk Clearwater River
Nez Perce Tribe	Hagerman NFH	ST	SU	2009	40,000	04-06-09	04-06-09	Little Salmon River	Salmon River (ID)
Nez Perce Tribe	Hagerman NFH	ST	SU	2009	160,000	03-30-09	04-03-09	Little Salmon River	Salmon River (ID)
Nez Perce Tribe	Lyons Ferry Hatchery	CH1	FA	2009	142,000	04-15-09	04-15-09	Cpt John Acclim Pond	Snake River
Nez Perce Tribe	Lyons Ferry Hatchery	CH1	FA	2009	150,000	04-14-09	04-15-09	Pittsburg Landing	Snake River
Nez Perce Tribe	Lyons Ferry Hatchery	CH1	FA	2009	150,000	04-14-09	04-15-09	Acclim Pond	Snake River
Nez Perce Tribe	Lyons Ferry Hatchery	CH1	FA	2009	150,000	04-15-09	04-15-09	Big Canyon (Clearwater River)	Clearwater River M F
Nez Perce Tribe	Nez Perce Tribal Hatchery	CH1	SP	2009	133,000	04-01-09	04-15-09	Nez Perce Tribal Hatchery	Clearwater River M F
Nez Perce Tribe Total					1,711,207				
Oregon Dept. of Fish and Wildlife	Irrigon Hatchery Complex	ST	SU	2009	46,000	04-10-09	04-10-09	Big Sheep Creek	Imnaha River
Oregon Dept. of Fish and Wildlife	Irrigon Hatchery Complex	ST	SU	2009	258,000	04-14-09	04-14-09	Wallowa Acclim Pond	Wallowa River
Oregon Dept. of Fish and Wildlife	Lookingglass Hatchery	CH1	SP	2009	150,000	04-01-09	04-14-09	Lookingglass Creek	Grande Ronde River
Oregon Dept. of Fish and Wildlife	Lookingglass Hatchery	CH1	SP	2009	294,500	03-31-09	04-15-09	Imnaha Acclim Pond	Imnaha River
Oregon Dept. of Fish and Wildlife	Round Butte Hatchery	ST	SU	2009	162,000	04-08-09	04-08-09	Deschutes River	Deschutes River
Oregon Dept. of Fish and Wildlife	Umatilla Hatchery	ST	SU	2009	50,000	04-16-09	04-16-09	Meacham Creek	Umatilla River
Oregon Dept. of Fish and Wildlife Total					960,500				

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

Total Dissolved Gas Saturation Data at Upper Columbia River Sites

Date	<u>Hungry H. Dnst</u>			<u>Boundary</u>			<u>Grand Coulee</u>			<u>Grand C. Tlwr</u>			<u>Chief Joseph</u>			#				
	<u>24 h</u>	<u>12 h</u>	<u>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>		
3/20	---	---	---	0	103	103	104	22	103	103	103	21	105	106	107	22	101	101	101	4
3/21	---	---	---	0	103	104	105	20	103	103	104	24	106	107	109	20	---	---	---	0
3/22	---	---	---	0	103	104	105	24	103	103	103	24	106	107	108	24	---	---	---	0
3/23	---	---	---	0	102	103	104	21	102	102	102	24	103	104	105	21	102	102	102	24
3/24	---	---	---	0	102	103	104	21	102	102	103	24	101	103	104	21	102	102	103	24
3/25	---	---	---	0	103	104	104	24	103	103	103	24	98	99	100	24	103	103	104	24
3/26	97	97	101	11	102	103	104	22	102	102	102	24	99	100	101	22	102	103	103	24
3/27	96	97	97	24	103	105	105	24	103	103	103	24	102	103	103	24	102	102	103	24
3/28	97	97	98	24	104	105	106	24	104	104	105	24	102	103	104	24	103	103	103	24
3/29	97	98	98	24	104	104	105	23	104	104	105	24	102	103	105	23	102	103	103	24
3/30	97	97	97	24	103	104	104	21	103	103	103	24	102	103	103	21	102	102	103	24
3/31	98	98	98	24	105	106	107	23	104	104	105	24	103	104	105	23	103	103	103	24
4/1	97	97	97	19	105	106	106	22	104	104	104	24	103	103	103	22	102	103	103	24
4/2	97	98	98	24	105	106	106	22	105	105	105	24	103	103	103	22	104	104	104	24

Total Dissolved Gas Saturation Data at Mid Columbia River Sites

Date	<u>Chief J. Dnst</u>			<u>Wells</u>			<u>Wells Dwnstrm</u>			<u>Rocky Reach</u>			<u>Rocky R. Tlwr</u>			#				
	<u>24 h</u>	<u>12 h</u>	<u>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>			
3/20	112	112	113	4	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/21	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/22	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/23	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/24	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/25	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/26	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/27	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/28	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/29	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/30	103	103	105	11	102	103	103	15	102	102	102	15	---	---	---	0	---	---	---	0
3/31	103	104	105	24	105	107	113	24	103	104	105	24	---	---	---	0	---	---	---	0
4/1	104	105	106	24	105	107	112	24	102	103	103	24	103	104	104	16	104	104	105	16
4/2	106	107	107	24	104	104	105	24	103	104	104	24	104	104	105	24	104	104	105	24

Total Dissolved Gas Saturation at Mid Columbia River Sites

Date	<u>Rock Island</u>			<u>Rock I. Tlwr</u>			<u>Wanapum</u>			<u>Wanapum Tlwr</u>			<u>Priest Rapids</u>			#				
	<u>24 h</u>	<u>12 h</u>	<u>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>			
3/20	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/21	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/22	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/23	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/24	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/25	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/26	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/27	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/28	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/29	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/30	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/31	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
4/1	106	107	112	16	107	108	112	16	---	---	---	0	---	---	---	0	---	---	---	0
4/2	104	105	105	24	105	105	105	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>Clrwtr-Peck</u>			<u>Anatone</u>			#				
	<u>24 h</u>	<u>12 h</u>	High	<u>24 h</u>	<u>12 h</u>	High	<u>24 h</u>	<u>12 h</u>	High	<u>24 h</u>	<u>12 h</u>	High	<u>24 h</u>	<u>12 h</u>	High					
	Avg	Avg		#	Avg		Avg	#		Avg	Avg		#	Avg			Avg	#	Avg	Avg
3/20	---	---	---	0	---	---	---	0	102	103	103	24	---	---	---	0	---	---	---	0
3/21	---	---	---	0	---	---	---	0	102	103	103	24	---	---	---	0	---	---	---	0
3/22	---	---	---	0	---	---	---	0	101	102	102	24	---	---	---	0	---	---	---	0
3/23	---	---	---	0	---	---	---	0	100	101	101	24	---	---	---	0	---	---	---	0
3/24	---	---	---	0	103	103	104	14	100	101	101	24	---	---	---	0	---	---	---	0
3/25	---	---	---	0	103	103	104	24	99	100	100	19	---	---	---	0	102	102	106	7
3/26	---	---	---	0	102	103	104	24	100	101	113	15	101	101	104	13	101	102	103	24
3/27	---	---	---	0	103	104	104	24	100	101	102	24	101	102	103	24	102	103	104	24
3/28	---	---	---	0	103	104	105	24	101	102	102	24	101	102	102	24	102	102	102	24
3/29	---	---	---	0	102	103	104	24	101	101	102	24	100	100	101	24	100	101	102	24
3/30	---	---	---	0	102	102	103	24	100	101	101	24	---	---	---	0	101	102	102	24
3/31	---	---	---	0	102	102	103	24	100	101	102	22	100	101	101	24	101	102	102	24
4/1	---	---	---	0	101	101	103	24	104	104	106	8	99	100	103	24	101	101	102	24
4/2	---	---	---	0	103	103	104	24	106	106	106	24	103	103	103	24	102	102	104	24

Total Dissolved Gas Saturation Data at Snake River Sites

Date	<u>Clrwtr-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>	High	<u>24 h</u>	<u>12 h</u>	High	<u>24 h</u>	<u>12 h</u>	High	<u>24 h</u>	<u>12 h</u>	High	<u>24 h</u>	<u>12 h</u>	High					
	Avg	Avg		#	Avg		Avg	#		Avg	Avg		#	Avg			Avg	#	Avg	Avg
3/20	---	---	---	0	---	---	---	0	104	104	104	24	102	102	104	7	101	102	105	20
3/21	---	---	---	0	---	---	---	0	103	103	103	24	103	103	105	24	105	108	113	24
3/22	---	---	---	0	---	---	---	0	102	103	103	24	103	103	103	24	104	105	107	24
3/23	---	---	---	0	---	---	---	0	101	102	102	24	102	102	102	24	104	105	108	24
3/24	---	---	---	0	---	---	---	0	102	102	102	24	103	103	104	24	103	104	105	24
3/25	---	---	---	0	102	102	102	12	102	103	107	24	104	104	104	24	104	105	106	24
3/26	102	102	103	11	100	100	101	24	100	100	100	24	102	102	103	24	102	103	103	24
3/27	101	102	103	24	101	101	101	24	100	100	101	24	102	102	103	24	102	102	102	24
3/28	101	101	102	24	102	103	103	24	102	102	103	24	103	103	104	24	102	103	103	24
3/29	99	100	100	24	102	102	103	24	101	102	103	24	103	103	104	24	102	103	103	24
3/30	100	102	103	24	100	101	101	24	100	100	101	24	102	102	102	24	101	102	104	24
3/31	100	101	101	24	102	102	102	11	102	102	103	24	102	102	102	24	101	102	102	24
4/1	99	99	100	24	101	101	102	24	101	101	102	24	101	101	101	24	100	100	101	24
4/2	101	102	103	24	101	101	102	24	101	101	102	24	102	102	102	24	101	101	102	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>	High	<u>24 h</u>	<u>12 h</u>	High	<u>24 h</u>	<u>12 h</u>	High	<u>24 h</u>	<u>12 h</u>	High	<u>24 h</u>	<u>12 h</u>	High					
	Avg	Avg		#	Avg		Avg	#		Avg	Avg		#	Avg			Avg	#	Avg	Avg
3/20	101	102	102	24	101	102	102	24	102	103	103	24	102	103	103	24	---	---	---	0
3/21	103	103	104	24	103	103	104	24	103	103	104	24	103	103	104	24	---	---	---	0
3/22	103	104	104	24	104	104	104	24	103	104	104	24	103	103	104	24	---	---	---	0
3/23	102	102	103	24	102	102	103	24	102	102	102	24	101	102	102	24	---	---	---	0
3/24	102	103	103	24	102	103	104	24	102	102	103	24	102	102	102	24	---	---	---	0
3/25	103	104	104	24	103	104	104	24	103	103	103	24	103	103	104	24	---	---	---	0
3/26	103	103	104	24	103	103	104	24	102	102	103	24	102	102	102	24	---	---	---	0
3/27	104	104	104	24	104	104	104	24	103	103	103	24	103	103	103	24	---	---	---	0
3/28	105	105	106	24	105	105	106	24	104	105	105	24	104	104	105	24	---	---	---	0
3/29	104	105	106	24	104	105	105	24	104	104	105	24	104	104	104	24	---	---	---	0
3/30	103	103	104	24	102	103	103	24	103	103	104	24	103	103	103	24	---	---	---	0
3/31	103	103	103	24	102	103	103	24	104	104	105	24	104	104	105	24	---	---	---	0
4/1	102	102	102	24	102	102	102	24	103	104	104	24	103	103	104	24	---	---	---	0
4/2	103	103	103	24	102	103	103	24	104	104	104	24	104	104	104	24	---	---	---	0

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

Total Dissolved Gas Saturation Data at Lower Columbia River Sites

Date	<u>McNary-Wash</u>			<u>McNary Tlwr</u>			<u>John Day</u>			<u>John Day Tlwr</u>			<u>The Dalles</u>							
	<u>24 h</u>	<u>12 h</u>	<u>High</u>	#	<u>24 h</u>	<u>12 h</u>	<u>High</u>	#	<u>24h</u>	<u>12h</u>	<u>High</u>	#	<u>24h</u>	<u>12h</u>	<u>High</u>	#	<u>24h</u>	<u>12h</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>		
3/20	---	---	---	0	104	104	104	24	104	104	104	24	103	104	104	24	105	105	106	24
3/21	---	---	---	0	104	105	105	24	104	105	105	24	104	104	104	24	105	105	106	24
3/22	---	---	---	0	104	105	105	24	104	104	105	24	103	104	104	24	104	105	105	24
3/23	104	104	107	13	103	103	103	24	102	103	103	24	102	102	102	24	102	102	103	24
3/24	104	104	104	24	103	104	104	24	103	103	103	24	103	103	103	24	103	103	104	24
3/25	104	104	104	24	103	103	103	24	104	104	104	24	103	103	104	24	104	104	104	24
3/26	102	102	103	24	102	102	102	24	103	103	104	24	102	103	103	24	103	103	104	24
3/27	103	103	103	24	102	103	103	24	104	104	104	24	103	103	103	24	104	104	104	24
3/28	103	104	104	24	103	104	105	24	104	105	105	24	104	104	104	24	104	105	105	24
3/29	103	103	104	24	103	104	104	24	103	103	104	24	102	102	103	24	103	103	104	24
3/30	102	102	102	24	102	103	103	24	102	102	102	24	101	101	102	24	102	102	102	24
3/31	103	103	103	24	103	103	104	24	103	103	103	24	102	102	102	24	103	103	103	24
4/1	102	103	103	24	102	103	103	24	102	103	103	24	102	102	103	24	102	102	103	24
4/2	103	103	104	24	103	103	103	24	103	103	104	24	103	103	103	24	103	103	104	24

Total Dissolved Gas Saturation Data at Lower Columbia River Sites

Date	<u>The Dalles Dnst</u>			<u>Bonneville</u>			<u>Warrendale</u>			<u>Camas\Washougal</u>			<u>Cascade Island</u>							
	<u>24 h</u>	<u>12 h</u>	<u>High</u>	#	<u>24 h</u>	<u>12 h</u>	<u>High</u>	#	<u>24h</u>	<u>12h</u>	<u>High</u>	#	<u>24h</u>	<u>12h</u>	<u>High</u>	#	<u>24h</u>	<u>12h</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>		
3/20	105	106	106	24	105	105	106	24	106	107	107	24	---	---	---	0	114	116	118	24
3/21	105	106	106	24	106	106	107	24	107	108	108	24	---	---	---	0	115	117	119	24
3/22	105	105	105	24	105	106	106	24	106	107	107	24	---	---	---	0	113	116	119	24
3/23	103	103	103	24	103	103	104	24	105	105	105	24	---	---	---	0	113	114	117	24
3/24	103	104	104	24	103	103	103	24	104	104	105	24	105	105	105	13	115	116	118	24
3/25	104	104	105	24	103	103	104	24	104	105	105	24	104	104	105	24	112	114	115	24
3/26	103	103	104	24	103	103	104	24	104	104	104	24	104	105	105	24	109	109	109	24
3/27	104	104	104	24	104	104	104	24	104	105	105	24	104	105	105	24	107	108	109	24
3/28	104	105	106	24	104	105	105	24	105	106	106	24	105	105	106	24	110	111	112	24
3/29	103	103	104	24	103	103	104	24	104	104	104	24	103	104	105	24	111	113	114	24
3/30	102	102	103	24	102	102	102	15	103	103	103	24	103	104	104	24	107	108	112	24
3/31	103	103	104	24	104	104	108	14	103	104	104	24	103	103	104	24	109	111	112	24
4/1	102	103	103	24	102	103	104	24	104	104	104	24	103	104	104	24	110	111	112	24
4/2	103	103	104	24	103	103	104	24	104	104	105	24	104	104	105	24	111	112	114	24

Two-Week Summary of Passage Indices

COMBINED YEARLING CHINOOK											
Date	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (INDEX)	LGS (INDEX)	LMN (INDEX)	RIS (INDEX)	MCN (INDEX)	JDA (INDEX)	BO2 (INDEX)
03/20/2009 *	594	275	14	2	---	---	---	---	---	---	36
03/21/2009	1,016	217	42	4	---	---	---	---	---	---	52
03/22/2009	1,578	369	70	8	---	---	---	---	---	---	57
03/23/2009	753	736	128	8	---	---	---	---	---	---	47
03/24/2009	330	545	248	15	---	---	---	---	---	---	52
03/25/2009	320	278	291	4	---	---	---	---	---	---	59
03/26/2009	231	242	271	5	170	---	---	---	---	---	48
03/27/2009	114	182	118	14	170	---	---	---	---	---	91
03/28/2009	109	125	112	29	220	---	---	---	---	---	49
03/29/2009	200	105	134	5	80	---	---	---	---	---	63
03/30/2009 *	413	272	37	19	200	---	---	---	---	---	75
03/31/2009	479	140	86	29	520	---	---	---	---	---	119
04/01/2009 *	358	999	138	2	930	---	6	0	---	145	75
04/02/2009	464	452	105	0	2,110	39	---	1	---	220	121
04/03/2009	---	---	---	---	---	---	---	---	---	---	---
Total:	6,959	4,937	1,794	144	4,400	39	6	1	0	365	944
# Days:	14	14	14	14	8	1	1	2	0	2	14
Average:	497	353	128	10	550	39	6	1	0	183	67
YTD	11,146	15,942	1,848	144	4,400	39	6	1	0	365	10,509

COMBINED SUBYEARLING CHINOOK											
Date	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (INDEX)	LGS (INDEX)	LMN (INDEX)	RIS (INDEX)	MCN (INDEX)	JDA (INDEX)	BO2 (INDEX)
03/20/2009 *	0	0	2	1	---	---	---	---	---	---	316
03/21/2009	0	0	0	0	---	---	---	---	---	---	613
03/22/2009	0	0	0	0	---	---	---	---	---	---	896
03/23/2009	0	0	0	2	---	---	---	---	---	---	882
03/24/2009	0	0	0	2	---	---	---	---	---	---	770
03/25/2009	0	0	0	1	---	---	---	---	---	---	930
03/26/2009	0	0	0	7	0	---	---	---	---	---	547
03/27/2009	0	0	0	5	0	---	---	---	---	---	1,099
03/28/2009	0	0	0	4	0	---	---	---	---	---	1,050
03/29/2009	0	0	0	2	0	---	---	---	---	---	691
03/30/2009 *	0	0	0	13	0	---	---	---	---	---	930
03/31/2009	0	0	0	17	0	---	---	---	---	---	1,303
04/01/2009 *	0	0	0	22	0	---	0	3	---	0	1,038
04/02/2009	0	0	0	4	60	0	---	0	---	5	617
04/03/2009	---	---	---	---	---	---	---	---	---	---	---
Total:	0	0	2	80	60	0	0	3	0	5	11,682
# Days:	14	14	14	14	8	1	1	2	0	2	14
Average:	0	0	0	6	8	0	0	2	0	3	834
YTD	0	0	13	81	60	0	0	3	0	5	14,571

Two-Week Summary of Passage Indices

COMBINED COHO											
Date	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (INDEX)	LGS (INDEX)	LMN (INDEX)	RIS (INDEX)	MCN (INDEX)	JDA (INDEX)	BO2 (INDEX)
03/20/2009 *	0	0	0	0	---	---	---	---	---	---	0
03/21/2009	0	0	0	0	---	---	---	---	---	---	14
03/22/2009	0	0	0	0	---	---	---	---	---	---	5
03/23/2009	0	0	0	0	---	---	---	---	---	---	24
03/24/2009	0	0	0	0	---	---	---	---	---	---	12
03/25/2009	0	0	0	0	---	---	---	---	---	---	12
03/26/2009	0	0	0	0	0	---	---	---	---	---	0
03/27/2009	0	0	0	0	0	---	---	---	---	---	26
03/28/2009	0	0	0	0	0	---	---	---	---	---	7
03/29/2009	0	0	0	0	0	---	---	---	---	---	12
03/30/2009 *	0	0	0	0	0	---	---	---	---	---	6
03/31/2009	0	0	0	1	0	---	---	---	---	---	0
04/01/2009 *	0	0	0	0	0	---	0	0	---	0	37
04/02/2009	0	0	0	0	0	---	0	0	---	0	28
04/03/2009	---	---	---	---	---	---	---	---	---	---	---
Total:	0	0	0	1	0	0	0	0	0	0	183
# Days:	14	14	14	14	8	1	1	2	0	2	14
Average:	0	0	0	0	0	0	0	0	0	0	13
YTD	0	0	0	1	0	0	0	0	0	0	298

COMBINED STEELHEAD											
Date	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (INDEX)	LGS (INDEX)	LMN (INDEX)	RIS (INDEX)	MCN (INDEX)	JDA (INDEX)	BO2 (INDEX)
03/20/2009 *	0	2	1	0	---	---	---	---	---	---	0
03/21/2009	0	2	1	0	---	---	---	---	---	---	0
03/22/2009	0	3	4	0	---	---	---	---	---	---	0
03/23/2009	0	9	6	0	---	---	---	---	---	---	5
03/24/2009	0	7	3	1	---	---	---	---	---	---	0
03/25/2009	0	7	1	0	---	---	---	---	---	---	0
03/26/2009	0	5	3	4	20	---	---	---	---	---	5
03/27/2009	0	2	1	0	110	---	---	---	---	---	7
03/28/2009	0	5	1	2	130	---	---	---	---	---	12
03/29/2009	0	1	0	0	110	---	---	---	---	---	12
03/30/2009 *	0	4	3	5	130	---	---	---	---	---	13
03/31/2009	0	2	2	4	150	---	---	---	---	---	33
04/01/2009 *	0	4	2	1	160	---	2	0	---	10	13
04/02/2009	1	25	1	3	350	64	---	0	---	30	15
04/03/2009	---	---	---	---	---	---	---	---	---	---	---
Total:	1	78	29	20	1,160	64	2	0	0	40	115
# Days:	14	14	14	14	8	1	1	2	0	2	14
Average:	0	6	2	1	145	64	2	0	0	20	8
YTD	1	95	29	22	1,160	64	2	0	0	40	143

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)
03/20/2009 *	0	0	0	0	---	---	---	---	---	---	0
03/21/2009	0	0	0	0	---	---	---	---	---	---	0
03/22/2009	0	0	0	0	---	---	---	---	---	---	0
03/23/2009	0	0	0	0	---	---	---	---	---	---	0
03/24/2009	0	0	0	0	---	---	---	---	---	---	0
03/25/2009	0	0	0	0	---	---	---	---	---	---	0
03/26/2009	0	0	0	0	50	---	---	---	---	---	0
03/27/2009	0	0	0	0	90	---	---	---	---	---	0
03/28/2009	0	0	0	0	20	---	---	---	---	---	0
03/29/2009	0	0	0	0	80	---	---	---	---	---	0
03/30/2009 *	0	0	0	0	30	---	---	---	---	---	0
03/31/2009	0	0	0	0	10	---	---	---	---	---	0
04/01/2009 *	0	0	0	0	100	---	1	0	---	0	0
04/02/2009	0	0	0	0	160	7	---	0	---	5	0
04/03/2009	---	---	---	---	---	---	---	---	---	---	---
<hr/>											
Total:	0	0	0	0	540	7	1	0	0	5	0
# Days:	14	14	14	14	8	1	1	2	0	2	14
Average:	0	0	0	0	68	7	1	0	0	3	0
YTD	0	0	0	0	540	7	1	0	0	5	4

* 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:

4/3/09 9:00 AM

03/20/09 TO 04/03/09

		Species					
Site	Data	CH0	CH1	ST	SO	Grand Total	
LGR	Sum of NumberCollected	60	4,400	1,160	540	6,160	
	Sum of NumberBarged	0	0	0	0	0	
	Sum of NumberBypassed	60	4,398	1,160	539	6,157	
	Sum of Numbertrucked	0	0	0	0	0	
	Sum of SampleMorts	0	2	0	1	3	
	Sum of FacilityMorts	0	0	0	0	0	
	Sum of ResearchMorts	0	0	0	0	0	
	Sum of TotalProjectMorts	0	2	0	1	3	
LGS	Sum of NumberCollected			39	64	7	110
	Sum of NumberBarged			0	0	0	0
	Sum of NumberBypassed			37	56	7	100
	Sum of Numbertrucked			0	0	0	0
	Sum of SampleMorts			2	1	0	3
	Sum of FacilityMorts			0	7	0	7
	Sum of ResearchMorts			0	0	0	0
	Sum of TotalProjectMorts			2	8	0	10
LMN	Sum of NumberCollected			6	2	1	9
	Sum of NumberBarged			0	0	0	0
	Sum of NumberBypassed			6	2	1	9
	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
Total Sum of NumberCollected		60	4,445	1,226	548	6,279	
Total Sum of NumberBarged		0	0	0	0	0	
Total Sum of NumberBypassed		60	4,441	1,218	547	6,266	
Total Sum of Numbertrucked		0	0	0	0	0	
Total Sum of SampleMorts		0	4	1	1	6	
Total Sum of FacilityMorts		0	0	7	0	7	
Total Sum of ResearchMorts		0	0	0	0	0	
Total Sum of TotalProjectMorts		0	4	8	1	13	

YTD Transportation Summary

Source: Fish Passage Center

Updated:

4/3/09 9:00 AM

TO: 04/03/09

		Species				
Site	Data	CH0	CH1	SO	ST	Grand Total
LGR	Sum of NumberCollected	60	4,400	540	1,160	6,160
	Sum of NumberBarged	0	0	0	0	0
	Sum of NumberBypassed	60	4,398	539	1,160	6,157
	Sum of NumberTrucked	0	0	0	0	0
	Sum of SampleMorts	0	2	1	0	3
	Sum of FacilityMorts	0	0	0	0	0
	Sum of ResearchMorts	0	0	0	0	0
	Sum of TotalProjectMorts	0	2	1	0	3
LGS	Sum of NumberCollected		39	7	64	110
	Sum of NumberBarged		0	0	0	0
	Sum of NumberBypassed		37	7	56	100
	Sum of NumberTrucked		0	0	0	0
	Sum of SampleMorts		2	0	1	3
	Sum of FacilityMorts		0	0	7	7
	Sum of ResearchMorts		0	0	0	0
	Sum of TotalProjectMorts		2	0	8	10
LMN	Sum of NumberCollected		6	1	2	9
	Sum of NumberBarged		0	0	0	0
	Sum of NumberBypassed		6	1	2	9
	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
Total Sum of NumberCollected		60	4,445	548	1,226	6,279
Total Sum of NumberBarged		0	0	0	0	0
Total Sum of NumberBypassed		60	4,441	547	1,218	6,266
Total Sum of NumberTrucked		0	0	0	0	0
Total Sum of SampleMorts		0	4	1	1	6
Total Sum of FacilityMorts		0	0	0	7	7
Total Sum of ResearchMorts		0	0	0	0	0
Total Sum of TotalProjectMorts		0	4	1	8	13

Cumulative Adult Passage at Mainstem Dams Through: 04/02

DAM	EndDate	Spring Chinook						Summer Chinook						Fall Chinook					
		2009		2008		10-Yr Avg.		2009		2008		10-Yr Avg.		2009		2008		10-Yr Avg.	
		Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack
BON	04/02	163	0	199	0	4740	8	0	0	0	0	0	0	0	0	0	0	0	0
TDA	04/01	10	0	7	0	321	2	0	0	0	0	0	0	0	0	0	0	0	0
JDA	04/01	-2	0	5	0	154	0	0	0	0	0	0	0	0	0	0	0	0	0
MCN	04/02	6	0	4	0	131	0	0	0	0	0	0	0	0	0	0	0	0	0
IHR	--	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LMN	04/02	0	0	1	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0
LGS	04/02	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
LGR	04/02	0	0	0	0	0	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	03/28	15	0	1	0	-	-	0	0	0	0	0	-	-	0	0	0	0	-

DAM	Coho						Sockeye			Steelhead			
	2009		2008		10-Yr Avg.		2009	2008	10-Yr Avg.	2009	2008	10-Yr Avg.	Wild 2009
	Adult	Jack	Adult	Jack	Adult	Jack							
BON	0	0	0	0	0	0	0	0	0	609	550	827	190
TDA	0	0	0	0	0	0	0	0	0	44	31	69	22
JDA	0	0	0	0	0	0	0	0	0	95	39	130	30
MCN	0	0	0	0	0	0	0	0	0	176	181	212	61
IHR	0	0	0	0	0	0	0	0	0	0	0	0	0
LMN	0	0	0	0	0	0	0	0	0	310	234	288	116
LGS	0	0	0	0	0	0	0	0	0	431	143	264	125
LGR	0	0	0	0	0	0	0	0	0	3784	3979	4989	855
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	-	-	0	0	-	1902	3195	-	-

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

*PRD is not posting 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: 03/27/09

BON counts from January 1, 2009 to March 14, 2009 (our traditional counts begin March 15):

Year	Chinook Adult	Chinook Jack	Steelhead	Wild Steelhead
2009	19	-1	321	109
2008	42	0	568	273